

**Open spaces in informal settlements in Bangkok,
Thailand and the potential role for landscape architects
in their design and evolution**

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Abstract

In response to the prevalence and predicted increase in slums in the global south UN Habitat are presently advocating a phased street and public space led upgrading approach. Such an approach indicates that the discipline of landscape architecture, based on its skills, knowledge and expertise, has the potential to contribute to these marginalised contexts through the planning and design of public spaces. At present however, a coherent body of literature regarding the physical space of urban informality is lacking, meaning that landscape architects lack comprehensive understanding of the variations, which occur in this urban phenomena and therefore ineffective intervention tools. The research aims then are firstly, to develop the limited literature that exists on the relationship between people and the physical space of informality; challenging debates surrounding the development, presence, form, role, use and the associated identity, meaning and significance of open spaces. Secondly, to establish if there is a role for landscape architects to contribute to these marginalised contexts and, if so, whether and how they might contribute to the planning, design and management of open spaces. Central to the approach was ethnographic fieldwork in three informal settlements and two upgraded communities in Bangkok, Thailand. The settlements and identified public spaces were analysed using social science methods and those traditional to landscape architecture. The findings suggest that for successful intervention a landscape architects notion of what constitutes a 'public' 'space', along with notions and expectations of permanence and use may first have to be reconceived and understanding of the processes instigating place identity developed. Having questioned the relevance of applying dominant paradigms of landscape architectural theory and practice that have evolved the global north to the global south slum context, this thesis additionally proposes that the discipline may also require new ways of investigating, analysing and applying that knowledge.

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Acronyms, Translations and Definitions

Acronyms

BMA = Bangkok Municipal Authority

BMR= Bangkok Metropolitan Region

CKBB = Chai Khlong Bang Bua

CODI = Community Organizations Development Institute

EHP = Empty house plots

HBEs = House and business extensions

HK = Hua Khong

KT= Khlong Toei (comprised of 21 communities including Rom Klao, Hua Khong and Lock 1-2-3. Generally used within the discussion chapters of this thesis to refer to Rom Klao and Hua Khong only)

LOS = Interstitial left over spaces

NGO= Non Governmental Organisation

NHA= National Housing Association

PM = Pom Mahakan

OS= Open spaces

RK = Rom Klao

RKS= Rom Klao *sunam*

SMII = Sapan Mai II

SP =Sports park

UCDO = Urban Community Development Organisation

Translations and Definitions

Chumchon= Community

Gumagun = Community leader

Karma = A person's fate which is the outcome of positive and negative actions largely performed in previous lives and to some extent in this one. Karma is a central concept of the Buddhist teachings (Mulder, 2000).

Khlong = Canal or river

Khun = A prefix to names that can mean Miss, Mrs or Mr

Khet = District council

Krathong = Lotus shaped floating vessel made of banana leaves
(Chadchaidee, 1994)

Merit = Accruing merit is a technique that ensures safety and auspiciousness in a world that is full of potentially harmful forces. Merit making is a Buddhist practice that has animistic origins (Mulder, 2000).

Nong = A prefix used to address those who are younger than your self and used within this study for those under 18

Sabai Jai = Various meanings including to be relaxed, tranquil, happy, and/or comfortable. Can also mean physical wellness or inner peace (Luekens, 2013).

Soi = Street

Sunam = The main community space, resembles a global north civic square

Wai= Similar to a bow that is performed as a greeting or sign of respect

Definition of Terms

Informal settlement: A characteristic of a slum. This term is used to describe the urban living conditions, which tend to be highly dense and include sub standard housing and/or the legal position faced, with many informal settlements facing insecure tenure.

Urban form: The physical characteristics that make up an informal settlement including its shape, size, density and configuration. This can be considered at various scales from the *soi* (street) to the entire informal settlement.

Community members: The group of people who live within the boundaries of any one of the five informal settlements or upgraded communities studied.

Open spaces: All exterior space within an informal settlement. Does not include interior dwelling space.

Successful public space: Those that are peopled by people of all ages, socio-economic backgrounds and abilities; are managed and not vandalised; and serve common needs to become a central community resource (adapted from PPS, no date a).

Successful open space: Those that enable a variety of activities to be performed to meet user needs. In terms of open spaces that are intended for use by the community as a whole, successful spaces are those that support a variety of uses for a diverse group of users of all ages and abilities. Whilst blurring of public and private areas is acceptable, open spaces intended for use by the wider community should be largely symbolically accessible through management.

Quality of life within an open space: Open spaces that are livelier due to an increased volume of necessary, social and optional activities occurring within them and with increased social equity display a better quality of life and are safer.

Successful Intervention: For an open space intervention to become functionally and symbolically integrated into a community by supporting desired patterns of use and being physically and symbolically accessible to a diversity of community members

Design integrity: Where the designer engages with actual user needs as well as exploring social, cultural, political, geographic, climatic, economic processes and the physical context that have the potential to impact on use and equity and therefore the environmental and social sustainability of an open space intervention.

Design Tool Kit: A formula for determining the physical attributes of a design and its spatial definition.

Spatial: The definition of space.

Physical: Describes the materials and objects that define and populate a space

Material: The elements or substances of which a structure or object is composed of / consists of.

Spatial physicality: The materials and objects that define and populate a space and the edge conditions, which configure it.

Qualities of Successful Public Spaces: They are accessible; people are engaged in activities; the space is comfortable and has a good image; and sociability, with social activities both active and passive (PPS, no date).

Space of value: The importance of an open space to an individual or the wider community.

Slum upgrading: A process by which informal settlements are improved and formalised. Here focusing on physical (open space) upgrading.

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1.0 Introduction

This thesis explores whether landscape architecture has the capacity to transform the lives of slum dwellers through the planning and design of open spaces within informal settlements. It questions whether the dominant paradigms of landscape architectural theory and practice that have evolved in Europe and North America are applicable in a global south informal settlement context and explores alternative trans disciplinary approaches.

The context for this study is a series of informal settlements and recently upgraded¹ communities in Bangkok, Thailand. It is based on an enquiry into the open spaces there: do they exist, what are they, how are they used, what do they mean to people and what are the most appropriate actions/ responses that can be conducted in relation to them? The thesis is written at a time when sustainable urbanism continues to be one of the most acute challenges of the twenty-first century (Clos, 2015c). Having travelled in countries such as Brazil, India and Cambodia, witnessed the poverty that exists and the different ways in which people create and use living spaces, this research is motivated by several points of personal enquiry; firstly, of the motivations behind the physical form of the spaces and actions observed. Secondly, whether or not the skills and knowledge I have learnt from studying and practicing, as a landscape architect could be relevant for helping to improve the conditions and challenges witnessed. Thirdly, if so, how this knowledge and skills could be translated into such contexts.

Thus, the thesis has two overarching aims: firstly, to develop the limited literature that exists on the relationship between people and the physical space of informality; challenging debates surrounding the development, presence, form, role, use and the associated identity, meaning and significance of open spaces. Secondly; to establish if there is a role for

¹ UN Habitat (2012) state that the upgrading has multiple meanings including the provision of basic services such as clean water supply to achieving security of tenure.

landscape architects to contribute to these marginalised contexts and, if so, whether and how they might contribute to the planning, design and management of open spaces.



Figure 1.1 Social workers' day celebrations held in the street in *chumchon* Khlong Toei

1.01 The Changing Nature of Cities: Poverty and its Spatial Manifestations

Since 1950, when a third of humanity lived in cities, urban areas have grown at unprecedented rates and by 2050 two thirds of the global population are expected to be living in cities (United Nations, 2014). Ninety five percent of the world's urban population growth is currently occurring in the cities of Asia, Latin America and Africa, collectively known as the 'global south' (American University, 2003), where as a result, 'megacities' with populations in excess of five million are developing (Planetearth, 2005; UN HABITAT, 2006; Davis, 2006). There, the lack of political will to respond to the challenges associated with rapid urbanisation rates, along with the failure of local capacity to incorporate

the masses of arriving settlers into the formal market, has greatly increased the urban poor population along with the challenges they face (Samper, 2012; UN Habitat, 2012). This has led many cities are consequently to be characterised by severe inequality and poverty despite the opportunities available for prosperity (Chan, 2010; UN Habitat, 2006; WHO, 1999; UN Habitat, 2012):

'Instead of being a focus for growth and prosperity, the cities have become a dumping ground for a surplus population working in unskilled, unprotected and low-wage informal service industries and trade' (UN Habitat, 2003, p.46).

As a result, 'informal' urbanism, the primary mode of expansion for the urban poor, now coexists with 'formal' urban growth in many regions (Mehrotra, 2010; Kostof, 1991; Chan, 2010; Bayet, 2004; Beardsley and Werthmann, 2008). In 2015, an estimated 828 million people lived in informal settlements and slums, a figure that is estimated to multiply threefold by 2050 (UN HABITAT, 2012; 2012a; Kirkby, 2003). A challenge presented when discussing informal urbanism is that agencies and authorities often use the terms 'informal settlement' and 'slum' interchangeably. Furthermore, there are multiple definitions of both in existence that are applied to a range of settlement types globally, with different organisation emphasising different traits (WHO, 1999; Bhatkal and Lucci, 2015; UN Habitat, 2010). Whilst this leads to problems in measuring slums, an essential characteristic of slums globally is that they are: highly dense urban areas with substandard housing (structures and services), and 'squalor'. These first two components are physical and spatial, describing the living conditions, and the third is social and behavioural (UN Habitat, 2010, p.10). Slums also come to include informal settlements, variously known as squatter settlements, favelas, barrios, shacks, popular settlements and low-income settlements depending on the city in which they are located. Again, informal settlements vary in the quality of dwellings, from shacks to permanent structures, with access to

basic services and infrastructure usually limited and tenure arrangements also varying (UN Habitat, 2010).

To move away from marginalising, deprecatory or binary discourses that are associated with the term ‘slum’², this thesis will only use ‘slum’ when referring to the literature by organisations such as UN Habitat. When referring to the settlements studied in Thailand, the terms ‘informal settlement’ or ‘community’ (*chumchon*), will be used instead. ‘Informal settlement’ describes the urban living conditions and/or legal position faced whilst the term ‘community’ or ‘*chumchon*’ mirrors the language used by respondents to describe their physical living environment. Finally, when referring to Latin American research, the terms popular settlements, favelas, barrios or *colonias populares*, will be used as described by the authors (e.g. see Hernandez Bonilla, 2001; Hernández-García, 2013; Samper, 2012).

The Vulnerability of the Urban Poor; Health and Well Being Inequities

Some of the other key current and anticipated challenges characterising informal settlements and slums that have emerged in relation to dense urban settings, include: lack of access to clean water and adequate sanitation; over-crowding; poor environmental conditions and geographically and environmentally hazardous and marginal settlement locations (Chan, 2010; Bjork-Klevby, 2010; Beardsley and Werthmann, 2008; UN Habitat, 2012; UN Habitat, 2010; UN Habitat et al., 2016). A lack of security of tenure, meaning vulnerability to forced eviction and corruption, meanwhile is identified by Barker (2012) to be a, ‘*central and intrinsic challenge to those living in slum and squatter settlements*’ (p.45). Poverty, social exclusion, inequality in health care, education and employment opportunities, feelings of uncertainty and a lack of contact

² The term ‘slum’ is often used to identify poor quality housing and unsanitary conditions as well as being a refuge for activities including crime and drug abuse leading to these areas becoming socially stigmatised (UN Habitat, 2010).

with nature are also commonly experienced in slums and informal settlements and risk is increased (Hernandez and Kellet, 2010; Bjork-Klevby, 2010; Levy-Leboyer 1982; Clos, 2015b). These multiple, repeated and mutually reinforcing stresses have traceable environmental, socio-economic and political repercussions resulting in incidences of disease, mental and physical health disorders and mortality being disproportionately higher among slum dwellers than other urban and rural residents. High proportions also suffer from ill health for substantial periods of time, impacting upon their income gaining opportunities (Hardoy et al, 2006; UN Habitat, 2006; WHO and UN habitat, 2010; Chan, 2010; Patel and Kleinman, 2003). Somrongthong et al., (2012 citing the Department of Mental Health, 2008) meanwhile highlight the relationship between the slum environment and an, *'incrementally increasing trend of depression and attempted suicide among Thai adolescents who live in slums'* (p.327).

Despite the growing evidence that improving the physical living environment is important for both physical and mental health and well-being, only physical health issues are typically tackled in these environments however (Hardoy et al, 2006; WHO and UN habitat, 2010; Levy- Leboyer, 1982; Bjork-Klevby, 2013; Patel and Kleinman, 2003; Somrongthong et al., 2012). Additionally, situations of unplanned rapid urbanisation, inadequate living conditions and ecosystem decline along with inappropriate governance exacerbate conditions that increase vulnerability to climate change and associated natural disaster such as landslides and flooding (Adger and Brooks, 2003; IPCC, 2007; Clos, 2015b). Again, due to their precarious locations, high density, the combustibility of building materials and stresses described, the urban poor and marginalised in the global south are disproportionately vulnerable; sustaining greater human and economic losses, destruction to the natural and built environment and livelihoods and reduced recovery compared with other members of society (IPCC, 2007; Few, 2003; Harris, 2011; Blaikie et al, 1994; Satterthwaite et al, 2007; Biermann et al, 2010; UN Habitat, 2012).

1.02 Global Responses to Slum Development: Past and Present

In 2000, in response to these global inequities world leaders adopted the Millennium Declaration (2000). Target 7(d) of the Millennium Development Goals (MDGs) is, by 2020, to, *'have achieved significant improvement in the lives of at least 100 million slum dwellers'* (2015, p.60). In response to the MDGs as well as Habitat Agenda and with the aim of meeting the Sustainable Development Goals (SDGs), UN Habitat has approached the challenges of urban poverty and its consequences on inhabitant's lives from a new perspective (UN Habitat, 2012; 2012a; Clos 2015c). This approach advocates the implementation of complex and comprehensive sustainable urban development policies and programmatic, street led, responses (UN Habitat, 2012; Clos, 2015b; UN Habitat et al., 2016). Current thinking is also a response to the failures of previous single focussed approaches to slum upgrading and poverty alleviation in the last fifty years implemented by Governments in the global south and influenced by practices originating in the global north (UN Habitat, 2012; Samper, 2012):

Outcomes have had mixed results in both hemispheres, with, following the Second World War, the positivist ideals of the newly established discipline of urban design, itself framed by modernist era planning culture, transported to the global south as part of colonialism, developmentalism, modernisation and post-colonial power relations. Consequently planners were expected to distance themselves from local knowledge, traditional loyalties and localised corruption, instead treating planning as a technical exercise (Khilnani, 1997; Huntingdon, 1950 cited in Sanyal, 2005; Harris and Moore, 2013). In terms of the urban poor, solutions foregrounded either clearance and relocation, or urban renewal that focused solely on the provision of basic infrastructure or the creation of housing stock, generally subsidised rented flats, unaffordable to many leading to the proliferation of squatter settlements (Mayo and Gross, 1987). Neither approach was

successful in coping with the scale or complexity of the problems characterising slum developments however, due to the overwhelming numbers of the urban poor and lack of resources. Furthermore, poor communities were not given autonomy in deciding their future with many removed from locations intertwined with social, cultural and economic activities of the city relevant to them. This accentuated their marginalisation and often simply translated the problem to a new location (Samper, 2012; UN Habitat, 2012; Perlman, 1976). Additionally, little attention was paid to communities' experiences and the emotional impacts of their changing environments (e.g. see Gans, 1962 and Fried, 1966 cited in Samper, 2012).

By the 1970s, new 'sites and services' regeneration practices were exported to the global south by those including John Turner (1968, 1972), who proposed affordable housing and the capitalising of the urban poor's resources. Complementing these schemes was to be slum-upgrading focusing on the retention and improvement of existing residential areas such as overcoming the shortage of urban infrastructure (e.g. see Indore Slum Networking India (Himanshu, 1997; Derwan Verma, 2000)); responding to the lack of housing finance and overcoming difficulties in assembling land for development (Mayo and Gross, 1987; UN Habitat, 2012). Both residents and instigators of social and economic change, including the World Bank, also typically focused on legislation of tenure as the pivotal variable in improvement. This was on the basis that residents who were at risk of eviction were unlikely to invest in housing improvements or their communities (Mukhija, 2001; Varley, 2002; Barker, 2012; UN Habitat, 2012). A large number of these upgrading projects, tending to focus on single issues, were implemented in around 90 countries up to the end of the 1990s. To date however approaches have had varying level of impact (UN Habitat, 2012; Hernández-García, 2013). In general, whilst considerably successful in stimulating the production of affordable housing, ultimately interventions were badly managed, unreplicable by local and central governments, financially unsustainable and could not be

scaled up to match need, with slum formation continuing (Mukhija, 2001; UN Habitat, 2012). In terms of Indore, water became contaminated and drainage blocked, leading to disease epidemics that resulted in multiple deaths (Derwan Verma, 2000). Varley (2002, 2010) meanwhile concludes that tenure regularisation and the recent focus on urban informality by architects and urbanists, fails to understand consequences, including running the risk of reinforcing ideas that ‘illegal’ and ‘legal’, ‘public’ and ‘private’, are binary opposites. Despite this however, such perspectives continue to influence current thinking and policy (Hernández-García, 2013). Alternatively Mukhija (2001) evidences that single focus legal approaches have limitations, failing to address physical conditions including settlement location, which include difficult and marginal landscape terrains, such as steep slopes and floodplains; the land uses within them; settlement layouts and lot sizes, believing that such aspects also impact on the success of upgrading strategies. As a result, Mukhija calls for more differentiated policy options concluding that, *‘the specifics of the upgrading programs should depend on the local context, including the physical conditions within the settlements that are being upgraded’* (2001, p.220).

Current Proposals: A Public Space Approach

Consequently, a new coordinated multi-stranded approach to sustainable urbanism is being promoted by UN Habitat with respect to efficient and implementable measures in the following areas: (i) urban regulations, (ii) urban planning and (iii) urban financial strategy (UN Habitat, 2015a). Thus, as well as engaging with effective policies, affordable housing, promoting adequate infrastructure and basic services, emphasis has also been placed on effective urban planning and design. Supporting this, the WHO has also in more recent years called for interventions to address human well-being *‘directed at the urban setting’* (Bjork-Klevby, 2010, p.v), stating that the health sector alone cannot tackle the inequities and health challenges that can be traced back to the social and living conditions (Chan, 2010).

In line with this new approach to slum upgrading, UN Habitat (2012) believes that, along with poor living conditions and inadequate services, '*an absence of streets and open spaces*' (p.vii), is the cause of multiple problems faced by both slum dwellers and the wider metropolis. Consequently, '*the liveability, safety, security, mobility and local development of urban areas*' (Clos, 2012, p.v), is disrupted. Thus the organisation advocates viewing slums as deprived neighbourhoods that are integral parts of the overall city system but spatially disengaged from broader urban systems. To rectify this, UN Habitat suggest a fundamental shift in upgrading interventions focussed on rationalising the urban configuration and instigating urban regeneration through a phased street and public space led approach (2012; UN Habitat et al., 2016).

According to UN Habitat (2012), the strategy draws on the practical and symbolic role of streets and public spaces as the domain where social, cultural and economic activities are articulated, reinforced and facilitated. Street and public space led interventions are likely to increase usage and social interactions, and therefore safety, with the strategy further proposing that streets are tools for urban prosperity. In addition, street pattern formation will improve access, connectivity, mobilisation and circulation, instrumental during disaster relief operations, and enable the provision of basic services such as water, sewage pipes, power lines and drainage systems. Streets additionally increase residents' sense of identity with their dwelling space; and bring an enhanced sense of safety, security and order. The formalisation of an urban layout meanwhile acts as a stepping-stone for inclusion and citizenship and is the basis for security of land tenure and legalisation. Along with the role of streets in enabling basic services provision, this has been identified as a key intervention of slum upgrading by UN Habitat. Furthermore, the proportion of households gaining security of tenure is an indicator of Target 11 of the MDGs (Millennium Project, 2006). UN Habitat (2012) believe therefore, that this approach, if supported by governments and their private, public and community sector partners, would meet the MDGs through: '*tangible*

physical results in the form of streets, accessibility, infrastructure improvements, urban layout design and legislation/regularisation of land tenure' (p.11).

At the same time improvements in housing, public services and connectivity with the rest of the city would be triggered as well as citizenship rights and the consolidation and future development of communities (UN Habitat, 2012). According to the organisation, despite tending to face obstacles and resistance, sixteen international case studies that they draw on, *'cite continued success in terms of quality of life and poverty indicators'* (UN Habitat, 2012, p.26). For example, they reference the widely copied Favela Barrio slum-upgrading programme of the 1990s in Rio de Janeiro, Brazil, which attempted to boost social and economic development for residents and:

'transform slums into established neighbourhoods through the provision of improved infrastructure, services, housing, and public facilities, including plazas, parks, schools, sports fields, and employment and health centres' (Beardsley and Werthmann, 2008, p.41).

The organisation claim that, as a result of the programme, business and economic activities in the favela increased and properties doubled in value, supporting their arguments that slum upgrading can generate wealth (UN Habitat, 2012). Several analyses of Favela Barrio meanwhile found that landscape interventions at various scales and objectives relating to public spaces made tangible social improvements (Segre, 2010). Indeed, Fiori and Bandao (2010) believe that the interventions were crucial for spatial processes, the creation of habitable environments and improved urban ecologies, ultimately contributing to the development of an urbanism appropriate to the particular conditions of informality and irregularity in the city. This is possibly because, as studies conducted elsewhere in Latin America found, the informal city is understood through its 'spaces', which support lives and hold associated values (Mehrotra, 2010). In addition, it

was acknowledged that in this context at least, managed public spaces could formalize and validate the rights of the inhabitants to live in an area, improving security of tenure (Nikitin, 2011, Samper, 2012; UN Habitat, 2012). Focusing on a cable-car intervention in a popular settlement in Medellín, Colombia, Brand and Davilá (2011) however question the real effects of such projects that propose that improving access and mobility leads to improved living conditions and opportunities. Whilst acknowledging the cable-cars symbolic value and the sense of inclusion they afford to residents with the 'modern city', the authors cite limited benefits to the local economy, with increased value of land and housing restricted to those in the immediate location of the cable lines. Hernández-García (2013) meanwhile found, that in the barrios of Bogotá, whilst such public space projects are important: *'they are relatively limited in size and impact compared to the dimension of city and people's needs'* (p.6).

Furthermore, in many cities accurate, localised and available qualitative and quantitative data regarding the size and number of settlements, the numbers of the urban poor and environmental conditions, amongst other necessary data, is incomplete and often disaggregated across institutions (UN Habitat, 2012). Indeed, the informal city often appears as blank voids on official city maps (Lang, 2008; Lang, 2007). Most policy discussions and urban design literature dealing with the physicality of informal settlements meanwhile focuses primarily on housing units. Consequently, a coherent body of academic discourse that addresses the physical space of urban informality, including the urban consolidation process, existence and form of public spaces in popular neighbourhoods or the logic of the urban form which exists to accommodate such conditions is lacking. The literature that does exist meanwhile is largely limited to the Latin American context (Hernandez Bonilla, 2001; Samper, 2012; Alsayyad and Roy, 2004). Furthermore, the limited literature that does exist is apparently contradictory; whilst UN Habitat (2012) claim an absence of streets and public spaces in slum settlements globally, in the popular settlements of Colombia and Mexico at least, public spaces are revealed to exist and are

developed from the outset, largely by inhabitants (Samper, 2012; Schwab, 2015; Hernández-García, 2009; 2013; Hernandez Bonilla, 2001). Additionally, whilst informal settlements are often described as developing organically and spontaneously, lacking a logical and coherent urban structure, others refute this (e.g. see Kellett and Napier, 1995; Lara 2010, Drummond 1981 cited in Samper, 2012). Drummond (1981 cited in Samper, 2012), for example, claims that informal settlements go through phases of consolidation with initial mobilisation requiring high levels of organized community planning and concerted action by individuals. Thus, whilst the logic is different to that in environments designed by professional architects or engineers, it is no less logical: they simply follow a different logic, reflecting highly developed processes of political contestation and market forces (Lara, 2010, cited in Samper, 2012; Samper, 2012).

This lack of informed knowledge regarding the streets and public spaces of slums and informal settlements and their processes of production serves to limit effective knowledge and capacity building for urban stakeholders (UN Habitat, 2012). The built environment disciplines meanwhile, including landscape architects, lack comprehensive understanding of the variations which occur in this urban phenomena and the socio-spatial practices of inhabitants, and therefore, effective intervention tools. (Samper, 2012; UN Habitat, 2012). As discussed below, in terms of landscape architecture, this partly relates to the global north focus in the disciplines theoretical development and practice. This thesis builds on the gaps in the literature and challenge debates surrounding the development, presence and form of open spaces in informal settlements through the provision of methodically analysed qualitative data and rigorous physical description and analysis.

The Possible Role of Landscape Architecture

'[c]onsidering the large scale of slums, their consolidation and the number of people they house, ignoring the challenge of slums is a short-

sighted and unsustainable political policy for any city or nation' (UN Habitat, 2012, p.vii).

The proposed public space and street led approach to slum upgrading in the global south suggests that the discipline of landscape architecture, has a potentially important role to contribute. Indeed, in Thailand and Rio de Janeiro, UN Habitat (2012) write that capacity development efforts have focused on urban design professionals including planners, architects and engineers, *'in order to convert them into agents of change and efficient managers of citywide slum upgrading programmes'* (p.30). At present however, very few landscape architects are currently working on the physical form of slum settlements (Beardsley and Werthmann, 2008). This is possibly because landscape architecture is typically understood as being the beautification of the landscape or as a technical process, a perception that has in the past prevented the focused exploration of 'solutions' to the design of contemporary urban landscapes (Corner, 1999; Corner, 2006; Mossop, 2006). Despite these perceptions, in the Britain, Europe and America, the contemporary discipline is enjoying a cultural and intellectual renewal (Waldheim, 2006; Reed, 2006). Today, the discipline is seen as rooted in an understanding of how the environment works and what makes a place unique, with the fundamental aims of improving environmental quality and quality of life (Landscape Institute, 2012). Here, and in Europe and America, landscape architects have been instrumental in exploring the interface between nature and culture; working with natural processes to design functional, ecologically based systems that also accommodate human activity (Mossop, 2006; Murphy, 2005; Corner, 1999). Landscape architects also work across a range of scales- from public spaces and streetscapes to national parks, territories and ecosystems, embracing large-scale organizational techniques alongside those of design, cultural expression, dynamic interaction and ecological formation. This is to strategically plan, construct and manage socially and ecologically sustainable spaces that that evolve over time and respond to contemporary urban condition and increasingly transient societies (Landscape Institute,

2012; Girot, 2006; Lootsma, 1999; Corner, 2006; Dettmar, 2005; Waldheim, 2006; Sheffield University, 2016). A combination of these skills, expertise and technical knowledge, means landscape architecture is increasingly being recognised as being relevant to the shaping of the contemporary city. As a result, landscape architecture is argued to be capable of engaging the intrinsic relationships of urban life; the social, political, economic and cultural needs and the function of infrastructure whilst considering networks of ecological processes (Weller, 2006; Mossop, 2006; Corner, 2006).

Despite these indications of the disciplines potential, the suitability of applying landscape architectural theory and practice that has developed with reference to social and material conditions specific to the global north to the global south slum context is questionable (Watson, 2014; Alsayyad, 2004; Sandercock, 2003). Indeed, the limited literature in existence suggests that for successful intervention, landscape architects may first have to reconceive: notions of 'public' 'space'; people-place relationships; and ways of knowing.

Reconceiving notions of 'public' 'space': A universal definition of public space does not exist with concepts of 'public' and 'space' ambiguous and nuanced, with meaning varying according to historic, cultural, economic and political circumstances and the viewpoint of the individual or group (Madanipour, 2003, 2010a; Ercan, 2010). It has not been possible to identify literature that discusses the public/private nature of spaces within Thai informal settlements where this research is located. Nor has it been possible to identify a definition of 'public' for the global south informal settlement context. This suggests that a landscape architects concept of what constitutes a 'public' 'space' may need to be reconsidered for the global south slum context. The limited literature in existence however, suggests that rather than public/private dichotomies, boundaries between public and private space in slums becomes blurred through use or that there is instead a relationship between the interior of dwellings and the

exterior of streets (UN Habitat, 2012; Hernández-García, 2013; Hernandez Bonilla, 2001). Consequently, Hernández-García (2009; 2013) propose using the term 'open space' rather than 'public space' when referencing informal communities. This thesis builds on the gaps in the literature and challenges debates surrounding public-private dichotomies and notions of public space. Through analysis of the creation, management and use of a series of spaces the research comes to support proposals for the alternative term of 'open space'. Consequently, the term 'open space' is used when discussing the findings of the research or in relation to the informal settlements studied, whilst the term 'public space' is used when referencing the 'formal city' or UN Habitat, urban design or landscape architectural literature.

Reconceiving people-place relationships: As informal settlements are characterised by poverty, severe inequality and temporality, roles and uses of public spaces in the global north may not be a priority and spatial practices in open spaces in the informal settlements of the global south may differ. This suggests that landscape architects may also need to reconceive ideas of use and permanence for open spaces in informal settlements. At the same time, this indicates that physical qualities identified by design professionals from the global north as contributing to spatial success may also require revision and understanding of the processes instigating place attachments, meaning, and place identity developed. At present however there is a lack of literature addressing the role and use of open spaces by inhabitants, the features that impact on the success of an open space and the processes that influence the development of meaning, cultural expression and significance. The literature that does exist meanwhile is again largely limited to the Latin American context (Hernandez Bonilla, 2001; Samper, 2012; Alsayyad and Roy, 2004). Kellett and Napier (1995), identify that as a result, only a partial understanding of informal settlements has emerged and the decision making processes of residents and that, as such, it is not possible to understand how meaning and cultural expression manifests itself in these settlements or how these

processes occur. Lacking understanding of user needs and social practices, the physical qualities of successful spaces, and meaning meanwhile serves to impact on the possibility of successful intervention by landscape architects (Samper, 2012; UN Habitat, 2012; Carmona et al., 2010; Relph, 1976). This thesis builds on these evident gaps in the literature, with this theme presenting the standpoint from which open spaces in popular settlements are to be analysed and discussed and theory developed with regards to processes of production, the role and use of open spaces and how attachments, meaning and identity develop.

Reconceiving ways of knowing: In addition to reconceptualising what we know about public spaces the literature also suggests landscape architects need to reconceive how they investigate and act within these contexts. For, the prevailing methods of analysis used are charged with marginalising users as well as being authoritarian and ineffective in producing socially and environmentally sustainable design (Lefebvre, 1991; Milgrom, 2008). This thesis contributes to the existing limited range of literature regarding suitable design responses to the public realm of informal settlements through an exploratory review of issues identified within the communities studied.

1.03 Research Aims and Objectives

In light of the literary gaps identified the thesis has two overarching aims: firstly, to develop the limited literature that exists on the relationship between people and the physical space of informality; challenging debates surrounding the development, presence, form, role, use and the associated identity, meaning and significance of open spaces. Secondly; to establish if there is a role for landscape architects to contribute to these marginalised contexts and, if so, whether and how they might contribute to the planning, design and management of open spaces.

More specifically the objectives are to determine:

- 1.) Whether open spaces exist, what types exist and how they come into being and whether notions of public space in the western city are relevant to the informal city in the global south.
- 2.) How open spaces are used and influences on spatial use.
- 3.) The role, meaning and significance of open spaces to users.
- 4.) The current barriers to landscape architectural design approaches within informal settlement contexts.
- 5.) Whether the design process for analyzing and developing open spaces needs to be reconsidered for the informal settlement context.
- 6.) Whether landscape architects have a role in these contexts and what that role is.

1.04 Thesis Structure

This thesis is composed of eight chapters, the contents of which will each now be described in turn:

Literature Review

To pursue the proposed aims and objectives a comprehensive literature review was undertaken addressing three main themes: public spaces, people-place relationships and ways of knowing.

The first theme frames the research by addressing theories identified as relevant for progressing understanding of the terms 'public', 'space' and 'place'. This theoretical framework serves as a tool for identifying and critiquing open spaces and contributing to debates on public- private dichotomies. The framework is also useful for studying the production, transformation, use, ownership, management and accessibility of open

spaces within popular settlements. The second theme addresses the relationship between people and place, offering comparisons of the functions and types of public spaces found in the formal parts of cities of the global north and the functions and types of open spaces informal parts of cities of the global south. Here global north contemporary urban design theories relating to the features of successful public spaces are explored and a theoretical framework established for examining the formation of place attachments, meaning and identity and the processes which inform their development. This section on people and place serves to develop insight into landscape architects understanding of the types, form and use of public spaces in the formal western city and the key factors influencing use and success. It is important to note at this point that the research does not seek to apply or even reject western design theory but to question whether and how it is relevant to the local 'logic' displayed within the urban form of the communities under study. The third theme meanwhile critiques the relevance of applying traditional methods of site analysis developed in the global north to the global south informal settlement context. Here two trans-disciplinary approaches that offer the potential to overcome identified limitations are also explore, providing the basis for the methodological tools used to conduct the enquiry. As a body of work, the literature review further identified gaps in existing knowledge and the kind of additional data required, stimulating the advancement of knowledge (Meth and Williams, 2006; Bell, 2010).

Methodology

This chapter describes the research setting and approaches taken to address the gaps identified in the literature and meet the research aims and objectives. Central to the approach was ethnographic fieldwork, which took place in Bangkok, Thailand. Bangkok was selected for the research to move the discussion beyond the Latin American context, which currently provides the setting for existing studies. In addition, I considered practical issues e.g. I have relatives and received offers of support from the Human Development Foundation and Dr Darryl Macer, Director of Eubios Ethics

Institute in Bangkok, who could add to my support network whilst I was doing the fieldwork. The fieldwork included observing and interviewing community actors, local professionals and NGOs within three 'slum' communities and two upgraded settlements over a period of eleven months. The settlements and identified open spaces were analysed using social science methods and those traditional to the discipline of landscape architecture.

Context Chapter

The chapter presents a historical review of both Thailand and its capital city Bangkok's, changing social, cultural, economic and political structures. This is firstly to inform analysis of data collected regarding the existence, use, role, function, meaning and types of open spaces (Massey, 2005; Van Maanen, 1995; Somekh, 2006; Calman, 2011). Secondly, to identify the root causes and manifestations of urban informality within the context of the specific regional experience of Bangkok where this research is located. This is so that the development of theory will be based on critical and politically aware insights into current conditions as advised by Alsayyad and Roy (2004), Roy (2005), and Gandy (2006). Here Bangkok's current and historical responses to slum growth are also considered and the opportunities and threats that influence change in these locations explored.

I will now provide an overview of the three main analysis chapters, which following the social scientist tradition are a synthesis of reporting and discussing findings.

The Presence, Form and Use of Open Spaces

The first thematic chapter establishes an open space typology for the communities studied, analysing data and generating findings regarding the types and forms of open spaces in existence. Following this a comparative study of activities occurring across identified open spaces is undertaken. Having identified that certain open spaces support more activities than others, factors impacting on spatial use and the types of open spaces

created, are explored. The chapter establishes that a variety of open spaces exist, that the majority are multifunctional and that use is influenced by the intentions of the creators and how open spaces are managed and appropriated. Temporal dimensions, including working patterns and seasons, as well as an open spaces accessibility, the layout and amenities, and the levels of comfort offered, also influence spatial practices.

The Role, Meaning and Significance of Open Spaces

The second thematic chapter builds on the previous chapter by continuing to explore dimensions that influence spatial use and the types of open spaces created. Again data has been analysed and findings generated, enabling comparisons to be drawn with global north urban design conceptions concerning the features of successful spaces. Additionally, the role, meaning and significance of open spaces, which contribute, to place identity and affect social relations and interactions are examined. The chapter demonstrates that spatial use, significance and identity and the design language found in the settlements studied relate to poverty and survival but are also linked to complex and overlapping cultural, religious and spiritual meanings. Increasing formal knowledge of how individuals and groups use, experience and bond to open spaces within the communities will increase the likelihood of landscape architects creating and maintaining successful future interventions.

The Potential Role of Landscape Architecture

The final thematic chapter explores barriers to successful intervention and the involvement of landscape architects working within informal settlement contexts. Here, physical, economic and socio-cultural behavioural and attitudinal barriers that have the potential to impact upon the success of an intervention during the pre, mid and post design stages are explored. At the same time, the design process for analysing and developing open spaces and the potential role for landscape architects in these contexts is also considered. The chapter establishes that whilst certain physical features emerge as critical for the creation of a successful

open space, the success of an intervention will also be constrained by situational and circumstantial factors in existence within, and specific to, any given community. This chapter proposes however, that teaming design with intimate knowledge of specific social requirements, processes and dynamics, gained through critical engagement and relational practices serve to increase the likelihood of success. Here, design and theory become situated within and responsive to the specific site attributes and socio-economic, cultural and religious context (Lefebvre, 1991; Meyer, 2002; Milgrom 2008). In the vein of Crawford (2008a) the argument put forwards is not intended as an overarching solution but as a contribution to calls for alternatives to the documented limited scope of the methods of contemporary landscape architecture.

Conclusions

The final thesis chapter is divided into three sections. The first section presents the conclusions in relation to the research aims and objectives. The second section offers empirical, theoretical and methodological contributions to knowledge through comparison with the academic literature in existence. These two sections combined, additionally firstly reflect on how the research findings add to or challenge existing practices of change within the informal settlements studied. Secondly, describe how the thesis has addressed gaps in the literature that exists on the relationship between people and the physical space of informality and how it challenges debates surrounding the existence, development, form, use and the associated identity, meaning and significance of open spaces. The implications of the findings for landscape architects contributing to the planning, design and management of open space interventions in informal settlements in the global south are also discussed. The third section concludes by suggesting future directions for research.

2.0 Literature Review

Introduction: A Street Led Approach to Slum Upgrading and the Possible Role of Landscape Architecture

In response to the current prevalence and predicted increase in slum and informal settlements in cities of the global south and the failures of previous approaches to slum upgrading¹ and poverty alleviation, UN Habitat is presently approaching the challenges from a new perspective (UN Habitat, 2012; Clos 2015b). This approach moves away from single focussed, legal or affordable housing approaches, instead advocating rationalising the urban configuration and generating spatial structure through a phased street and 'public' space led approach. This proposes to transform slums into urban neighbourhoods via: the opening of new streets, reinforcement, widening or improvement of existing streets and accesses, and the carving out of 'public' spaces. The strategy draws on the practical and symbolic role of streets and 'public' spaces as the public domain where social, cultural and economic activities are articulated, reinforced and facilitated. UN Habitat claim street and 'public' space led interventions are likely to improve quality of life through physical, economic and social transformations, with the strategy proposing: *'streets are the first step to integrating the economic resourcefulness of slum dwellers into wider urban and national markets'* (2012, p.37).

The formalisation of an urban layout, through the naming of streets and house numbering, meanwhile acts as a stepping-stone for inclusion and citizenship and is the basis for security of land tenure and legalisation. The proportion of households gaining security of tenure is an indicator of Target 11 of the MDGs (Millennium Project, 2006), and, along with the role of streets in enabling basic services provision, has been identified as a key intervention of slum upgrading by UN Habitat. At the same time,

¹ UN Habitat (2012) state that the upgrading has multiple meanings including the provision of basic services such as clean water supply to achieving security of tenure.

improvements in housing, public services and physical, economic and social connectivity with the rest of the city would be triggered. This will work to boost economic efficiency and role of the city as the driver of development as a whole and support the development of integrated, compact cities, addressing the challenge of rapidly urbanising cities. Communities meanwhile will be physically integrated into the overall city governance, planning and management with citizenship rights and the consolidation and future development of communities instigated (UN Habitat, 2012; UN Habitat, 2015b).

Despite these calls, however, accurate, localised knowledge regarding the environmental conditions of slums and informal settlements, among other data, is incomplete and disaggregated across institutions. This serves to limit effective knowledge and capacity building for urban stakeholders (UN Habitat, 2012; UN Habitat et al. 2015). Furthermore a coherent body of academic discourse, at least amongst the built design disciplines, that addresses the physical space of urban informality, including the development, transformation, use and functions of public spaces and the urban form of informal settlements has been overlooked (Hernandez Bonilla, 2001; Samper, 2012; Alsayyad and Roy, 2004). The limited literature that does exist meanwhile, is contradictory or misleading. Whilst UN Habitat claim an absence of streets and public spaces in slum settlements globally, other literature (e.g. Schwab, 2015; Hernández-García, 2009; Hernandez Bonilla, 2001; Samper, 2012) reveals that, at least in Colombia and Mexico, public spaces do exist, are developed from the outset and are created by inhabitants. As a result, the built environment disciplines lack comprehensive understanding of the variation in the physical form of slums and the socio-spatial practices of inhabitants and therefore, effective intervention tools (UN Habitat, 2012).

In addition, despite indications that landscape architects, based on their skills, technical knowledge and expertise, have the potential to make significant contributions to these marginalised contexts; this has been overlooked, both in practice and the literature. This is possibly because

landscape architecture is typically understood as being the beautification of the landscape or as a technical process, a cliché that prevents the focused exploration of ‘solutions’ to the design of urban landscapes (Balfour, 1999; Mossop, 2006; Corner, 2006). As Kelly Shannon queries:

‘are landscape architects doomed to work in the gilded cage of luxury design or will they turn out to be able to transform landscape architecture into a helpful and necessary mega-urban tool?’ (Rekittke, 2009, p.667).

Prior to this transformation of the discipline, the limited literature in existence suggests that for successful intervention, notions of what constitutes a ‘public’ ‘space’, both theoretically and in physical form, along with notions and expectations of permanence and use may first have to be reconceived for the global south slum context. Indeed, literature (e.g. see UN Habitat, 2012; Hernández-García, 2009; 2013) suggests that within such environments, rather than public-private dichotomies there is a relationship between the interior of dwellings and exterior spaces with use of both blurring boundaries between public and private. As such, in the vein of Hernández-García (2009; 2013) the term ‘open space’ will be used in this thesis when discussing exterior space in informal communities generally, and more specifically, the findings of the research. The term ‘public space’ meanwhile will be used when referencing the ‘formal city’, UN Habitat, urban design or landscape architectural literature.

Furthermore, qualities of successful spaces as identified by urban designers from the western tradition may also have to be revised and understanding of the processes instigating place attachments, meaning, and place identity developed. Finally, the literature queries the relevance of applying dominant paradigms of landscape architectural theory and practice that have evolved in Europe and North America to the global south slum context. This suggests that the discipline may also require new ways of investigating, analysing and applying knowledge in the global south slum context.

Part of the research intentions then is to contribute to and develop the limited literature that exists on the relationship between people and the physical space of informality; challenging debates surrounding the development, presence, form, role, use and the associated identity, meaning and significance of open spaces. In addition, the research seeks to establish if there is a role for landscape architects to contribute to these marginalised contexts and if so, whether and how they might contribute to the planning, design and management of open spaces. To address these concerns and frame the research within the available literature this review is divided into three parts: the first section addresses *themes and theories* identified as relevant for progressing understanding and identification of 'public' 'spaces' and studying their production, use, management and accessibility. The second section reviews *people-place relationships*. This section firstly compares the functions and types of public spaces found in the formal parts of cities of the global north with those of open spaces in the informal parts of cities of the global south. Secondly, contemporary urban design theories developed in the global north that relate to the features of successful places are reviewed. Thirdly, a theoretical framework for exploring the formation of place attachments and meaning and the processes, which inform their development are explored. Finally, the third section addresses *ways of knowing*. Here, debates surrounding the applicability of survey analysis design methods traditionally used by landscape architects for the global south informal settlement context are presented. To contribute to the discussion, two transdisciplinary approaches that purportedly overcome the limitations inherent in survey analysis design are discussed. Firstly addressed is participation and secondly, everyday urbanism.

2.01 Public Spaces: Themes and Theories

Despite the social and spatial compositions of cities varying considerably across the world, public spaces have been integral social and material

components of urban societies throughout history. This is irrespective of the size of the city, its economic basis or its cultural or political structuring (Madanipour, 2003, 2010b). Carr et al. (1992) define public spaces as, *'open, publicly accessible places where people go for group or individual activities'* (p.50). Whilst this seems a relatively accurate definition, the terms 'public', 'space' and 'place' are in fact nuanced and contentious, with a wide range of meanings. Indeed, as has already been revealed, due to the ambiguities between public and private space in the popular settlements studied, Hernández-García (2009; 2013) propose using the alternative term 'open' space. Thus, whilst this research seeks to develop and challenge the existing literature with regard to the physical space of urban informality, without a clear definition of terms it is difficult to establish such a goal. To explore this further, the literature review opens by addressing themes and theories identified as relevant for progressing understanding of the term 'public'. Here, a theoretical framework for determining the 'publicness' of a 'public' space is reviewed; factors impacting on the degrees of freedom of use within public spaces discussed; and influences on public-private profiles explored. Combined, these sections firstly qualify why the term 'open space' will be used in relation to informal settlements rather than 'public' space. Secondly, they develop the theoretical framework for: identifying open spaces, determining the degree to which they are public or private, analysing the urban form with regards to processes of production, spatial practices, accessibility, transformation, ownership, and management. Following this, the meaning of the terms 'space' and 'place' are explored addressing the theories of Henri Lefebvre and Doreen Massey in turn.

The Meaning of 'Public'

The term 'public' derived from the Latin *populous* or 'people' has multiple definitions and is used in a wide range of contexts and, as a result, is ambiguous with diverse meanings for different social strata (Madanipour, 2003, 2010a; Ercan, 2010; Habermas, 1989). This has political and cultural implications (Hernández-García, 2013). The New Penguin English

Dictionary (2000) definitions of 'public' as an adjective, for example, are multiple and include: *'of or affecting all the people or the whole area of a nation or state'*. Likewise, there are many meanings of the noun including, *'people as a whole; the populace. 2 a group or section of people having common interests or characteristics'* (p.1126). All definitions however reference a group of people, who are either abstracted as a society or state, and what is associated with them, for the public realm is both the realm of society as a whole and of the state. Within the broad framework of state and society, a public space is therefore generally provided and managed by the state and is used by society as a whole. However, the terms society and state are also complex, with multiple interpretations in existence, for 'society' covers various demographic or territorial scales and may refer to a group, community, nation or the entire human race. The term 'state' also refers to various institutional scales, from individuals associated with state mechanisms, to local government to the nation state (Madanipour, 2003). The complexities and ambiguities of these nuances, whilst informative, are therefore, *'not sufficient systematically to describe public space and its 'public' dimensions'* (Ercan, 2010, p.23).

Determining the 'Publicness' of a 'Public' Space

Whilst accessibility and inclusivity for all members of society is often cited as the key characteristic of public spaces (e.g. see Franck and Stevens, 2007; Madanipour, 2010; Francis, 1989; Young, 2002; Fraser, 1990) across cities of all cultures, the nature of the division, meaning and relationship between the public and private spheres varies widely. Consequently, use of public space often reflects a particular political reality and social exclusivities relating to race, class and gender (Hou, 2010; Carr et al., 1992; Madanipour, 2003). Furthermore, in practice an urban environment is not separated into absolute private and public space. Instead the two realms meet through various degrees of 'publicness' and 'privateness' with semi private and semi public spaces identifiable (Ercan, 2010; Madanipour, 2003). To determine the extent to which places or activities are public or

private Benn and Gaus (1983, cited in Ercan 2010; Madanipour, 2003, 2010a), identify three criteria of social organisation which constitute the dimensions of publicness and privateness: *access*, *interest* and *agency*. Benn and Gaus further subdivide access into four mutually supporting qualities: (i) physical access; (ii) social or symbolic access; (iii) access to activities and discussions; and (iv) access to information (Ercan, 2010, p.23). Hernandez Bonilla (2001) meanwhile suggests that studying these qualities will also increase understanding of how the physical environment has come into being.

Using this empirical framework a generalised definition of public space is:

'a space can be considered public if it is controlled by the public authorities, concerns the people as a whole, is open or available to them, and is used or shared by all the members of a community' (Madanipour, 2003, p.112).

However, a range of possibilities and overlaps exist across the three criteria that reveal that this description offers only a normative value of public space rather than a global description (Ercan 2010; Madanipour, 2003). Emphasis is most commonly placed on physical *accessibility* in definitions, referring both to the space itself and the activities occurring there. For a space to be considered public it must be physically accessible to all, with increased accessibility and permeability increasing how public a space will be. The second quality is *social* or *symbolic* access. This involves the presence of cues that affect entry; people, activities, design and management that indicate who is and who isn't welcome. People may have physical access to a space whilst the types of activities occurring or a gathering of certain people might create a *social/symbolic* boundary around them. For example, people or activities perceived as threatening or unpleasant may lead to the exclusion of others, severely limiting use of public spaces. Thus, whilst the term public space implies freedom to use a space a variety of factors impact on degrees of freedom, or rights of use and action, at a given time including: whether it is possible to use a space, achieve the types of experiences desired, draw on its resources, satisfy

personal needs and behave freely. The third and fourth qualities define public space in relation to the dimension of time. This may be studied in relation to the processes of development and use and those involved (Madanipour, 2003, 2010a, 2010b; Ercan, 2010; Carr et al., 1992; Jacobs, 1961).

Degrees of *access*, *interest* and *agency* can therefore vary widely across public spaces presenting either a strong or ambiguous picture of who is free to enter a public space and who has control over access rights (Carr et al., 1992). For example, in the barrios of Bogotá, Colombia, spaces are not entirely public: whilst they are largely public in terms of accessibility and ownership, although outsiders are not always welcome, they are not in terms of use. This relates to the manner of their production, which builds a close relationship between people and a place (Hernández-García, 2009; 2013).

Claims to and Control of 'Public' Space

In addition to the behaviours of those using the space, the design and management of a public space and the regulation and control imposed by an official or unofficial social order (public or private agents) impact on degrees of freedom of use (Carr et al., 1992; Franck and Stevens, 2007). Public space can thus also be defined in relation to the public-private nature of the agencies dealing with them, with the dimension of interest distinguished in relation to who the beneficiaries of a given situation or action are (Madanipour, 2003; Ercan, 2010): *'Public actors' means 'agents or agencies that act on behalf of a community, city, commonwealth or state', while 'private actors' refers to 'agents or agencies that act on their own account'* (Ercan, 2010, p.24). Public interests are those that serve common wellbeing, whilst private interests refer to *'the benefit controlled and received by individuals'* (Ercan, 2010, p.24).

In other situations, the existence or lack of rules and regulations and resources of powerful organisations, groups or individuals enable them to

directly or indirectly make claims over public spaces. Claims are made for a variety of reasons including controlling a space and performing desired activities (Carr et al., 1992; Madanipour, 2010b; Franck and Stevens, 2007). These activities are often socially and legally different from the assigned functions, with claims over space consequently limiting freedom of use by others; instigating processes of *'inclusion and exclusion, creating spaces with overlapping meanings'* (Madanipour, 2010b, p.237). Particular combinations of groups, interests and processes of social interaction thus shape the character and quality of public spaces even in their most public forms:

'depending on their level of political, economic and cultural power and influence, these individuals and organisations can shape and determine some of the features of urban space, creating the structural conditions within which others live and use the city' (Madanipour, 2010b, p.237).

Consequently, there are tensions of considerable concern inherent in the symbolic dimension of accessibility. As a place becomes more accessible it becomes more impersonal, if a place is reserved for a particular group spatial control rises, strangers are deterred and accessibility decreases. This zoning of the urban realm additionally causes the city to become fragmented and 'tribalised' (Madanipour, 2010a).

Forms of claiming range from arranging spatial elements to suit needs, to taking control of and redeveloping public spaces. This can occur at specific time periods, with activities impromptu or pre-planned, temporary or permanent, occurring once or repeated frequently. The establishment of territories thus changes with different user groups (Carr et al., 1992; Madanipour, 2010b; Franck and Stevens, 2007). In other cases, groups may transform a public space by giving it a distinctive quality, *'a kind of 'home territory''* (Luman & Scott, 1972 cited in Carr et al., 1992, p.164). This claim to space goes beyond access in making a proprietary interest over a space, relating to both privacy and territory, in order to feel safe and in control (Carr et al., 1992; Madanipour, 2010b). These are 'mechanisms' by which

people, *'can increase the range of options open to them and maximise their freedom of choice in the given situation'* (Proshansky, Ittelson & Rivlin, 1970, p.180 cited in Carr et al., 1992 p.159). In the popular settlements of Mexico, for example, space appropriation in streets is common and is both permanent and impermanent (Hernandez Bonilla, 2001).

Accessibility, freedom of choice and the physical amenities of a space are identified as being influential on the pursuit of activities not predetermined by a program. These physical conditions encourage 'looseness' of a space, or its openness to appropriation, with peoples recognition of the inherent possibilities in a site and degrees of creativity to make use of what exists creating 'loose' space. The social conditions are also influential on spatial looseness: *'anonymity among strangers, a diversity of persons and a fluidity of meaning are all urban conditions that support looseness'* (Franck and Stevens, 2007, p.4). Spatial 'looseness' additionally depends in part on the form, use and meaning of a space, with individual's behaviour *'constrained by what they think is appropriate, admissible or possible'* (Bourdieu, 1977 cited in Franck and Stevens, 2007, p.11). 'Loose' space is therefore adaptable, used for a variety of functions and lack restrictions on use both physically and socially. In contrast, tight space is that which is fixed, controlled or physically constrained (Franck and Stevens, 2007).

Public/Private Dichotomies

A limitation of Benn and Gaus' empirical framework however, is that the three dimensions treat space as an asset, resource or commodity, drawing on, *'an analysis of social relations as exchange among strangers, rather than as a set of emotional and meaningful ties'* (Madanipour, 2010a, p.10). In fact, public spaces are recognised as playing multiple functional and symbolic roles, with the performing of 'unnecessary' social rituals identified to be as significant as the performing of instrumental, necessary activities. These three cultural forces; social, functional and symbolic, in turn inform the character of public spaces and shape public life. Access therefore has both functional and symbolic, expressive dimensions

(Madanipour, 2010a; Carr et al., 1992). Perdrazzini (1998 cited in Hernandez Bonilla, 2001) supports this, stating that the open spaces of popular settlements should be understood as the material, social and symbolic expressions of the actors who produce, manage and use them.

One means for approaching the ambiguities and complexities is to understand that the term 'public' may depend on its context and how the private realm is understood, for the two spheres are universally defined in relation to and in opposition to the meaning of the other. The ways in which a particular society divides space into a variety of private and public spheres and how this division controls movement from one sphere to another and access to a place and the activities it supports is a defining feature of urban settlements worldwide. Furthermore, how the two domains are shaped and defined is supported by the values or nature of the particular society, including how spaces are designed and used and the qualities of public and private life. Public-private profiles arise from multifaceted and overlapping interactions between physical, social, cultural economic and political processes. As a result, the nature of the division and relationship between the two spheres varies across cities globally. The private-public distinction is not solely physical but reflects social values contributing to the way in which people coexist in societies and relate to one another in both realms (Carr et al., 1992; Madanipour, 2003): *'It is an integral part of how individuals see themselves and others, communicate with each other, divide their spheres of activities and construct meaning'* (Madanipour, 2003, p.2).

It has not been possible to identify literature that discusses the public/private nature of spaces within Thai informal settlements where this research is located. However, on the basis of an international study UN Habitat write that due to spatial use, *'[s]treets in slums tend to be multi-layered entities instead of clearly zoned areas of use and types... the boundaries between public and private space get blurred through use'* (2012, p.13). Furthermore, streets act as, *'outdoor extensions of living space, being*

used for washing, cooking, socialising and sleeping' (2012, p.13). Likewise, Hernández-García (2013), who also draws on Riano (1990), and Hernandez Bonilla (2001) suggest a relationship between the interior of dwellings and the exterior of streets rather than public-private dichotomies in the popular settlements of Bogotá and Mexico. For example, Hernandez Bonilla (2001) found that people use different elements to extend the private environment of dwellings onto public space, with pavements extensions of the housing façade:

'Therefore one can realise that this urban space belongs to the household where some qualities of the domestic private environment become available to the public life, where the dichotomy public-private blurs by the social and physical appropriation with a variety of aesthetic values and formal composition' (p.30)

In addition, spaces in informal settlement are distinct from public spaces due to their personal nature, which are in contrast to the *'impersonal spaces of the city'* (Madanipour, 2003 cited in Hernández-García, 2009, p.34). As discussed, Hernández-García (2009; 2013) thus propose using the term 'open space' rather than 'public space' when referencing exterior space in informal communities.

In acknowledgment that there is no single definition of the term 'public' and that the nature of the division, meaning and relationship between public and private spheres varies across societies globally, this thesis seeks to build on arguments by Hernández-García (2009; 2013) that notions of public/private dichotomies need to be reconceived for the informal settlement context. In the vein of these researchers, this study will also use the term 'open' space when referring to exterior space in informal settlement contexts. The term public space will continue to be used when referring to formal parts of the city and design literature developed in the global north. Ben and Gaus' framework meanwhile will be used to identify, explore and critique assumptions in the literature regarding the creation, design, form, function, management, ownership, use, appropriation and

value of open spaces and determine the extent to which they are public or private. This will also serve to expand knowledge of how the physical environment has come into being (Hernandez Bonilla, 2001).

The meaning of 'Space' and 'Place'

Initially it would appear simple- *'the world is a world of places within a larger space'* (Curry, 2002, p.502). Yet, as the nature and character of cities have evolved throughout history the nature and character of the public spaces and places within them has changed and transformed in tandem, for the two are closely related. This transformation can be traced within the literature in the diverging theoretical specifications of both 'space' and 'place', the different ways of gaining knowledge from them and the relationship between the two terms (Madanipour, 2010; Watson, 2006; Curry, 2002). Whilst this review will not dwell on these differing theoretical distinctions it becomes apparent immediately that notions of space and place, commonly regarded as being synonymous with terms such as region, area and landscape within popular discourse, are semi ambiguous (Agnew, 2011; Hubbard et al., 2004; Curry, 2002). In fact, the theoretical specification of each of term is constantly changing with, by the 1970s, the predominant positivist paradigms of 'absolute' space and place² much debated and challenged by geographers, philosophers and social scientists as they have sought to develop and use concepts to think spatially (Hubbard et al., 2002; Curry, 2002; Hubbard et al., 2004; Agnew, 2011). Paradigm shifts have not, however, been uniformly linear. As a result, thoughts on space and place are concurrent, with competing theories in existence. A consensus on the meaning of each term is therefore also incomplete, with both remaining relatively ill-defined and diffuse concepts (Hubbard et al., 2002; Hubbard et al, 2004). This renders the notion of 'place' as simply *'location in space'* completely inadequate (Curry,

² Here absolute space was largely regarded as an objective, neutral container of human activity that was essentially mappable, and place as a gathering of people within a defined locale.

2002, p.502), possibly explaining why in the literature, at least outside theoretical geography, the terms are often used interchangeably.

In the light of the problems of establishing concrete definitions and theoretical specifications of each term, the following sections address the work of Henri Lefebvre and Doreen Massey. These theorists reflections on 'space' and 'place' has been identified as relevant for progressing understanding and structuring this thesis within a theoretical framework. The humanist tradition that emphasises the cultural production of place and meaning will also be drawn upon in the third section of this review in relation to place making.

Space as Socially Produced

In his major work *The Production of Space*, Marxist theorist, Henri Lefebvre (1991), rejects absolute space, arguing against the abstract space of capitalism, where space tends towards homogenisation and the suppression of difference (Milgrom, 2008). Instead Lefebvre insists that '*every society... produces a space, its own space*' (1991, p.31), viewing space as produced from the process of three 'dialectically' interwoven dimensions. This conceptual triad provides the framework for analysing space and establishing an alternative role for designers who wish to engage sustainably with social and ecological diversity. The first dimension is a set of *spatial practices*; these are the ways in which spaces are used in daily life and rely upon a determinate material basis (the urban environment). Secondly identified is a set of *representations of space*; conceived space that serves to represent and define space. These include verbalised forms, such as descriptions and definitions, and visual forms, such as maps, plans and images. Urban design professionals, including landscape architects, typically produce the latter. These social productions demarcate space and profess to reveal an objective view of the workings of the city, ordering our understanding of what is possible within space (Schmid, 2008; Milgrom, 2008; Hubbard et al., 2002; Hubbard et al., 2004; Cenzatti, 2008). Third, are *spaces of representation*: this is the space of the users and concerns space

as directly 'lived' through its symbolic dimensions and associated images. This refers not to the space itself but to a (material) symbol, for example a divine power or the state. This physical material 'order' becomes the entity for conveying meaning (cultural, religious or otherwise) acquiring symbolic value in doing so '*that expresses and evokes social norms, values, and experiences*' (Schmid, 2008, p.37). For example, monuments function as places for urban activity and repositories for communal identity (Schmid, 2008; Milgrom, 2008).

Lefebvre additionally positions his theory within phenomenology, going beyond this three dimensional theory of space to explore the central role of the human body and the materiality of social practice (Schmid, 2008). Phenomenology focuses on the psychological and experiential senses of a place; believing that people are affected by the associated sensual, perceptual and emotional properties, which are compounded by related thoughts and feelings (Tuan, 1977). Consequently, phenomenology conceptualises place as subjectively defined and open to multiple interpretations. Places therefore mean different things to different people dependant on ethnicity, age and gender, among other factors (Hubbard et al., 2004; Curry, 2002). Thus Lefebvre identifies the concepts of the *perceived*, the *conceived* and the *lived*: *Perceived space* suggests that physical space has a perceivable aspect that can be grasped by any of the senses. Sensory perception is an integral part of every social practice with this aspect directly relating to the materiality of spatial 'elements'. *Conceived space* proposes that space cannot be perceived without first having been conceived. *Lived space* references the lived experience of space by people in the practices of their daily lives. Fundamentally, these three dimensions are both separate and interconnected, with different social groups therefore able to have different perceptions and conceptions of a space and different ways of using or different lived experiences simultaneously (Schmid, 2008). Of importance then, space: '*is unfinished, since it is continuously produced, and it is always bound up with time*' (Schmid, 2008, p.43). Significantly, Lefebvre's theories additionally:

'systematically integrates the categories of city and space in a single, comprehensive social theory, enabling the understanding and analysis of spatial processes at different levels' (Schmid, 2008, p.29).

In terms of this thesis' focus, Lefebvre's theories provide a valuable tool for critiquing open spaces and engaging with studies of everyday life within informal settlement contexts. Offering the potential to overcome the limitations of the prevailing methods of analysis used by landscape architects. For, Lefebvre's premise that embracing and enhancing the differences in environments that humans inhabit increases the potential for designers to create ecologically and socially sustainable designs is shared by this thesis. As is, acknowledging that urban spaces are used in different ways to meet the needs of daily life by diverse social groups, with users of the same space simultaneously experiencing and drawing meaning and value from it in different ways. .

Place-Making within Trajectories of Differential Power

Doreen Massey (2005) proposes that spaces are socio-spatially defined, outlining the following in her publication *For space*: that places are produced from complex interrelations that are multi-scalar, from the global to the local; that space is the sphere in which multiple trajectories of differential and multi-scalar power exist; and that space is under constant construction. Here Massey recognises that place is not given specificity by an internalised history, nor defined by its distinctive location. Instead, places and the social relations located within and between them are constituted by and the outcome of the multiple intersections between particular social, political, cultural and economic relations, understandings, experiences and arrangements of power, whether institutional or individual. These result in a myriad of spatialities ranging in scale from the local to the global. This perspective recognises the city as a product of two processes:

'(1) the ways in which its residents actively construct its institutions, neighbourhoods, political economy and daily life; and (2) the city's positioning in larger global networks, within which it is physically, economically and culturally restructured and marketed' (Glick Schiller and Schmidt, 2015, p.6).

In doing so, the perspective unites the tension between global and local, whilst, like Lefebvre, also recognising the diversity in the nature of socially made place-making processes that result in difference, identity and uniqueness. Thus, instead of thinking of places as fixed, bounded areas, places are dynamic, fluid and uncertain, experienced and understood differently by different people. Places are also relational and contingent, with individuals and different social groups positioned relatively as a consequence of the particular unequal power geometries and networks that operate across multiple spatial scales (Hubbard et al., 2002; Hubbard et al., 2004; Glick Schiller and Schmidt, 2005):

'It is the socio-spatial practices that define places and these practices result in overlapping and intersecting places with multiple and changing boundaries, constituted and maintained by social relations of power and exclusion. Places are made through power relations, which construct the rules, which define boundaries. These boundaries are both social and spatial- they define who belongs to a place and who may be excluded, as well as the location or site of the experience' (McDowell, 1999, p.4 cited in Hubbard et al., 2002, p.18).

As a result, ordinary sociability's are constantly being reconfigured with urban space also, *'constantly remade and reimagined as places, seen through the unmarked diversities of the dominant and visualised diversities of those who are less powerful'* (Glick Schiller and Schmidt, 2005, p.4). This implies then that spaces designed in one particular way can be reappropriated for new social uses and produce new social meaning and identity (Glick Schiller and Schmidt, 2005). Massey's theories along with others who adopt structural and critical approaches overcome some of the

acknowledged limitations to phenomenology, including the exclusion of social and economic structures, ideology and the effect of the market on everyday experience (Dovey 1999 cited in Carmona et al., 2010).

Massey's theories, in combination with Lefebvre's, offer this thesis a framework for critiquing urban space and engaging with every day life and difference and understanding that different people live, experience and understand the same space differently. Additionally, Massey's theories draw the research's attention towards the particular social, political, cultural and economic structures, understandings, experiences and arrangements of power, that constitute a space and impact on daily experiences. From Massey's work, which displays many cross overs with the theories of Lefebvre, this thesis understands space to be under constant construction with use, form, name, meaning and identity transient and with concepts of space varying according to historic, regional, cultural, economic and political circumstances and the viewpoint of the individual or group (Carr et al., 1992; Hubbard, et al., 2002; UN Habitat, 2015b), This raises questions with regards to a landscape architects notion of open space use, form, meaning and identity within informal settlements as well as questions regarding what a landscape architects role should/could be in an open space intervention, and when it should end. The following two sections, related to *people-place relationships*, and *ways of knowing*, seek to explore and frame these queries further within the existing academic literature.

2.02 People-Place Relationships

This second section reviews global north and global south literature relating to people-place relationships. This is in order to develop understanding of landscape architects notions of public space and critique the relevance of these notions for open spaces in the global south.

Firstly addressed within this section are the functions and use of public spaces in the formal parts of cities in the global north and open spaces in informal settlements of the global south. The second section reviews typologies of public spaces developed in the global north. The third section discusses place-making qualities identified as contributing to the success of public spaces, with the literature again largely developed in the European and American contexts. The fourth section meanwhile develops a theoretical framework for identifying the causes and types of attachments people form with particular places and exploring how this contributes to the formation of place identity.

Functions and Use of Public and Open Spaces

Today in the west, the 'formal' city is built from enduring materials and acknowledged through its architecture and 'logically' designed urban form (Mehrotra, 2010; Hernandez and Kellett, 2010). Here a variety of public spaces exist, typically created by urban designers, including landscape architects. Historically these public spaces have been the centre of civic life for urban dwellers, structuring daily life and providing opportunities for particular functions such as social interaction, recreation, festivities and political expression. Public parks meanwhile, were designed in the 19th century as the antithesis to urban life in England, Europe and America (Hou, 2010; Madanipour, 2010; Ward Thompson, 2012; Habermas, 1989). In contrast, inhabitants typically incrementally produce and self manage informal settlements and the open spaces within them, in the global south (Samper, 2012; Hernandez Bonilla, 2001; Hernández-García, 2013). This is an indigenous urbanism that has a particular 'local' logic; a temporal occupation and articulation of space where spatial limits are expanded to include formerly unimagined uses of dense urban areas. This urbanism is subject to the lay of the land; often occupying difficult and marginal landscape terrains, the result of the activities that inhabitants engage in and the processes or social relations occurring within the urban environment rather than a master plan (Mehrotra, 2010; Kostof, 1991;

Hernandez Bonilla, 2001; Hernández-García, 2013). Hernandez Bonilla (2001), for example, writes of the *colonias populares* in Mexico: *'the built environment is in the hands of different individuals producing different physical and social structures which in turn will communicate and translate the character and uses of the built environment'* (p.34). As informal settlements are characterised by poverty, overcrowding temporality and severe inequality (UN Habitat, 2010; UN Habitat et al., 2015), roles for open spaces and spatial practices, may differ to those in the formal western city. Indeed, cultural and social differences influence the possibilities people view within a space and how they use them, with cities and their public spaces created from the demands of everyday life and the social struggles of the residents (Crawford, 2008a; Franck and Stevens, 2007). Additionally, intense competition for land means that the allocation of land for open space in these unplanned communities may rarely occur.

At present, few systematic studies addressing the production, consolidation, logic, transformation and public life of the urban realm and open spaces of informal settlements exist (Alsayyad and Roy, 2004; Samper, 2012; Hernandez Bonilla, 2001). Instead, urban design literature and policy discussions, primarily evolved within Latin American literature, as well as non-governmental organisations (NGOs), have largely focussed on architectural considerations or have privileged the social implications of marginality, increasing knowledge regarding socio cultural, economic and political issues (e.g. Perlman 2010; Perlman, 1976, Soto and Instituto Libertad y Democracia Lima 1989; Roy, 2005; Roy and Alysayyad 2004 cited in Samper, 2012). Literature of relevance to this study does exist however, with 'new' ideas of informality (Hernández-García, 2013; Fiori and Brandao, 2010). Whilst informal urbanites are often seen as illegal and disassociated from proceedings in the formal city, this literature challenges binary and marginalising discourses such as illegal/legal, planned/unplanned, formal/ informal (Varley, 2010). Theorists, including Roy and Alsayyad (2004), for example, identify multiple, mutual and closely connected relationships between the 'legal' formal and 'illegal'

informal sectors with the two cities more spatially, economically and metaphorically intertwined than their physical manifestations suggest. Those living in the informal city also participate in activities integral to the functioning of the formal city, reshaping entire social and geographic relationships (Lang, 2007; Mehrotra, 2010). This literature additionally recognises the informal sector as emerging from a complex system of social interactions (Ramirez, 2010 cited in Hernández-García, 2013), with informal settlements far more than people and housing- *'they are people interacting with spaces'* (Hernández-García, 2013, p.3). A small body of work in the Colombian context has also been identified by Hernández-García, 2013) and Hernandez Bonilla (2001) that focuses on the production, appropriation and use of open spaces and the documentation of social practices (e.g. see Riano, 1990; Saldarriaga, 1997; Viviescas, 1996; Rojas and Guerrero, 1997; Nino and Chaparro, 1997 and Avendano and Carvajalino, 2000). Hernandez Bonilla (2001) meanwhile has produced a study of public life and the development of open spaces in popular neighbourhoods in Mexico. Schwab (2015) of open spaces in the popular settlements of Medellín, where she writes, the gender imbalances are observable in the different activities mirror social structures, and Hernández-García, (2009; 2013) of open spaces in the barrios of Bogotá, Colombia. In the latter, from the early stages of settlement formation, open spaces have played, *'an important role in the physical and social dynamics of the settlements, although the improvement and consolidation of such spaces may not be realised for several years'* (Hernández-García, 2013, p.6-7). These, open spaces are typically used for a combination of political, cultural and social functions including recreation, social events, play, informal meetings and community gatherings. They are also the places for expression, confrontation, building values, cultural exchange and the community (Nino and Chapparro, 1997; Viviescas, 1997; Segovia and Oveido, 2000; Hernandez Bonilla, 2001 cited in Hernández-García, 2009). In two case studies, Hernández-García (2009) also found that the main streets are the centre of practical daily life and social and commercial activity and the main transport route into and out of the barrios. Similarly,

UN Habitat (2012) writes that within informal settlements globally, streets are, *'the settings for informal commerce such as hawking and vending as well as for economic activities like small manufacturing, repairs, garbage recycling'* (p.13). Additionally, use is transient with streets supporting multiple activities including: cultural activities, play, social interactions, sleeping, washing and cooking *'which co-exist and replace each other at different times of the day...'* (p.13). These findings support Beardsley and Werthman (2008) proposals that ideas of open space within informal settlements may need to be reconceptualised to include sites where people seek refuge, or notions of productive space, where local informal economies can flourish, as well as places for cultural expression. Furthermore, findings suggest, that expectations applied to processes or activities occurring in open spaces may need to be realigned, appreciated for the economic or otherwise opportunities they present to users, rather than apparent inefficiencies if comparing to use of public spaces of the formal city (Koolhaas et al., 2000 cited in Samper, 2012).

In summary, the limited literature that exists, largely focussed on the Latin American context, indicates that the form and character of open spaces in informal settlements and spatial practices and user needs differ from those occurring in the public spaces of the formal parts of cities in the global north. This suggests that landscape architects may need to reconceptualise their ideas and expectations relating to the form, use, role and functions of open spaces of informal settlements. There is a lack of literature however to identify whether a comparable situation occurs in the informal settlements of Bangkok, a gap in the literature that will be built on by this research. For, a lack of understanding of actual social and spatial practices and needs serves to impact on the success of an open space intervention (Samper, 2012; UN Habitat, 2012; Carmona et al., 2010). Hernández-García (2009) and Hernandez Bonilla (2001) suggest studying open spaces and their transformations to gain knowledge of user needs, values and expectations as, *'it represents and mirrors the everyday lives of a large*

proportion of the population' (Hernández-García, 2009, p.45). Such an approach is synonymous with the theories of Lefebvre and Massey that frame this research.

Typology of Public Spaces

In order to gain insight into the role of public spaces within a particular culture spatial typologies are useful for making comparisons of usage patterns (Billig, 2009). Benn and Gaus' tripartite framework has been established as a starting point for analysing and identifying public spaces globally with the following international definition identified as helpful when making cross-cultural theoretical comparisons (UN Habitat, 2015b):

'Public spaces are all places publicly owned or of public use, accessible and enjoyable by all for free and without a profit motive. Each public space has its own spatial, historic, environmental, social and economic features' (Charter of Public Space, 2013, p.1).

When using this particular definition, UN Habitat (2015b) claim it is possible to identify a variety of public space types worldwide that can be grouped into the following three categories: streets as public spaces; public open spaces; and public urban facilities. However they do not indicate whether this spatial typology has already been applied to the open spaces of informal settlements in the global south. This spatial typology will now be explored, with reference also made to typologies specifically produced for the British, European and American contexts. This is to gain insight into global north understanding of public space types and forms. In the UK, the open space typology officially produced for local authorities to ensure effective planning is the Planning Policy Guidance 17 (PPG17) (Planning for Open Space, Sport and Recreation). PPG17 (2006) adheres to a different definition of public space to that of The Charter of Public Space:

'land laid out as a public garden, or used for the purposes of public recreation, or land which is a disused burial ground. However, in applying the policies in this Guidance, open space should be taken to

mean all open space of public value, including not just land but also areas of water such as rivers, canals, lakes and reservoirs which offer important opportunities for sport and recreation and can also act as a visual amenity' (PPG17, 2006, p.13).

Including their classifications however contextualises British landscape architectural understanding of public space types. Carr et al., (1992) meanwhile have reviewed contemporary public spaces in the United States and Europe in a well-known urban design publication.

Types of Public Spaces

Streets as Public Spaces: The first category includes the spaces that are used most intensely in daily lives due to their versatility and allowance for mobility, an essential urban function. These are therefore defined as multifunctional public spaces and offer the greatest degree of 'publicness' because they are publicly owned and maintained, accessible and free of charge throughout the day and night.

These include hard surfaced areas:

- streets, avenues and boulevards,
- squares and plazas,
- pavements

(UN Habitat, 2015b; PPG17, 2006; Carr et al. 1992).

According to UN Habitat (2012) of the open spaces that do exist: '*in most slums streets are the only public space available...*' (p.13). Likewise, in the barrios of Bogotá the street is the basic open space: these provide extensions to households and shops and are used as circulation areas and places for children to play in front of dwellings. External public stairways also act as streets and are a response to the steep topography (Nino and Chaparro, 1997 cited in Hernández-García, 2009).

Public Open Spaces: The secondary category comprises green open spaces. These tend to be available without charge and are usually publicly owned but only accessible during day light hours.

These include:

- parks and gardens (UN Habitat, 2015b; PPG17, 2006)
- playgrounds and 'hanging out' areas,
- public beaches,
- riverbanks and waterfronts

(UN Habitat, 2015b; PPG17, 2006; Carr et al., 1992)

According to the PPG17 (2006) typology the following can also be categorised under this classification:

- amenity green space- including informal recreation spaces, village greens and domestic gardens;
- cemeteries and churchyards;
- accessible countryside in urban fringe areas;
- natural and semi natural urban greenspaces- including woodlands, wetlands and grasslands;

Public Urban Facilities: The third category encompasses high maintenance public facilities that are publicly owned and maintained and are free of charge. In many cases these are only accessible during daylight or operating hours.

These include:

- Public sports facilities

(UN Habitat, 2015b; PPG17, 2006; Carr et al. 1992)

In addition to the categories stated, Carr et al. also identify 'found or neighbourhood spaces' which they define as: '*Publicly accessible open space such as street corners; steps to buildings etc. which people claim and use; also*

*can be vacant or undeveloped space located in neighbourhood...*³ (1992, p.84).

In summary, this review of UN Habitat's typology and those produced for the American, European and British contexts serves to gain insight into global north landscape architects understanding of criteria that constitute a public space, the types in existence and their physical form. UN Habitat have not however, expressed if their typology has been applied to open spaces in informal settlements. Furthermore, at present little literature exists regarding the urban form⁴ of informal settlements and that which does is largely focused on the Latin American context. Therefore it is acknowledged that criteria defining an open space, open space types and their physical form may differ from the public space typologies reviewed. Consequently these typologies may be insufficient for identifying open spaces in global south informal settlement contexts. In the popular settlements of Mexico and Bogotá, for example, the physical form reflects the ideals, tastes, values and culture of those who create, manage, control and use the urban realm. Additionally, like the settlements themselves, open spaces are under constant construction by inhabitants in response to the needs and aspirations of those who live there. Use, appropriation and contestation of space produces, transforms and redefines the physical and social environment daily, resulting in a diverse and dynamic urban space (Hernandez Bonilla, 2001; Hernández-García, 2009): *'The transformation and consolidation of the open spaces in Danubio and Aguas Claras is related to their use, as Harvey (1996) explains: production and consumption processes work in dialectical relationships'* (Hernández-García, 2009, p.38). Additionally, some spaces have no recognisable form and lack clarity in terms of the boundaries: simply left over space that is not used for other functions (Hernández-García, 2009). As a result first impressions to the outsider are that of disorder and mess. However Hernández-García (2009)

³ For a full list of Carr et. Al., (1992) typology see p.84

⁴ See definition of terms

evidences that within the richness and creativity an order does exist, it is simply a different kind of form and design language, that of:

'diversity and incompleteness... The unfinished and loose atmosphere of the edges of the open spaces, the steep inclines, the colour and decoration of the buildings, the colourful washing hanging in windows and terraces, the apparent disorder and untidiness all contribute to develop a unique language, a 'special order' and an expressiveness of place' (p.43-44).

Supporting these findings Samper (2012) and Hernández-García (2013), similarly determine that whilst the logic of informal settlements is different to that in environments designed by architects or professional engineers, it is no less logical; reflecting highly developed processes of political contestation and market forces.

Thus, the review of typologies developed in the global north conducted firstly serves as a base for gaining insight into the existence, role and use of open spaces. Secondly, as a basis for determining whether landscape architectural understanding of what constitutes a 'public space' does indeed need to be reconceptualised for the global south informal settlement context, both theoretically and in terms of the physical form.

Place Making: Qualities of Successful Public Spaces

In shaping the urban environment designers influence patterns of use and therefore social life, with people constrained by the environmental possibilities available to them. Public spaces are essentially environments that people use through choice, however. In order for them to become successful spaces they must offer what people want, *'people need to feel psychologically comfortable or engaged enough to want to stay and play'* (Carmona et al., 2010, p.206). Thus, a vital aspect of urban design, in creating public spaces that have the quality of 'place'- the objective for UN Habitat (2015b), is: *'understanding the relationship between people*

(‘society’) and their environment (‘space’) (Carmona et al., 2010, p.133). The Charter of Public Space, meanwhile, states that public spaces can be defined as ‘places’ when they possess a clear identity. Place identity is defined as, *‘that which provides its individuality or distinction from other places and serves as the basis for its recognition as a separate entity’* (Lynch, 1960, p.6 cited in Relph, 1976, p.45).

According to evaluations of thousands of public spaces globally, the Project for Public Spaces (PPS) (no date) found that, in general, successful spaces are those which feature the following four key qualities: they are accessible; people are engaged in activities; the space is comfortable and has a good image; and sociability, with social activities both active and passive (See Figure 2.1). The PPS (no date) does not outline however if their study included open spaces in informal settlements. Furthermore, they do not define what they mean by ‘successful’, although they indicate that they understand successful spaces to be those that: are peopled by people of all ages, socio-economic backgrounds and abilities; are managed and not vandalised; and they serve common needs to become a central community resource (PPS, no date a).

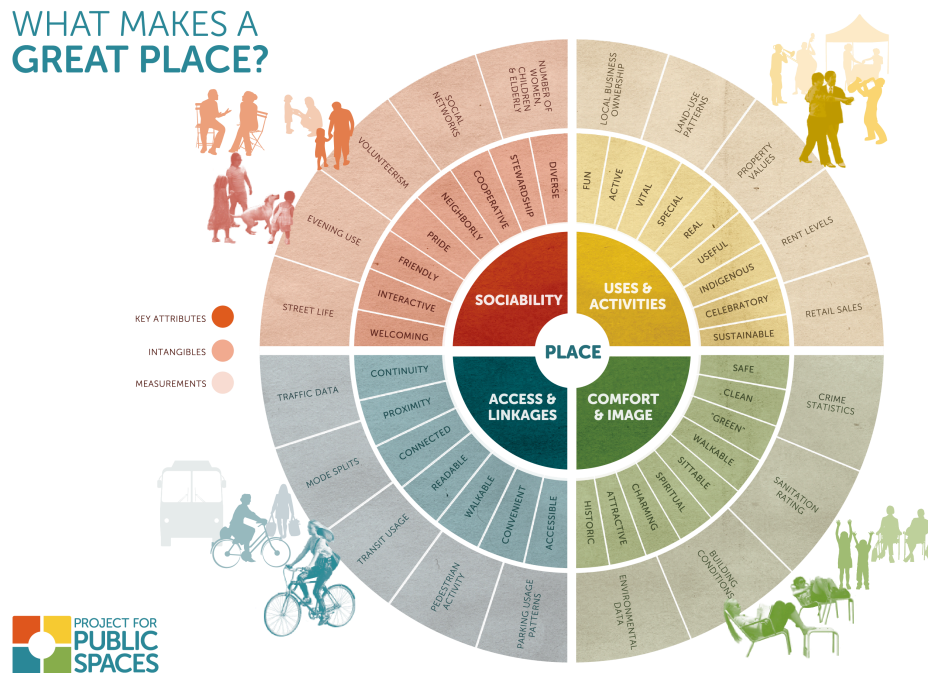


Figure 2.1: The Place Diagram. Developed by the PPS to help people judge whether a place is good or bad (PPS, no date).

Each of the key qualities will now be expanded upon to contextualise contemporary urban design theory influencing landscape architecture.

Access

Influential on the publicness and quality of a space as a meeting place for a diversity of users is how physically accessible it is to pedestrians and how easy it is to move through (Madanipour, 2003; PPS, no date; Carmona et al., 2010; Gehl, 2010). Additionally critical to success is the relationship of a space to adjacent streets: those that are well connected within the movement system due to numerous interconnections have been found to have an increasingly diverse population. Increasingly diverse interconnections have also been found to support spatial looseness by increasing the possibilities available when moving through the city. A poorly connected space conversely is likely to be underused, no matter how well it is designed (Whyte, 1980; Carr et al., 1992; Carmona et al., 2010; Franck and Stevens, 2007). In one barrio, referenced by Hernández-

García (2009), a public transport system connected to the main street has created and re-created '*almost on a daily basis the use and function of the open space*' (p.38). This suggests that connections are likewise influential on the use of open spaces within the barrios studied.

Access is also visual, with visual permeability into a public space and sightlines important. This is so that people know it is safe, gain information regarding the activities occurring, that they are welcome to enter and for prompting impromptu use by passers-by (Madanipour, 2003; Carr et al., 1992; Whyte, 1980). According to Hillier (1996b cited in Carmona et al., 2010), visual permeability is the only variable that consistently correlates with use. Finally, symbolic or social access also influences the users and forms of use a site receives (Carmona et al., 2010; Madanipour, 2010; Ercan, 2010).

Comfort and Image

A secondary prerequisite for the success of a space and influential on the length of time people will stay in it is whether it is comfortable and presents a good image. Comfort is a basic need and is physical, social and psychological and includes environmental factors, with access or relief from the sun influential on spatial use (PPS, no date; Carmona et al., 2010; Carr et al., 1992). William Whyte (1980) in his study of small urban spaces in New York, for example, found that small-enclosed parks function well, offering both physical and psychological comfort, with people seeking suntraps and the absence of wind. Additionally, an important aspect of well-used spaces was comfortable, properly orientated and sufficient seating, with people tending to sit most where there are places to sit, regardless of the aesthetic. This included people distributing themselves over seats as well as design features such as steps and ledges (Whyte, 1980). These physical features, intended for one purpose but easily serving another, contribute to spatial looseness (Franck and Stevens, 2007). Physical comfort includes back supports and armrests, whilst social comfort means choice in terms of the degrees of engagement and

perceptions of choice in the following: orientation, proximity to access points, moveable seating, seating for both groups and individuals, seating that enables a variety of activities including both socialising and privacy, seating in the sun and shade, and seats that offer views of activities. Other amenities identified as contributing to spatial success were trees, water and food. For success, trees should be located close to sitting spaces and viewing positions, offering physical and psychological protection through the variation in sunlight and shade. Water should be physically accessible, whilst food draws people to a space, attracting others in turn, with vendors also drawn to lively social spaces (Whyte, 1980).

Comfort also includes perceptions of safety, with this psychological and social need extending to include the feeling that a person and their possessions are not vulnerable (PPS no date; Carmona et al., 2010; Carr et al., 1992). For example, in the United States, for a neighbourhood street or public space to be successful, people must feel safe and secure amongst strangers (Jacobs, 1961). In particular, women, the elderly and people with disabilities can be deterred from using a space by perceptions of danger (Carr et al, 1992). Clear visibility is therefore particularly important to judgments of safety, with public spaces in the US that were poorly surveilled and lacking in supervision found to have limited use: there must be '*eyes upon the street*' (Jacobs, 1961, p.45). Thus streets and public spaces, which are faced by windows and doorways to buildings used both at day and night, improve safety due to the increased surveillance. 'Active frontages' additionally add interest and vitality to a public space with these edges also influential on spatial success. Streets that are continuously used meanwhile increase the number of effective eyes with others drawn in turn to observe activities occurring as people go about their daily lives (Whyte, 1980; PPS, no date; Jacobs, 1961; Carmona et al., 2010). Jacobs (1961) also writes that to increase safety and therefore spatial success there must be clear demarcations between what is public and what is private, they: '*cannot*

ooze into each other as they do typically in suburban settings or projects' (p.45).

In contemporary literature regarding perceptions of threats to safety there is often a bias against teenagers and young people (Cahill, 1990 cited in Ward Thompson, 2012). For these groups, the desire to establish a self-identity and territory or have a place to escape and gain respite is often reflected in socially unacceptable behaviour, which conflicts with ideas of ownership and management by those in authority or the community as a whole. Yet, the evidence suggests that there are few places in the urban realm for young people to legitimately explore and challenge their boundaries, develop skills or their identities, take risks, gather with friends or be solitary. This is despite the fact such antisocial activities may actually be symptoms of problems such as boredom, troubled home lives, poverty or deprivation (Bell et al., 2003, Natural England, 2010 cited in Ward Thompson, 2012).

Uses and Activities

The PPS call activities the '*basic building blocks of a place*' (no date, para. 5 of 6). For a space to become peopled it must offer activities that can be engaged in by users. When there is little or nothing to do, the space will be empty (Gehl, 2011; Carmona et al., 2010). Jan Gehl (2011), whose research is focussed in the northern European and American continents identifies that three activity types occur that he terms 'necessary', 'optional' and 'social':

Necessary spatial uses are strictly essential everyday tasks, including running errands or going to work. When spatial quality is poor people spend little time in a space and only these activity types occur. Because activities are necessary, the physical framework is only slightly influential on their incidence (Gehl, 2011).

Optional activities are those that people participate in if they wish to do so, and if the physical conditions, such as the weather and place, are improved. When outdoor spaces are of higher quality, necessary activities occur with the same frequency, but generally take a longer time. Simultaneously, a wide range of optional activities occurs with increasing frequency. These activities include taking a walk to get fresh air, relaxing, sitting or standing around to enjoy life (Gehl, 2011). Carr et al. (1992) distinguish relaxation from comfort due to the relief it delivers, with the '*mind and body at ease*' (p.98). A sense of psychological comfort may however, be a prerequisite of relaxation, with certain environments supporting or obstructing people's vulnerability to stress and the process of coping. Those in urban environments are identified as being increasingly vulnerable to stress and the process of coping, due to the physical environmental conditions. Environmental stressors include: daily hassles, those that are over loaded with stimulation⁵, stressful life events, uncertain and hazard filled environments, those that are crowded and exceed the available space and those that are excessively hot or cold. Evidence suggests that particularly for the most vulnerable, stressors have physiological effects including, increased blood pressure and cardiac output; affective behavioural effects, including aggression, hostility, anxiety, tension and nervousness; and impact on task performance including interfering with sustained, or directed, attention, which can lead to fatigue and mental exhaustion (Evans and Cohen, 1987; Kaplan and Berman, 2010).

Within both western and non-western cultures meanwhile, the idea that contact with nature has a restorative benefit for people, promoting health and well-being, has a long history (Ward, Thompson, 2012; van den Berg, 2012; van den Berg AE, van den Berg MMHE, 2001 cited in Groenewegen et al., 2006; Cook, 2002; Kaplan, 1995). Environmental psychology has also established that being in or viewing certain natural environments,

⁵ although this aspect is refuted by Ulrich et al., (1991) who claim that rather than variations in stimulation levels there are in fact content differences between natural versus man made settings which account for recovery and intake/ attention.

including parks and gardens or those that feature vegetation or water in urban settings, has the capacity for restoration. Consequently natural settings are thought to be more effective than urban environments as restorative settings, promoting emotional, psychological and physiological benefits and well-being as well as directed attention restoration, reducing stress related feelings, the clearance of mental noise and enhanced mental functioning and ability to reflect on issues of importance. This is regardless of age, sex or socio-economic status (Ulrich, 1983; Ulrich et al., 1991; Groenewegen et al., 2006; van den Berg, 2012; Kaplan, 1995; Evans and Cohen, 1987; Berto, 2014; Kaplan and Berman, 2010; Grahn and Stigsdotter, 2003; Herzog et al., 2003; Jorgensen et al., 2007; Hartig et al., 2003). Kaplan (1995) claims this is because natural settings are more likely to be mentally engaging without requiring directed attention. Furthermore, they are generally perceived as being away from the urban context and daily surroundings that are associated with stress; offer experiences that people find fascinating, holding the attention whilst leaving the opportunity to think of other things; provide a device to feeling as though in a different world or connected to past environments; and are compatible with human inclinations. Ulrich (1983) and Ulrich et al., (1991) meanwhile reveal that a critical element of the restorative effects of natural environments is a shift towards positive affective reactions, which may be closely linked to the positive character changes in behaviour, attention and physiological and psychological states described. As stress is an important factor in disease development, these findings are highly relevant to public health and the incidence of life style diseases (van den Berg, 2012). Hernández-García (2009) meanwhile found that the park in barrio Danubio is the place people seek out for relaxation, with the numbers suffering from stress likely to be high due to the daily and mutually reinforcing stresses experienced (UN Habitat, 2006; WHO, 2010).

There is also a small body of research, located in the global north, that suggests that urban environments with particular characteristics also have perceivable restorative qualities. This is claimed to be through their social

dimensions, with certain urban environments restoring a person's sense of self worth and self-esteem through the opportunities offered through the spatial configuration. For example, experiencing social acceptance, making choices and mastering challenges. This is even if these environments don't offer the opportunity for effortless attention (Thwaites et al., 2005; Thwaites et al., 2011). Other studies claim particular urban settings can offer attention restoration, with these urban environments additionally considered more aesthetically pleasing. Here the perceived restorative potential is a significant predictor of the success of an urban place. Among the attributes considered attractive in urban environments are; vegetation, visual diversity, openness, congruence, luminosity, a place for leisure activities and meeting places (Hidalgo et al., 2006). In the latter case, this is possible because, interpersonal relationships, and the opportunity to discuss problems with someone or to engage in social interactions with others, have also been found to provide the resources to protect from stress (Cohen & Syme, 1985; Gottlieb, 1987; House, 1981 cited in Evans and Cohen, 1987).

Sociability

Sociability, or the presence of people, is considered a major indicator of the success of a space by the PPS who state that, sociability *'is a difficult quality for a place to achieve, but once attained becomes an unmistakable feature'* (no date, para. 6 of 6). Therefore, this activity type is discussed separately and includes children playing, having conversations and communal activities. Social activities often result from spontaneous interaction between users; with this a *'self-reinforcing process'* (Carmona et al., 2010, p.205). Gehl consequently also terms these 'resultant' activities: *'in nearly all instances they evolve from activities linked to the other two activity categories... because people are in the same space, meet, pass by one another, or are merely within view'* (2011, p.12). Gehl establishes that as the quality of the physical environment improves optional activities occur with increasing frequency, in turn causing the number of social activities to

increase considerably. Gehl thus concludes that social activities are, *'indirectly supported whenever necessary and optional activities are given better conditions in public spaces'* (2011, p.12). This indicates that Gehl believes that a signifier of a successful public space is the increased occurrence of optional and social activities. Hernandez Bonilla (2001) and Hernández-García (2009) meanwhile indicate a relationship between social and necessary economic activities in the popular settlements of Bogota and Mexico. Here, social activities are closely related to trade and consumption with uses of open spaces generally enhanced by commercial activities. These open spaces thus contribute not only to the social activity of the popular settlements but also to their economy. There is a lack of literature detailing if similar relationships occur in informal settlements in Thailand.

Social activities can also be 'active' or 'passive': Active engagement involves direct engagement with both people and a site (Carr et al., 1992; Carmona et al., 2010). Whyte (1980), for example, demonstrated that users of small urban plazas sought liveliness and some form of engagement with city life. Here circulation and sitting was complementary: where pedestrian movements bisected sittable spaces increased concentrations of people chose to sit, sunbathe and picnic. The arrangement of elements, such as benches, can encourage social interaction, as can unusual events or aspects of interest such as street performers or a viewpoint (Carmona et al., 2010). Encounters with spatial elements represent another dimension of active engagement, with use displaying regional, geographic, and cultural and age differences within and across spaces (Carr et al., 1992). An important aspect of social interaction relates to play and discovery, with the presence of people in public spaces due to the need to explore and be intellectually and physically stimulated. This has been shown by psychologists to be important throughout all life stages and contributes to the intellectual and social development, mental health and well-being and emotional stability of children (White, 1959; Spitz, 1945 and Goldfarb cited in Carr et al., 1992; Ward Thompson, 2012). In terms of design, higher

density, greater diversity and complexity in public spaces challenges users and presents different opportunities for exploration and uncovering aspects of interest. Features that promote these opportunities stimulate spatial looseness and have been found to be influential in the longevity of places. Discovery, stimulation and new opportunities for amusement can also be provided by the programmed uses of familiar sites: changing qualities, elements and human activities such as festivals, ceremonies, or ritual celebrations. Such opportunities and experiences largely depend on the support and instigation of site managers. By supporting multifaceted activities such public spaces offer a distinctive quality of life and, as a result, tend to support increased social diversity (Carr et al., 1992; Carmona et al., 2010; Franck and Stevens, 2007; Cullen, 1971).

Passive engagement meanwhile, involves indirect contact within a setting, such as observation and hearing others (Gehl, 2011; Carr et al., 1992; Carmona et al., 2010). Whyte (1980), Jacobs (1961) and Carr et al., (1992) for example, identify that, in the US and Europe, the activity generated by both unscheduled daily events, such as people running errands, and organised performances is itself an attraction to others: '*[p]eople's love of watching activities and other people is constantly evident in cities everywhere*' (Jacobs, 1961, p.47). Another type of passive engagement concerns the physical or aesthetic qualities of a site with scenery, views and particular objects drawing people in (Carr et al., 1992).

Physical Layout and Design Language

In addition to the spatial qualities described, Carr et al (1992) and Gehl (2010) also identify that, in America and Europe at least, the physical layout of a public space has a substantial influence on its ability to 'invite' people into it as well as people's ability to carry out activities and therefore spatial success. In particular, the edge design is determined to be important, enhanced by providing both formal and informal opportunities for people watching. The physical amenities present meanwhile such as equipment, detailing of surfaces, boundaries, colour and texture support particular

activities by indicating intended use and contribute to spatial character and structure (Carr et al., 1992; Carmona et al., 2010). These increase the potential to attract users through increased legibility: or, the *'ability of a place to communicate first that it is open to the user and then what is possible there, once the user is inside'* (Carr et al., 1992, p.188). In relation to this Lynch (1960) writes: *'a distinctive and legible environment not only offers security but also heightens the potential depth and intensity of human experience... if well set forth, it can also have strong expressive meaning* (p.5). Through the physical layout, spaces offer degrees of choice and opportunities for use with increased choice in use supporting spatial looseness (Franck and Stevens, 2007). Certain spaces, especially those that are differentiated into a series of subspaces, can accommodate a wide variety of activities, whilst others are more specific. The encouragement of diverse, compatible, activities additionally reduces one group claiming or controlling a public space *symbolically* excluding or restricting the access of others (Carr et al., 1992; Carmona et al., 2010).

This section of the literary review serves to develop insight into landscape architects understanding of the key factors influencing spatial success. The PPS (no date) do not detail however if their evaluations included open spaces in informal settlements in the global south. Nor is there a coherent body of literature available that addresses such aspects of the urban realm, beyond that produced by Hernández-García (2009) and Schwab (2015) for the popular settlements of Bogotá and Medellín. These authors indicate that physical accessibility is likewise influential on spatial use with Hernández-García (2009) also revealing that users seek out environments with attributes that are similarly conducive to relaxation. This is a gap that this thesis will build on by critiquing open spaces in relation to the four key qualities of access, engagement in activities, comfort and sociability described. This suggests however that landscape architects may have to reconceptualise their understanding of the qualities informing successful spaces within the informal settlement context and develop a new design language to support user needs. Critiquing how existing public spaces

respond to actual patterns of use is a means of gaining this knowledge along with developing understanding of why some spaces invite people to use them whilst others do not (Gehl, 2010; PPS, no date). Landscape architects may also have to reconceive their understanding of what constitutes a successful space; whilst Gehl proposes a relationship between the incidence of optional and social activities in public spaces, Hernández-García (2009) and Hernandez Bonilla (2001) indicate a relationship between social and necessary activities in open spaces within Colombian and Mexican informal settlements. Furthermore, whilst Jacobs (1961) states that public and private realms should be clearly separated for success, the available literature suggests that in informal settlement contexts, despite the two realms being blurred, open spaces support a variety of uses, indicating their value. Again, this thesis seeks to build on and develop these arguments.

People and Space: The Cultural Production of Place

Whilst designers create ‘potential’ environments, influencing experience and patterns of use and therefore social life, the physical environment does not passively influence people. Instead, users simultaneously create ‘effective’ environments, doing what they want to do whilst also adapting and modifying their environments through their dynamic social practice (Gans, 1968 cited in Carmona et al., 2010): *‘It is, thus, a continuous two-way process in which people create and modify spaces while at the same time being influenced in various ways by those spaces’* (Carmona et al., 2010, p.133). This indicates that the physical environment is not necessarily the dominant influence on behaviour or action. Instead, what happens in any given open space depends on who is using it and how they embody their subjective experiences, with human behaviour situational (Watson, 2006). Choices that people make in any one environment depends on their personality, values and goals, the available resources, past experiences and their needs and aspirations. Choices are also; *‘embedded in physical- but*

also 'social', 'cultural' and 'perceptual'- contexts and settings' (Carmona et al., 2010, p.133).

In meeting needs through engagement or lived experiences, individuals and groups of people change 'spaces' into 'places', imbuing them with meaning and forming emotional attachments to their environment in doing so. This is no matter how intangible what we know or feel (Carmona et al., 2010; Carr et al., 1992; Relph, 1976). Consequently, many urban realm theorists (e.g. see Relph, 1976; Lynch, 1961; Lynch, 1963; Swaffield, 2002), acknowledge a material space to also be an experiential place, with the landscape '*a locus of human experience and meaning*' (Swaffield, 2002, p.229). For example, in the popular settlements of Mexico, through collective action and individual purpose open spaces are transformed, redefined and personalised, given character, meaning, symbolism and spatial identity on a daily basis (Hernandez Bonilla, 2001). Thus, Relph (1976), drawing on phenomenology for understanding, claims that, as well as the identity of a place, the identity a person or group has with a particular place is a basic influencing factor in our experience of spaces: '*places are a fundamental aspect of man's existence in the world... they are sources of security and identity for individuals and for groups of people*' (p.6). Lefebvre attributes this to the interrelated nature of the three dimensions: here, the symbolic meanings of places to individuals and groups, the 'spaces of representation' are of primary importance in the production of space (Milgrom, 2008). Therefore, to understand why a space is successful and whether this can be translated elsewhere, 'place identity', also known as a 'sense of place' or *genius loci* is considered to be of intrinsic value by academics (Montgomery 1998 cited in Carmona et al., 2010). Relph (1976) established the following three basic components of place identity: 'the static physical setting', 'activities' and 'meanings' (p.47), with the contribution of each varying depending on an individual's conception of place. In particular, Relph believes that the activities and meaning associated with places may be as or more important in creating a sense of place than the sensory, material or physical qualities of places.

For connections and meaning to develop with a place, experiences must enable the development of 'rootedness', a sense of belonging or the formation of a sense of identity (Carr et al., 1992; Carmona et al., 2010). Rootedness is described as, '*an unreflected state of being in which the human personality merges with milieu*' (Fu Tuan 1980, p.6 cited in Carr et al., 1992, p.197). Despite this, Relph writes that 'placelessness' is the dominant force, promoting 'existential outsidership' due to the: '*weakening of distinct and diverse experiences and identities of places*' (p.6). Harvey (1990) defines this to be the result of capitalism's collapsing of spatial barriers globally leading to a disregard for '*physical location or territorial expression*' (p.16) when creating places and spaces. Thus, individuals become observers, unable to participate in meaning, resulting in feelings of 'rootlessness'. When people don't feel that they belong meanwhile, they no longer care for their environment (Madanipour, 2010; Harvey, 1993; Crang, 1998).

Place Attachment

The bonds individuals or groups create with spaces are commonly known as 'place attachments' (Scannell and Gifford, 2010). More recent reviews of the relationship between place identity and place attachments reveal that multiple theories exist, with a lack of consensus regarding how the two relate to one another. For example, whilst some, like Relph propose that place attachments are a component of place identity, others indicate that the two are mutually reinforcing. Another proposed model meanwhile is place attachment as a super ordinate concept (Hernández et al., 2014). Rather than focussing on these discrepancies, of interest to this thesis is that a common pattern between the constructs of place attachment and place identity, is that the places that people or groups feel attached to or identify with are generally more likely to protect them, with people also engaging in activities that are beneficial to the community or themselves, depending on the particular situation (Carrus et al., 2014). For, within

place attachments are embedded values, which are often shared by communities. Gaining knowledge of these values, or awakening them, through a sensitive design process, results in designs that *'express the essence of each community grounded in place'* (Hester, 2014, p.191). It is therefore evident that in addition to understanding qualities of successful spaces in informal settlements, landscape architects must also understand the, *'distinctive and essential components of place and of our experiences of places'* (Relph, 1976 p.6). At present however, a coherent body of academic literature regarding how meaning, cultural expression and place attachments manifest itself in informal settlements, or how these processes occur is lacking. Kellett and Napier (1995), identify that consequently, only a partial understanding of informal settlements has emerged.

It is speculated that place attachments most likely exist to serve several functions, with the following most commonly cited: survival and security; goal support (when a place is valued for the specific activities it supports or resources it provides); and temporal or personal continuity (Scannell and Gifford, 2010). Many variations of the term 'place attachment' exist⁶ with multiple applications of place attachment theory identified across scales, disciplines and perspectives associated with behaviour and the environment (Altman and Low, 1992; Scannell and Gifford, 2010; Hernández et al., 2014). Whilst such applications indicate the significance of this approach when conceiving of democratic public spaces, the lack of a singular definition raises concerns in terms of rigorous analytical application and theoretical continuity. In response to these shortcomings, Scannell and Gifford (2010) propose a tripartite person-process-place (PPP) framework (see Figure 2.2), that organises significant classic and contemporary definitions and applications whilst also grounded in new insights and findings. Here, place attachment is:

'a bond between an individual or group and a place that can vary in terms of spatial level, degree of specificity, and social or physical features'

⁶ See Scannell and Gifford (2010)

of the place, and is manifested through affective, cognitive, and behavioural psychological processes' (p.7).

The authors assert that the framework can be referred to identify the extent to which the attachment is based on *individually* or *collectively* held meanings (person dimension); how *affect, cognition* and *behaviour* manifest themselves within the attachment (psychological process dimension); and the characteristics of the place and attachment to it (place dimension). These dimensions and processes will be summarised below, drawing on both the PPP framework and other literature consulted to gain understanding of how place attachments form.

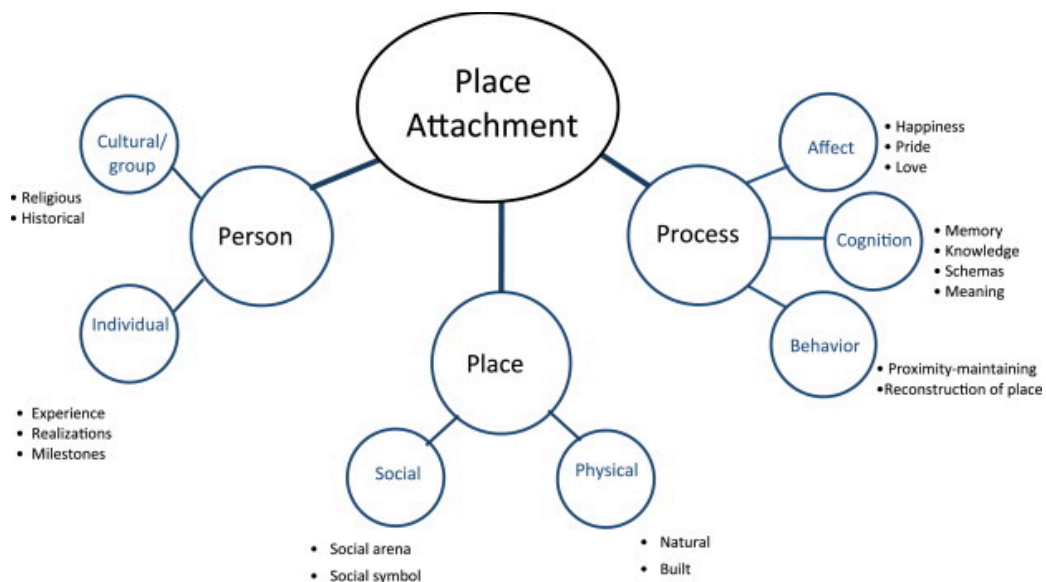


Figure 2.2: The tripartite model of place attachment (Scannell and Gifford, 2010, p.2)

The Person Dimension

Places can be important to individuals, groups, societies or nations as a whole, resulting in significant attachments forming based on both individually and collectively held meanings with the two not necessarily independent. At the individual level place attachment involves the personal connections people develop with a space. A place might meet user needs or serve as a physical representation, linking a person to important life experiences, activities, people, services or a special event, causing it to become symbolically meaningful. For example, in England, woodlands can

evoked memories of childhood, linking people both to their past and their past selves, fostering individual place attachment (Jorgensen et al., 2007; Jorgensen and Anthopolou, 2007). For others, memories evoked by the familiarity of a landscape or the experiences it affords can foster feelings of belonging and rootedness and place attachment (Rishbeth, 2014). This type of place attachment is believed to contribute to a stable sense of self or self-continuity (Scannell and Gifford, 2010; Carr et al., 1992; Carmona et al., 2010; Cooper Marcus, 1992; Rishbeth, 2014).

The ability to claim or change a space can also cause connections to develop (Francis, Cashdan and Paxson, 1984 cited by Carr et al., 1992). For example, Hernandez Bonilla (2001) explains how, in the popular settlements of Mexico, residents create strong bonds with open spaces through use and appropriation. Users also understand open spaces as being important for social interaction, their personal development and that of future generations and as a place for nature, public use and due to their accessibility.

At the group level, public spaces can resonate with the shared memories and experiences of a group or culture, connecting individuals through their symbolic meaning and resulting in the emotional investment in a place. Meaning may also stem from connections to other members, enhancing and shaping the experience of a place: *'[t]he place then can evoke strong feelings of concern, affiliation, and caring and become significant in people's lives'* (Carr et al., 1992, p.190). Group place attachment has been explored in relation to cultures, religion and gender, with groups becoming attached to public spaces wherein they practice important events and simultaneously preserve their culture or religion. This joins people in the present whilst enabling them to feel a part of history, linked through shared values, experiences and symbols (e.g. Fried, 1963; Gans, 1962; Michelson, 1976 cited in Scannell and Gifford, 2010; Carr et al., 1992). Through these connections, the landscape is given form, meaning and significance (Swaffield, 2002). At this level, a site must therefore reflect and be relevant to cultural and religious

norms and practices (Lynch, 1981). *'A site that is incongruent with the life and thought of the culture in which it exists is unlikely to be well used and cannot foster the type of symbolic meaning we are describing as 'connections''* (Carr et al, 1992, p.190).

Hernandez Bonilla (2001), found open spaces and their transformations in the popular neighbourhoods of Mexico, *'reflect the struggle and negotiations, values and expectations of a collectivity that has constructed it'* (p.27). These struggles remain in collective memory, reinforcing a sense of place, belonging and attachment. Meanings here are historic and influenced by the culture, for a sense of place is not given by a space itself but the representations attributed to it by residents (Fuentes Gomez, 2000 cited in Hernandez Bonilla, 2001). Other open spaces and their elements meanwhile symbolically connect residents to their religion or provincial villages (Hernandez Bonilla, 2001). Similarly, through the consumption (use and function) of open spaces in the barrios of Bogota and the way in which locals interact with open spaces and each other, individuals are linked both within the barrios and beyond: to local or rural traditions, religion and international trends (Hernández-García, 2009, 2013).

The Psychological Process Dimension

This dimension concerns the way in which individuals and groups relate to a place through the following three aspects of place attachment: *affect, cognition and behaviour*.

Affect: Positive meanings accrue based on satisfying experiences that resonate with an individual's lives, in turn influencing patterns of use that create ties with a space (Carr et al., 1992; Carmona et al., 2010; Giuliani, 2003 cited in Scannell and Gifford, 2010): *'[a]ppropriate location, protection, scale, and design of these ordinary spaces, with their potential for ordinary meaning, can do much to enhance this potential'* (Carr et al., 1992, p.198). Particular social or physical qualities also enhance identity and

bolster self-esteem (Twigger-Ross & Uzzell, 1996 cited in Scannell and Gifford, 2010; Carr et al. 1992). Growing plants can be empowering for example, enabling growers to develop a sense of self by giving a creative focus to their lives, and through the bodily engagement with a place that reflects their self-construction, leading to individual place identity (Conan, 2010). Favoured places that provide a safe and secure environment meanwhile have restorative qualities allowing the opportunity to problem solve and self-regulate emotions reducing cognitive processing such as stress (Korpela, 1989 cited in Scannell and Gifford, 2010)

Cognition: A much-loved place or type of physical setting may be associated with or represent an individual's personal cognitions including: their identity, memories, interpretations, ideas, feelings, beliefs, values, concepts of behaviour or experiences. The cognitive bond can also be expressed through knowledge and familiarity of how to extract particular resources (Prohansky, Fabrian and Kaminoff, 1983; Proshansky, 1978 cited in Scannell and Gifford, 2010). These cognitions, particularly social interaction, in turn play a role in the development of a person's identity or sense of self (Carr et al., 1992; Prohansky, 1978 cited in Scannell and Gifford, 2010).

Behaviour: At this level attachment is expressed through actions that maintain bonds (proximity) to a place. This can be through repeated use, due to the existence of desired resources, or the increased sense of safety and security afforded (Scannell and Gifford, 2010; Carr et al., 1992). Fried (2000 cited in Scannell and Gifford, 2010) suggests that place bonds are more intense among vulnerable groups.

The Place Dimension

People also connect to the places themselves through two levels: social and physical place attachment, In terms of the social aspect, people tend to develop attachments to places that facilitate social activities, such as seeing, meeting or greeting others, and group identity (PPS, no date; Scannell and

Gifford, 2010). In terms of the physical features of a place, several proposals are offered: firstly, the idea that people do not become attached to the physical features themselves but the meanings they represent (Stedman, 2003 cited in Scannell and Gifford, 2010), as described by Hernandez Bonilla (2001). Secondly, the physical characteristics provide the resources for people to support their goals (Stokols & Shumaker, 1981 cited in Scannell and Gifford, 2010).

In summary, the emotional connections formed and meanings individuals and groups attach to places is determined to be as important for creating successful spaces that are valued by users as the physical aspects of a space. At present however a coherent body of academic literature regarding how meaning, place attachments and cultural expression manifests itself in informal settlements is limited to the Colombian and Mexican contexts. Consequently only a partial understanding of informal settlements has emerged, limiting the likelihood of successful intervention by landscape architects. This is a gap in the literature that this thesis intends to build on and develop through identification and exploration of the forms of place attachments occurring in the open spaces to be studied, guided by the tripartite framework explored within this section.

2.03 How We Know About Public Space

Having reviewed *themes and theories* related to 'public', 'space' and 'place' and global north and global south literature relating to *people-place relationships*, this final section of the literature explores *how* landscape architects know about public/open spaces. This is in order to critique the relevance of analytical methods typically used by landscape architects to understand a site that are developed in the global north, for investigating and analysing open spaces in the global south informal settlement context. Firstly addressed within this section are traditional methods of site analysis used by landscape architects. The second and third sections meanwhile review alternative approaches that purportedly have the

potential to overcome the limitations of survey analysis design: public participation and 'everyday urbanism'.

Traditional Methods of Analysis

Analytical tools for interpreting the urban environment have largely developed within global north design traditions, with European and American landscape architectural faculties typically teaching design from either single research methods, or a selection of methods, such as quantitative survey and thematic maps. Those who teach landscape architecture that champion such a formal approach meanwhile typically draw on the conventions of the empirical sciences and technical knowledge, rather than wider techniques, strategies or methods that may be relevant to a particular enquiry (Deming and Swaffield, 2011; Norgaard, 1994). Whilst not representative of the whole practice of landscape architecture and with examples of successful public spaces developed using these techniques in existence, such methods have been critiqued by Lefebvre (1991), Crawford (2008a), Kaliski (2008) and Kroll (1984 cited in Milgrom, 2008), amongst others, as being normative, authoritarian, predetermined and reductive, marginalising users rather than collaborating with them. Such methods have additionally been charged with commonly resulting in the abstract spaces of capitalism and ineffective in producing socially and environmentally sustainable design. For, assumptions and interpretations are made about the users, resulting in the suppression of difference and spaces that are ineffective in meeting needs. Consequently, these theorists and practitioners argue against applying a standardised, universal spatial template to a wide range of populations and contexts.

Planning scholars, including Vanessa Watson (2009; 2012; 2014a, b), Leonie Sandercock (2003) and Ananya Roy (2005) and those concerned with environmental justice (e.g. see Tornaghi and Knierbein, 2014 cited in Mady, 2015), have likewise critiqued the discrepancies between the approaches of mainstream urban planning theory and the realities for

many of those living in the cities of the global south. For, despite the prevalence of informal settlements in the global south, global north urban theorists, planners and sociologists, continue to dominate understanding of how cities and public spaces function (Alsayyad, 2004; Bayat, 2004; Connell, 2008). Again, in doing so privileging the epistemology of the enlightenment and indiscriminately using their knowledge to describe cities and public spaces globally. This often results in the exclusion of already vulnerable low income and other marginalised groups (Sandercock, 2003; Roy, 2005; Watson, 2006; Watson, 2014b). As Ananya Roy observes: *'the urban growth of the 21st century is taking place in the developing world, but many theories of how cities function remain rooted in the developed world'* (Roy, 2005, p.147). Thus, Watson (2014a), Alsayyad (2004) and Sandercock (2003) argue that we need to challenge the dominant epistemology of objective knowledge and question the suitability of applying theoretical positions that claim global generalizability yet are grounded in assumptions about social and material conditions that are specific to the global north. Calling instead for a global south perspective in planning theory with local knowledge drawn upon, to increase success of intervention (Watson, 2014a; Watson and Odendall, 2012; Sandercock, 2003).

A local perspective can equally be seen to be of value to the discipline of landscape architecture when contributing to the open spaces of informal settlements in the global south. Indeed, urban theorist Margaret Crawford (2008a; 2008b) likewise rejects the development or following of theory that encapsulates an approach to design that can be applied globally to a variety of situations (2008a; 2008b). Tornaghi and Knierbein (2014 cited in Mady, 2015), meanwhile call for relational perspectives on public space with new ways of 'seeing' and 'knowing' about cities and public space and for addressing urban challenges. Likewise, Ali Madanipour (2010) argues that public spaces 'should be *accessible places*, developed through *inclusive processes*' (p.1). Others stress however that 'top down' scientific and technical knowledge is still valuable, but that 'bottom up' practical or

applied knowledge, obtained through observation or speaking to users, is also required in order to engage in the concept of multifunctional landscapes in the context of their social systems (Schön, 1983; Flyvbjerg, 2001 cited in Melcher, 2013; Crawford (2008b)).

These discussions suggest that in addition to reconceptualising *what* is known about open spaces, the discipline of landscape architecture may also need to reconceive *how* it 'knows' about informal cities and open spaces. To contribute to this discussion, two potential transdisciplinary approaches that purportedly engage and collaborate with users to identify the differences inherent in everyday life and produce socially and environmentally sustainable design are now discussed. The first is participation and the second, everyday urbanism.

Participatory Research Methods

'To know a city is to know its streets we might say. And who knows those streets better than those who live in and use them? Who knows the needs of a village better than the villagers?' (Sandercock, 2003, p.79)

Participatory approaches, or community engagement, are increasingly being recognised as offering a means to transcend the divide between design professionals and users, and the potential limitations of top down approaches, as well as increasing understanding of users relations with their environments (Hou and Rios, 2003; Cooke and Kothari, 2001; Milgrom, 2008; Hou, 2010; Milgrom, 2008). The professed aim of participation is to centralise local people in the development or design process and increase the involvement of those who are socially and economically marginalised. This is achieved by encouraging more control over decision making in interventions that will impact on their lives, and from which they would traditionally be excluded or allowed limited control or influence. Thus, participatory approaches address one of the central issues of abstract space - the marginalisation of the users. In addition, participation acknowledges and supports the involvement of local people's

knowledge, priorities, skills and perspectives (Cooke and Kothari, 2001; Cooke, 2001; Melcher, 2013), and is thus considered by many, including the PPS (no date) and UN Habitat (2012) to deliver empowerment and equity. In terms of design, participation is therefore typically cited as being conducted in order to improve everyday environments and seek environmental sustainability and lasting social change (Francis, 1999; Hester, 1990, 1999; McNally, 1999a cited in Melcher, 2013). It is also proposed that the active participation of users in the design of their environment enhances the likelihood of individuals developing a sense of belonging and promoting attachments, with users more likely to strive to protect their environments (von Meiss, 1990; European Landscape Convention cited in Landscape Institute 2016b; Hester, 2014; Hernández et al, 2014). Others claim that the use of participatory methods enables them to inform a sites design for the better, understand what it actually means to users and increases trust and understanding between the landscape architect and users (von Braemer, 2016).

Design professionals, including landscape architects, are therefore increasingly using participatory practices (Hou and Rios, 2003; Yunos et al., 2015), with the Landscape Institute (2008) requesting that landscape architects '*cultivate skills in community engagement*' (p.3). 'Simple' and 'practical' participatory approaches are likewise central to UN Habitat's (2012) current strategies for holistic and responsible street led slum upgrading: '*settlement upgrading interventions need to be integrated- covering the physical, social and economic problems of neighbourhoods- and designed and implemented with the full involvement of the community*' (UN Habitat, 2012 p.26). As well as engaging local residents' knowledge and skills, UN Habitat advocate for a process that involves all relevant stake holders including: grassroots organisations, NGOs, private entities, municipal departments and civil society organisations, to generate, '*reliable and accurate information on settlements which forms the backbone of the street led approach*' (UN Habitat, 2012, p.viii). UN Habitat (2012) stress that residents and grassroots organisations must not only actively

participate in the planning, design and implementation phases of upgrading but also long term post implementation maintenance and programming phases. For, when this was neglected or not put in place during slum upgrading programme design it often lead to interventions becoming degraded, as well as '*deterioration, abandonment and despair*' (p.29). Architect Lucien Kroll and landscape architect Randolph Hester likewise support long-term, post implementation involvement (Milgrom, 2008; Dorgan, 2008). At present, such a long term role is not typically assumed by landscape architects, however. Kroll additionally believes users should be given a significant role in the management of the neighbourhoods, which they occupy and from which they are typically denied (Milgrom, 2008).

The Challenges of Public Participation

Despite the existence of successful projects and sites developed using participatory techniques, a number of academics and planning and landscape architecture practitioners, have reviewed, critiqued and expressed concern in relation to the theory and legitimacy and effectiveness of methods and practices of participatory development and design (Bastian and Bastian, 1996; Mosse, 1994; Nelson and Wright, 1995; IIED, 1995 cited in Cooke and Kothari, 2001; Hester, 1987; Hou and Rios, 2003; Melcher, 2013; Dorgan, 2008). The overriding issue identified is that both the practice and discourse have the potential for 'systemic tyranny', embodying '*the potential for an unjustified exercise of power*' (Cooke and Kothari, 2001, p.4). That is, participatory processes, in some circumstances, reinforce the interests of the already powerful, preserving, consolidating and increasing inequities, undermining the starting points of participation: empowerment and inclusion (Cooke and Kothari, 2001; Dorgan, 2008). For, these stated priorities often conflict with more powerful interests who easily manipulate participatory processes for their benefit, leading to the exclusion of those who already do not have power (Melcher, 2013; Hestor, 1987 cited in Hou and Rios, 2003; Puri, 2004; Hou

and Rios, 2003; Mosse, 2001). These issues of power and difference can be attributed to the fact that in privileging ideas of the local and community, participation often overlooks and fails to analyse the fact that: *'inequalities, social hierarchies and discrimination are characteristics of the everyday face-to-face relations and interactions within local communities'* (Puri, 2004, p.2512). Consequently, if it is socially normal that certain groups within the community are not allowed to express their self interests, then their knowledge, interests and opinions will not be included through participation alone. Even when participation is ensured, people belonging to lower castes or women, for example might feel inhibited from expressing their opinions in a public platform (Puri, 2004). The narrow focus on interactions between the designer and users meanwhile limits the ability of design to address broader social, cultural and political issues, often making the outcomes of participation irrelevant. Furthermore, members of the public often display apathetic attitudes and lose interest due to the time required for projects to become implemented (Yunos et al., 2015; Hou and Rios, 2003). There is also the potential for conflicts of interest between the needs and motivations of the designer and the needs of the community with consequences for project and design outcomes (Dorgan, 2008; Craig and Porter, 1997 cited in Cooke, 2001).

To overcome these limitations, guard against poor practice and the exacerbation of injustices and achieve responsible place based solutions, it is proposed that an essential part of the practice and ideology is self-critical awareness and introspection. Furthermore, adaption to, and engagement with, a project's specific context is required along with paying attention to the values of the community. Reflection on the quality, validity and ethics of what practitioners and designers are doing is necessary and acknowledgement that the face to face interactions that characterise local communities are imbued with various meanings, this is in order to overcome issues surrounding power and difference. Also recommended is transparency in decision-making and recognition of the difficulties posed by the gap between the designer and user group and the limitations of

participation in overcoming injustices (Cooke and Kothari, 2001; Hester, 1987; Melcher, 2013; Dorgan, 2008; von Meiss, 1990; Puri, 2004).

To contribute to this discussion, the remainder of this literary review focuses on a method that purports to address some of the limitations of participation described.

Everyday Urbanism

‘Everyday urbanism’, is a relational approach to design and place making that has emerged in response to the writings of Henri Lefebvre, Guy Debord and Michel de Certeau and popularised by urban design theorist Margaret Crawford and John Kaliski (Mehrotra, 2004; Speaks, 2004). This is a people centred approach that puts urbanites and an understanding of the richness of their everyday lives at the heart of design values. This focus understands public space as something linked to human lived experience rather than specialist practice, eradicating the distance existing between the knowledge of the professional ‘expert’ and the daily experience of the ordinary individual. The approach additionally focuses on capturing the functions and meanings of public spaces and the nuances, complexities, and cultural specifics of everyday practices. Here the designer is immersed within society, rather than separate and outside, and focuses on the banal and ordinary routines, including commuting, walking, shopping and eating food, as well as the spontaneous (Crawford, 2008a; Mehrotra, 2004). This is to increase understanding of localised patterns of use and how users interact with and are affected by public spaces, including those who are typically overlooked. These apparently trivial activities, according to Lefebvre, in fact, *‘constitute the basis of all social experience and the true realm of political contestation’* (Crawford, 2008a, p.7). In doing so, the practice recognises that multiple parties are involved in the production of the public realm and offers the potential to reconnect spatial abstraction with spatial practice, resulting in more successful, inclusive and sustainable places. Everyday urbanism additionally focuses on time, the multiple temporalities that compose urban life, those that are repeated daily or over seasons and those that are spontaneous and discontinuous. Lefebvre

contends that these fleeting moments can be the starting point for social change, '*springboards for the realisation of the possible*' (Crawford, 2008a, p.9). For, within these transformational possibilities of lived experience arise the specific concerns of individuals and social groups; politically these have the potential to make new demands on the social order (Crawford, 2008b). Whilst there are those who find the approach insufficient for addressing contemporary urban issues, 'anti design' and limited in its understanding of design implications (e.g. see Speaks, 2004), such relational approaches to design and placemaking are increasingly being undertaken by planners, architects and students globally (Crawford, 2008b). Jane Jacobs (1961) and John Habraken (1998), for example, write that the interactions that occur between people and their physical surroundings during everyday activities should be understood as the generator of urban social order. Likewise Richard Sennett (1977, 2016), is interested in how the urban realm is composed of cultural interactions, differences and diversity. Focusing on, '*customs of greeting, rituals of dining and drinking, ways of avoiding eye contact, the places people crowd together and the places where they keep their distance*' (Sennett, 2016, para. 14 of 88). Swaffield (2002) meanwhile expresses that phenomenological positionality is central to contemporary theoretical thinking within the discipline of landscape architecture.

Everyday urbanism offers the potential to increase understanding of the social inequalities that are characteristic of interactions within local communities and will potentially impact on the reliability of community engagement negotiations. Additionally, the approach enables knowledge on broader social, cultural and political issues to be developed along with the complexities inherent in place making that are inadequately addressed by participatory methods or survey analysis design. Likewise, the method offers the possibility of addressing the values of the community and identifying the meaning and identities of places as well as the opportunities present in the local context that are again typically overlooked by the other methods discussed. Crawford (2008b) claims that such an approach can be

applied to multiple situations and activities and is *'fundamental to operating within a world of constant changes'* (p.14). However, that, rather than overarching solutions or single formal products there can be a number of outcomes:

'There is no universal everyday urbanism, only a multiplicity of responses to specific times and places. Our solutions are modest and small in scale- micro-utopias, perhaps, contained in a sidewalk, a bus bench, or a minipark' (Crawford, 2008a, p.10).

Crawford (2008a) thus believes engagement must be multiple and heterogeneous: *'Radically empirical rather than normative and generalizable, Everyday Urbanism constitutes a flexible collection of ideas and practices that can be reconfigured according to particular circumstances'* (2008b, p.14). Similarly, others propose drawing inspiration from a range of disciplines that share concerns with people-place relationships and utilising both quantitative and qualitative methods. Importantly there should be no hierarchy between the ways of knowing with all potentially valuable and context dependant (Sandercock, 2003; Rishbeth, 2014; Williams, 2014). A multifarious response to analysis is in line with the theories of Lefebvre and Massey and is synonymous with the approach of this thesis and its focus on informal settlements, which are well documented as constantly being reinhabited and reinvented. The approach additionally resonates with UN Habitat's (2012) warning that there are different practical issues to be taken into consideration when implementing a street led approach. For, whilst the principles can be applied globally, there are a vast variety of slum typologies with slums varying in type, size, form and location. They are also subject to different land tenure, contexts, occupancy density, social makeup, geographic and topographic constraints and may or may not have existing street patterns.

This thesis does not suggest replacing other methods of analysis, recognising that they are valuable tools for enhancing knowledge of open

spaces in informal settlements, but rather using everyday urbanism practices alongside them. This is to enhance the potential of creating socially and environmentally sustainable open spaces that meet the needs of users through an appropriate response to the varied and multiple challenges presented by the realities of life in informal settlements. To contribute to the discussion, this thesis will utilise and critique such practices within its own methodological approach, as described in the following chapter. Here, the ethnographic framework, which informs the methods used is described in relation to the philosophical perspective and forms of knowledge sought, themselves informed by the theories of Massey and Lefebvre, which were discussed at the beginning of this literature review.

3.0 Methodology

Introduction

This chapter describes the methodological approach taken to address gaps identified in the literature. Central to the approach was an ethnographic study visit to Bangkok, Thailand, observing and interviewing community actors, local professionals and NGOs within three 'slum' communities and two upgraded settlements. The settlements and identified open spaces were analysed using social science methods and those traditional to the discipline of landscape architecture.

To reveal the rationale for this approach the chapter is divided into five sections. The first section outlines my philosophical perspective, the forms of knowledge sought and the theories that frame the research. The second section describes the ethnographic approach taken and the choice of qualitative research methods used. Here an overview of the fieldwork process is also given. The third section sets out the fieldwork process and gives an overview of the three phases it became divided into. Here the methods used within each phase and the manner of their application are also discussed, along with methodological limitations encountered and the subsequent impacts on the data. The fourth section describes ethical decision making prior to and during the fieldwork. Finally, the fifth section discusses methods of analysis, the purpose of which was to systematically develop 'grounded theory' from in-depth understanding of the social context.

Research Aims and Objectives

A coherent body of academic discourse (at least among the built design professionals including landscape architects), that addresses the physical space of urban informality, including the urban consolidation process, existence and form of open spaces and their role and use by inhabitants, is lacking (Samper, 2012; Rekitke, 2009). Any literature that does exist

meanwhile is largely focused on the Latin American setting. Consequently, the built environment disciplines lack comprehensive understanding of the variation in the physical form of slums and the socio-spatial practices of inhabitants and, therefore, effective intervention tools (UN Habitat, 2012). In addition, despite indications that landscape architects have the potential to make significant contributions to these marginalised contexts, this contribution has again been overlooked in practice and the literature. The limited literature that does exist however suggests that, for successful intervention, notions of what constitutes a 'public' 'space' along with understandings of permanence and use may first have to be reconceived for the global south slum context. Qualities of successful spaces identified by urban designers, including landscape architects, from the western tradition may also have to be revised and understanding of the processes instigating the development of place attachments, meaning, and place identity gained. Finally, the literature suggests that the discipline may also require new ways of investigating, analysing and applying that knowledge in the global south slum context.

The thesis has two overarching aims: firstly; to develop the limited literature that exists on the relationship between people and the physical space of informality; challenging debates surrounding the development, presence, form, role, use and the associated identity, meaning and significance of open spaces. Secondly; to establish if there is a role for landscape architects to contribute to these marginalised contexts and, if so, whether and how they might contribute to the planning, design and management of public spaces.

The six main research objectives, as derived from gaps in the literature, are to determine:-

- 1.) Whether open spaces exist, what types exist and how they come into being and whether notions of public space in the western city are relevant to the informal city in the global south.

- 2.) How open spaces are used and influences on spatial use.
- 3.) The role, meaning and significance of open spaces to users.
- 4.) The current barriers to landscape architectural design approaches within informal settlement contexts.
- 5.) Whether the design process for analyzing and developing open spaces needs to be reconsidered for the informal settlement context.
- 6.) Whether landscape architects have a role in these contexts and what that role is.

3.01 Philosophical and Theoretical Framework

This first chapter section opens by discussing critical realism, the philosophical perspective that guides the research and informs the theories and methods used to address the research aims and objectives. Following this, the forms that knowledge can take and that which this research seeks to access are discussed. The final two subsections address the theories, which, along with the philosophical perspective, frame the research and inform the methods selected to access the types of knowledge desired: Actor Network Theory and embodied practice.

Critical Realism

This research takes a critical realist view of social reality- an ontology of relevance to landscape architects who traditionally focus on both the human context¹ and biological systems. For critical realism, *'simultaneously confronts the central concerns of both natural and social science regimes'* (Zachariadis et al., 2010, p.3). Critical realism is a stratified ontology,

¹ This refers not only to the built environment but also the social processes and entities, such as communities and organisations, that constitute social reality.

distinguishing between three realms of reality: the 'real', 'actual' and 'empirical' (Bhaskar and Lawson, 1998). For, whilst critical realism acknowledges that there is one 'real' world, it argues that not all aspects of events may be experienced or observable, but they still exist. Instead, the 'actual' is facilitated or underpinned by the activation of structures and mechanisms contained in both physical and social objects that behave in certain ways due to particular tendencies or liabilities. The 'empirical' meanwhile is the domain of observation and is theory laden or theory dependant. A further crucial point is that critical realism also recognises that there is a causal criterion that is contingent on circumstance and that exists independently of human awareness or detection (Bhaskar and Lawson, 1998; Collier, 1994; Danermark et al., 2002). Thus, observable events are causally generated from the complex interaction of various unobservable mechanisms. In turn, observable events can reveal information about the existence of the non-observable entities making, *'it possible to understand how things would have been different, for example, if those mechanisms did not interact the way they did'* (Zachariadis et al., 2010, p.4). The primary principle of critical realism then, differentiating it from positivism and interpretism, is that *'causal laws are ontologically distinct from the pattern of events'* (Bhaskar and Lawson, 1998, p.5). Thus, the world, or reality, exists independently of our ability to know it (Zachariadis et al., 2010; Danermark et al., 2002). To increase understanding critical realists explore the unobservable mechanisms and how they work for causal explanation, rather than consistent regularities of observable events. They argue that the complexity of societies and the variety and constant changes experienced means that the same causal powers can produce a variety of outcomes. Thus a lack of regular relations between cause and effect can be expected with unpredictable outcomes. Finally, critical realism also acknowledges that social phenomena are concept dependant and require interpretive understanding (Sayer, 1992; Danermark et al., 2002).

Associated with critical realist practice is reflexivity. Instead of 'objective truth' it is acknowledged that knowledge production is situated within preconceived understandings of the research subject (Farrugia, 2013, Simpson, 2002 and Wakefield, 2007 cited in Glass, 2015). Knowledge is also produced within particular circumstances, with those circumstances impacting on how that knowledge is formed (Rose, 1997). Due to the complexities in the relationship between the researcher and researched, knowledge production and fieldwork are additionally complicated by issues of (unequal) power relations. This phenomenon is well established in academic literature, with many scholars highlighting that researchers must therefore constantly be aware of their position in relation to the community, and how they relate to local people (e.g. see Binns, 2006; Sanghera and Thapar-Björket, 2008; McDowell, 1992). This is relevant both whilst conducting the fieldwork and when interpreting and analysing the findings and as the researcher controls what information to reveal and in what form it should be presented in order to meet the research agendas. Binns (2006) stresses the potential influence of the '*capabilities and ethics of 'outsiders' who are conducting research on, and ultimately speaking about 'others'*' (p.19). Consequently, the researcher must acknowledge and critique their positionality, biases and influence on the field of study in relation to the production of knowledge (Farrugia, 2013, Simpson, 2002 and Wakefield, 2007 cited in Glass, 2015).

Forms of Knowledge

Knowledge can be explicit or tacit affecting how it is explained or made 'real'. Whilst the common understanding of explicit knowledge is that it can be formalized and codified there are multiple interpretations of tacit knowledge with four aspects of tacit knowing: the functional, the phenomenal, the semantic and the ontological (Polanyi, 1983). This has led to inconsistency in the use of the term.

This thesis will not dwell on the varying definitions², instead it will draw on several of relevance to this research. Firstly, that proposed by Johannessen, a leading figure in the Wittgenstein approach to tacit knowing, who defines tacit knowledge as that which is difficult to articulate or explain through verbal means (Yu, 2003; Yu, 2007). A secondary definition of tacit knowledge of interest to the research is as, *'personal knowledge embedded in individual experience and involves intangible factors such as personal belief, perspective and value system'* (Nonaka and Takeuchi 1995, p.viii cited in Hedesstrom and Whitley, 2000, p.1). This is because, there are multiple beliefs about the nature of the world and multiple forms of knowledge that can inform us about it; knowledge can be differentiated and held within distinct forms including self-knowledge, local or everyday knowledge, common sense, wisdom and science (Delanty and Strydom, 2003; Sandercock, 2003). Knowledge is therefore, *'context specific and relational in that they depend on the situation and are created dynamically in social interaction among people'* (Nonaka and Takeuchi, 1995, p.59). Knowledge is also embedded in social practices, skills, actions, paintings, music and rituals specific to a society, the complex nature of which may be lost to language (Sayer, 1992; Sandercock, 2003). By studying such practices we can know more about that knowledge. A final relevant definition of tacit knowing then concerning the performance of actions or skills, is defined as: *'non-codified, disembodied know-how that is acquired via the informal take-up of learned behaviour and procedure'* (Howells 1996, p.92 cited in Hedesstrom and Whitley, 2000, p.1).

This distinction between the 'real', 'actual' and 'empirical' domain of reality and explicit and tacit knowledge is significant to landscape architects who, in order to fully understand the problems they wish to solve, must possess technical competence as well as: *'knowledge of the physical, ecological, sociological and psychological dimensions of the people they serve and the*

² From those that distinguish tacit knowledge as something that cannot be articulated verbally, to those that define tacit knowledge as that which is not articulated by verbal means, but can be articulated linguistically. See Yu (2007) and Hedesstrom and Whitley (2000) for more on this discussion.

context in which they exist' (Murphy, 2005, p.34). Whilst the physical and ecological dimensions of the urban realm may be observable, the sociological and psychological dimensions of a society are not, yet these dimensions also affect and structure the way in which we experience the world and make decisions. In keeping with the guiding philosophical perspective and to access the types of knowledge described, this research draws on the theories of Actor Network Theory (ANT) and embodied practice. These are two differing bodies of work with clear continuities: they both foreground social practices and the relationship with the physical environment, share a concern for associations as well as '*a sensitivity to the 'disclosive' significance of materials*' (Conradson, 2003, p.1983).

Actor Network Theory

ANT aims at describing the essence of both societies and natures without limiting descriptions to the social relations of individual human actors. Instead the theory, '*extends the word actor- or actant – to non human, non individual entities*' (Latour, 1996, p.369). As such, ANT sees events as emerging through the meeting of multiple and diverse *assemblages* of interacting influences, including social, natural and material objects. Social entities, such as organisations, are therefore outcomes that emerge over time from networks constituted from relations between various actors (both human and in human); social practices such as hierarchies, power relations and flows of information; resources; and other material entities (Conradson, 2003; Latour, 1996; Elder-Vass, 2015). These organisational environments, with particular sociability's and experiential textures, can emerge through daily encounters between users of a space and the various activities occurring. The composition, length and intensity of connections and durability of the network affect the characteristics of these social entities, their stability and durability and how they evolve or reproduce over time (Conradson, 2003). Thus, an ANT perspective offers multiple insights: firstly, by paying attention to activities and the significance of

materials that are inherent parts of the sociomaterial reality and not solely social relations. Secondly, ANT tells us to trace all connections, follow key actors and recognise the *myriad of small efforts, conversations and coordinated action*' (Conradson, 2003, p.1981), in order to facilitate understanding of an organisational spaces formation: the processes by which the collective of people, activities and structures have come in to being. Thirdly, ANT is useful for offering insight into how durable or reproducible the social entity is (Conradson, 2003; Elder-Vass, 2015).

There are, however, several limitations of ANT relevant to this research: firstly, the immaterial and 'affective' dimensions of organizational spaces are overlooked including the emotions, feelings and spirituality that figure within and animate an environment. Secondly, ANT pays insufficient attention to the specific embodied actions and expressive capacities of people that imbue spaces with particular characters and affective feelings, and the role these actions have in disclosing organizational spaces (Thrift, 2000; Conradson, 2003). The: *'fleshy significance of human touch, the embrace, the welcoming stance, the pat on the back, and so forth'* (Conradson, 2003, p.1982). Thirdly, ANT is limited in its understanding of the multiple ways in which associations between people can be unexpected and transient; forming and then dissolving (Thrift, 2000; Conradson, 2003). To overcome these limitations, Conradson (2003) advocates the use of embodied practice.

Embodied Practice

Embodied practice emphasizes lived experience, focusing on people's largely unreflective, banal and apparently insignificant daily practices, which are woven through spaces and constitute their knowledge and understanding of their environment (Conradson, 2003; Simonsen, 2007; Harrison, 2000). For, embodied practices tend to be, *'lived, culturally specific, bodily reactions to events which cannot be explained by causal theories (accurate representations) or by hermeneutical means (interpretations)'* (Thrift, 2000c, p.274 cited in Conradson, 2003, p.1984).

For example, everyday coping skills, such as walking into a room or hammering, involve an implicit familiarity with the tools, articles, or products that enable us to perform these actions and make sense of the particular environment where they are located. Consequently, the totality and arrangement of our environments are formed in response to 'skilful coping' and reflect cultural norms and biological resources. Thus, physical and verbal performance is not only about the individual but is shaped by the unspoken embodied norms and expectations associated with a particular place and culture. As such, they are beyond the scope of language and even consciousness (Simonsen, 2007; Thrift, 1996).

Embodied practice additionally pays attention to the centrality of the body in 'lived experience', or phenomenology, to gain understanding of how people perceive, understand and relate to their environment. Here, importance is placed on 'doings' - the way in which people, *'walk, sit, and carry themselves, and the rhythmic dimension of such enactments'* (Conradson, 2003, p.1984) - and the senses: touch, smell, sight, taste and sound (Harrison, 2000). Embodied habitual routines, such as journeys to work, that we don't have to consciously consider, and those that break away, the improvised, are of significance³. Since social life, actions and activities, both symbolic and material, emerge to a significant degree from our embodied sensual responses to external stimuli, rather than prior intentioned actions. By paying attention to everyday doings, habits, and improvisation, previously ignored in social analysis, a more lively and creative account of a space is possible (Conradson, 2003; Harrison, 2000). Through these everyday practices and the intersubjective arrangement of users, relationships, action, communication and participation with the materiality of a space, meaning, subjectivity and spatial identity are established. Inseparable from everyday practices and social situations then are emotions that are both *expressive* and *affective*; felt intensities, along

³ Shotter and others emphasise that new routes emerge as much from improvised use of the social and material resources that are to hand as from any contemplative survey of the options (Conradson, 2003).

with human presence and the embodied mood of an individual, that are communicated and performed, can also exceed the practices or expression that brought them into creation, with the emotional tonality of a space continuing to be affected after a particular gathering of people or activity. In turn, these intensities can impact on the world around them: as spatial users encounter and are affected by the bodily practices of one another, environments with particular affective and psychosocial textures are brought in to being performatively. Embodied practice draws attention to and captures these aspects of sociospatial life that elude description or representation: the fleetingly immaterial, affective and intersubjective experiential textures that both resonate through a space and significantly contribute to its shaping. Critically, then, embodied practices are disclosive of particular time-spaces with material elements within a space often central to performative unfolding. Analytically, as in ANT, embodied practice requires that the focus is on events experienced by the collective: the social interactions, collaborations and joint actions of users and the distributed subjectivity, rather than the individual (Conradson, 2003; Simonsen, 2007).

In summary, this first section has firstly established that a critical realist perspective guides this thesis. Here it is acknowledged that not all aspects of social reality may be experienced or even observable; that social phenomena are concept dependant; and that reflexivity by the researcher is essential. Secondly, that knowledge may be explicit or tacit with tacit knowledge that which is difficult to explain verbally; embedded in individual experience and beliefs, social practices, skills and rituals; and is context specific and relational. Thirdly, the section has identified the theories of ANT and embodied practice as suitable for accessing the forms of knowledge sort and addressing the research aims and objectives; to develop the limited literature on the relationship between people and the physical space of informality, including the use of open spaces and their associated meaning, significance and identity. In turn this will contribute to

establishing if there is indeed a role for landscape architects to contribute to informal settlement contexts.

3.02 Methodological Framework and Research Process

This second chapter section reveals that the research placed emphasis on an ethnographic approach which utilised multiple qualitative research methods. This was in order to address the emerging topic, access both explicit and tacit knowledge as well as causation mechanisms- social, religious, economic or otherwise- and in response to the philosophical and theoretical frameworks. The final sub section meanwhile expresses how the fieldwork was additionally structured interpretively in response to observations, ethical considerations, data findings and experiences.

Ethnography

This research focuses on the relationship between people and the physical space of informality and whether or not there is a role for landscape architects in the production of open spaces in informal settlements. In order to design spaces which support and facilitate user needs, it is proposed that designs should be informed by understanding of actual uses and the values and behaviours of people and the factors that contribute to place identity (Carr et al., 1992; Carmona et al., 2010; von Meiss, 1990). To achieve this, Crawford (2008a) proposes an 'everyday urbanism' approach with the designer is: *'immersed within contemporary society rather than superior to and outside it, and is thus forced to address the contradictions of social life from close up'* (p.9). These suggestions point towards the inductive approach of ethnography, *'where we do not go into the field to test and extend well defined theories but rather are open to reconfiguring what we know'* (Kim, 2015, p.7).

Traditionally, ethnographic research has been used to develop an understanding of a society or culture within their 'natural' setting, a

method most typically employed in the disciplines of geography and anthropology (Tacchi et al., 2003; Bell, 2010; Brewer 2000). To do so, multiple research methods and techniques are used to systematically *'capture social meanings and ordinary activities'* (Brewer, 2000, p.6), as the practices of every day life unfold (Kees van Donge, 2006; Lutz 1986 cited in Bell 2010). This is in an attempt to understand that particular society's interpretation of the world and how social practices are structured by that interpretation (Berger and Luckmann, 1966 cited in Kees van Donge 2006; Bell, 2010). For, ethnography recognises that people assign meaning to the world and their actions, events, objects or words although this meaning may not always be immediately apparent. However, as has been established, knowledge about the world is embedded in individual experience, beliefs, social practices and skills. By paying attention and learning how to read these 'symbolic forms of expression', we can increase understanding of how others view the world (Deming and Swaffield, 2011; Sayer, 1992; Sandercock, 2003). Consequently, ethnographic research is recognised as enabling an in depth, richer insight into the complex relationships occurring within societies. Importance is placed on observation and immersion within the field, with researchers sharing the experiences of those under study (Kees van Donge, 2006; Mason, 2002; Bell, 2010).

Observation as a spatial analytical tool has been utilised by several well-regarded urbanists including William Whyte (1980) and Jane Jacobs (1961), urban designers including Jan Gehl (2011) and Vikas Mehta (2013), city planners including Kevin Lynch (1960) and writers on urban social movements including Castells (1983). Of who were subsequently able to construct detailed images of culturally specific patterns of spatial use. According to Mayer (2006), no work has been as influential as Castell's in defining urban social movement research. Lynch, Gehl and Whyte's work meanwhile, is equally influential within their respective fields. Of further relevance to this research, Setha Low (1992) illustrates how ethnographic methods can be used to explore place attachment processes resulting from

everyday patterns of use and relationships between spatial users and particular amenities. Low also argues that whilst individuals may have strong emotional and cognitive experiences within a place, these are '*embedded within a cultural milieu*' (p.165), including beliefs and practices that link people to a place.

This body of work highlights the methodological potential of ethnography. Firstly for comprehensively addressing the nuances and cultural specifics of everyday practices occurring within informal settlements. Secondly for enabling careful critique of local patterns of use and contested uses, and how spatial practices affect and are affected by an open space. Thirdly, for exploring resultant meanings, attachments and place identity (Mady, 2015; Rishbeth et al., forthcoming; Low, 1992). In doing so, this relational approach puts urbanites and their everyday lives at the centre of urban design values and place making, as argued for by Crawford (2008a). Despite this potential, a coherent body of ethnographic research that foreground the importance of the lived experience and materiality of public spaces is lacking (Rishbeth et al., forthcoming). Furthermore- in spite of Elizabeth Meyer (2002) advocating well over a decade ago that an essential feature of design and theory in landscape architecture is that it should be based on the senses: what is seen, heard, felt and smelt, with form, meaning and structure found within the site as is, ethnography is not a technique typically used by landscape architects. The danger of not utilising such methods as highlighted by Kim's (2015) 'spatial ethnographic' studies of everyday urbanism on the sidewalks of Ho Chi Min city, is that those already marginalised and overlooked may be excluded. Furthermore, a comprehensive understanding of the role, function, use and meaning of open spaces- the endeavour of this thesis- will be lacking. This can be seen to lead to the homogenisation of design that Lefebvre (1991) argues against and that Kim (2015) identifies, as '*demolishing what is valuable and unique to each city*' (p.6). This people- centred approach therefore also has the potential to reconnect spatial abstraction with spatial practice and create more successful, inclusive and sustainable places. Thus, this

research placed emphasis on an ethnographic approach observing Mady's (2015) suggestion that the significance of such an approach lies in:

'focusing on social, political and cultural influences on space, the dynamics of various actors and the space, the generation of meanings, and contested uses... This approach could improve the understanding of material and immaterial aspects of space' (Mady, 2015, p.1197)

Qualitative Research Methods

In line with the philosophical and theoretical framework and tenets of ethnography, multiple qualitative methods were used. Qualitative methods, unlike quantitative, don't aim at a predetermined hypothesis but,

'at a holistic understanding of complex realities and processes where even the questions and hypotheses emerge cumulatively as the investigation progresses. The possibility of 'objectivity' is questioned and instead the aim is to understand differing and often competing 'subjectivities' in term of very different accounts of 'facts', different meanings and different perceptions' (Mayoux, 2006, p.116-118).

As such, qualitative methods consider the social and cultural construction of variables, enhancing understanding of social phenomena (Silverman, 2000). In line with the philosophical perspective, importance is placed on reflexivity, *'by means of which researchers reflect on the contingencies during the research process which bore upon and helped to produce the data'* (Brewer, 2000, p.6). Qualitative methods therefore also address tacit knowledge by enabling the exploration of non-observable causation mechanisms and embodied responses to particular spaces. Using multiple methods meanwhile gives a fuller picture, enabling different perspectives of phenomena to be explored or conceptualised in various ways. In addition, different methods enable different research questions to be answered (Silverman, 2000; Mason, 2002). Data from different sources can

then be corroborated against each other to improve the 'credibility', and therefore 'validity' of the methods (Denzin, 1978 cited in May, 2002). This is known as methodological 'triangulation', which can improve reliability of the findings and increase a 'true' understanding of the situation (Mason, 2002). Mismatches collected from different perspectives however can occur and these need critical examination to understand their meaning (Law, 2003 cited in Bell, 2010).

Fieldwork Process

In addition to being structured by the philosophical and theoretical framework, the ethnographic approach and assumptions regarding the social reality, the methodological structure also evolved interpretively throughout the fieldwork in response to the following: critical reflections of observations, ethical considerations, data findings, experiences within the communities⁴ and practicalities such as time limitations.

Through this process the fieldwork became divided into three phases each utilizing particular methods (See Figure 3.1 for fieldwork phases). Methods were selected based on their ability to respond to the research objectives, their appropriateness for the context, the types of knowledge sought and the means to comprehend the social reality, as it is viewed. During each phase, interviews were simultaneously transcribed and data analysed, the findings of which were then used to inform and streamline decision making for the following phase, as advised by Bryant and Charmaz (2012). The purpose of this was to systematically develop grounded theory (Bell 2010), to encourage the, '*iterative process of moving back and forth between empirical data and emerging analysis*' (Bryant and Charmaz, 2012, p.1). As a result, findings and reflections from one phase informed methods used and the communities and open spaces studied in subsequent phases. This progressively focussed the collected data with the intention that the

⁴ For example people's reactions to me whilst conducting fieldwork.

analysis would successively become more theoretical. For, Bryant and Charmaz (2012) claim that this process enables possible theoretical explanations for findings to be examined.

Throughout all phases, additional interviews were conducted with various urban design professionals, academics and Non Governmental Organisations (NGOs) working with the communities under study. (See Appendix 10 for example of interview questions and Appendix 13 for the scope and focus of these interviews). A landowner was also interviewed to gain an alternative perspective. Where possible, cultural events such as festivals and national celebrations⁵ were attended, see Figure 3.2, and invitations to eat or drink with respondents accepted.

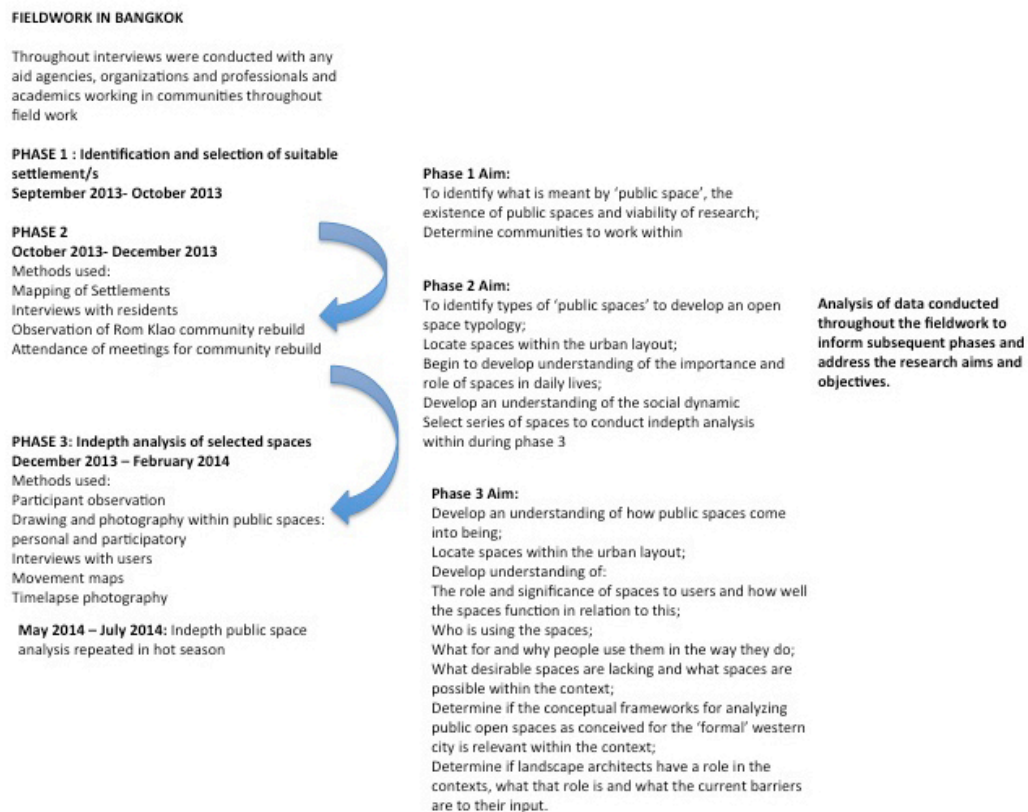


Figure 3.1: Pre fieldwork timetable detailing intended phases, methods and phase aims

⁵ This included attending celebrations for the King's birthday, social workers day and children's day.



Figure 3.2: Children's day festival, Khlong Toei

Study trips were attended with professionals working in the field, including Assistant Professor Pongporn Sudbanthad, to observe related projects (Figures 3.3-3.4), and meetings attended with the Community Organizations Development Institute (CODI) and Association of Siamese Architects (ASA) to discuss the research in progress and gain feedback. Khlong Toei was visited with Dr Akarin Pongpandecha, an expert in Thai cultural heritage, to identify culturally distinct elements. Until the coup in May, 2014 museums and galleries were also visited to gain insight into the history and cultural heritage⁶. Father Joseph Maier of the Human Development Foundation in Khlong Toei supported the fieldwork and acted as advisor and sounding board for fledgling thoughts and findings. Translators were worked with throughout the fieldwork and performed multiple roles: their presence increased my personal safety and they were able to advise where and when it was unsafe to be in an area; during Phase one they assisted in identifying suitable communities to work in; they assisted in mapping the communities during Phase two; they translated during interviews in all research phases as well as at community meetings

⁶ During the political problems it was difficult to visit public buildings due to demonstrations held in Bangkok or related public transportation issues.

following the Rom Klao fire; they explained my presence within a community and read the consent form and information sheet to those who were unable to read; they helped me to approach potential interviewees and assisted in creating a relaxed interview 'atmosphere'. Finally, along with Father Maier, interpreters gave personal insight and advice with regards to cultural traditions, behaviours observed, Thai history and interview responses.



Figures 3.3 and 3.4: Pier intervention in an informal settlement, Bangkok.

Throughout, fieldwork diaries were kept detailing the evolving methodological process including: observations, experiences and responses to situations; interpretations and reflections on theories, methods and data gathered; realisations, reflections and discussions held about Thai society, the communities and the open spaces identified. Being critically reflexive about my identity and positionality and the subsequent impacts on the data collection and generation formed a significant part of the diary entries. This is in line with the ontology, the nature of the fieldwork and the recommendations of Glass (2015); Mason (2002); Silverman (2000) and Tacchi (2003).

In order to partially overcome methodological issues relating to reliability, data partiality, 'truth', positionality, validity and representation, throughout the fieldwork I was reflective and reflexive with regards to courses of action and the impact my role and identity had on data collected (Johnson, 2012; Silverman, 2000; Glass, 2015). This is inline with the practices of critical realism. For, despite rigorous attempts to approach,

collect and analyse data and represent the communities from a neutral position, it is acknowledged that I entered the field with preconceptions based both on my institutional background as a landscape architect and my personal identity. Furthermore, I recognise that my and my translators positionalities impacted on social relations with participants, how they perceived us and what they chose to reveal or conceal from us. This is regardless of the methods used. Professional and institutional privileges, as well as aspects of personal identity, such as age, ethnicity, nationality, religion and gender, all influence a researcher's positionality. In my case, I am a white, 28-29 year old western, English speaking, non Buddhist, female, academic researcher. Privileges also entail having greater access to resources, such as education, professional status, 'powerful' contacts, such as NGOs and academics, money and employment opportunities inaccessible to the majority of community members (Rose, 1997). These again separated me from community members. Academic privilege additionally increased the power I had inherent in producing knowledge with respect to others (Kobayashi, 1994 cited in Rose, 1997). Furthermore, I was able to leave the communities, coming and going as I pleased. These 'facets of identity' consequently impacted on power dynamics occurring between myself and those I was researching, issues that resulted from the fieldwork and consequently the nature of the 'data' collected and how it became interpreted and presented as 'knowledge' (Sanghera and Thapar-Björket, 2008; Binns, 2006; Rose, 1997; Steier, 1991; Lockwood, 1993; McDowell, 1992; Wilson, 1993). Likewise, respondent's assumptions with regards to these 'facets', shaped by the political and cultural terrain and the daily vulnerabilities faced, will additionally have impacted on power dynamics occurring. For positionality; *'refers to the ways in which others position the individual identity and affiliation he/she may have'* (Sanghera and Thapar-Björket, 2008, p.553). Consequently, respondents most likely ascribed an identity on me that I don't necessarily construct for myself, or had prejudices against me based on my perceived identity, as discussed by Wilson (1993) and Doan and Portillo (2016 citing Ahmed, 2011; Purkaystha, 2010). For

example, people may have been distrustful of me as an 'outsider' (Sanghera and Thapar-Björket, 2008). This was particularly evident in Pom Mahakan, where I was often perceived as being 'an official'. It is impossible however for me to know exactly how I was perceived and the impacts of my and my translators positionality for identity is bound by space and time, changing depending on the research context, and whom an individual is communicating with at any one time (Doan and Portillo, 2016; McDowell, 1992). To try and minimise the differences and power inequalities between respondents and myself I always dressed respectfully without appearing overly formal or 'official'. I didn't wear jewellery or anything that looked expensive and I never wore sunglasses as I believed that these would create a 'divide' between us. The impacts of mine and my translators positionality on the methods used is discussed in more depth in 3.03 'Phase Two: Limitations and Reflections' and 'Phase Three: Limitations and Reflections'.

In summary, this second section has established that this research was framed by an ethnographic approach due to: the focus on people and the physical space of informality, the potential role of landscape architecture, and in response to the philosophical and theoretical frameworks. Secondly, in line with the tenets of ethnography, that multiple qualitative research methods were used to access the multiple forms in which this knowledge is held and the unobservable causation mechanisms. Thirdly, that the research additionally evolved interpretively, becoming divided into three phases with data analysed throughout to systematically develop grounded theory. Throughout, I was reflective and reflexive with regards to courses of action and the impact my role and identity had on data collected.

3.03 Fieldwork

Having detailed the philosophical and theoretical perspectives along with the methodological framework and given an overview of the fieldwork process this third chapter section focuses on how the fieldwork was

conducted. The section is divided into three subsections with each outlining one of the fieldwork phases and describing the methods used to meet the research aims and objectives.

Phase One: Objectives and Overview

For six weeks between September and October 2013 sixteen informal settlements and upgraded communities were visited within Bangkok and extensively studied. The objective of this visit was to **establish the existence of open spaces (objective one), justify the continuation of the research, and develop the rationale for conducting the second fieldwork phase within selected settlement(s).**

Community Selection

In 2000, 1208 slum settlements were identified in Bangkok with increasing numbers also found in suburban areas and adjacent provinces (see Figure 3.5) (NHA, 2002 cited in Viratkapan and Perera, 2004). To visit each community would have been impossible within the time period and also unnecessary; any findings can be verified and generalized by visiting a sufficient number of communities.

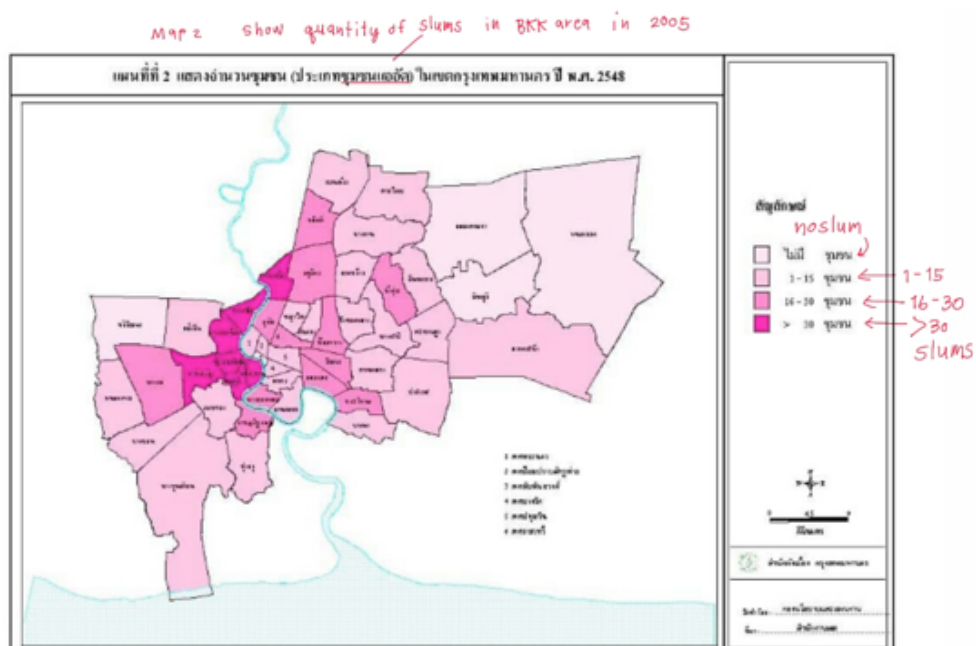


Figure 3.5: Map showing distribution of slum communities in Bangkok in 2005. (Chumchon in Bangkok, 2005. Map has been modified to show English translation)

Instead, three 'types' of settlement were identified as being of research interest, collectively addressing all six objectives: Type 1, older communities identified from a translated document - Chumchon in Bangkok (2005) - with a focus on those located within Bangkok's inner districts or along canal networks where slums traditionally developed. These were anticipated to have more established open spaces and uses. Type 2, a newly evolving settlement, anticipated to increase insights into how open spaces come into being and what is desirable. Along with Type 1 these were expected to address the first three research objectives. Type 3, CODI upgraded projects that presented the opportunity to analyse contemporary upgrading strategies in Thailand, addressing research objectives 4, 5 and 6. Communities were additionally selected based on: advice, personal safety and comfort, the potential for comparison, background literary information available, cost, ease and distance to travel. Also influential was the presence of NGOs or charities that, it was hoped, could give advice as well as overviews of the urban development and social dynamic and insight into local constraints. Some communities were also explored through convenience, chance or mistake⁷. Location of settlements visited is detailed in Figure 3.6.

⁷ Due to the location of nearby public transport services, the consequence of walking past a settlement, or whilst trying to locate a different settlement

including the existence of open spaces and community dynamic⁸. Time spent in a community depended on personal safety⁹, experiences whilst there¹⁰, weather conditions¹¹ and time required for travelling to and from a settlement.

Communities Selected for Phase Two Research

Following the scoping phase the following communities: Pom Mahakan; Rom Klao and Hua Khong in Khlong Toei; and Sapan Mai II and Chai Khlong Bang Bua in Bang Bua were selected for Phase Two research. Additionally, a small area of Rom Klao, rebuilt following a fire, was observed. These communities were selected because it was anticipated that they would best enable the research aims and objectives to be addressed including the opportunities presented by the urban layout¹² and initial impressions and experiences. Following a brief description of the community's history, other reasons influencing decision making are explained below for each community:

Pom Mahakan

Pom Mahakan (Mahakan Fort) (See Figure 3.7) is located on Rattanakosin Island, the historic centre of Bangkok, close to the Grand Palace. The community was founded approximately 250 years ago on a 100 metre wide strip of land between a fortified city wall, built during the period of Rama 1 (1782- 1809), and a *khlong* (Bristol, 2005). Throughout Pom Mahakan, 'ancient' (*'booran'*) hardwood houses built between the Second and Sixth Reigns exist (Herzfeld, 2003). Soi's run across the length of the settlement, parallel to the city wall and khlong, and perpendicularly between the two. Large, mature trees exist, many of which are sacred, and a series of open spaces including a large central courtyard and two smaller courtyards. (See

⁸ In Pom Mahakan a resident also gave a tour of the community

⁹ For example, in Khlong Toei a resident advised us to leave before 5pm

¹⁰ For example, the atmosphere or reaction received from residents

¹¹ Heavy rain prevented spending long periods outdoors

¹² For example 'cluster' formation settlements presented more opportunity to discover open spaces than those with a linear formation.

Figure 3.7). In 2003, at least, Pom Mahakan was a predominantly Buddhist community with many residents arriving less than 40 years previously from Isaan, communities closer to Bangkok and elsewhere (Herzfeld, 2003).

The majority of the community have been classified as ‘squatters’¹³ by the Bangkok Metropolitan Authority (BMA), who have for the past twenty years been attempting to evict the community in order to expand economic development in the area. In response, residents proposed an alternative plan with inhabitants acting as guardians for the historic site conserving and maintaining both the natural and culturally historic features. In doing so they have, *‘maintained their living space as a clean, tranquil oasis that contrasts dramatically with the noise and pollution outside’* (Herzfeld, 2013, 11). As part of this rationale, the major reasons given for remaining were culturally defined including: the age of the houses and the fact ‘traditional’ occupations and socially productive amenities are represented. This includes the production of wooden birdcages, food and vending as well as dance, *likae* performances, a Thai tradition that first took place in Bangkok in Pom Mahakan and kick boxing schools (Herzfeld, 2003; 2013). The history of the community is documented on signposts and in displays, along with photographs of traditional Thai cultural events and use of open spaces.

Age, establishedness of the open spaces, existence of historical documentation¹⁴ and deliberate preservation of the cultural heritage by the community therefore informed selection of Pom Mahakan. It was hoped that researching in Pom Mahakan would also increase knowledge of traditional use of open spaces and that this could be used to inform questions and analyse findings from other communities.

¹³ as few, if any residents held documented legal title to their land (Herzfeld, 2003).

¹⁴ A library of historical photographs apparently existed, however it was not possible to gain access to this.

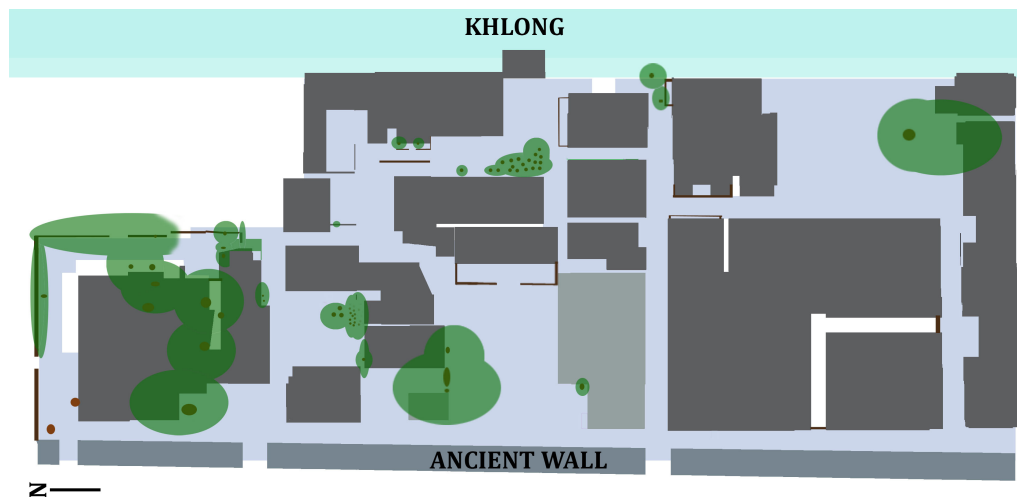


Figure 3.7: Plan of Pom Mahakan. Dwellings are shown in dark grey, trees in green, open spaces in blue and community buildings in light grey (Bristol, 2005 amended with colour and text. Location of dwellings and trees updated to show existing. Waller, 2016).

Khlong Toei

'Klong Toey is not an easy place to live. It's a constantly morphing and moving living phenomenon, never stopping to take a breath' (Barker, 2012, p.32).

Khlong Toei is located on Port Authority of Thailand (PAT) owned land, with many of those who settled there in the early 1950s attracted by the requirement for labour at the newly opened river port of Bangkok as well the nearness to the city and shortage of affordable housing in Bangkok (Askew, 2002; Saun, 2010; Mutunayagam, 1974). Today, Khlong Toei is the oldest and largest slum in Bangkok (Turtle, 2013; Ghosh, 2012; Askew, 2002). Due to its size and notoriety, more has been written about and is known of the socio-economic history, political mobilisation against eviction and the role of Khlong Toei in the city than any other slum in the city (Barker, 2012; Askew, 2002). Khlong Toei is currently said to be home to around 100,000 people¹⁵ (Saun, 2010; Ghosh, 2012) with current residents descending from the original settlers who migrated from China and Thailand, particularly Isaan, and in more recent years, Cambodia, Laos and

¹⁵ It is important to highlight, however, that many of the children born in Khlong Toei are unlikely to have been registered at birth and therefore this figure is likely to be far higher (Unicef, 2015).

Burma. In 2014, when this research was conducted, around 21 communities existed in Khlong Toei varying markedly in history, size, security of residents and socio economic status (Askew, 2002). The settlements range from cluster formations, linearly orientated along canals, roads and a railway track, blocks of National Housing Authority (NHA) flats and the NHA formally laid out 70 Rai. The built form is generally described in the literature as: *'a sprawling mass of tin roofs in a swamp, its houses built on stilts over waist-deep water, with narrow, precarious plank walkways linking the shacks to dirt roads'* (Askew, 2002, pg.152).

The 'water' described is stagnant and filled with algae and rubbish, with dwellings often flooded. Despite differences between the communities, the ten most common, and often overlapping, challenges faced are, according to Barker (2012, p.45-51):

- 1.) Insecurity of tenure, with Khlong Toei neighbourhoods experiencing numerous forced evictions, undermining well-being and personal safety and creating a sense of insecurity (Ghosh, 2012; Crooke, 2011).
- 2.) Poorly built dwellings. The constant threat of eviction prevents investment in housing and infrastructure with cheap and accessible construction material often used that can be dangerous or hazardous. Housing is also, *'in a constant state of temporary renovation and adaption'* (Barker, 2012, p.39).
- 3.) A lack of long term planning for roads, sewage, paths, water, education and other infrastructure leading to a lack of access to adequate electricity infrastructure and increased risk of fire threats.
- 4.) Overcrowding, a hazard that has health and social implications linked to an increase in infectious diseases, domestic abuse, child abuse, violence, mental illness and limiting child cognitive and psychomotor

development. This can have serious negative impacts on whole generations of residents.

- 5.) A lack of secure employment. Approximately 5 percent of people living in Khlong Toei work as daily rated labourers at the Port Authority. Several thousand are also involved in largely low paid, unskilled jobs in other parts of Bangkok, with the majority working in the 'informal' sector¹⁶ including as food vendors, drug dealers and garland makers. These occupations leave workers vulnerable to exploitation, higher risk and lower levels of pay than most formal sector jobs. It is common however, for households to be involved in both the formal and informal sectors (Askew, 2002; Barrett, 2012; Barker, 2012).
- 6.) Inadequate sanitation due to a lack of basic infrastructure for sewage and clean water leading to related health issues including pneumonia, diarrhoea, malaria, measles and HIV/AIDs. The most vulnerable in Khlong Toei face these conditions daily, to varying degrees.
- 7.) Organised crime syndicates and corruption, with Khlong Toei a base for prostitution, gambling and drug trafficking rings, with few aspects of work and life untouched by these.
- 8.) Lack of adequate schooling and educational opportunities, particularly for women, with education inaccessible and unaffordable for many (Barker, 2012; Askew, 2002; Crook, 2011). In Khlong Toei there are an array of schools run by the government and Non Governmental Organisations (NGOs). However, the dropout and absentee rate is high with children often ill or pressured to assist families financially by working. Teenage pregnancies are also common with mothers then

¹⁶ Informal sector enterprises are those '*established outside the legal framework of registration, involving few formal skills and qualifications, and primarily maintained by family labour*' (Askew, 2002, pg.142).

dropping out of school (Barker, 2012; Ghosh, 2012; Duang Prateep Foundation, 2008). Employers and schools meanwhile often have a bias against people from Khlong Toei so they can never get a first job, perpetuating the cycle of hopelessness and long term costs and challenges (Barker, 2012; Turtle, 2013).

- 9.) Dangerous dumping grounds, with unwanted rubbish, chemical waste and refuse often dumped with the resultant environmental hazards linked to *'the succession of chemical explosions, fires and mystery illnesses'* (Barker, 2012, p.49).
- 10.) Marginalisation, oppression, injustice and despair increasing susceptibility to the 'culture of poverty' identified as including: unemployment and lack of cash reserves and food, emphasis on the present and immediate gratification, suspicion and apathy towards institutions, mistrust of the government and police and producing little wealth (Lewis, 2002, cited in Barker, 2012, p.51). The resultant vulnerability increases problems including cycles of violence and drug use (Barker, 2012; Turtle, 2012)

Despite these challenges, both Gray (1989) and Barker (2012) highlight the, *'warm sense of belonging to a community not unlike the rural villages from which their parents migrated in search of a better life'* (Gray, 1989 para. 6 of 28).

Of the twenty-one communities in Khlong Toei, two, Rom Klao and Hua Khong, were selected for study for the research. As well as the volume of literary data regarding Khlong Toei, these communities were selected for the following reasons:

Rom Klao, Khlong Toei

Following a fire nineteen years ago the Rom Klao community was rebuilt on a grid layout (see Figure 3.8) to aid in fire escape. The grid layout, existence of a planned open space, and claims by an interviewee (HK6) that

the community layout was better than that of the adjacent Hua Khong community, additionally made the community of potential research interest.

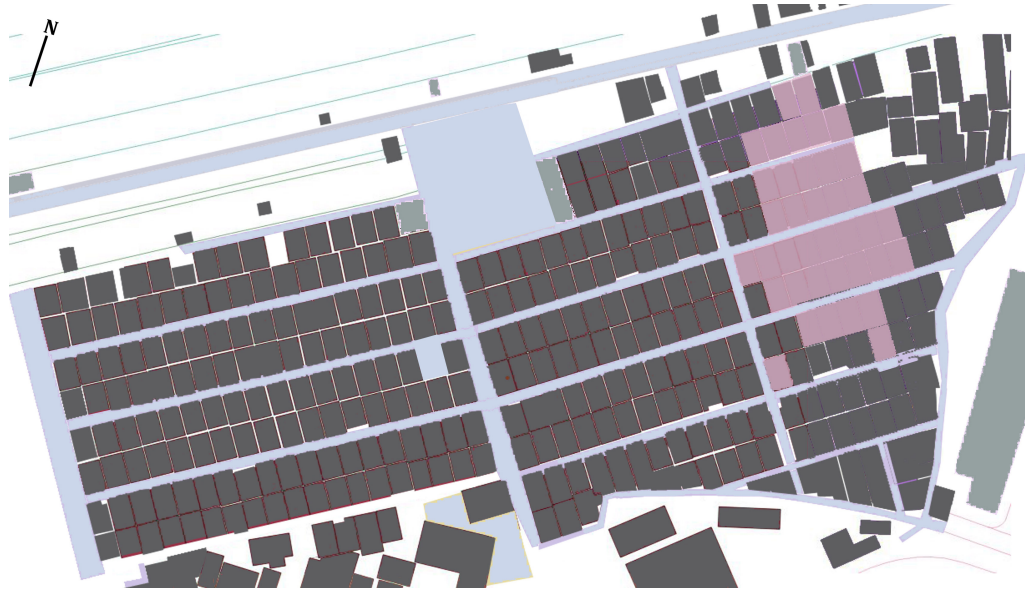


Figure 3.8: Plan of Rom Klao. Dwellings are in dark grey, open spaces in blue, community buildings in light grey and the area affected by the fire highlighted in pink.

The reconstruction of Rom Klao

On the nineteenth of October 2013 a fire broke out in a Rom Klao household leading to a total of thirty one houses burning down and forty nine partially damaged households, see Figure 3.8 above for location. Observation, documentation and analysis of the rebuild, along with attending community meetings, was anticipated to address the first three parts of objective 1 as well as objectives 2, 4 and 5. Documenting the reconstruction was elected as a suitable substitute for a newly evolving community as it was not possible to gain access to one during phase one.

Hua Khong, Khlong Toei:

An example of an established, unplanned settlement with limited upgrading intervention, see Figure 3.9. Hua Khong is seemingly representative of how communities originally developed in Khlong Toei¹⁷.

Due to the proximity of this community to Rom Klao, mapping here additionally enabled continued observation of the rebuild.



Figure 3.9: Plan of Hua Khong. Dwellings are in dark grey, open spaces in blue.

Sapan Mai II and Chai Khlong Bang Bua, Bang Bua

Located along a thirteen kilometre stretch of Khlong Bang Bua in the Bang Khen district of Bangkok, thirteen communities and approximately 3,400 families comprise the Bang Bua community. These communities have been there for over a century and were officially termed as squatters on public land. Many of those who live there work as construction labourers, market sellers, vendors or in various jobs in the vicinity (CODI, 2006a; CODI, 2006; 2008).

In 1996, following the threat of eviction and in collaboration with, among others, the two district (*khet*) authorities on either side of the canal, CODI and Sripatum University, all 13 communities joined the *Baan Mankong* Community Upgrading Program¹⁸ and formed a network known as ‘the Canal Community Network’. The network was then able to successfully negotiate a thirty year lease of the land they occupy from the landowners. This was the Treasury Department, the first case of this occurring in

¹⁷ In Khlong Toei there are approximately twenty communities. Of these, following a literature review and analysis of historical maps and interview data, Hua Khong was established to be among the oldest and least upgraded beyond paths and sewage.

¹⁸ See context chapter, section 3.04 ‘Bangkok, 2000 – 2016’ for more.

Bangkok (CODI, 2006; CODI, 2008). Having gained security of tenure, residents developed plans with Sripatum University and CODI to upgrade their housing and living conditions in situ, in phased developments. Using low interest loans from CODI and community labour, all existing stilt houses are to be demolished and houses rebuilt in three types: detached, double 'twin' and row houses (CODI, 2006; CODI, 2006a; CODI, 2008). Infrastructure has also been upgraded with a three metre wide pedestrian walkway built on both side of the canal linking all communities, where dwellings use to stand (CODI, 2008; CODI, 2006). In 2014, when this research was conducted, some properties continue to project over the water. Space has been allocated for tree planting on the houses side of the walkway which the communities apparently see as, *'an important pedestrian amenity, providing space for children to play, people to visit and vending carts to see their food and wares'* (CODI, 2008, p.23).

The walkway is not to be used by vehicular traffic other than emergency services (in a bid to prevent gentrification). As part of the upgrade a concrete retaining wall is intended but was yet to be built in 2014 (CODI, 2006). Nets have been set up to catch solid floating waste and *pak boong* (morning glory greens) are grown along the canal edge as a natural cleanser for the polluted water (CODI, 2006). According to CODI (2006), community members earn enough from collecting and selling the *pak boong* in the market to send their children to university. UN Habitat (2012) claim that the *Baan Mankong* project stands out for its community led approach to slum upgrading.

Of the thirteen communities, two were selected for analysis based on community dynamics and politics, size and level of upgrade: Sapan Mai II and Chai Khlong Bang Bua (see Figures 3.10 and 3.11 respectively). These communities represented the opportunity to assess the success of current participatory upgrading processes in Thailand and address research objectives 4, 5 and 6. Initially I was unaware that Bang Bua comprised of more than one community thus explaining why two were studied.

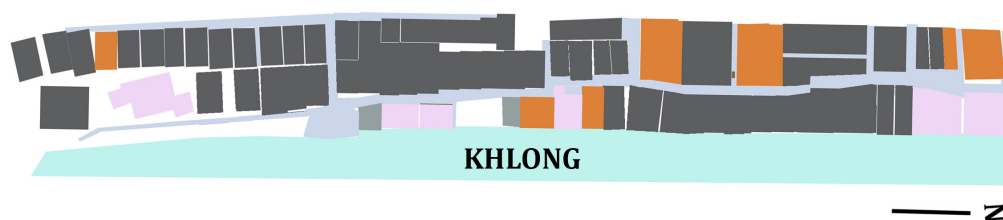


Figure 3.10: Plan of Sapan Mai II. CODI buildings are in dark grey, open spaces in blue, buildings underdevelopment in orange, community buildings in light grey and original dwellings in purple.



Figures 3.11: Plan of Chai Khlong Bang Bua. CODI buildings are in dark grey, open spaces in blue, community buildings in light grey and original dwellings in purple.

The number of communities for Phase Two analysis was limited to five for the following reasons: the time frame available - Phase Three needed to be started during the winter season for seasonal comparative purposes; it was felt that analysis of these communities would be sufficient for addressing the research objectives; limiting the number of communities increased time spent within each community and opportunities for residents to become comfortable with my presence- this was highly influential on the possibility of conducting the research.

Phase Two: Objectives and Overview of Methods Used

From October to December 2013 the five communities were systematically mapped and residents interviewed. Mapping, in conjunction with interview responses, located open spaces within the urban layout. Interviews discussed how open spaces came into being and their use, meaning, significance and role, **the objective of which was to develop an open space typology and address the first three research objectives. Developing an understanding of the social dynamic and ownership politics was also a focus, partially addressing objective 4 (the current barriers to the involvement of landscape architects working within informal settlement contexts).**

Between the 21st of October and 11th of November, 2013, the redevelopment of Rom Klao following the fire was also observed and the majority of related community meetings attended. Throughout Phase Two photographs and videos were taken for analytical purposes as well as a means of representation. The methods selected informed and enriched one another, for example, observations informed questions, and vice versa interviews were used to clarify observations¹⁹. During this period I attempted to be in the communities from 8am to 5pm to increase insight into the changing use and users of open spaces. Phase Two ended because Phase Three needed to begin in January. In addition, by December mapping and interviews stopped revealing new data and fewer people agreed to interviews or had already been asked. The reason for selecting each method will now be expanded on and manner of application described.

Map Making and Walking

To create the maps an initial base map depicting dwelling location was obtained or hand drawn and dwellings, use and hard and soft landscape features systematically noted (see Figure 3.12 for example of map making in progress). Community boundaries were determined through interviews with residents.

The decision to map and draw each community was inspired by ‘Stalker’, an Italian collective, including architects, artists and urbanists, who sought to traverse, document and critically and creatively engage with uncharted *terrain vague* and the marginalised peoples located there. Drawing inspiration from a broad range of sources, including the conceptual arts, the Situationists, contemporary anthropology and postmodern philosophy, Stalker developed experimental fieldwork methods that transcended the preconceived ideas of traditional architectural and urban design practices, language and boundaries (Lang,

¹⁹ For example, whilst observing the rebuilding process the importance of doorsteps as socialising spaces became apparent. This observation was used to inform questions whilst mapping the other communities.

2007; Lang 2008; Milgrom, 2008). For, they claim these practices are unable to adequately interact with and document the fluidity of developing and heterogeneous societies. As well as, *'informal patterns of settlement [that] are reshaping entire social and geographic relationships'* (Lang, 2007, p.206).

This experimental approach draws parallels with the theories of Lefebvre who additionally influenced the early days of the Situationist's movement. The Situationists, for example, preoccupied themselves with the, *'first object one comes across, at random and carefully noting its personal characteristics in order to be able to integrate it into a general context without destroying it or reducing it to semi-abstraction'* (Kroll, 54 cited in Milgrom, 2008, p.276). Their search was for 'alternative urban visions' to depict differential space acknowledging, *'no boundaries; it aims to form a unitary human milieu in which separations such as work/leisure or public/private will finally be dissolved'* (Debord, 1959 cited in Milgrom, 2008, p.275).

Stalker's intentions and inspirations can therefore be seen to share some of this research's concerns such as public/private dichotomies and traditional methods of analysing and understanding space. My own map-making consequently became an important rejection of the concept, proposed by UN Habitat (2012), that normative cartography, such as aerial photography, GIS or urban surveys, to produce *'transparent and accessible'* (p.33) data and analyse slum communities are enough to understand a 'place' (Wiley, 2008). Instead, the act of walking the *sois* (streets) and physically immersing myself within the social and urban fabric became the means to witness and engage with the differences inherent in the urban morphology. Understanding of the social and spatial practices occurring and people's relationship with their environment was also increased. This enabled perceptions, knowledge and detail, often lost to more standard methods of surveying, to be increased and captured as advised by Ingold and Vergunst (2008), Milgrom (2008) and Lang (2007). Guy Debord described this

process of drifting through urban environments as a '*derive*' (Lang, 2007; Milgrom, 2008), that opens '*one's perception to its 'psychogeographical effects'*' (Careri, 2002 cited in Lang, 2007, p.198)²⁰.

Thus, map making became bound up with walking and observation. Each *soi* was walked repeatedly at different times, and activities, features, light levels and atmosphere recorded (see Appendix 1-8 for completed maps²¹). The ambition of this method was to 'absorb' the true experience of the urban realm as advised by Bacon (1992 cited in Carmona et al., 2010). An additional benefit of walking, as Ingold and Vergunst (2008) contend, is that walking is, '*a profoundly social activity..... the feet respond as much as the voice does to the presence and activity of others. Social relations, we maintain, are not enacted in situ but are paced out along the ground*' (p.1). Walking became the means to see and be seen, a way of becoming recognised and increased engagement with various community members. Mapping and walking in turn became bound up with video, photography, fieldnotes, interviews and audio recordings. Observations were recorded and sensory notes taken concerning atmosphere, smells, personal responses, textures, encounters and aspects such as light levels. As new themes of interest became apparent the communities were rewalked and newly identified elements added to recordings²². Thus the mapping process was flexible and responsive to findings.

²⁰ Wherein the geographical environment has a particular atmosphere and configuration of power relations that impact on the emotions and behaviour of individuals (Wiley, 2008).

²¹ At the request of residents maps produced of Pom Mahakan have not been included

²² For example, as light and shade was recognised as influencing spatial use balconies, overhangs and roofs were added to the maps.

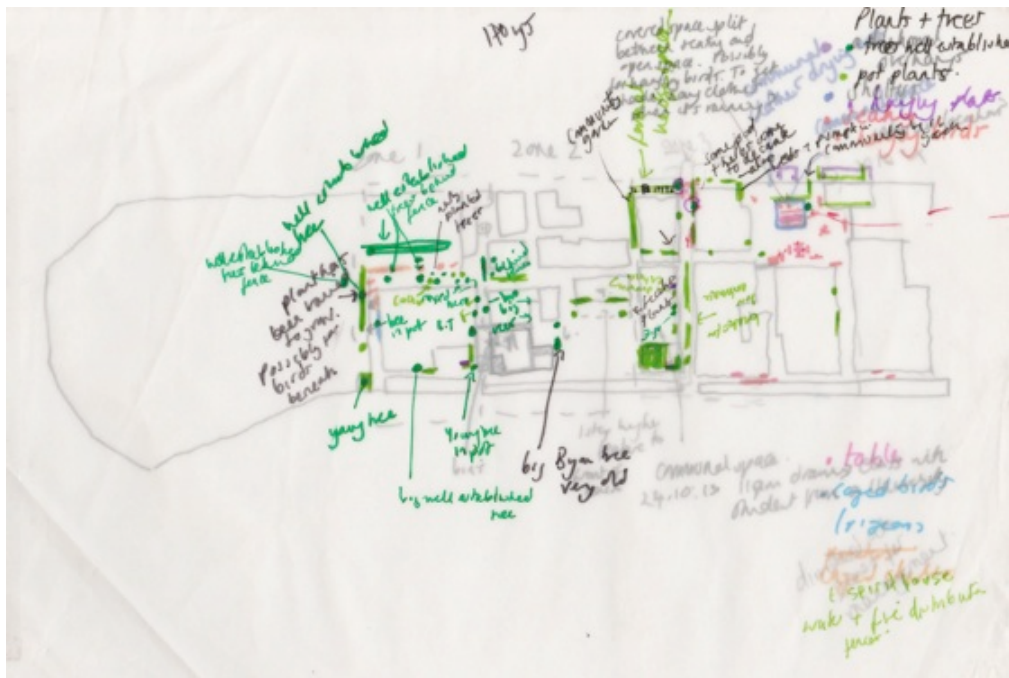


Figure 3.12: Example of map-making in progress. Layers of tracing paper were used to document the different spatial elements in Pom Mahakan.

This mapping of socio-spatial conditions is known as ‘transurbance’.

Transurbance is, ‘a kind of oppositional map, where the map is understood in two senses: as a process of investigating a territory (“mapping” as a verb), and as a means of representation (a “map” as a noun)’ (Wiley, 2008, p.1).

Thus, the finalised maps, along with imagery, notes and sound recordings, are also useful as an analytical tool; for locating open spaces within the overall ‘logic’ of the urban layout; as a means to explore relationships between open spaces and users; for exploring the relationship between open spaces; for tracing changes in use or to the urban form during the fieldwork period.

Interviewing

Interviews were conducted for two main purposes: firstly, they are a valuable method for eliciting specific ‘factual’ information. This was important as data regarding the urban consolidation process and existence of open spaces either does not exist or is not accessible. Secondly, as Bell (2010) states, unlike questionnaires or surveys, the flexibility of interviewing enabled the exploration of explanations, opinions, attitudes and personal insights, feelings and reflections. Additionally, ideas could be

followed up, questions developed, answers clarified and responses probed. This was important because interacting with and gaining access to a participant's situational knowledge, perceptions, understandings, interactions and personal experiences is considered by the ontological perspective to be the most meaningful information for developing an understanding of the lived social reality (Willis, 2006; Mason, 2002). Practically, interviews were also more suitable for working with illiterate participants²³. Focus groups meanwhile were ruled out during Phase One as there were no incentives for residents to attend²⁴.

As advised by Willis (2006), and in line with the philosophical perspective, attempts were made to interview males and females over the age of sixteen in order to gain different opinions and perceptions based on personal experience and situational knowledge. In general, children were not interviewed until Phase Three by which time it was hoped my presence was more accepted and relationships with community members more developed. This was considered to be less intimidating and therefore more ethical, protecting children's well-being. All interviewees were approached, or approached myself, in an open space or community building such as a café as they went about their daily business. See Figures 3.13- 3.17 for examples of interview locations in Hua Khong. See Appendix 14 for list of interviewees in communities studied.

²³ Many older members encountered were illiterate or had poor eyesight ruling out questionnaires.

²⁴ As some residents encountered stressed they had little free time it was deemed that people would be unlikely to attend focus groups without an incentive. It was felt however offering payment of some kind would make my position within the communities as a 'neutral observer' difficult.



Figures 3.13 –3.17: Various interview locations in Hua Khong, with interviews conducted whilst many people cooked, cleaned and worked

As Bell (2010) suggests, interviews were conducted where the participant felt most comfortable; generally where they were approached or occasionally inside a dwelling. To assist in creating a relaxed atmosphere, I would sometimes eat or drink with interviewees if invited to do so. In general, interviews were conducted one on one with some group interviews occurring. All interviews were recorded unless permission was refused, in which case notes were taken. For those unable to read and write, the information sheet and consent form were read to them and verbal consent obtained. (See Table 3.1 for age spread and gender of respondents per community studied).

Interview questions predominantly sought to determine: the existence and location of open spaces; reasons for their creation and location; their use and users; their role and significance and what more interviewees required in terms of open spaces. Leaders of each community, other than Pom

Mahakan²⁵, were also interviewed with questions focusing on community decision-making and dynamic; social problems; ownership negotiations and the consequences/realities of outsider intervention.

Table 3.1: Age spread and gender of community participants

Community	Male	Female	Total
Pom Mahakan	4 (aged 25-48)	7 (aged 17-68)	11
Hua Khong	6 (aged 32-62 includes the community leader)	17 (aged 17-84)	23
Rom Klao	6 (aged 31-72 includes the community leader)	13 (aged 17-68)	19
Bang Bua (both communities)	4 (aged 8-43 includes a community leader)	11 (aged 35-86 and including the community leader's daughter)	15

Questions, along with interviewee selection, question phrasing and interview style was initially informed by: background literature; the research objectives; findings from Phase One and personal interpretation of relevance or acceptability: informed by my training as a landscape architect and personal understanding of the world. New questions were introduced; questions amended and question phrasing²⁶ and the interview process, observations made and photographs taken refined²⁷ throughout Phases Two and Three, however. This was in response to: identification of gaps in my understanding; reactions²⁸; emerging themes and identification

²⁵ Despite making several attempts to interview the community leader it was not achieved during the fieldwork period

²⁶ For example, one interviewee stopped an interview apparently because she thought, based on the question phrasing, we were asking her to criticize the community leader.

²⁷ Time was spent ordering questions so that interviews became less disjointed and flowed better

²⁸ Varying from positive and enthusiastic when interested in discussing the question, to negative, if questions were taken offensively, to amusement where both participant and translator would laugh.

of a gaps in findings; realisations²⁹; relevance; ethical decision-making³⁰; and reflections on experiences, encounters and observations. (See Appendix 9 for example of amended interview questions for residents). Throughout, the suitability of asking a participant particular questions was also gauged. Consequently, and as discussed by Bell (2010), questions and phrasing became more culturally sensitive, understandable for participants, relevant to the context. As a result, interviews felt less disjointed, reached more indepth and relevant answers and became less leading- a problem caused initially by issues of translation. In turn, it was felt the interviewing process became less stressful for all concerned and therefore more ethical, generating, *'a fairer and fuller representation of the interviewees perspective'* (Mason, 2002, p.66).

Refinement and development of questions was aided by use of a semi-structured format. This format was considered to be the most applicable as it allowed participants to develop responses and discuss opinions and ideas whilst ensuring important questions were covered within the limited time available. Consequently, topics and interpretations unforeseen by myself were generated by responses that chimed with another participant's, as described by Willis (2006) and Bell (2010). The freedom allowed by the format additionally increased rapport with the participant and helped in creating a more relaxed atmosphere. As part of this, general opener questions, such as 'what do you do with your day', were asked, as suggested by Willis (2006), and non-research related topics often discussed. To further attempt to reduce potential anxiety caused, a conversational tone was struck throughout interviews³¹.

²⁹ For example, it was realized whilst interviewing in Hua Khong that public/private concepts differ to those in England

³⁰ For example, it was found that some questions were interpreted in a manner, which caused distress with questions reformed to avoid this. For example, asking how a respondent would feel if the sports park no longer existed.

³¹ This appeared to help put the interviewee at ease who would often talk about topics of importance to them, such as their children or the activity they were engaged in when approached.

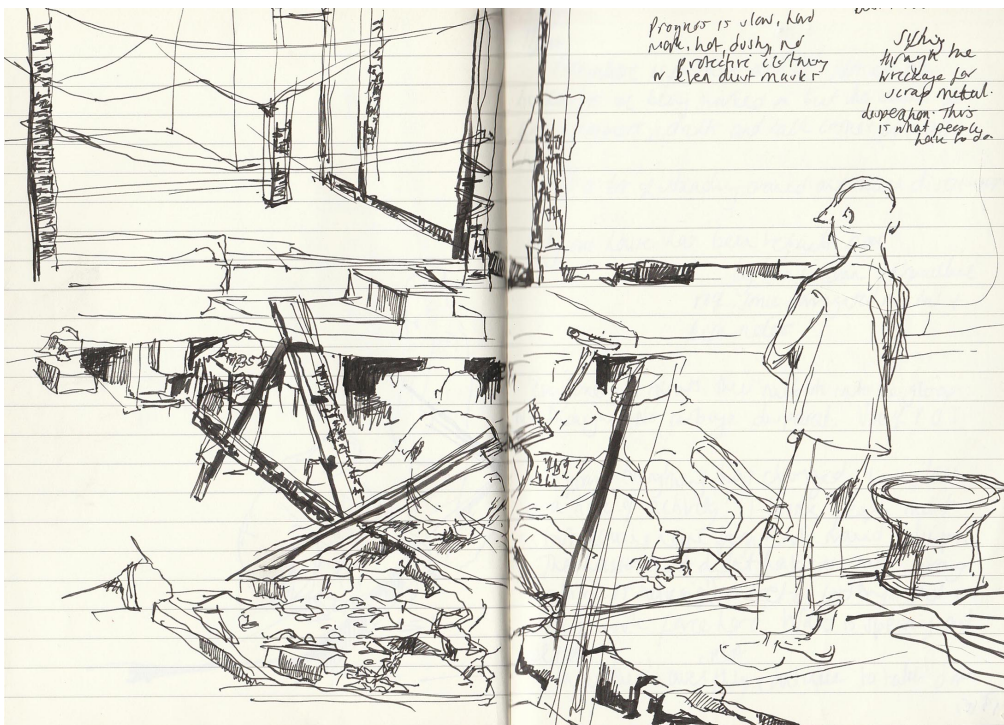
Fire Reconstruction: Participant Observation, Photography and Drawing

The rebuilding process in Rom Klao was observed approximately two days following the fire once it was safe to be on site (see Figure 3.18). For the following three weeks observation over varying time periods took place every one or two days between 6am and 6pm, when community meetings began. Following this, the area was frequently returned to during Phases Two and Three and activities and changes documented. The primary objective of observation was to gain an insight into the urban consolidation process, including construction priorities and difficulties faced (objectives 1, 4). A secondary objective was to gain insight into the evolving use of space prior to and during redevelopment (objective 2). A third objective was to identify how open spaces become appropriated and how this process is negotiated (objective 2).



Figure 3.18: Devastation two days after the fire, Rom Klao

Participant observation is recognised as a distinguishing tenet of ethnographic research (Brewer, 2000 ; Kees van Donge, 2006; Mason, 2002), with people's actions and behaviours and reactions to these also central to critical realism, ANT and embodied practice (Mason, 2002; Conradson, 2003; Simonsen, 2007). Thus, emphasis was placed on observation as a method. Furthermore, the PPS advise that, '*[w]hen you observe a space you learn about how it is actually used rather than how you think it is used*' (2000, p.51 cited in Carmona et al., 2010, p.208).



Figures 3.19-3.20: Sketches documenting the rebuilding process, Rom Klao.

The construction process, space creation and use of open spaces were documented through photography and film. This included taking a timelapse record of the rebuild whilst observing. Where photographing was felt to be intrusive or inappropriate, field sketches and notes were recorded instead, see Figures 3.19-3.20 for examples. Drawing also

encouraged proper 'looking' at the unfolding scenario, as advised by Kabir (2012). When drawing felt inappropriate due to the circumstances, documentation was limited to the research diary and some photography. (For more on observation, photography and drawing see Phase Three).

Community Meetings

Almost all community meetings were attended, in total nine. Meetings were attended by fire victims and community support teams and lasted between thirty minutes and three hours. Meetings were run by community leaders and included discussions regarding: monetary, food and clothing donation updates, how the money would be distributed including each dwelling getting lighting, toilet bowls, construction materials, roofing and wall cladding, electricity and water sources; that the Human Development Foundation would survey and document each dwelling affected and those who lived there and negotiate on behalf of householders with the government for compensation (see Figure 3.21); agreed dwelling sizes and heights and reasons for constraints including landowner stipulations and health and safety.

In conjunction with observation, meetings gave insight into the community's negotiations over space, the construction process and the challenges faced by slum dwellers when developing the urban environment³².

³² This included the many negotiations and altercations between the authorities, landowner and community members.



Figure 3.21: Meeting held in the Rom Klaho preschool. To the left a lady is recording victim's details including their legal documentation, number living within a dwelling and occupation.

Phase Two: Limitations and Reflections

Each of the methods used during Phase Two are acknowledged to have limitations which impact on data partiality, reliability and validity. This section reflects upon my positionality and the impacts this had on the design and practice of the research methods, the impacts of my translator's positionality on the data collected, and the other main methodological limitations encountered.

Positionality

As outlined in section '3.02 Methodological Framework and Research Process: Fieldwork Process', I acknowledge that I, as a community outsider, would have been likely to influence interviewee responses with my positionality framing relationships and setting the 'tone'. Within the communities, I was often introduced as a university student and therefore most likely perceived as affluent, of high social status, with material and academic privilege, which academics (e.g. see Adams and Megaw, 1997

cited in Binns, 2006; Rose, 1997; Doan and Portillo, 2016) have observed as creating complex and unequal relations of power and privilege. As highlighted by McLafferty, (1995 cited in Rose, 1997) and Staeheli and Lawson (1995) I also had the privileged position of selecting which questions to ask, deciding who the translator and interviewee were, and directing the flow of the interview. What each thought of the other and what the questions meant to interviewees will all have impacted on the power dynamics and disparities occurring, reinforced by the perceived formality of consent forms and the presence of the dictaphone. Consequently, respondents may have told me what they believed I wished to hear (Howard, 1994 cited in Binns, 2006), particularly due to the social norm of 'saving face'³³. Other perceptions or identity facets may have helped me access certain data however. In particular, the fact that I am female, and was often described as 'gentle' by interviewees, meant that more people, particularly women and children, seemed to open up to me than had I been male or perceived as being dominant. Conversely, people may have wished to protect me from revealing certain distressing details due to their perceptions of me and in relation to my gender. During interviews, my position also changed, as described here by Peace (1993 cited in De Laine, 2000), '*depending on the circumstances, and the power and powerlessness of all those involved*' (p.120). It is documented that the research subject can also exploit power relations and have hidden agendas and vested interests, with the researcher vulnerable (McDowell, 1992; de Laine, 2000). It was notable during the research that community leaders had the power to both facilitate and constrain the research process by influencing who would agree to interviews and how they would respond (Sanghera and Thapar-Björket, 2008). For instance, in Bang Bua Sapan Mai 11 and Pom Mahakan, many interviewees responded that it was a matter for the *Gumagun* when asked their opinion on various aspects. Being seen with a particular community leader or individual may also have alienated

³³ In Thai culture it is common for people to say things so that they don't upset another person or say what they think the other person wants to hear rather than what they actually think

others, impacting on interview responses, as described by Lockwood (1993).

To try and challenge any preconceptions and to reassure respondents and open space users as to why we were there, I always explained who I was and why I was conducting the research and was open to them asking questions about me. I ensured my translator and myself were never pushy, always polite and tried to be unobtrusive and sensitive as advised by Binns (2006) and Sanghera and Thapar-Björket (2008). I also made sure that I was *'informed and sensitive to local socio-cultural contexts'* (Scheyvens and Storey, 2003: 170 cited in Binns, 2006, p.20), to reduce the likelihood of inadvertently upsetting people, and also as a sign of respect. To try to reduce power imbalances and make people feel more comfortable I tried to set the tone as a 'conversation'. I also always emphasised how the data would be used and explained the likely outcomes of the research in order to reduce suspicions and any feelings that I was treating people as 'mere objects' of research rather than 'subjects' (Sanghera and Thapar-Björket, 2008) and so that expectations weren't raised regarding the outcomes of the research to reduce feelings of disappointment or betrayal (McDowell, 1992). If I was asked to stop an interview I always did, and stopped researching entirely in Pom Mahakan when concerns were raised about the need for the permission of the community leaders. I also agreed not to make certain information public and have chosen not to publish the Pom Mahakan community map within this thesis as this may have compromised community member's positions. I acknowledge however, that it was impossible to create equality between us (Rose, 1997).

The visual methods used (map making, photography and drawings) were also affected by my positionality as material extensions of my mental perspective. The way I interpreted the communities, what my attention was directed towards, and what I deemed as being meaningful for representing or capturing was again mediated by my personal and professional identity, preferences, perspective, thoughts and worldview.

This is in terms of activities occurring, the physical environment, objects and facts (Grasseni, 2004; da Silva and Pink, 2004; Ramos, 2004; Rose, 2001). My disciplinary and professional background as a landscape architect in particular has given me a particular and narrowed perspective for surveying and dissecting open spaces with the specialised language of the profession additionally impacting on my analysis. My training and practice additionally meant I paid special attention to elements I perceived as being culturally meaningful or of value and interest to the thesis objectives, with other aspects becoming invisible to me. Additionally, my personal identity influenced how I understood how people should behave in public. For example, notable assumptions that initially guided my work were concepts relating to how public and private space should be used and what public space should look like. Consequently, I initially overlooked tables and chairs as having value and misunderstood public/private relationships. The drawings, photographs and maps produced for this thesis, as with the interview data, are framed and selective in what they reveal, simply fragments of a wider context of cultural knowledge and experience (Grasseni, 2004; Alfonso, 2004; Rose, 2001). They should therefore be understood as being explicitly constructed to represent my subjective interpretation of the physical environment, local culture and what is important rather than a means for objectively reproducing the 'truth' (da Silva and Pink, 2004; Grasseni, 2004; Alfonso, 2004). Additionally, the photographs also reflect the '*complex process of liason*' (James et al. 1997:11 cited in da Silva and Pink, 2004, p.157) between the research subjects and myself, with my positionality and perceived positionality again impacting on how people behaved in an open space and the intersubjectivities and power inequalities occurring (da Silva and Pink, 2004; Sanghera and Thapar-Björket, 2008; Rose, 2001). Over the course of the fieldwork however I came to appreciate the local tastes and aesthetics, furthering my understanding of the local identity and it's relationship to how people created and used open spaces. My gaze therefore came to incorporate both my meaning and local meaning. I also believe people were less affected by my presence the longer I was there. To attempt to

overcome the problem of selecting views I took panoramas on the same site from the same spot at set time intervals daily.

Interpreters

In addition to my positionality, the positionality of my translator will also have impacted on how people behaved within an open space, the power dynamics occurring, the quality of interviews and the responses given (Wilson, 1993). Likewise, how we (myself and the translator) related to individuals appeared to impact on the responses given and the data collected. Whilst facets of my identity and that of my translators constrained relationships with some interviewees, however, they did not define how we interacted with everyone (Lockwood, 1993; Binns, 2006), as depending on my, the interviewee's, and the translators personalities and characters, more of a natural affinity with some interviewees was formed than with others. These relationships were important for reaching increased understanding about aspects of life due to the increased openness of the interviewee. For example, one translator, who was female and in her mid forties, came from Isaan in the North East of Thailand where many interviewees originated or had family. She was very charismatic, friendly and at ease with both children and adults, and residents did not seem to fear that she was associated with the authorities. As a result, interviewees seemed to open up to her in ways that they did not with younger, university trained translators, with interviews reaching more detailed responses as a result. Furthermore, more interviews were obtained when working with her than with other translators. Thus, perceptions relating to the institutional privileges and personal identities of all translators also impacted on social relations and what people chose to reveal and conceal from us. Consequently I attempted to select different translators for different situations based on their skills, abilities and manner of interacting with residents or professionals³⁴, where possible.

³⁴ For example, those with better language skills were taken to more formal meetings whilst those with better interpersonal skills were taken to Khlong Toei and Pom Mahakan

Again, as for myself, the philosophical, political and theoretical perspectives and assumptions of the translators, along with their personal interpretation of responses and actions will have affected how they interpreted interview responses and actions will also have affected how they viewed respondents, read their body language and reflected on their actions or responses during interviews and participant observation (Sayer, 1992). In turn, this will have impacted upon my interpretation of the findings and influenced my understanding and what I have chosen to reveal. Finally, in addition to the positionality and interpersonal skills of the translator, the well-being and concentration levels of all involved will also have impacted on data gathered. For example, it cannot be guaranteed that an interpreter translated everything, partly related to the extent of their language skills, or that they did not censor information.

Other Methodological Limitations

In terms of other limitations, the quantity of data gathered during Phase two was primarily limited by Phase Three beginning in January³⁵ and the fact that a large percentage of time was spent building relationships and increasing recognition of my presence. This, combined with developing understanding of the community dynamic, as well as what was culturally appropriate and socially acceptable, unavoidably slowed down the research process, efficiency of data collection, and quality and amount of data acquired. Despite this, however, it is felt that walking and map making were successful research methods in terms of increasing residents awareness of my presence and building relationships with them, thus helping to build a platform for Phase Three. Only the Bang Bua Sapan Mai II community map is complete, however. In Hua Khong some areas were avoided due to perceived threats (such as dogs and large groups of teenagers), local advice, and uncertainties regarding the public/ private nature of some *sois*. In Pom Mahakan the research had to be halted at the

³⁵ Indepth analysis of a series of open spaces needed to be conducted during winter for seasonal comparative purposes.

request of residents until the leader's permission had been gained, which was not achieved during the research period. Inability to access the community from mid December until late February, 2014 due to the political situation³⁶ increased the difficulty of arranging a meeting. Time ran out for completing Rom Klao, whilst in Chai Khlong Bang Bua, a large proportion of the community had not participated in the *Baan Mankong* scheme making these areas irrelevant to the research. To attempt to overcome these limitations, interview questions focussed on completing the missing data where appropriate.

In all communities a number of people refused interviews. In Pom Mahakan this mainly surrounded the requirement for the *Gumagun's* permission and also related to concerns regarding the legal status of the consent form, the implications of signing, and suspicions that I was from a governmental organization. In Khlong Toei and Bang Bua, meanwhile, refusal largely surrounded being too busy, the need to work and childcare. In the Bang Bua communities people tended to refuse due to internal conflicts surrounding the *Baan Mankong* project and concern over my role within that³⁷. It is also speculated that the political situation may have contributed to interview refusal throughout Phases two and three, with people seemingly more agitated or nervous. Following advice (HK9), *Gumaguns* were approached prior to attempting interviews with residents, a seemingly more culturally appropriate approach, although this bought its own challenges in Sapan Mai II. When group interviews were conducted one person would tend to dominate or the participants would distract or interrupt one another. Benefits, however, included participants bouncing ideas off one another. Whilst the semi-structured format was useful for assisting in a more relaxed interview dynamic, interviews sometimes went off track as unrelated topics were discussed³⁸. As a result, interviews

³⁶ For more on this see 4.0 'Context Chapter'

³⁷ Less time was also spent in the Bang Bua communities and therefore fewer relationships formed.

³⁸ This was a particular problem in Bang Bua where many people were more interested to discuss the *Baan Mankong* scheme and resulting community politics than answer the interview questions.

became longer than intended leaving less time to ask interview questions, explore answers and develop topics. Due to interview locations, interruptions included: phone calls, children who would want to play with the camera, customers, moneylenders, food carts, scooters, and passers by. As a result, participant's interest had to be maintained constantly as, on occasion, they would leave and I was reliant on them volunteering their time. Distractions and background noise also made recordings difficult to understand as did determining who was saying what when interviewing multiple participants at once. Consequently, single interviews were conducted where possible. Despite the many difficulties experienced in gaining, maintaining and managing interviews, observation partially overcame the limitations, enabling the research objectives to be met. Consequently, all communities were repeatedly revisited and activities observed. Furthermore, Phase Three interviews addressed themes that couldn't be explored fully during Phase Two.

It is acknowledged that my and my translator's presence will have impacted on users behaviours and therefore the reliability of findings produced, as similarly described by Tacchi (2003). For example, children would often seek me out and 'perform' for me. The benefit of this however, was that as my presence became more accepted, relationships with certain users developed, leading to increased interviewing opportunities. Over time, it also appeared that people became increasingly comfortable with my presence³⁹ and appeared to behave more 'normally' around me⁴⁰.

More women than men were observed in the communities⁴¹ with men also more inclined to refuse interviews. In Hua Khong, a large number of teenagers and young adults observed were intoxicated or high, making

³⁹ Evidenced by increased number of people being friendly, acknowledging me and offering me food and drink. This seemed to be further aided by the relationships I had built with children.

⁴⁰ This is thought as a pattern of behavior was observed over the time period this study was conducted.

⁴¹ Men and younger women tended to be at work and children at school meaning the general demographic during the day was older women and younger children.

interviews with this cohort unethical. Children, meanwhile, would often refuse to be interviewed if they were playing, with interviewing children difficult in general. Consequently most interviews were conducted with females aged between forty and sixty-five. This limitation has been taken into account when making knowledge claims. To attempt to overcome this limitation, men, younger women and children were focused on for interview during Phase three. Those aged below six were generally not interviewed⁴². Whilst this was a major limitation and meant that some knowledge relating to the research objectives has been lost, it is felt children's well-being was a priority. The reliability of interview data is additionally compromised by socio-cultural behavioural patterns. Notable was interviewees 'saving face', having personal agendas, or not wishing to speak out of turn or present the community negatively, likely due to their social position and support/ respect for the community leader. Findings have been reflected upon with regards to this cultural norm.

Throughout all Phases, data gathering was limited by my own, residents and translators availability, exacerbated by political tensions, which increased the difficulty of travelling around the city. In response to the problems of translators availability, several were worked with during the fieldwork. Whilst the communities were busiest between four pm and six pm, I had to leave by six pm for safety reasons. This limited insights into evening activities but to counter this, interview questions were amended to address these. Likewise, the longer time spent in the settlements led to an increased number of interviews with a broader sample set of ages and of different genders. Repeating studies also enabled me to overcome some of the difficulties associated with the environmental conditions, particularly

⁴² Generally, when young children were approached they would either be shy or refuse to speak and interviews with very young children tended to be conducted with their parent or guardian present. The possibility of achieving this however was limited by many parents working during the day.

the heat, which impacted on work production⁴³. At the same time, new aspects of interest identified could be explored, enabling the research objectives to be addressed more successfully. Therefore, returning in different seasons over the eleven month period, was not only useful for gaining insight into seasonal influences but also for building relationships and trust with community members and for improving reliability of the findings through comparison.

Phase Three: Objectives and Overview of Methods Used

Phase Three took place during the winter and hot season in order to assess how seasonal change impacted on spatial use. **In combination with previous findings the phase sought to address all research aims and objectives.**

To achieve this, four open spaces identified during Phase Two were analysed in depth using a variety of physical spatial analysis and social science methods. Physical spatial analysis included observation of spatial use and users for between two and four days during the winter season. Spatial form and use, evolving thoughts, discussions and observations were explored and documented through photographs, drawings, movement maps and field notes. In conjunction with the interviews, these attempted to determine how the form impacted on spatial use. Interviews additionally discussed the meaning and importance of open spaces. A combination of these methods allowed the multiple opinions and actions of individuals to be tapped into and as such, enabled a deeper and richer insight into the complex relationships occurring. Of the four spaces, two were selected for seasonal comparison and methods used repeated for a further four days in each during the hot season. The theories and philosophy framing the research, previous findings, literary research, interview experiences, observations, ethical considerations, gaps in findings and questions raised

⁴³ For example drawings could be produced over several days so that I had the energy to 'look' properly. Meanwhile, from three pm onwards when I was too tired to draw I would observe and interview if possible.

during previous phases influenced methods selected. It was also felt these methods could best capture the experiential characteristics of the spaces and their importance to users in line with the work of Stalker. These considerations additionally influenced ethical considerations with regards to photography, drawings and interviews and approaching potential participants.

Each open space was selected because it represented a different mode of spatial production, management and ownership impacting on the degrees of publicness displayed. Spaces selected were: the Rom Klao sunam (RKS) (Figure 3.22); Sports Park, Klong Toei (Figure 3.23), *Nang Lern A*, Hua Khong (Figure 3.24); and an empty house plot (EHP), Rom Klao (Figure 3.25).



Figure 3.22: Rom Klao sunam



Figure 3.23: Play area in the Sports Park, Klong Toei



Figure 3.24: *Nang Iern A*, Khlong Toei



Figure 3.25: Empty House Plot, Rom Klao

During Phase Three, interviews were also conducted with owners of gardens and with users of a space called the Community Lantern in Lock 1-2-3, Khlong Toei (see Figure 3.26). These additionally offered the opportunity to address all research objectives. The Community Lantern is a collaboration between Norwegian architects TYIN Tegnestue, community members and local students (TYIN Tegnestue Architects, no date). The ‘public’ space has been developed on a site that was described as previously being used as a ‘multipurpose space’ for and by children, a children’s playground and a football field. When first built, the Lantern

consisted of a fenced, concreted football pitch with basketball nets. A low wall with wooden seating lines one edge and a tiered seated structure the opposite side as shown in Figure 3.26 below. According to Meinhold (2012) the Lantern is a,

'Multi-Use Sustainable Social Center... a stage, a community center, a reading room, a football court, a climbing area and a meeting place. The project hopes to signal the beginning of more sustainable development in the Klong Toey area' (para. 1 of 4).

However, when I arrived in 2014 the tiered structure had been partially dismantled, the fence no longer existed and the structure and football pitch were covered in dog faeces and rubbish. Furthermore, a resident said that the space is *'quite underused'* (Khun Vow, CL4) (See Figure 3.27).



Figure 3.26: Community Lantern, Lok 1-2-3 (TYIN Tegnestue, no date)



Figure 3.27: Community Lantern, Lok 1-2-3 in 2014

Phase Three drew to a close for several reasons. Firstly, because users had been approached, interviewed, were unapproachable or simply passing through. Secondly, because theoretical saturation had been reached. Thirdly, due to a lack of time, money and the availability of translators and the need to complete research in Bang Bua, the Community Lantern and gardens. Fourthly, my presence was no longer welcome in some of the spaces studied. The reason for selecting each method will now be expanded on and manner of application described:

Participation Observation:

In each open space the following, based on literary research and the premises of critical realism, ANT, embodied practice and ethnography, were observed and noted in research diaries, movement maps, sections, plans, elevations and drawings: physical spatial form; users; activities; sensory aspects; movement; permeability; time spent performing activities; and edge conditions.

Observation was conducted from 8am to 6pm to increase insight into changing spatial uses and users throughout the day and how the physical form influenced these. In the sports park and RKS this was repeated on three different days of the week and on one weekend day. Three days of observation on weekdays was felt to be sufficient as a similar rhythm was followed and no new activities revealed. Furthermore, time was limited by

the need to observe all four spaces within the season. A weekend day was observed for comparison when more residents were present within the community. *Nang lern A* was studied for two-week days and a Sunday and the EHP was studied for two-week days⁴⁴.

By watching people and unfolding situations the 'checking' of findings from previous phases was possible enhancing their credibility. Additionally, the multiple opinions of individuals became apparent. This, combined with the revealing of unexpected phenomena through repeated observation, meant a deeper understanding of the social reality was possible. As advised by Kees van Donge (2006), observation therefore revealed potentially overlooked elements that were in fact important to community members. Observations were then clarified via interviews, with responses 'triangulated' and comparisons drawn between what people did and what they said they did. Silverman (2000) claims this further enhances the reliability of findings.

Watching how people behaved in, interacted with and emotionally responded to a space and the amenities within it also increased understanding of how the space worked and its capabilities. The objective of this was to address objective 6 by coming, '*closer to understanding what people are seeking in their use of the public domain*' (Rivlin, 2007, p.38). As users moved around different organisational spaces also appeared that weren't apparent at first glance, as discussed by Waterman (2009). Observation also revealed insight difficult for interviewees to articulate (tacit knowledge (Yu, 2006/2007)), such as how the atmosphere effectively changed with different uses and users and how temperature, weather and aspects such as barbeque smoke impacted on use. Again, as a result a deeper understanding of the social reality was gained. At the same time, as advised by Waterman (2009), it was possible to explore, in

⁴⁴ This was due to translators being unavailable. However, as one week day was a public holiday it was felt activity would be similar to that of a weekend when more people were in the community.

conjunction with the interviews, what is missing that is further desired and what adaption techniques are already being implemented. Finally, as Tacchi (2003) describes, by participating within a social situation it was also possible to build a relationship with that community. Thus, despite the limitations of the lack of translators, participating in activities such as playing with children, talking with users and eating with nang lern A and EHP users meant relationships were developed with community members. Repeating the observations further enhanced these relationships with my understanding of the importance of each space to individuals and the wider community likewise increasing. It also appeared to increase: the acceptability of my presence, opportunity for interview and residents behaving 'normally' around me. This was seemingly evidenced by certain residents beginning to check on me, bringing food and drink and offering the use of their facilities.

Interviewing

Semi-structured interviews were again conducted (for interview reasons, structure and format see Phase Two) with the aim to interview a range of ages, both male and female. Users of open spaces were approached whilst they were engaged in activities. In the case of the Community Lantern only children interviewed were using the space. Others spoken to were approached around the Lock 1-2-3 community as there were so few users. See Table 3.2 for age spread of participants per open space studied.

Questions asked were influenced by background literature, particularly the work of Jan Gehl (2011), findings from Phase Two and themes emerging from the participant observation. Questions included: why and when users come to the space; where they came from; what activities they perform; how they feel whilst in the space; what they liked and disliked about the space; and if and why the space was important to them as well as the wider community. Questions also sought to clarify why the space was created and what users additionally required from their open spaces. Question

phrasing, interview approach and interviewee selection were influenced by gaps in the findings⁴⁵ and reflections on previous interview experiences⁴⁶.

Table 3.2: Age spread and gender of open space participants

Open Space	Male	Female	Male (Under 17)	Female (Under 17)	Total
RKS	1 (aged 26)	9 (aged 18-79)	4 (aged 10-14)	4 (aged 8-9)	18
Sports Park	11 (aged 16-82)	11 (aged 29-64)	5 (aged 6-15)	5 (aged 5-15)	32
Nang lern A	1 (aged 23)	3 (aged 20-57)			4*
EHP		3 (aged 22-56)			3
Gardens (Rom Klao)	2 (approximately 45 and 76)	4 (aged 19-80)			6
Community Lantern	3 (aged 17-55) including community leader	6 (aged 17-63)	3 (aged 5-15)	None observed	12

*In addition, 3 females aged 32-42 and 3 males aged 54-62 using various nang lerns in Khlong Toei were interviewed.

Drawings

Sketch drawings, sectional elevations, elevations and plans were the primary method used for communicating findings and for analysing the form of the open space as landscape architects '*learn to design primarily through visual- spatial information*' (Dee, 2001, p.2). Drawings additionally

⁴⁵ As no children and few men, teenagers or young adults had been interviewed in previous phases these were focused on during Phase Three

⁴⁶ For example, interviews were mainly conducted with single participants, interviews questions were structured to flow better, participants were constantly evaluated to determine their reactions to questions and questions were worded positively.

addressed the theories of embodied practice, allowing the immaterialities that exist within a space to be explored and evoked. Here the work of Catherine Dee (2001, 2012) and Kabir (2012) were influential, who express that drawings are useful for exploring multiple aspects of a space and expressing experiences gained. Sketching the fire reconstruction in Rom Klao was also influential.

A single drawing was produced over several days due to the difficulties caused by the heat, and notes were added at the end of the drawing period. This meant that the space was re-engaged with constantly, with drawing becoming '*pieces of work that embody experience and reflect developments*' (van Dooren, 2012, p.43). In line with Dee's work the following was explored and described: physical dimensions, relationships between interior of dwellings and exterior spaces, and the relationship between, and physical arrangement of, structuring elements, landform and edges. Additionally, as Dee (2001) advised, drawings allowed multisensory notes to be taken about textures, light levels, associated smells and noises, and thoughts registered and articulated in a way not possible through photography. This included highlighting significant content such as activities that impacted on the use and 'feel' of a space and added layers of meaning. In this way, intangible elements, such as mood and atmosphere that are difficult to communicate verbally could be revealed accessing tacit knowledge. As Orobitch Canal (2004) and Kabir (2012) found, drawings also became a means of communication, with people sometimes coming to view what I was doing and offer insight into different aspects, form or the history of an area being rendered.

Movement Maps

ANT influenced the use of movement maps to map pedestrian movement and the actions of key actors in order to trace the ways in which organizational spaces had come together (Conradson, 2003). The work of Low (2000) meanwhile, was influential in developing a notation system. Following an experimental period, movement maps were broken down

into hourly time captions in order to increase ease of deciphering and analysis. Activities and their location, location of spatial elements, direction of movement, gender and length of time spent were noted, addressing factors influencing spatial use.

Photography

In conjunction with the drawings, photographs were taken of the open spaces and activities occurring. As Pink (2004) describes, use of visual and digital media is becoming common practice in ethnographic research, the means to '*research and represent the cultures, lives and experiences of other people*' (p.1). Use of photographs also increased objectivity, at least in terms of physical relationships and dimensions, for a critique of drawings is that they can be subjective and inaccurate. The photographs additionally served as a 'field diary', prompting memories as well as being used as testimony and for illustration as experienced by Orobitch Canal (2004). Along with drawings, photographs enabled me to access tacit knowledge, and became crucial for deepening my knowledge of the social realities of the communities.

Time Lapse Photography

Throughout the observation period, photographs were taken on an hourly basis from the same position, or a series of positions, within or looking onto the space in question. This was to capture an overview of the changing use and users of a space during the observation period.

Photographs by Participants

Photographs were taken by participants of their 'favourite thing', 'element most important to them', or what 'summed up the space' for them. The image/s were then discussed with participants and choices analysed. Participant photography was found to be quicker and less intimidating than asking someone to draw a space and therefore a more ethical way to gain insight without imparting my own understanding. Photographs were also very revealing, often focused on areas not mentioned during interview

or observed by myself. This deepened my understanding of the social reality. As for Orobítg Canal (2004), they also became a source of communication, with people offering stories or reasons for taking a particular image.

Phase Three: Limitations and Reflections

Again, each of the methods⁴⁷ used during Phase two are acknowledged to have brought their own limitations, impacting on the data partiality, reliability and validity:

Positionality

As for Phase Two, my positionality impacted on the methodological approach and the design and practice of both the interview and visual research methods. See Phase Two: Reflections and Limitations: positionality (pg 123). Likewise, the positionality of my translator also impacted on the data collected. See Phase Two: Limitations and Reflections: Translators (pg 126).

Methodological Limitations

The position drawings and observations were conducted from was often dictated by the position of the sun, the temperature and the shade, skewing findings. Taking photographs meanwhile, felt intrusive in the smaller spaces and would create a momentary barrier between the users and myself. In general, distractions, such as people asking what I was doing, the size and physical layout of an open space, the density and diversity of activities occurring, or having to conduct interviews or leave an open space to collect parental permission for a child, means that observation data is incomplete. The use of multiple methods partly overcame these limitations. For example, taking photographs countered problems presented by

⁴⁷ For limitations relating to interviews see 'Phase Two: Limitations and Reflections. Other Methodological Limitations'

drawings and was more useful in larger spaces where use and user numbers clearly changed throughout the day. Vice versa, where photographs could not be taken for the reasons outlined, movement maps, drawings and note taking partially overcame the limitations. Another major limitation is that photographs, like the community maps, are static, representing only a brief time frame captured within a specific time period. The activities shown however are unlikely to be the only activities occurring within a space, offering a misrepresentation. As such it is possible that some activities were overlooked during analysis. These limitations were partially overcome during the more indepth analysis of a series of open spaces during Phase three, which were conducted over a ten hour period. The advantage of repeating studies over several days also means findings can be averaged, again partly overcoming this limitation. A further advantage of using multiple methods meanwhile, is that findings could be triangulated improving reliability and validity. (Mason, 2002)

During Phase three, the total number of spaces studied indepth was limited by a lack of time and the availability of translators⁴⁸. Following discussions with the Landscape ethics department, open spaces were consequently attended alone during Phase three in order to complete the research. Whilst this meant interviews couldn't be conducted it was felt that observation mitigated loss of data to an extent whilst more interviews were conducted when translators were available to maximise on their time. Only the RKS and sports park were studied during the hot and winter seasons, meanwhile, because ownership issues compromised access to *nang lern A* and the EHP. This also severely limited interview opportunities, particularly in the EHP. To increase understanding of use, attempts were made to interview and observe in two other EHPs in Khlong Toei. In the first, residents refused to be interviewed whilst in the second it felt unsafe to be there alone. Users of four additional *nang lerns* in Khlong Toei were also interviewed. The intended rainy season observation was

⁴⁸ By time it is meant data had to be collected within the seasonal period for comparative purposes.

not completed meanwhile, as the season did not fall within the fieldwork period as anticipated.

Despite all the research methods employed it was also impossible to capture the vibrancy and ambience of the settlements and open spaces encountered sufficiently. Throughout the day, and likely the night, open spaces evolve as a result of the multiple activities occurring at their own speeds and rhythms. Capturing all of this was impossible and, despite focusing on four types of open space to increase insight, words, photographs, videos and drawings are still insufficient, each coming with their own sets of limitations. Indeed, smells, sounds and elements such as smoke from cooking fires, that impacted on spatial atmosphere and possibly use could not be captured. Thus, it is acknowledged that my knowledge and representation of the community, whilst attempting to be truthful, will only ever be partial.

In summary, this third section has revealed that the fieldwork was divided into three phases, each using a mix of social science and physical spatial analysis techniques traditional to the discipline of landscape architecture. This was in order to address the research aims and objectives summarised as: to develop the limited literature that exists on the relationship between people and the physical space of informality; to establish if there is a role for landscape architects to contribute to these marginalised contexts. Phase One sought to justify the fieldwork and establish communities in which to conduct the research. Phase Two sought to develop an open space typology and address the use, meaning, significance and role of open spaces as well as developing an understanding of the social dynamic and politics of ownership. Phase Three assessed influences on spatial use, largely addressed the final three research objectives, and was conducted over two seasons for comparative purposes.

3.04 Research Ethics and Integrity

Having detailed the philosophical and theoretical perspectives in the first section, the methodological framework in the second and discussed the fieldwork process detailing the methods used in the third, this fourth chapter section focuses on ethical decisions made. Here, three of the main dilemmas encountered are explored in more depth: working with translators, interviewing and the consent form.

Prior to beginning the research, the moral and ethical implications and possible consequences of conducting the fieldwork was considered as advised by Madison (2012) and de Laine (2000). In line with this, an ethics application form was submitted for approval to the landscape architecture department. Included were measures for: ensuring personal safety; minimizing emotional distress to participants and working with children. A proposed information sheet and consent form were also submitted. During the fieldwork a conscious decision was made to dress appropriately and be patient and humble at all times. In line with the writing of van Donge (2006), emphasis was placed on a sensibility to the culture and intuitive empathy; listening and observing closely rather than making assumptions or imposing my own logic of cause and effect on a situation. These are considered tenets of good ethnography that were reflected upon throughout.

Despite pre fieldwork preparations, numerous ethical and moral dilemmas were encountered during each phase regarding the research impacts. These, as described by (Fabian, 1991 cited in de Laine, 2000), were often unanticipated and therefore difficult to plan for in advance. For example, Pom Mahakan residents had clear concerns about the consequences of participating in the research due to the insecurity of tenure they faced. Other ethical concerns included: personal safety; prioritising the needs or emotional state of the participant⁴⁹; and the ethics of researching with vulnerable people⁵⁰. Thus, whilst these concerns often conflicted with

⁴⁹ Residents' wellbeing was prioritised due their vulnerability, positionality and daily needs.

research expectations, doing what I felt was 'right' was prioritised, influencing the research process and approach. Whilst addressing these concerns I maintained a dialogue with the research ethics committee who agreed to changes made to the research process. To mitigate concerns the advice of Bell (2010) and de Laine (2000) was followed including that: I was honest with people about the nature of the research and possible outcomes, gave participants the opportunity to refuse involvement, always respected their wishes and interests⁵¹, and acted appropriately within the cultural expectations and traditions⁵². Despite all the ethical concerns raised it was felt that the research is important, with the potential to increase understanding of the physical environment of informal settlements in Thailand. The following subsection reviews some of the main ethical dilemmas encountered.

Working with Translators, Interviewing and Consent Forms

Working with translators caused many moral dilemmas both in terms of my responsibility for them and my responsibility for their actions. In terms of the former, participants would often discuss experiences relating to their circumstances or personal tragedies during interviews, especially during Phases One and Two. This was very difficult for both my translator and myself to witness and was not something I had prepared for. Consequently, strategies were put in place to mitigate potential impacts to translators including: prewarning them; offering to stop interviews if they found it too distressing; discussing emotional experiences with them away from the communities; contacting them out of hours to ensure their well being. I also expressed that they should contact me post fieldwork if they wished to discuss anything. Concerns still exist however with regards to the long-term effects that the research may have on them.

⁵⁰ For example, I was initially cautious about working in communities where other research had been conducted as it was felt conducting another research project could have negative consequences on residents.

⁵¹ For example, if residents did not wish to be interviewed or photographed this was always respected and photographs were not taken at other times when it felt intrusive.

⁵² For example, I did not conduct interviews on days of national importance such as the King's birthday.

Throughout, the decision was made not to interview people who were drunk, high or those with obvious mental health issues. As discussed, question phrasing and interview formulation was carefully considered and reflected upon throughout to avoid causing anxiety or offence. Of all the methods employed, interviews and participant photography were felt to be the most ethical as these allowed participants to express personal views and opinions rather than me interpreting responses.

Informed consent was obtained from participants in the following way: the research purpose and expectations were explained and reasons for requiring their involvement, details on interview format and what the information would be used for, given. Anonymity and confidentiality were ensured and my own and my supervisors contact information given. This gave the participant the opportunity to query the meaning and implication of any statements, ask questions and withdraw from the research, as advised by Willis (2006). A projected timeframe for the interview was given and amended depending on respondent's schedules. This followed suggestions by Willis (2006) and Bell (2010 citing Johnson, 1984) to prevent participants being negatively impacted by an overrunning interview and resulting in disenchantment with the idea of participation in research. In general, for children (aged below sixteen), consent was taken from both themselves and a parent or guardian. The purpose of this was to minimize any potential stress caused to those with concerns about participating. Depending on the participant it was sometimes felt that those aged thirteen and older were capable of understanding the process and therefore their solo consent was accepted⁵³. The consent form, however, presented several problems for the research, both ethically and practically. Firstly, interviews were refused several times due to concerns about the legal implications of signing. Secondly, the consent form often presented

⁵³ For example, for one boy, it was felt that as he regularly looked after a baby and had read everything on the information sheet and form he was old enough to decide about participating.

problems when attempting to interview children, as they wouldn't want to leave activities they were participating in to find parents or guardians for the counter signature. Thirdly, during the first phase the length, repetitiveness and perceived formality of the consent form and information sheet, caused respondents to become nervous, bored, run out of time, refuse to be interviewed or interviews to initially be stilted. In response, and in agreement with the research ethics committee, the consent form and information sheet were updated to overcome these issues: information was distilled and language amended to aid understanding and items were removed that participants were not concerned with (see Appendix 13 for amended form for adult participants (English version)). Where possible a copy of the signed form was given to the participant. This was partly so that they could contact me should they wish to withdraw from the research. There were acknowledged limitations to this however, including language issues. To address this I advised respondents to approach me at any point during the fieldwork if they wished to withdraw.

In summary, this forth section has revealed that, prior to the fieldwork, consideration was given to the ethical implications of conducting the research. Despite this, numerous unconsidered ethical dilemmas were encountered that influenced the research process and approach, as I always chose to do what I considered to be 'right'. Of these, the three main ethical issues encountered were concerns for impacts to the translator; the ethics of the interview process; and the limitations of the consent form.

3.05 Analysis

This final chapter section outlines the analytical approach used to read, organise and explore the data.

Throughout each phase interview, field diary and visual data was analysed with all data read *literally*, *interpretively* and *reflexively*, in line with Mason

(2002). Data was read *literally* to identify types of open spaces; *interpretively* to document both the interviewees understanding of social phenomena and my interpretation of data meaning. My understanding was informed by the environmental conditions faced by community members as well as literary studies of the political, economic, cultural and religious context. Based on the theories of Massey (2005), multi-faceted factors are assumed by myself to be influential in terms of open space use, the types of open spaces in existence, their physical form, and the role, meaning and significance of open spaces. Finally, data was additionally read *reflexively*, in recognition of my role and perspective in both the data generation and interpretation. The impacts of which will be discussed in the concluding chapter.

All visual (including drawings, movement maps and sections) and text data from Phases One and Two was cross sectionally indexed to explore themes and patterns using a system set out to organise subjective data known as the 'KJ method' (Spool, 2004). Here, where applicable, several levels of categories were manually applied to all data, resulting in complex sets of interrelated and unrelated categories and subcategories. This meant that the data was focused and organised so that comparisons could be drawn, relationships explored and questions asked of the data. Furthermore, specific information could be retrieved when necessary for use in arguments or for further analysis (Mason, 2002). In addition, a systematic overview of the data was achieved establishing whether the research objectives had been addressed and identifying any new material required. The indexing system was shaped by the research objectives, participants' understanding of the social phenomena, my own observations of meaning, and my critical reflections on my role within the data collection and interpretation. Indexed data were treated as *unfinished resources* rather than end products. In this manner, data was used to see thematically across the whole data set in the knowledge that the data groupings were flexible rather than uniform. Where it was not possible to cross sectionally categorise, due to the complexities of the contextual processes occurring,

the whole text was analysed rather than specific quotations. These instances were additionally tagged during the analysis process with further analysis required. Where possible the data was contextualised by documenting the age and gender of the participant.

For the four open spaces studied indepth during Phase Three and the Community Lantern, *holistic* analysis was applied to the data. For, in line with the ontology and Mason (2002), the desire to gain knowledge with regards to the specific complexities involved in the processes of spatial production, management and ownership meant analysis had to be guided by these differences rather than looking for commonalities.

In summary, this last chapter section has revealed that all data findings were read *literally, interpretively* and *reflexively*. Phase One and Two findings were also cross sectionally indexed to explore emerging themes and address the research aims and objectives. These are summarised as: to develop the limited literature that exists on the relationship between people and the physical space of informality; to establish if there is a role for landscape architects to contribute to these marginalised contexts. Phase Three findings from the four spaces studied in depth meanwhile were also analysed holistically due to the complexities involved in the manner of production, management and ownership.

4.0 Context Chapter

Introduction

This context chapter presents a historical review of both Thailand and its capital city Bangkok's, changing social, cultural, economic and political structures. Following this, the focus moves to Bangkok examining the role of different actors involved in the process of upgrading informal settlements and the opportunities and threats that influence change in these locations. The review is conducted for three purposes: firstly, so that findings regarding the existence, use, user dynamics and meaning of open spaces may be contextualised and parallels drawn. This itself serves two research concerns, that the research is framed by the socio-spatial theories of Doreen Massey and that it will be conducted using ethnographic methodologies. Massey (2005) proposes that spaces are produced from multi-scalar interrelations between particular social, political, cultural and economic relations as well as understandings, experiences and arrangements of power. Thus, in order to gain understanding of the types of open spaces in existence in informal settlements and the factors influencing use and the social relations within them, advancing knowledge of these processes is important. Likewise, as the research will be conducted within an ethnographic framework such knowledge is vital according to Van Maanen (1995) and Somekh (2006). Secondly, to identify the specific regional framework within which slums have historically developed and continue to exist within Bangkok, where this research is located. Failure to do so, according to Roy, (2005) and Gandy, (2006) means that theories I develop will fail to provide critical and politically aware insights into the conditions observed. For, it is important to recognise that whilst theorists such as Davis (2006) and Harvey (1990) attribute the ongoing urbanisation and phenomenon of urban informality to unequal economic development, promoted and sustained by globalisation and liberalization, the literature of Arimah and Adeagbo (2000), Chaplin (1999), Roy (2005) and Gandy (2006), among others,

indicate that informality is not solely an economic problem. These authors draw on case studies from India, Nigeria and Lagos to illustrate that whilst neo-liberalism may have contributed to conditions favouring slum development many cities in the global south continue to be shaped by the legacies of foreign rule that prevent the formation of truly democratic governments who are able to alleviate the problems associated with rapid urbanisation. The manifestations of such a situation continue to cause inequalities in living standards in ways that create and enforce conditions that cause slum development to thrive. Johnson (1978) meanwhile claims that urban poverty, slums and squatter settlements do not exist by themselves but instead in relation to an urban area and the social structure of that area (Johnson, 1978). Alsayyad and Roy (2004), meanwhile, identify that urban informality is not a new concept or process; instead, what is new are the conditions created during this period of liberalization that are resulting in new informalities that cannot be understood outside of this context. Thus, as Alsayyad and Roy (2004) conclude, the root causes and manifestations of urban informality can *'only be defined in the context of specific regional experiences'* (p.4). Finally, reviewing the role of different actors within informal settlements and their practices of change will enable comparisons to be drawn with the research findings.

To create the framework for conducting the study the chapter has been divided into four sections. The first gives an overview of the country's geographic and climatic regional differences; religious and spiritual beliefs; demographic and movement of people from the pre twentieth century to the present day; and gender roles. The second section reviews rural village design and the vernacular architecture of Thailand. The third section explores local and central administrative structures in existence under the absolute monarchy up to the present day. The fourth section focuses solely on Bangkok. Here the city's urban, political, economic and social development and changing demographic is explored and the impacts of global events, foreign influences and historical legacies on the nature and direction of development reviewed. The historical development of slums

and squatter settlements and the city's responses are also outlined. Following this, the section gives an overview of present day upgrading processes and the roles of different political, organisational and professional groups as well as community members within these.

N.B. Throughout this chapter all image captions relate to images read from left to right

4.01 Thailand: A Brief Overview

As indicated above, this first chapter section reviews Thailand's geographic and climatic regional differences; dominant religious and spiritual beliefs; historical changes to the demographic and movement of people; and gender roles. Here the role of women in the Northeastern region, where a large proportion of slum dwellers in Bangkok originate from, is largely focused upon. These processes are explored so that knowledge may be gained and comparisons drawn regarding the existence of open spaces and the factors influencing their use, role and meaning in the informal settlements studied.

Geography and Climate

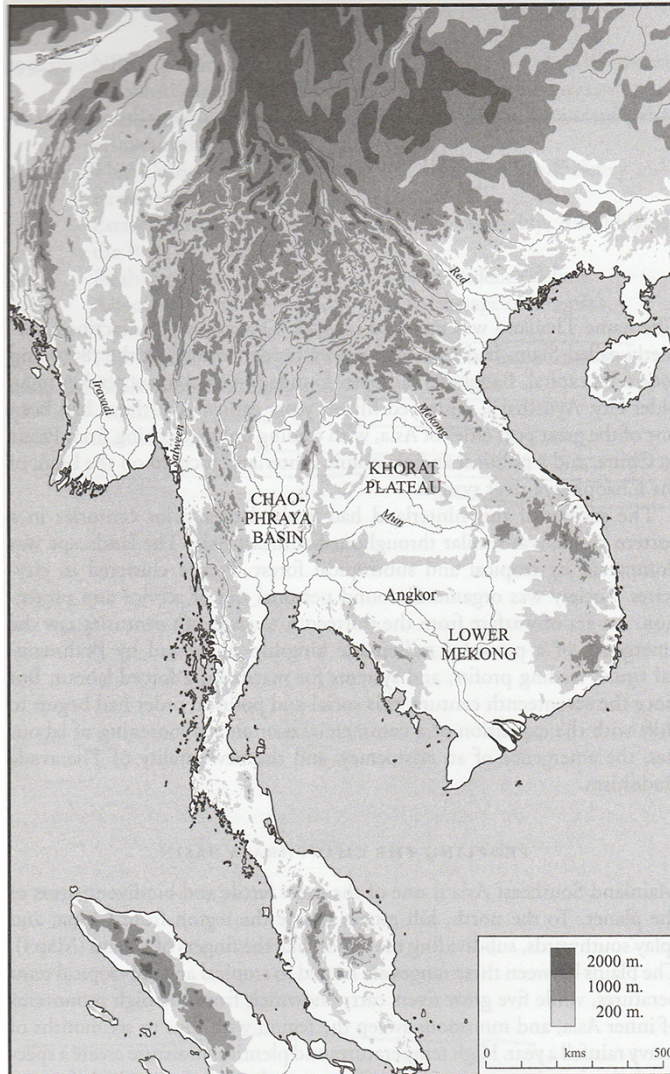


Figure 4.1: Mainland Southeast Asia showing the location of Chaophraya Basin (Baker and Phongpaichit, 2005, p.2)

Until the 14th century the area now known as Thailand was called the Chaophraya basin, the location of which is visible in Figure 4.1, before being changed to Siam by the Portuguese. In the 1890s and 1900s borders were redrawn and the country was renamed Thailand (Baker and Phongpaichit, 2005). Present day Thailand is situated in the heart of the Southeast Asian mainland and covers a total area of 513, 115 square kilometres. The country is bounded by Myanmar to the west and north, Laos to the north, Malaysia to the south and Laos, the Gulf of Thailand and Cambodia to the east, as Figure 4.2 below reveals (Chadchaidee, 1994; Thai Meteorological Department, 2012).



Figure 4.2: Map of Thailand and administrative regions (CartoGIS, College of Asia and the Pacific, The Australian National University, 2016)

Thailand may be divided into five distinct regions according to climate pattern, meteorological conditions and geography. These are the: Northern, Northeastern, Central, Eastern and Southern regions, each of which are further divided into multiple provinces (Thai Meteorological Department, 2012; Chaichongrak and Panin, 2002). Of these, the Northeastern region, also known as Isaan or the Khorat Plateau, has poorer soil quality and suffers from frequent flooding. This has led to economic hardship with annual income, on average, lower than the rest of Thailand. Bangkok, the capital city and where this study took place, is located in the Central region (Chaichongrak and Panin, 2002; Sthapitanonda and Mertens, 2005).

Seasonal Variations

The climate can be divided into three seasons: 1. The rainy season (mid May to mid October). During this period intensive rainfall and

thunderstorms occurs in the upper regions (northern, northeastern, central and eastern), with August to September the wettest months. Temperatures are reduced from mid May and tend to be below 40oC. 2. The winter season (mid October to mid February). A mild period of the year in the central, northern and northeastern regions with dry weather usually experienced. However, temperatures can decrease to near or below zero. 3. Summer (mid February to mid May). This is the warmest period, especially in upper Thailand. Due to the inland nature and tropical latitude the upper regions usually experience a long period of warm weather with March to May the hottest months. The latter period of summer is characterized by thunderstorms and increasing rainfall (Thai Meteorological Department, 2012).

Religious and Spiritual Beliefs

Thervada Buddhism

Buddhism arrived in the Chaophraya Basin in the 5th century, *'in a package of Indic gods'* (Baker and Phongpaichit, 2005, p.7) with Brahmanism continuing to influence Buddhism into the 16th century. In practice therefore Thervada Buddhism is blended with religious practices including roles for Hindu gods as well as *'notions of supernatural powers often borrowed from tantric types of Buddhism'* (Baker and Phongpaichit, 2005, p.19). Folk spirit beliefs, notable within Thailand since the seventeenth century, are also incorporated, in particular, *'their power to foretell and influence the future'* (Baker and Phongpaichit, 2005, p.19). Today, Thervada Buddhism is the state religion, shaping the worldview of 93.6% of the population (National Statistics Office, 2010) and playing a significant role in daily life. Buddhism has also been the driving force behind cultural development influencing almost every occasion from marriage and funerals to moving house. Many also seek help with managing aspects such as social standing, lottery selection, marriage prospects and business risks from temples and Bhrama images in spirit houses (see 4.02 'vernacular architecture') Major religious holidays meanwhile are national holidays to

allow people time to devote to religious practice (Chadchaidee, 1994; Baker and Phongpaichit, 2005).

In brief, the Buddhist doctrine stresses three fundamental aspects of existence:

Dukkha = suffering

Anicca = impermanence

Anatta = non-substantiality (Chadchaidee, 1994).

Two central concepts to the understanding of what it is to be human according to Buddhist teaching are reincarnation and Karma.

Reincarnation is the cycle of rebirth, the aim of which is Nibbana (or Nirvana in Sanskrit), meaning the extinction of desire, or release from the material world), and therefore end of all suffering and action (Chadchaidee, 1994; Baker and Phongpaichit, 2005): *'for living beings, time comprises cycles of birth and rebirth in which one hopes to attain an ever higher form of existence through the accumulation of merit¹ by doing good things'* (Sthapitanonda and Merterns, 2005, p.13).

Karma (similar to fate) meanwhile is an individual's personal lot in life, which can only be liberated through personal effort. Karma is believed to largely be predetermined by one's actions in previous existences, whether positive or negative, as well as to a small degree deeds in the present life (Mulder, 2000).

Animism

As a predominantly agriculturally based society, with evidence of rice being grown in the Chaophraya basin since 2,500 BC, the lives of Thai people have traditionally been closely integrated with their environment. This has led to customs, superstitions and beliefs, mostly animistic and magical in origin, being developed that are closely bound up with the lifestyle of

¹ Merit' is similar to a beneficial karma whereby the good actions of a person positively affects either their present life or in future lives or reincarnations (Saiyasak, 2006).

people and their dwellings. Animism is a religious practice that deals with 'powers' (decha) encountered during daily life. These powers are vested in sacred objects (such as shrines), unusual manifestations of nature (such as white elephants), and Saksit power intrinsic to the King and anything with mysterious qualities. This power is both valuable and damaging; people must approach power on its terms and in accordance with guiding laws. Today, many continue to believe that their lives are dependant on both natural and supernatural forces. As such they use astrology to choose auspicious times for conducting important activities including house construction (Chaichongrak and Panin, 2002; Baker and Phongpaichit, 2005; Mulder, 2000).

Demographic and the Movement of People

In the 1890's and 1900's, the ruling government drew borders defining the country as Thailand with the vision of creating a unified national identity and nationality. This imposed nation state was adapted from European models in part to protect against colonial take over and strengthen the position of Siam in the face of a global war. More basically, Baker and Phongpaichit (2005) write it was an attempt to move Siam from its royalist past and remake the nation and its culture from above. From 1902, all people within the kingdom were defined as Sanchat Thai, or 'of Thai nationality' and in 1913, following a Nationality act: all those born inside Siam's borders were able to claim nationality. This vision of nationality envisaged: *'a community defined by ethnic origins, a long and unique history, and a common language* (Baker and Phongpaichit, 2005, p.113).

A problem presented by this unification for this study, however, is that it can be seen to remove insight into the various ethnic groups historically present within the Chaophraya basin. Even if they no longer exist, the literature (e.g. see Chaichongrak and Panin, 2005) indicates their presence, knowledge, customs and languages may continue to influence the present day demographic as well as the current political makeup, economy, social structures, language, knowledge, culture, customs and

beliefs. Some of these ethnic groups will therefore now briefly be discussed along with more recent demographic changes.

Pre 20th to the 21st Century

The origins of the Thais are much debated with conflicting theories existing with regards to ancestry. What is more certain is that the migration of people in, out and across the country has been both voluntary and forced over the centuries. This can variously be attributed to both national and international pressures, with newcomers to the Chaophraya basin adding to the social complexity by spreading their knowledge of architectural traditions, settlement development and social, political and economic processes. Cultural heritages, customs, language dialects, modes of dress and religious and spiritual beliefs have also been spread, merged, adapted and lost as different ethnic groups have moved across the terrain, settled and integrated with others. This movement of people has in turn caused the landscape and rural and urban societies to evolve (Baker and Phongpaichit, 2005; Chadchaidee, 1994; Chaichongrak and Panin, 2002). Some of the main ethnic groups present will now briefly be described.

In the early 1990s Chadchaidee (1994) estimated that over twenty different hill tribes existed in Thailand, some of whom have settled for centuries. In early 2000 meanwhile, Isaan was home to almost one third of the Thai population who belonged to diverse ethnic groups, which can be generally grouped into the Tai- Lao and Mon Khmer. These are the oldest ethnic groups identified in the Chaophraya basin, with evidence of the former's existence from 2500 BC and the latter's from 600 BC. Elsewhere in Thailand the Karen can be found who originally came to occupy the hills along the western boundary of the basin from the 16th century. At around this period, groups of Mon moved also eastwards across the hills and hill dwellers settled in the highlands. Shan and hill tribe minority groups settled in the northern region whilst the northeast was part of the Khmer empire from the 6th to 13th centuries. The ethnic mix of the Chaophraya

basin was transformed again during the 18th and early 19th century, a period of warfare, slave-riding and territorial expansion as well as the threat of colonial invasion. This resulted in the forced settlement of a variety of ethnic groups across the country from areas including Cambodia, Laos, China, Malaysia and Vietnam (as they are known today). Many more are believed to have migrated from Tibet, China, Laos and Burma over the last two hundred years. The Chinese have been present in the Chaophraya basin since around the 13th century. From then, increasing numbers migrated to Siam with immigration in the 1800s encouraged by the Thai government. By 1910 almost half of Bangkok's population was Chinese with immigration surging to its highest rate between the two World Wars (Chaichongrak and Panin, 2002; Baker and Phongpaichit, 2005). Since the mid 17th century, the Chinese '*have made their mark in Thai society*' (Chaichongrak and Panin, 2002, p.199), pioneering the market economy and becoming influential figures in the country's administrative and cultural development and developing a new business community over the late 19th and early 20th centuries. A decade ago nearly ten percent of the Thai population could claim Chinese ancestry (Sthapitanonda and Mertens, 2005; Baker and Phongpaichit, 2005; Chaichongrak and Panin, 2002). Following the Bowring treaty of 1855 and similar agreements, which saw Siam ceding trading rights to Europeans, the number of western businesses, service industries and bankers increased with retailers arriving to service an increasing number of foreign (*farang*) communities in Siam (Baker and Phongpaichit, 2005). In 2010, there were approximately 100, 388 professional and skilled foreigners holding work permits in Thailand. Of these, the majority were Japanese with those from China, India, the Philipphines, the United Kingdom and America high on the list (IOM Thailand, 2011).

Gender Roles

'The gender structure of every culture and nation is different. With each tradition, men and women have interacted within a cultural structure that defines their social and political roles' (Lim, 2011).

Perspectives of gender roles, along with employment, education, domestic expectations and political participation in society, continue to differ between the rural regions of northern Thailand and the city (Westman, 2009). In the north, families are traditionally organised around women with authority passed down the female lineage giving women some social and cultural advantages (Lim, 2011). This is known as a matriarchal society. Lim (2011) writes that in northeastern Thailand daughters are obliged to economically support their parents, siblings and children in order to fulfil *bunkhum* or 'practical and moral indebtedness' until the rest of the children are married with daughters. To do so women receive property right advantages, inheriting part of the family's land. Men, meanwhile, tend to enter monkhood, gaining merit for their parents in doing so. Thus, from a young age adolescent boys will be given more freedom and fewer responsibilities than girls (Lim, 2011). Whilst Lim (2011) writes some women hold local leadership roles, Westman (2009) cites that in the northern parts of Thailand men are expected to be responsible for social and political decisions. Likewise Mulder (2000) indicates that throughout Thailand, '*men are supposed to be able to dominate the wider world and express their manliness in the brothel and the ring, in politics and religion*' (p.69). Today, in the provinces women are typically responsible for the household and childcare (Westman, 2009; Klausner, 2013; Lim, 2011). Throughout much of the rest of the Chaophraya basin, inheritance is split equally between male and female children, with rural households giving equal weight to their maternal and paternal bloodlines (Baker and Phongpaichit, 2005).

In summary, this first section has firstly revealed that the various regions of Thailand are subject to differing geographic, meteorological and climatic conditions. Secondly, that the worldview and daily lives of the majority of Thais are shaped by the doctrines of Buddhism as well as spiritual beliefs relating to Animism. Thirdly, that, despite the apparent unification

presented by the present day national identity, the country has a rich and complex cultural heritage with multiple societies, customs, knowledge, languages and religious and spiritual beliefs in existence. Finally, that men and women have distinctive gender roles and obligations that vary depending on region.

4.02 Village Design and Vernacular Architecture

This second chapter section reviews how the geographic, climatic, religious, spiritual and cultural aspects explored in the previous section have influenced the physical development and typical features of Thai villages and vernacular architecture. This is so that comparisons may be drawn regarding the processes influencing the creation of open spaces and the factors influencing their use, role and meaning in the informal settlements studied.

The Physical Development of Thai Villages

Following the commercialised rice farming of the 1870s people spread across the landscape along the waterways settling in villages. Villages were repeatedly settled, with settlers coming from the hills, upland plains and coastal areas causing the social makeup and geometry to change.

Households often settled in groups for security, generally related by kin (Baker and Phongpaichit, 2005). Despite many villages being newly established during this period, they still had a heritage and distinct culture: *'the strength of village culture arose from its ability to survive such disruptions through communal cooperation'* (Baker and Phongpaichit, 2005, p.85). At the centre of most villages was a post, rock or tree that often represented the tutelary spirit, generally the ancestor founder, with associated spirit rituals encouraging: *'cooperation, disciplined dissidence, and...'* promoting *'the unity and independence of the community'* (Baker and Phongpaichit, 2005, p.85). Today, Thai villages display regional differences and vary in size, ordinarily consisting of between fifty and two hundred

households, correlating to factors including: regional variations in soil fertility, the availability of irrigation water and general population densities. Until at least the 1950s, only the larger strategically placed villages had fixed market places, with smaller villages generally supporting a central market area normally located along a main road. Historically, features such as the river or canal have been important factors for village development, providing permanent water sources for survival during the long hot season, irrigation required for rice farming and communication and transportation links (Young, 1955; Chaichongrak and Panin, 2002; Baker and Phongpaichit, 2005).

Villages commonly fall into three main types: river or roadside linear villages, cluster formation and isolated groups of farmhouses (Young, 1955). This section will focus on the more prevalent linear and cluster formations where, according to Young (1955), the bulk of the country's rural population are to be found. These villages continue to develop more tight knit communities '*based on social, cultural and kinship ties*' (Chaichongrak and Panin, 2002, p.22).

River or Roadside Linear Villages

Here a group of houses develop linearly from one to several kilometres along a waterway or road and are often only one house deep. Typically these will be found along trade routes, see Figure X below for image of riverside properties. Boundaries between these villages are difficult to identify visually but are marked by administrative differences (Young, 1955). Following the development of houses other essential features such as a temple, community centre and market are built. In the past the market was the centre for the exchange of goods initially through the (*bang bua hair*) and more recently through the money economy. Behind the village would be fruit orchards and beyond those rice fields and other crops (Chaichongrak and Panin, 2002).



Figure 4.3: Photograph of riverside properties with goods sold both from the land and small boats (Chaichongrak and Panin, 2002, p.22).

Cluster Type Villages

In these settlements villagers build their houses in a single cluster and work in the outlying rice fields. Such villages tend to be set back from a main thoroughfare such as a river, canal, railroad or highway that connects the village to a market town or provincial capital (Young, 1955). Cluster formations are typical of northern villages (*Lan Na*) with clusters subdivided into small groups connected by a pathway system. Each group consists of closely built houses that share a small yard; here one or more wells, a raised granary, mortar for pounding rice and a barn for sheltering animals and storing farm implements are located. Behind is a vegetable plot and bathing area. Beneath the granary the area is used for storage and sometimes poultry and pig coops (Chaichongrak and Panin, 2002). These villages have a central square where the village pillar is enshrined and where public activities and traditional ceremonies take place. A large communal pond is used for domestic use and agricultural activity with annual floods and main rains providing water. The house of the governor might be located close by. The other essential feature of *Lan Na* culture is the *wat* or monastery, built as villages became wealthier. This may be located in the village centre or within convenient walking distance. Apart

from the residential houses buildings will have been adapted and constructed to serve as shops (Chaichongrak and Panin, 2002).



Figure 4.4: Photograph of Lan Na village model in Kamthieng House, Siam Society, Bangkok. The *wat* is to the top of the image, cluster groups to either side and rice fields where villagers work to the bottom right

Architecture

Thailand's spirituality and monarchical traditions, its agrarian roots, its rich mix of ethnic and foreign influences, can all be traced in the buildings' (Sthapitanonda and Mertens, 2005, p.7).

Here the vernacular architecture of the wooden or bamboo house, the relationship between interior and exterior and the use of outdoor space will largely be focused on. The Chinese shop houses, '*the building blocks of Thai towns*' (Sthapitanonda and Mertens, 2005, p.13), will also be briefly discussed due to the high percentage of those with Chinese ancestry in Thailand.

Vernacular Architecture: Diverse Forms and Traditions

The traditional hardwood and bamboo single storey house on stilts seen throughout Thailand typically has prefabricated louvered walls (depending on regional location), steep gable roofs for rain run off and to release heat - cooling the interior - and a multi purpose open space beneath the structure. Eave extensions protect the interior from sunlight glare and rain. This is a form that can be backdated to the region's 'prehistory' and is adapted to the country's climatic conditions, geography and the needs of the agrarian people. House construction and orientation is also influenced by supernatural and superstitious beliefs (Chaichongrak and Panin, 2002; Sthapitanonda and Mertens, 2005).

In general, the interior space has two purposes: sleeping and storage. Houses reflect the owner's social and economic standing within a community: whilst the hardwood house (*ruen krueng sab*) tends to be for wealthier people the vernacular bamboo house (*ruen krueng pook*) is where most low-income families live due to the inexpensive materials (e.g. see Figure 4.5) (Chaichongrak and Panin, 2002; Sthapitanonda and Mertens, 2005).



Figure 4.5: Bamboo house (Sthapitanonda and Mertens, 2005, p.36)

Figure 4.6: Hardwood house (Sthapitanonda and Mertens, 2005, p.48)

Throughout the kingdom vernacular features as well as house types, forms and orientation have been adapted over the centuries in response to changing fashions, construction knowledge and the functional requirements of a building. Regional differences including climate,

geographic characteristics, economy, culture, customs, traditional beliefs, local tastes and craftsmanship as well as the availability of locally sourced materials are also reflected in the architectural traditions. Thus many forms of the basic house have evolved (see Figures 4.7-4.10) including: *'the riverside raft house, the stem family's clustered house, the shop house, houses for monks and rice field shacks'* (Chaichongrak and Panin, 2002, p.11).



Figure 4.7: Pavilion. The function of which ranges from relaxation to protecting wells in the north of Thailand (Sthapitanonda and Mertens, 2005, p.42)

Figure 4.8: Field shack. Used by farmers throughout the northern and northeastern provinces for sleeping and storage when working in the rice fields. In the north the space beneath is used for cooking, storage and resting (Sthapitanonda and Mertens, 2005, p.40)



Figures 4.9-4.10: Roadside shophouse; many variations exist with more elaborate designs having the dual purpose of living and trading with goods displayed to the front. Other similar structures include outdoor restaurant booths as can be seen in the left image (Sthapitanonda and Mertens, 2005, p.43).

Chinese shophouses, meanwhile, are two or three storey units with the ground floor level used as a retail shop or wholesale business and upper levels used as residences. The shophouse form, with some modern modifications, continues, *'to be popular among the Sino-Thai and was*

reproduced by the building industry throughout the metropolis' (Kammeier, 1992, p.15-16 cited in Askew, 2002, p.83).



Figure 4.11: Chinese shophouses (Sthapitanonda and Mertens, 2005, p.216).

Beneath the House

Across the country, houses are raised above head height for ventilation, to avoid the annual floods, provide privacy and protect against thieves and animal predators. The space beneath additionally serves as a sheltered multipurpose living area (except beneath single gabled Shan houses of the Upper North). Here agricultural and cooking implements are stored and the space is used for resting and activities such as cooking and washing. In certain households livestock and poultry may also be sheltered here. In the Central and Northeastern regions supplementary activities such as weaving, spinning, basket making and rice bounding also take place, and in the south construction of bird cages and weaving of grass (*krajood*) mats (Chaichongrak and Panin, 2002; Sthapitanonda and Mertens, 2005).

Terrace

A large *chaan* (terrace) is a typical characteristic of traditional houses in both the Central and Northern regions with similar open deck structures found in the Upper North and Northeast. These are multifunctional areas

for relaxation, eating, sleeping, merit making, receiving guests, offering food to monks and ceremonies including weddings and funerals. Most social gatherings take place here or below the house both of which are cool and shaded. In the central regions, the *chaan* lies centrally to the different sections of the building, integrating inside and outside. The *chaan* also provides ventilation and air circulation, offers uninterrupted views to the surrounding countryside and acts as bedroom and kitchen. In the northern region the *chaan* is located by the kitchen or washing area and is used to dry produce, clothes and bedding. In larger properties the terrace may also have an open pavilion in the middle which is used as a sitting room (Chaichongrak and Panin, 2002; Sthapitanonda and Mertens, 2005). The high platform and spacious terrace place emphasis on the importance of outdoor space: '*an obvious architectural response to the prevailing hot and humid climate*' (Chaichongrak and Panin, 2002, p.52), as well as a response to the abundant rainfall, which often leads to flooding.



Figure 4.12: Image of area below house (Sthapitanonda and Mertens, 2005, p.69)



Figure 4.13: Terrace at Kamthieng House, Siam Society, Bangkok.

Kitchens

In the *ruen mai ching* (larger hardwood panelled houses) of the Central and Northern regions and Shan households of the Upper North kitchens are usually built separately to the house. Kitchens need to be well ventilated due to the strong smells created during the cooking of spices as well as the smoke and grime produced by the firewood and charcoal (Chaichongrak and Panin, 2002).

Spirit Houses

In the northern region all houses have a spirit house known as the *hor chao ti*. Ancestral spirits are believed to live here and offerings are made on a daily basis (Chaichongrak and Panin, 2002). Herzfeld (2003) writes that spirit houses, along with sacred trees, are '*the object of individual and kin-group reverence*' (p.110), as well as representing the collective ancestry of the Thai people. Destroying either amounts to sacrilege.



Figure 4.14: Replica kitchen in Kamthieng House, Siam Society Bangkok.

Figure 4.15: Spirit House (Sthapitanonda and Mertens, 2005, p.117)

Plants and Trees

In the central and southern regions large trees, including jackfruit and mango, are sometimes planted in the middle of openings in the *chaan* to provide shade. Terraces are also often decorated with potted plants, growing decorative plants, ornamental fish, water lilies and birds in cages. In yards, trees may be planted to create tranquillity and shade along boundaries but generally not close to the house, as this is considered unlucky. Trees grown include banana, durian, coconut, pomelo and lime and, in the northeast, cotton trees.

Plants in the yard are rarely chosen for decoration, instead, they are for kitchen use: herbs and spices include lemon grass, chilli, galangal and garlic. A medicinal garden (*suan sa-mun-prai*) may also exist. Some plants and trees might be preferred due to their fragrant blossoms including night blooming jasmine (*ma-li*) or white *chempaka* (*Michelia alba*). This is also used in ceremonial wreaths and bushes chosen for their drought and flood tolerance. Other plants and trees are grown as they are believed to be auspicious (Chaichongrak and Panin, 2002; Sthapitanonda and Mertens, 2005; Baker and Phongpaichit, 2005).

In summary, this second section has identified that villages tend to be established around factors relating to soil fertility, the availability of water and connections to trade routes and markets. In both village types water sources act as public spaces whilst the cluster village also features a central square and shared yards. Villages have a distinctive culture and heritage with communities developed around social bonds and kinship ties. The architecture of Thailand, meanwhile, embodies the country's heterogeneous identity reflecting the origins, occupations, histories, languages, religious beliefs and cultural traditions of the diverse ethnic groups within the various regions. The form is also adapted to the climate, geography and needs and superstitions of the people with the use of exterior and interior spaces also reflective of these aspects.

4.03 Administrative Structures: Past to Present

This third chapter section explores local and central political administrative structures from the period the country was known as Siam through to the present day. This is so that social structures influencing the use, role and meaning of open spaces in informal settlements can be contextualised and comparisons drawn.

Local Governance and the Power Elite

In these first two sub sections administrative structures governing provincial societies from the late Ayuttahan period through to the present day will be discussed.

Administration Under the Absolutist Monarchy

Bangkok has been the centre of governance since the 1780s with the bureaucracy pyramidal in structure- extending from the ministry down to the local level. Until 1932, in line with the ideas of nationality, the nation state, societal changes and the demand for a new market economy, Siam was divided into ten large regional areas known as *monthons* for administrative purposes. A Bangkok high commissioner appointed by the

crown oversaw each *monthon*. This administrative reform superseded the control of the aristocratic provincial families and local lords who had governed ministries divided up from the provinces under the patronage of the absolute monarchy. Within their localities, these rulers acted similarly to the monarchs: monopolising trade and key posts in local and central government, controlling lucrative taxation and tribute resources and accumulating wealth and prestige across generations. They were able to do so due to social structuring known as *Sakdina*; here the social ranking and status of the King and the noble elite was linked to a means for comprehensively controlling labour and resources and accumulating the economic surplus of commoners (*phrai*) through personal ties of service and protection. This is known as a patron-client relationship with the following essential characteristics of this relationship, according to Rabibhadana (1975):

'First, it is a personal relationship. Secondly, one party to the relationship is in a superior position to the other, whether this superiority be political, economical, or social. Thirdly there is an element of reciprocity between the parties. This, however, is often a generalised reciprocity, and not one of the balanced kind' (p.2).

Sakdina divided society hierarchically into the elite and the masses from the 13th to 17th centuries (Askew, 2002; Ouyyanont, 2000; Baker and Phongpaichit, 2005; Chaichongrak and Panin, 2002; Young, 1955). The institutionalised political, social and economic system of *Sakdina* additionally supported the, '*centralisation of social status and accumulation on Bangkok because of ruling families' command over resources'* (Askew, 2002, p.24).

This administrative system of personal ties, rule and social control, upon which the political order was based, was officially ended more than a century ago, with all slaves² and bondsmen with a personal tie to a patron

² Slavery was abolished in 1912 (Baker and Phongpachit, 2005)

or overseer transformed into citizens of the state (Baker and Phongpaichit, 2005). Despite this, the *Sakdina* system is the foundation both of much present day Thai administration and of the economic dominance of Bangkok itself (Askew, 2002).

Administrative Changes Post Constitutional Monarchy

Following the formation of a constitutional monarchy in 1932 the *monthon* was abolished and *changwats* (provinces) overseen by a governor became the main administrative division (Young, 1955). Chaichongrak and Panin (2002) claim however that the *monthon* system is the basis for the present administrative structure. Each province was further divided into *ampurs* (districts) administered over by a district officer. The *ampur* is again broken down into *tambons*, or a group of villages commonly called communes, grouped together conceptually for administrative purposes (Young, 1955). Each commune has a supervisory headman or *kamnan* chosen by fellow village headmen (*pu yai ban*). The *kamnan* is usually male and the post much sought after as, at least in mid twentieth century, it was central to networks of commerce and officialdom. *Kamnan* can pool their commercial and official power and '*further profit from illegal businesses and official chicanery*' (Baker and Phongpaichit, 2005, p.159). Village heads are elected by the villagers, with the retiring headmen and his informal council of other village elders (male) and retired headsmen recommending candidates who are then voted for. Election is generally in open assembly; commonly the assistant to the retiring headsmen will be elected as he is familiar with office and will have gained respect with villagers. The headmen may serve continuously with no fixed term '*as long as he retains the confidence and respect of the villagers*' (Young, 1955, p.17).

Central Government and the Monarchy

Having reviewed provincial administrative structures the following subsections move to the capital, exploring recent political events in Bangkok and the administrative and ritualistic role of the Monarchy.

Bangkok and Political Unrest

Thailand has a history of political unrest with a number of coups and attempted coups mounted against the ruling monarchy and various political parties by opposing parties, prime minister against their own cabinets, and the military. Historically, catalysts have ranged from constraining the power of the monarchy and aristocracy, displeasure with financial and judicial reforms, to worldwide ideological struggles. Bangkok has often been the site of this unrest with protests and demonstrations held in the streets and public spaces of the city, some of which have been violent. Following almost every coup and change in government Thailand has seen political reform, changes to the constitution, and the adoption of different forms of rule dependant on the new government's vision for the role and purpose of the state. This in turn has impacted on who the power elite are (Askew, 2002; Baker and Phongpaichit, 2005).

Most recently, the ousting of Prime Minister Thaksin Shinawatra in 2006 following a military coup, plunged Thailand into political crisis with, in 2014 when fieldwork for this research was conducted, Thailand continuing to be split broadly between those who support and appose him. Today, Thailand is ruled by a military government headed by Prime Minister Prayuth Chan-ocha who took power on the 22nd of May 2014 following a coup that ousted the Prime Minister Yingluck Shinawatra, sister of Thaksin Shinawatra. Present reforms are aimed, in part, at ending the political influence of the former government, which is claimed to be guided by the exiled Thaksin (Simons, 2014; theguardian, 2014; The Economist, 2016). Constitution has been redrafted by the junta, which, according to The Economist would *'keep the hands of elected politicians firmly tied'* (2016, para. 2 of 9) reflecting:

'the army's view that popular politics is a form of corruption, and that bickering politicians are the source rather than a symptom of Thailand's deep social divisions.... The prime minister need not be an MP, a loophole

that could allow soldiers to keep bossing elected politicians around'
(2016, para. 3 of 9).

Whilst the next democratic election was not expected until 2016 (theguardian, 2014), in February of 2016 elections had yet to be held (The economist, 2016). Human Rights Watch (2014) writes: '*Six months after the coup, criticism [of the junta] is systematically prosecuted, political activity is banned, media is censored, and dissidents are tried in military courts'* (para. 2 of 13).

The Monarchy

Today, despite constitution, the country continues to have a royal family. However their formal powers and ritualistic and administrative role have, over the years, been decreased or restricted. This has depended on the influence of the ruling elite or ideologies of the governing body at the time, which has also meant that, along with motives of the royal family themselves, the monarchy has been refashioned to present a particular image. Since the Second World War and resultant political landscape, the present monarch, King Bhumibol Adulyadej, has been portrayed as the protector of the people with power flowing down from the King rather than upwards from the masses. Images of the King have been distributed nationally since 1958 with imagery found throughout the country including in shops and houses. The monarchy pays attention to the Buddhist ritual foundations of kingship and consequently King Bhumibol has become the '*defender of the weak*' (Baker and Phongpaichit, 2005, p.180), and the patron and protector of Buddhism. His duty, along with the laity, is to sustain the monkhood by patronage and protection. The monarchy meanwhile is, at present, a symbol of the nation and tradition whilst also being associated with modernity and links to progress and cosmopolitanism (Baker and Phongpaichit, 2005; Askew, 2002).



Figure 4.16: The King set up various rural charities and projects focusing on marginal peoples and rural peasants who had been bypassed by the governments themes of development (Baker and Phongpaichit, 2005, p.179).

The monarchy is protected by a rigorously applied *lese-majeste*, a law that defends their dignity:

'More than a thousand charges have been made since 2005. Most insidiously, charges are commonly brought by one citizen against another, instilling widespread fear. A moviegoer who fails to stand for the royal anthem can end up behind bars for 3 to 15 years' (Simons, 2014, para. 28 of 81).

In summary, this third section has firstly revealed that, despite certain historical administrative and social structures being legally abolished, they continue to resonate in the present day with society consequently hierarchically divided. Secondly, post constitutional monarchy, the country has been divided into provinces that are further subdivided into groups of villages. Each village is overseen by a village head who has commercial and official power and may profit from illegal activity. Thirdly, social structuring has lead to Bangkok's economic dominance and position as the centre of government; consequently the city and its public spaces have historically been the site of political unrest. Fourthly, the country is

presently ruled by a military government and the King today is seen as the protector of the people and the patron and protector of Buddhism.

4.04 Krungthep (Bangkok)

'The contemporary economic and symbolic functions of Bangkok, its role in the broader sociocultural system and its spatial patterning by institutions and people- in short, its urbanism- articulate in various ways with its origin and the dynamics of its transformation since its foundation as the royal capital over two hundred years ago' (Askew, 2002, p.15).

Having reviewed Thailand's geographic and climatic regional differences, religious beliefs, changing social makeup, political structures and architectural traditions, this fourth chapter section solely focuses on Bangkok. Here the capital's urban, economic and social development and changing demographic are explored and the impacts of global events, foreign influences and historical legacies on the nature and direction of development reviewed. At the same time, the city's response to the growth of slums is discussed. This is in order to achieve two outcomes: firstly, to identify the specific regional framework within which slums have historically developed and continue to exist within the city. Broadly, rural to urban migration (or natural population growth according to UN Habitat, 2003) can be cited as the cause of the increase in the number of Bangkok slums (e.g. see Barker, 2012). However, disentangling the factors, which determine the origin, growth and persistence of slums and squatter settlements, as well urban poverty, is extremely difficult. Urban poverty and slums and squatter settlements do not exist by themselves. Instead they exist in relation to an urban area and the social structure of this area (Johnson, 1978). Failure to understand the causes of the development of slums, meanwhile, means that critically aware insights cannot be formed (Roy, 2005; Gandy, 2006). Secondly, to identify how these economic, cultural, political and social processes have manifested themselves in urban socio-spatial terms including in the presence of public spaces and

their use. This is to contextualise use, user dynamics and the types of open spaces (if any) found in the informal settlements studied.

Bangkok: An Overview

The capital city of Thailand, Krung Thep³, known internationally as Bangkok ('Place of Olive Plums') (Barker, 2012), was established in 1782 A.D. following the fall of its forebear Ayutthaya (Mutunayagam, 1974; Askew, 2002). The new royal capital inherited the Ayutthayan tradition of fixing the city, '*as a symbolic and structural locus of political power, social hierarchy and religious legitimacy*' (Askew, 2002, p.16). Thus, since around 1820, when Bangkok's primacy was established, the royal city has been the centre of administration; the economy; modernity; wealth; education; enterprise; domestic and international trade; the seat of government and the domain of the country's trading elite (Askew, 2002; Ouyyanont, 2000; Pornchokchai, 2003). These foundations for contemporary Bangkok's '*demographic, cultural, political and economic dominance of Thailand*' (Askew, 2002, p.23) have progressively been reinforced over the years by economic transformations and, from the 1960s, national development planning. Bangkok has also historically been the dominant urban centre of Thailand with regards to population, which underwent rapid growth during the twentieth and twenty-first centuries (Barker, 2012; Askew, 2002). The city has correspondingly grown in size and importance: expanding from an initial 4.14 square kilometers to 1,568.737 square kilometres in 2003 (Pornchokchai, 2003). The city's political and symbolic significance and economic stronghold has in part been due to the role of Bangkok as an international port (Khlong Toei). The centralization of social status and accumulation in Bangkok has been further supported by the historical system of *Sakdina* (Askew, 2002, Pornpokchai, 2003; Ouyyanont, 2000).

³ Official name: *Krung Thep Mahanakhon Amon Rattanakosin Mahinthara Ayuthaya Mahadilok Phop Noppharat Ratchathani Burirom Udomratchaniwet Mahasathan Amon Piman Awatan Sathit Sakkathattiya Witsanukam Prasit*

Krung Thep: Physical layout

Since the period of King Rama I (1782-1809) Bangkok has comprised of three coexisting and interacting urban dimensions with physical space, *'not only framed by the presence of a royal palace and its associated hierarchical iconography, but by its trade: its river anchorages, its shipyards, warehouses and trading settlements of foreign merchants'* (Askew, 2002, p.20).

Surrounding the royal citadel, settlements of Thai, Mon and Chinese and many other communities with diverse ethnic and religious orientations were spread along the waterways. These occupied floating houses and cultivated surrounding rice paddy fields and orchards, see Figure 4.17 for settlement areas. Houses were connected by nodal points of activity such as local markets where women were central to economic transactions as well as small-scale craft production. Since its founding, slum like communities have also been a part of the growth Bangkok (Barker, 2012; Askew, 2002). These were generally small, well-established low-income communities with strong links to local employers and economies. Most residents had either been there long term or were born locally (Atkin, 1978, p.10-11 cited in Askew, 2002).

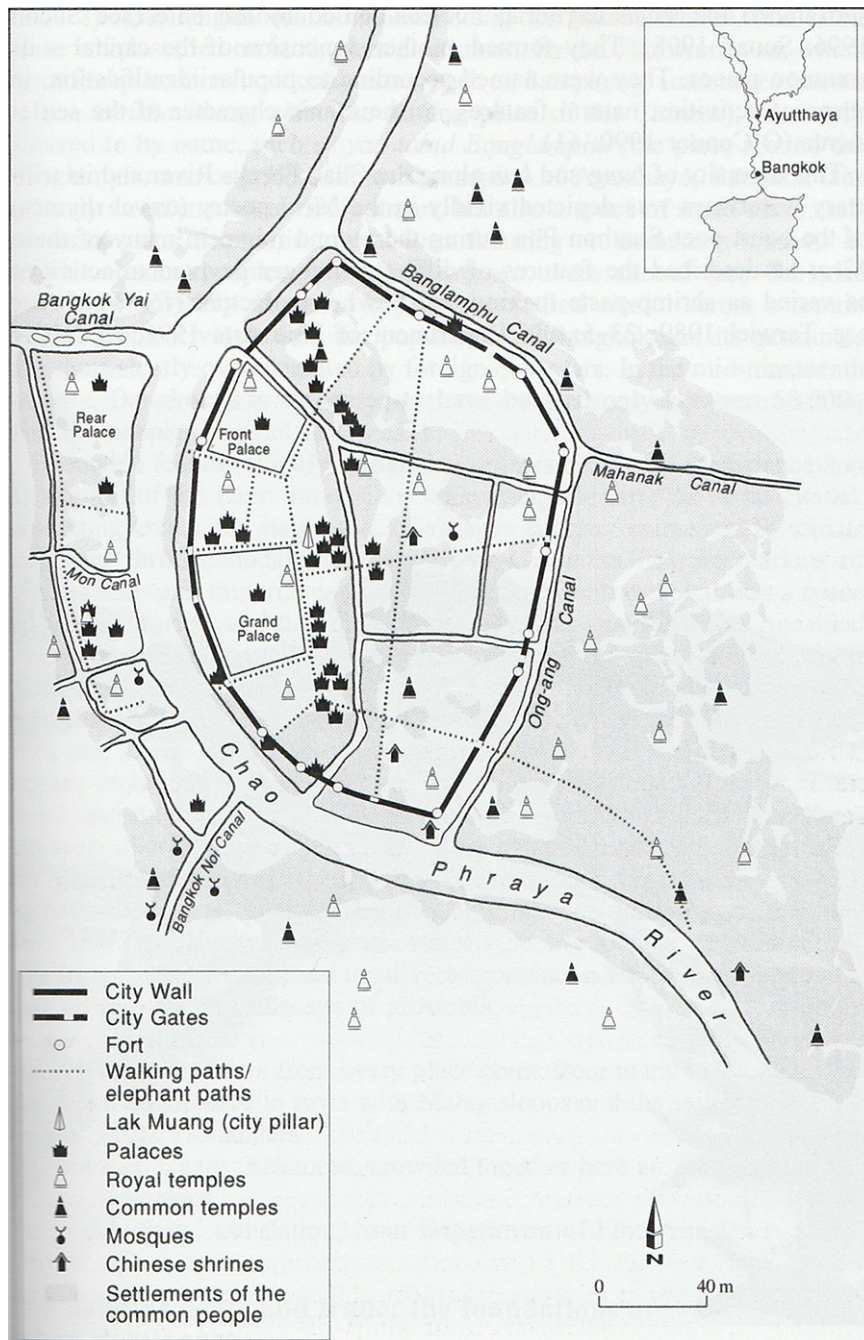


Figure 4.17: Krung Thep c.1820 detailing the relationship between the royal citadel and settlements of commoners (Askew, 2002, p.21)

Bangkok: From Water to Land

From the mid 19th century Thailand was a commercial economy reliant on rice produced by rural small holders as the main export crop and source of government tax revenue. Foreign trade profits, mainly Chinese and European, also significantly contributed to the city's economic development from 1820 through to the mid 19th century, further centralizing wealth in the city. During this period there were minimal

differences between agricultural incomes and urban wages. During the reign of King Monkut (1851-68), Bangkok became a land-based city with roads and streets taking on new significance: expanding trade and business and stimulating the commodification of land and the development of a commercial centre (Figure 4.18 below). European, Thai, Chinese and Indian business enterprises settled along key roads with settlement patterns developing their own dynamic that followed old social patterns as well as evolving economic activities and land uses. Rural migrants and Chinese immigrants were actively encouraged to join the urban labour force, driving population growth into the 1920s. In turn, consumption needs and demand for urban space were generated, fuelling the growth of both business and residential activity. Likewise, a multiplicity of livelihoods was spawned, supporting the various social and economic subsystems of the city whose physical character was changing (Askew, 2002; Ouyyanont, 2000; Baker and Phongpaichit, 2005). Chinese input was noticeable: *'from construction and transport to market gardening and food vending. Above all, it was the Chinese and the increasing number of their Siam born offspring whose multitude of activities supported the growth of Bangkok'* (Askew, 2002, p.29). Multifunctional living and working spaces proliferated, with common physical configurations the *trok* (lane) settlements of wooden houses (*ban ruan*), occupied by Thais, surrounded by rows of shophouses (*tuk thaeo*), occupied by the Chinese (Askew, 2002).

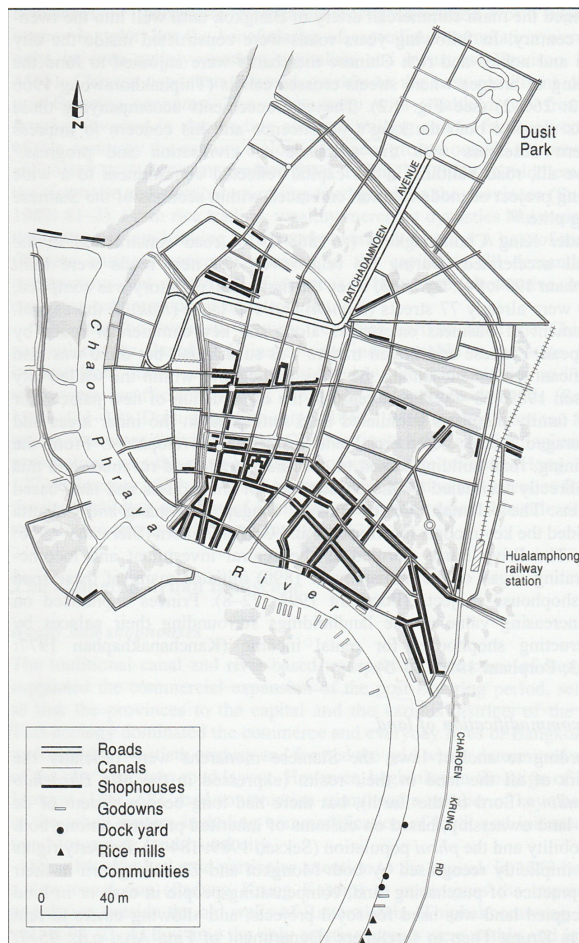


Figure 4.18: Krung Thep c.1910 . Showing roads and shophouses development dividing the city in to districts or *yan* identified by characteristics or activities (Askew, 2002, p.32)

Modernisation

During the reign of King Chulalongkorn (Rama V) (1868- 1910) and the succeeding monarch (Rama VI), the capital was transformed into a space of progress and modernity by the monarch's western inspired architectural and urban projects. The court became the fulcrum of modern symbolism, with the state directing new modes of living and values. Administrative methods were adopted from the west with the objectives of: economic advancement, the state's political integration and the legitimisation of the monarchy. Likewise, western technologies and iconography were drawn upon (Askew, 2002). However, despite the economy continuing to revolve around agriculture, agricultural development was given a, *'low priority behind railway building for defence, magnificent royal construction, and projects of nation building'* (Baker and Phongpaichit, 2005, p.88). During the reign of Rama VI (1910-1925) the focus of royal precinct moved from

Rattanakosin Island to the modern Chitralada Palace in Dusit (Askew, 2002).

Nation State and Nationalist Regime

In 1932 revolution occurred and the political and economic system subsequently evolved with the newly formed constitutional monarchy (Ouyyanont, 2000). This provided the focus for national development, leading Bangkok to develop from a 'port capital' to a more inward looking 'metropolis' with an increasing role as a financial and business centre. This was also the beginning of a state led industrial enterprise [Falkus 1993, p.151 cited in Ouyyant, 2000]. Chinese immigration dropped with the world economic depression with more Thai men and women consequently entering vending jobs and petty trade in the city (Ouyyant, 2000; Askew, 2002). Women were particularly prominent selling foods along streets and canals as well as continuing the practice of selling garden and agricultural surplus at local markets (Sthirakoses, 1992, p.58, 103 cited in Askew, 2002). The society and culture of Bangkok was reshaped with the reduced influence of the monarchy, the creation of the new government city and nationalist regime presided over by the senior bureaucracy. New urban monuments developed by the nationalist regimes proclaimed and encouraged the ideals of the new governing elite (for example see Figure 4.9). Few other substantial physical changes occurred in Bangkok during the years of 1938-44 (Askew, 2002; Baker and Phongpaichit, 2005).



Figure 4.19: Democracy Monument, Bangkok (completed 1940) (Askew, 2002, p.46)

Post World War Two

Following the Second World War, the United States became a foreign patron and protector to the country, seizing on the opportunity for an ally and base for opposing the spread of communism in Asia. By virtue of this patronage, as well as developments in global trade and communications, Bangkok emerged as an international megaopolis. Several foreign embassies and key international organisations were stationed in the city along with increasing numbers of foreign businessmen, advisors, diplomats and journalists. The number of infrastructure and construction projects in the city funded by the US, along with increasing population pressures and exhaustion of land in the Chaophraya delta, led to chronic imbalances between the rural and urban economies. This brought about rapid urbanization in Bangkok with rural migrants, largely from the Central regions, increasingly attracted to the city by employment and educational opportunities, higher wages and survival. The ideologies of development however meant that businesses were able to exploit people and resources

(Askew, 2002; Baker and Phongpaichit, 2005; Mutunayagam, 1974; Ouyyanont, 2000; Groen, 2011). The capital became the centre of governance, prestige, consumption, mobility and status acquisition for the growing Thai and Sino Thai middle classes, following the economic boom. Simultaneously, Bangkok became, *'a key industrial city, a city of the poor, a city of the middle classes and a tourist city'* (Askew, 2002, p.49).

Rural to urban income disparities were further exacerbated from the mid fifties. Firstly, by a government - introduced premium on rice export that resulted in the lowering of purchase prices from small holders (Pawadee, 1987, p.186-90 cited by Askew, 2002). Secondly, by the increased profitability of urban based manufacturing and service industry investment along with industrial development (Baker and Phongpaichit, 2005; Askew, 2002). By 1960, *'the per capita regional of GDP of Bangkok was almost twice that of the central region and over five times that of the North east'* (Thai University Research Associates, 1976, p.330 -1 cited in Askew, 2002, p.57). Despite this, approximately 48 per cent of Bangkok's population (740,000 people) lived in slum like conditions in 1958 (Pornpokchai, 2010 cited in Baker, 2012). Between 1948- 1958 the government constructed 3462 housing units in Bangkok as part of its social welfare policy (UN Habitat, 2003).

Askew (2002) summarises that since the war the socio spatial complex of Bangkok Metropolitan Region (BMR) (today referring to Bangkok proper and five adjacent provinces, figure X, (UN Habitat, 2003)) has been actively shaped by: *'the state, domestic and capital (domestic and foreign) and ordinary people who have actively created the metropolis in their search for livelihood and status'* (Askew, 2002, p.49).

1960s and 70s: The Regional Plan

The post war period was a significant time in the city's demographic, economic and physical development with the population rate increasing

two fold between 1960- 1996. Consequently, Bangkok expanded well beyond its administrative boundaries (Mohit, 1999; Askew, 2002). New foreign and national investment increased the numbers employed within the expanding manufacturing and industrial establishments. Bangkok also continued to disproportionately benefit from American aid directed towards infrastructural projects and those that expanded economic production. Governmental expenditure meanwhile continued to implicitly favour centralisation, consolidating Bangkok's primacy and benefiting key economic actors located there. At the same time changing government policy allowed increasing numbers of Thais into skilled and unskilled employment, previously held by the Chinese, as well as trade and vending positions. Demand for urban labour was further increased by the government's restrictions on Chinese immigration after 1947. Infrastructure construction and new bus services to the provinces aided ease of migration (Baker and Phongpaichit, 2005; Askew, 2002).

Department stores catering to western tastes and retailing patterns expanded considerably in the wake of suburban growth. The decade also saw the emergence of trade centres, based on American models, which focused activity around nodes formed by supermarkets, theatres and other attractions. Fast food chains also became popular, representing an increasing engagement with modernity among consumers. Changes in the rhythm of urban life, along with the development of the suburbs and expanding incomes of white collar workers, encouraged the trend towards 'convenience' or 'one stop' shopping (Baker and Phongpaichit, 2005; Askew, 2002).

Urban expansion and change continued to be determined by market and demographic forces but not matched by housing supply. Slums became more prominent in the city, with fifty identified in 1968 (Askew, 2002; Viratkapan and Perera, 2006; ACHR, 2003 cited in Groen, 2011). Despite the increasing numbers of slum communities and squatter settlements, the government did not implement a long-term, nationwide

low-income housing policy or develop strategies to address low income housing for slum dwellers and prevent their development (Prachuabmoh, 2007; Nathalang, 2007 cited in Yap and Wandeler, 2010; UN Habitat, 2003). Many squatters occupied large tracts of land in evacuated areas typically found in central areas and at the urban fringes. The land occupied often had little value and was unowned and untended by city administrators. High levels of poverty forced squatters to build their shelters from available materials, with each unit accommodating as many residents as it could hold (Mutunayagam, 1974).

In 1973, the National Housing Association (NHA) was set up, initially focusing on the construction of housing and flats for low-income groups (UN Habitat, 2009; UN Habitat, 2003; Usavagovitwong, 2012). In 1975, the Thai government set the target of eliminating the housing shortage by building 120,000 units in five years for those living in slums. However this scheme was subsequently ceased due to a lack of funds (Johnson, 1978; Usavagovitwong, 2012). From 1977 to the 1980's a significant number of sites and service development and slum improvement programs were implemented that promoted land sharing and slum relocation. Factors external to the community - including the new settlement location and funding restrictions, and those internal to the community, including community unity, strength of leadership, low participation and attitude of community members - impacted on the success of these projects (Viratkapan and Perera, 2006). At around the same time, slum upgrading as an approach began in Thailand (Johnson, 1978, UN Habitat, 2009).

Consequently, many young rural people were attracted to cities by education and employment opportunities with migration predominantly occurring from the northeast, the poorest of Thailand's provinces. Here, in 1962-3 three quarters of rural households were found to be living below the poverty line. Whilst many circulated between the city and village for periods of time, gradually more and more moved to the city permanently. From the 1980's, with manufacturing demands increasing, three fifths of additional recruits to the workforce were women. This labour intensive factory work paid more, was less restrictive and had a higher status than housemaid or service work. Women began to outnumber men leaving villages and migrating to Bangkok (Baker and Phongpaichit, 2005; Askew, 2002). It is assumed that many women migrated in order to support their immediate family and fulfill *bunghun*.

As the urban economy boomed, urban expansion accelerated, with the city transformed into zones of emerging forms and settlements that reflected the previous decade's uneven development and societal divisions: in the commercial areas of the inner city high density, high rise precincts rose. Swathes of housing estates (*mubanchatsan*), bought by the new middle classes, filled the outskirts. Large mall complexes developed, serving this expanding middle class population whose lifestyle patterns depended on conspicuous consumption. Ordinary people from low-income communities were also drawn to these complexes (Askew, 2002; Baker and Phongpaichit, 2005). Large slum communities were also more visible with 943 found in the city in 1985 (Viratkapan and Perera, 2006; Ouyyanont, 2000).

1990s: Bangkok, A New World City

Bangkok was designated a 'world' or 'global' city by policy makers and scholars, an important international and regional hub for shipping, air freight and flight traffic. The city was also developing as the centre of telecommunications and media technology in Southeast Asia (Rimmer, 1995, p.190-1 cited in Askew, 2002). Private business along with global

market pressures drove spatial restructuring shaped, to a degree, by the Thai state. New business precincts and upscale residential development appeared in certain areas of the city. Apartments and condominiums increased in some inner city areas at the expense of detached houses, accounting for increased population densities in those locations. Land prices soared thus reducing the options for cheap housing (Askew, 2002).

For nine years following 1986 the manufacturing labour force doubled to nearly five million people. Further agricultural crises further reduced the countryside's contribution to the economy encouraging migration to the city. Increasing numbers of illegal workers from Burma, Cambodia and Laos migrated to Thailand; however state agencies were unable to meet the manifold challenges posed by urban growth with physical intervention in the urban process haphazard and uncoordinated (Askew, 2002; Baker and Phongpaichit, 2005; Pornpokchai, 2003). In 1990, 1,404 slums were identified in Bangkok (Barker, 2012).

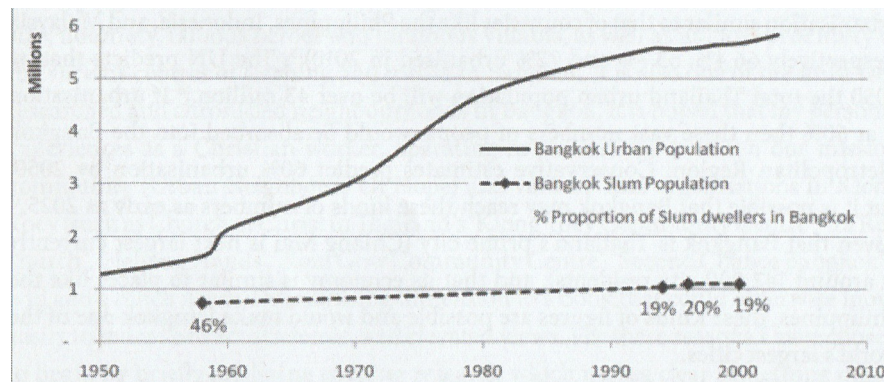


Figure 4.21: Chart depicting Bangkok slum population 1958-2000 (Pornchokchai and Thailand census, 2000 cited in Barker, 2012, p.42)

In 1992 the Urban Community Development Organisation (UCDO) was established within the NHA (Usavagovitwong, 2012). The aim was to extend services for improving housing and upgrading living conditions in slum and informal settlements to the national scale. This was rather than to focus on one project at a time, as conducted previously (UN Habitat, 2009; Usavagovitwong, 2012; Yap and De Wandeler, 2010). Central to UCDO's approach was community participation and providing loans and assistance

for settlement upgrading for projects including: *'land acquisition, housing improvement, house construction, infrastructure installation and livelihood based activities'* (UN Habitat, 2009, p.3). Slum and informal settlement residents were required to organise themselves into savings groups in order to be eligible for assistance. The UCDO also innovatively linked community savings groups into networks within a city or province. Loans were extended to these networks, which were lent on in turn to the community based savings groups. The networks firstly provided a stronger financial basis for savings groups and secondly strengthened the power of community negotiations with landowners and local governments regarding issues such as land sharing, resettlement or upgrading, a weakness of earlier approaches. This was because community groups within a network could share experiences and develop solutions together. Those that were affected by a development project or who shared the same landowner were also linked. In the case of eviction, for example, they could support each other in negotiations with the landowner and find alternative solutions (Boonyabancha, 2005; Boonyabancha, 1999 cited in Yap and De Wandeler, 2010).

By 1995, half of the total manufacturing labour force was female with women also supplying much of the labour needed by the booming urban economy. *'They carried bricks on construction sites, staffed the department stores, sold noodles on the pavement, hawked T-shirts in the markets, and welcomed the tourists in the hotels and bars'* (Baker and Phongpaichit, 2005, p.211).

4.05 2000 – 2016 Bangkok: Slum Upgrading Approaches

Following the historic review of Bangkok's urban, economic and social development and approaches to slum growth, this final section begins by focusing on the present day: exploring the city's social makeup, political and economic structure, and urban and economic development over the

last sixteen years. The section then explores current, participatory approaches to slum upgrading, and the role and influence of different actors within these processes. Here, the opportunities and threats that shape change within informal settlement areas in relation to open space interventions are also discussed. These aspects are explored so that knowledge may be gained with regard to the potential role of landscape architects working within informal settlement areas.

Social makeup

In 2010, at the last official census, the total population of Bangkok was approximately 8.30 million people, constituting 12.6 per cent of the overall Thai population (65.98 million) (National Statistical Office, 2010). The actual figure is likely to be higher, however, as the figures given may not have included migrant workers who work permanently in the city but reside in the city's informal settlements and in the provinces. Seasonal and circular migration also causes Bangkok's population size to vary considerably throughout the year, with people frequently returning to their villages to support family members and work on their land (Barker, 2012; Yap and De Wandeler, 2010). In 2003, most of Bangkok's inhabitants were 'native' Thais, with around twenty five per cent of the city's residents either Chinese or of Chinese descent. Europeans, Malays, Arabs and Indians also make up a sizeable proportion of the population (Pornchokchai, 2003). The city's districts or *yan* express the different patterns of life amongst Bangkok's growing and diverse population, whilst also sustaining traditional ways of life (Askew, 2002).

Political and Economic Culture and Public Space

Today Bangkok remains the principal stage on which national political and ideological dramas are played out, with key spaces and symbols in Bangkok reflecting this political action. The city continues to be the regional, commercial and transportation hub, and is home to all of the country's

main financial institutions and the regional headquarters of many international companies (Askew, 2002). In the face of a globalized and highly competitive travel industry and the need to maintain business investments, the city has prioritised economic development, modernity and progress. This is reflected in an ever-increasing expanse of condominiums, office buildings and shopping malls (ACG1, 2011). Consequently, Bangkok continues to be Thailand's '*cultural capital of global modernity*' (Askew, 2002, p.104). Here, new styles, objects and artefacts are appropriated by an expanding consumer market for both practical and symbolic purposes with shopping malls the focus of sociability '*based around consumption, display and refashioning of identities*' (Edler 1996 p.17-30; Van Esterick 2000: 123 cited in Askew, 2002, p.105).

The physical form of public spaces likewise reflect Bangkok's on-going dynamic transformation caused by the interaction between structural, economic and political changes. These in turn respond to: broader global processes; the country's social, cultural, economic and physical structures and traditions; and the livelihoods, customs and social aspirations of the people who live there. Green space has, however, been neglected during the drive for economic development. In 2011, there were only three-square meters of green space per person across the Bangkok Metropolitan Area (BMA), according to a survey by the Asia Green City Index (AGCI). This is well below any other Asian city in a similar state of development, with the average green space per inhabitant in the twenty-two cities surveyed thirty-nine square meters (AGCI, 2011).

Urban Growth and Unequal Development

Following the 1997 financial crisis, Thailand's economy grew rapidly (Ungpakorn, 2010; Kakwani and Krongkaew, 2000 cited in Chutapruttikorn, 2011), and by the early 21st century Bangkok was considered '*an administrative metropolis or an economic megalopolis*' (Pornchokchai, 2003, p.3). The financial development of the city has not

benefited people equally however, with the rich the main beneficiaries (Ungpakorn, 2010 cited in Chutapruttikorn, 2011). During the same time period, incidences of poverty in Thailand also increased with the numbers in urban poverty increasing at a higher rate than previously (Yap, 2002 cited in Chutapruttikorn, 2011). A combination of these events has resulted in an increasingly differentiated class structure, and a widening gap between the rich and poor. Bangkok is consequently marked by social and economic inequalities and biases in development, which favour the rich over the poor (King and LoGerfo 1996; Pounksomlee and Ross, 1992 cited in Chutapruttikorn, 2011). Despite this, the city's financial development continues to attract rural migrants in search of education, health services and employment opportunities. At the same time, between 2000 and 2005, about half of the urban growth in Asia was caused by natural population increase. These events have resulted in rapid urbanisation across the in Bangkok (as across much of the global south) (UN Habitat and UN ESCAP, 2008a cited in Chutapruttikorn, 2011).

Without proper strategic planning, many metropolitan authorities in the global south have been unable to deal with the variety of housing demands and lack the capacity to deliver appropriate infrastructure supplies to serve a diversity of economic and social needs (Ooi and Phua, 2007). In Bangkok, the shortage of formal housing options, the expense of renting or buying formal market land and housing, and the lack of available urban land has resulted in those who lack financial means building their own houses. This has increased the emergence of informal settlements which are scattered all over the city, typically on small plots of land in between other land uses (UN Habitat and UN ESCAP, 2008; Askew, 2002; Chutapruttikorn, 2011; Boonyancha, 2005; Askew, 2002). Whilst these living arrangements are both affordable and respond to basic living needs, substantial numbers of the Thai urban poor are forced to live on low value, unsafe land that may be prone to flooding or landslides, or be situated alongside railway sidings and canal banks. Many are also relegated to settle on peripheral land, far from infrastructure networks and employment centres (UN Habitat and

UNESCAP, 2008b). Thus, despite UN Habitat (2003) claiming that slum areas are on the decrease in Bangkok (citing 1020 areas in 1985 and 866 in 2000⁴) a population census taken during 2000 showed that more people than ever lived in the city's slums, around 1.43 million or 22 per cent of the population (Barker, 2012). This is supported by the NHA, who reported 1208 slum settlements in the city in 2000, with increasing numbers also identified in suburban areas and provinces adjacent to the capital (NHA, 2002 cited in Viratkapan and Perera, 2006). Many informal settlement dwellings are temporary structures as dwellers are not allowed to build permanent ones. Consequently, buildings lack permits, do not adhere to building regulations and are unauthorized from a regulatory perspective (Yap and De Wandeler, 2010; Usavagovitwong and Posriprasert, 2006). The lack of secure land tenure, the fundamental problem facing slum dwellers, means that residents are vulnerable to eviction or relocation when land is required for other uses (Viratkapan and Perera, 2006; Yap and De Wandeler, 2010; Usavagovitwong and Posriprasert, 2006). These factors also mean authorities do not tend to provide basic infrastructure beyond electricity. Certain building and planning regulations meanwhile are 'anti-poor', unsuited to communities with limited space (Archer, 2009). This often results in poor physical conditions, with dwellers also consequently discouraged from improving their living environments (Yap and De Wandeler, 2010; Usavagovitwong and Posriprasert, 2006).

Government Housing Policy

As described, since the 1940s successive governments have proposed multiple housing policies in response to the development of informal settlements in Thailand. These however have tended to be reactive rather than proactive, with few attempts made to prevent informal settlement development by setting aside land for housing. Thailand therefore does not have an explicit long term housing policy that responds to affordable housing needs for

⁴ This discrepancy may be due to differences in interpretations of a slum and because municipalities did not want to recognize their existence (Pornchokchai, 2003)

low-income residents (Prachuabmoh, 2007; Yap and Wandeler, 2010; Pornpokchai, 2003; UN Habitat, 2003). The country's housing problems have, up until now, not been solved effectively because Thai society continues to be informed by the unequal and hierarchical system of *sakdina* and patron–client relationships (CODI no date cited in Archer, 2010; Girling, 2002; Dechalert, 1999; Gohlert, 1991: 79; Ungpakorn, 2010 cited in Chutapruttikorn, 2011). Likewise, the patron-client style administrative system continues to exist at all levels of bureaucracy with social hierarchies displayed in Thai political culture, universities, departments and systems of government (Rabibhadana, 1975; Asian Development Bank, 1999). The government's approach has thus always been highly centralised and dominated by a small set of, '*political, military, administrative and economic elites*' (Asian Development Bank, 1999, p.3). These controlled both public and private commercialised land, discouraging land being provided for the urban poor through legal or legislative means. Government agencies were also often outcompeted by private businesses such as developers when attempting to acquire suitable land for the poor (Boonyabanacha, 2009). Bureaucrats unaccountable to the public meanwhile typically dominated decisions' regarding national administration, with the state focussing heavily on construction targets and failing to create relationships with the urban poor (CODI no date cited in Archer, 2009; Dechalert, 1999). In addition, the government used programmes focused on slum upgrading for their own political and financial gain (Yap and De Wandeler, 2010).

Following the 1997 financial crisis, there was a shift in national policy towards democracy, decentralisation, localism and participatory approaches to development. This institutional and political environment, introduced by Thaksin Shinawatra's government, heavily challenged the *sakdina* system (Callahan, 2005). This has advanced Thailand to a more direct participatory structure in many respects, with people accorded political and social rights through the 'people's constitution' (Munger, 2007 cited in Chutapruttikorn, 2011). The fundamental national law has also

been important in the empowerment of ordinary people, and in enabling and providing opportunities for current participatory and community engagement approaches to slum upgrading (Archer, 2009; Thabchumpon, 2002 cited in Chutapruttikorn, 2011).

CODI and Baan Mankong: Participatory Approaches to Slum Upgrading

In 2003, the Thai government launched two programmes with the aim of improving the urban low-income housing problems in Thailand and achieving cities without slums by 2007:

- *Baan Ua Arthorn* ('we care housing') house construction programme led by the NHA. Here, affordable house and apartments are designed, constructed, managed and sold by the NHA at subsidised rates to lower income earners or the urban poor. Service areas and basic infrastructure are also provided. In 2010 however, the programme was confronting heavy financial losses with the proposed target of 600,000 units halved when costs became unrecoverable. The programme also struggled to reach the target groups with corruption allegations made against it (Yap and De Wandeler, 2010; Archer, 2009; Viratkapan and Perera, 2006);
- *Baan Mankong* (secure housing) programme led by the Community Organisations Development Institute (CODI). CODI were formed in 2000 when the UCDO merged with the Rural Development Fund (RDF), so that slum-upgrading services could be extended to the national scale. *Baan Maankong* aimed to improve housing, living and tenure security for 300,000 households in 2000 poor communities in 200 Thai towns (Yap and De Wandeler, 2010; Archer, 2010; Viratkapan and Perera, 2006). Despite the target not being met by 2010, 'figures from June 2009 show that over 80,000 households across Thailand have benefited from upgrading, covering 1,300 communities' (Archer, 2010, p.1). By 2014, *Baan Mankong* had

reached 96,000 households in 1,800 communities (Bhatkal and Lucci, 2015).

Baan Mankong is a decentralised, non-hierarchical response to previous housing policies for the urban poor (Archer, 2009; Bhatkal and Lucci, 2015; Boonyabanha, 2009). Here CODI support the urban poor in negotiating tenure security, either through leasing or buying land, and implementing their own upgrading solutions for their communities. Community members themselves own resultant developments (Archer, 2009). This includes planning and developing a variety of housing options and performing improvements to their housing, environment and basic services. This collective action approach encourages the traditions of subordination to be broken down, and marks a change from the culture fostered by patron-clientism, where the poor were regarded as passive beneficiaries in previous policies and programs (Archer, 2009; Boonyabanha, 2009; Bhatkal and Lucci, 2015). The programme does not simply aim to secure land and housing but to build stronger communities and social support systems. This is via the relationships created through land acquisition and by linking communities together to instigate a variety of collective development projects for addressing the multiple needs that result from their poverty in a more integrated manner (Boonyabanha, 2009). Collective action through community savings groups, the formation of community networks and the securing of legal tenure underpin the programme (Archer, 2009). Each of these will now be discussed in more depth.

Community Savings Groups

CODI place emphasis on working with community based savings and loan groups managed by a community cooperative so that residents can qualify for a government loan to build a house or purchase land (UN Habitat, 2009; Archer, 2009). Once a savings group is established, soft housing development, land purchase loans and infrastructure subsidies are channelled through CODI directly to the community cooperative rather

than individual households. These loans and subsidies enable communities to upgrade their houses, community environments and infrastructure, including constructing community spaces - an opportunity for open space development (Usavagovitwong and Posriprasert, 2006; Yap and De Wandeler, 2010; Boonyabancha, 2009). The creation of self-run savings groups, along with the implementation of small-scale collective projects, such as environmental improvements, ensures that communities have the capacity to act collectively. This is a significant factor in the successful implementation of large-scale participatory programmes (Archer, 2009).

Community Networks

CODI support the formation and management of networks of slum communities who share landowners, difficulties in common or location within a city. Networks strengthen social capital⁵ by bridging social relationships and supporting the formation of relationships between community members or communities. This helps to prevent patronage ties being created, provides support for individual families who have little or no strength on their own and reduces the isolation of communities.

Community networks also provide mechanisms for communities to learn from each other's upgrading experiences, to collectively create solutions to support each other's needs, and to assist each other with internal problems through the benefit of a broader perspective. This increases the knowledge and self-confidence of the communities who participate and empowers them to operate effectively in the urban land market by increasing their purchasing power. Their capacity to manage their own problems and fight for their rights to the city and adequate housing is also enhanced.

Collective action also magnifies the urban poor's voice, with mass demonstrations organised by groups needing to negotiate with state authorities or other higher powers. Finally, the collective also supports communities in selecting land that works for them in terms of price,

⁵ Using Archer's (2009) adoption of the term, social capital is: '*composed of the norms and networks that enable people to act collectively*' (Woolcock and Narayan, 2000 cited in Archer, 2009, p.7).

location and size and according to the specific needs and conditions of an individual community (Yap and De Wandeler, 2010; Archer, 2009; Boonyabancha, 2009; Usavagovitwong and Posriprasert, 2006; Dechalert, 1999 cited in Usavagovitwong and Posriprasert, 2006). The likelihood of upgrading projects being achieved is increased by communities working collectively, and when a network of communities demonstrates what they are able to achieve together, this can change how they are perceived by outsiders, spreading the means to bridge social capital wider (Archer, 2009).

CODI provides a platform for each community network to establish partnerships and receive input from multiple other stakeholders: local government officials, such as municipal district officers; CODI staff; NGOs; and professionals such as architects and academics who provide expertise (UN Habitat, 2009; Usavagovitwong, 2012) (see Figure 4.22 for *Baan Mankong* programme mechanism). These act at the level of policy and decision making, working together within the formal structure of national development policy and national authority's decision-making processes to enhance channels for increased support, and to avoid conflict and misunderstandings concerning the upgrading scheme (Usavagovitwong and Posriprasert, 2006). The role of stakeholders will be explored in further depth later within this section. Permission is also required from the local district authority for building permission. Effective upgrading schemes reflect effective working between all these partners. The schemes create a bridging relationship between government officials (and others in positions of power) and community members, providing opportunities for economic and social improvement (Archer, 2009). The partnership initially collaboratively surveys informal communities within the city, analyses information and builds a database of community problems, limitations, priorities, tenure types, collaborative activities, physical surveys and existing savings groups. Based on this information, citywide plans are drafted for upgrading solutions as well as for identifying both public and

private land suitable for housing (Usavagovitwong and Posriprasert, 2006; Archer, 2009).

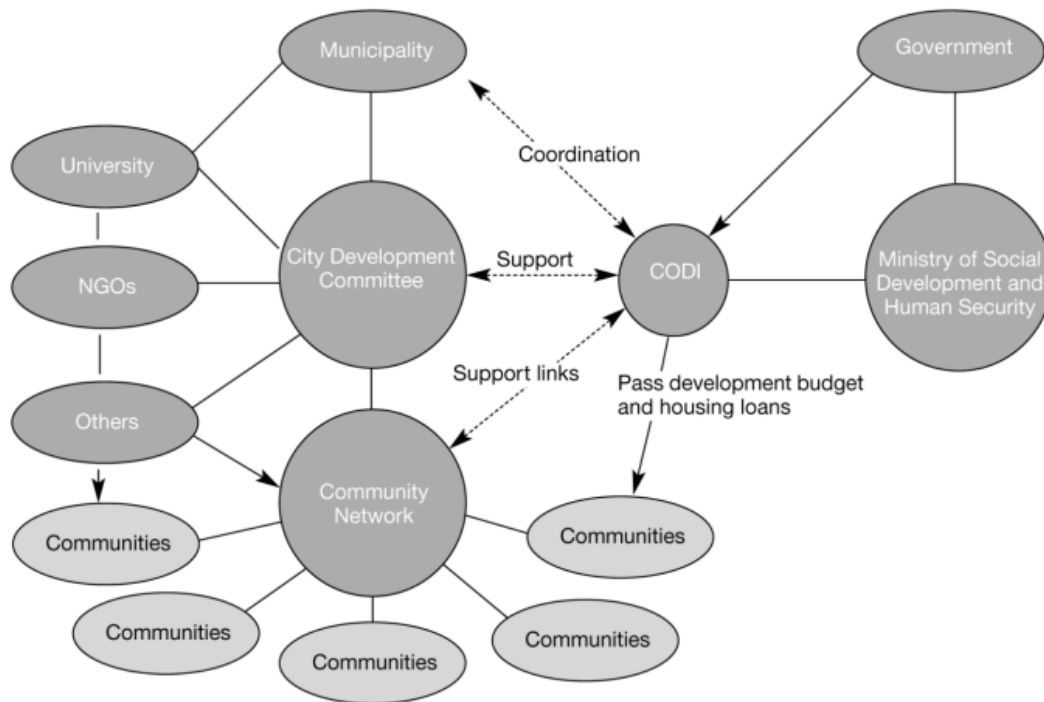


Figure 4.22. *Baan Mankong* programme mechanism (Boonyabanha 2005 cited in Usavagovitwong, 2012, pg.23)

Tenure Security and Landowners

In order to gain tenure security, a community will try to buy or lease land prior to upgrading, with emphasis placed on communal tenure rather than individual household ownership. This partially mitigates against the sale of land to community outsiders, for once land tenure has been formalised and housing projects completed the land is subject to much stronger market forces. Collective land tenure systems can therefore enable a community to exert some control over the land and house transactions, buffering them against market forces and preventing the community from fragmenting (Usavagovitwong, n.d cited in Yap and De Wandeler, 2010; Boonyabanha, 2009; Boonyabanha, 2005 cited in Yap and De Wandeler, 2010; Archer, 2009; Bhatkal and Lucci, 2015). This also enables development projects to continue long after tenure security is achieved, with responsibilities coming with being a member of the landowning collective. Individuals can likewise become involved in improvements to shared spaces and the

community environment, increasing the likelihood of long term management of open space interventions by community members. The fact that the land is a common asset creates impetus for shared responsibility to decide on how it is used and managed (Boonyabanha, 2009; Archer, 2009). Securing land tenure and house registration certificates also encourages people to invest in improving their environment, and the government to provide infrastructure and basic services such as water and electricity. This is because their status is changed from being illegal and informal to being legitimate and secure citizens of the state, giving them the right to build and install services (Usavagovitwong and Posriprasert, 2006; Boonyabanha, 2009).

Land tenure security is negotiated one community at a time with outcomes dependant on the particular circumstances and the approach of the landowner (Usavagovitwong and Posriprasert, 2006; Yap and De Wandeler, 2010). Thus the landowner is an influential actor in slum upgrading, providing opportunities or presenting a threat to change depending on their approach. In the BMR there are a variety of landowners who all have different approaches to accommodating slum dwellers; whilst some will sell their land to the communities, others will try to evict them. The Port Authority of Thailand (PAT), whose land Khlong Toei is developed on, is cited as being less accommodating, wanting communities to relocate. This is because the PAT has over many years planned to develop the land for commercial gain (Askew, 2002; Hoy San Diego, 2016). The Treasury Department (TD), who own the majority of public land in Thailand, and Crown Property Bureau (CPB), by contrast, are more inclined to cooperate with CODI and allow communities to stay on the occupied land and upgrade their communities. The TD additionally agreed to reduce rental rates by fifty percent and to give long-term collective leases to many communities residing on the department's land (Yap and De Wandeler, 2010; Boonyabanha, 2009). When negotiating with landowners to upgrade or develop housing projects from scratch, it is vital to convince them of the possibilities, for example that commercial exploitation is not

the only viable use of public land and that granting long-term land leases to the urban poor helps them to improve their housing and environmental living conditions. This can transform them into proper settlements, which can generate rental income. In turn, this will enable residents to improve their lives and develop themselves; a viable and socially equitable use of public resources (Boonyabancha, 2009). Upgrading slum communities is also likely to have impacts on surrounding land values, increasing the influence of the urban poor as economic actors within the city (Archer, 2009; Archer, 2010).

Community Upgrading

Under *Baan Mankong*, individual communities are encouraged to collectively make decisions and plan, manage and administer their community layout, house design and construction, and infrastructure construction themselves. This is in response to specific needs, local priorities and possibilities rather than imposed solutions. Community members use their local knowledge of a site and learn new skills from the local development partnership between community members and other stakeholders. These relationships as well as skills learnt through training and job creation empower them and ensure improvements can be sustainable (Usavagovitwong and Posriprasert, 2006; Yap and De Wandeler, 2010; Archer, 2009; Boonyabancha, 2009).

Community Upgrading comes in multiple forms, which can broadly be classified into the following options (UN Habitat, 2009; Usavagovitwong, 2012; Archer, 2009; Usavagovitwong and Posriprasert, 2006):

- Upgrading: the settlement layout and plot size and shapes remain the same with houses, paths and roads, and open spaces improved.
- Re-blocking: some or all existing plots are demolished and newly constructed dwellings and pathways redistributed in settlements that are difficult to improve. Where houses are developed close together this provides opportunity for open space development and

amenities such as playgrounds, infrastructure routes and/or community centres. Groups of houses can be arranged in clusters around commonly shared spaces where activities, including home based economic activities, can take place. This can help to maintain small social groupings, supporting social cohesion and the community's collectivity. Such opportunities are not possible from high rise buildings or apartment blocks. .

- Relocation: if upgrading or reblocking is impossible, the community will find a new site.

The Role and Influence of Different Actors in Slum Upgrading

As described, CODI provide a platform for each community network to establish partnerships and receive input from multiple other stakeholders: local government officials, such as municipal district officers; NGOs; and professionals such as architects and academics. This final section of the context chapter reviews the role of each of these stakeholders, as well as community leaders, community members, NGOs, and landscape architects, and discusses the influences affecting each of their contributions. Here the opportunities and threats that shape change in the settlement areas are also discussed, as for landowners in the previous section. It must be acknowledged that discussions are not comprehensive, with each community presenting its own opportunities and threats dependant on factors including history, location and internal politics.

Community Leaders

Community leaders play an integral role in unifying or dividing communities and present both opportunities and threats to changes in informal settlements, depending on the individual. For example, community leaders control information coming into a community and represent the community to outsiders, with community members relying on them to act on their behalf through slum networks and with official

bodies. They also negotiate with agencies involved to organise alternative resources and land for a resettlement project (Archer, 2009). Where a community leader is accountable, transparent and open to collective input, participatory projects are more successful, with community members increasingly prepared to make repayments, be cooperative and participate. This also has considerable impact on the empowerment of residents (Archer, 2009). Strong leaders, who receive strong support from communities, can additionally mobilise communities into action and unite them. During periods of transition and uncertainty, where there is strength of leadership, the relationship between the leader and other community members can be sustained. Strong leadership is also crucial for sustaining the momentum of development initiatives (Viratkapan and Perera, 2006). There may however be distrust in the community cooperative if a community leader or committee hasn't been officially or democratically elected. A corrupt community leader also has the potential to 'break' communities (Askew, 2002). Thus, it is vital that communities maintain and promote strong internal social ties, for example through democratic community elections, community events and groups. In participatory processes, community power relations must also therefore be considered. It is also important to talk to ordinary community members and not simply community leaders in order to gain understanding of how residents perceive themselves and one another, and their ability to work collectively (Usavagovitwong and Posriprasert, 2006; Archer, 2009).

Community Members

Community members themselves also present both threats and opportunities to community development and therefore open space intervention. The majority of those who live in informal settlements are poor and their lives often fragile, with incomes low and uncertain. They are vulnerable to the threat of eviction, fire and/or natural disasters. Residents have to determine what options work best in terms of the economic and social realities of their lives. Consequently, they may not be prepared to invest time or money into an open space intervention unless the outcomes

are tangible to them. People are also less likely to wish to participate following disasters or eviction threats because these events can break social bonds and reduce social capital (Archer, 2009). It is therefore important that residents recognise the benefits of upgrading or an intervention, with the positive and optimistic attitude of members towards changes proposed an important contributing factor to success (Usavagovitwong and Posriprasert, 2006; Archer, 2009; Yap and De Wandeler, 2010; Archer, 2010; Viratkapan and Perera, 2006). The economic situation of community members plays an important role in the process, and upgrading programmes where savings are required are often only effective for those who can afford to invest and require little financial and technical support to improve their conditions. This is due to the financial strain of repayments, with members having to take on fifteen-year debts in *Baan Mankong*, and having to work harder to do so (Archer, 2009; Yap and De Wandeler, 2010). In terms of upgrading, this comes at a time when community member's lives are unstable as they make the transition from illegal and informal to legal and formal, with the accompanying social and economic unsettlement. A community with many poorer households can therefore jeopardize upgrading programmes: '*[w]hen acceptable and affordable solutions become more difficult to reach and costs increase, the poorest of the poor will find it harder to remain among the beneficiaries'* (Yap and De Wandeler, 2010, p.339). Likewise, at the intra-community scale, community networks are at risk if people do not have the time or resources to participate, impacting on the collective ability to promote changes and influence vertical connections to government agencies and those with money and resources (Archer, 2009). The support of other members and cooperatives is important in such instances, with collective tenure a means for protecting the whole group. For instance, interest is charged by the collective meaning there are funds available if someone is unable to make their monthly repayment for whatever reason. Individually, if someone loses their job or a family member falls ill they are much more vulnerable to market forces. Groups that work together to develop their communities improve social networks and collective support

structures, increasing their resilience to external changes. Likewise, a culture of interaction and togetherness is fostered, helping to protect more vulnerable members, reducing isolation and improving safety as people know each other (Boonyabantha, 2009). Community unity is therefore an important factor contributing to an upgrading project's success (Viratkapan and Perera, 2006), and consequently to an open space intervention.

Somchai (1997 cited in Askew, 2002) cites a number of personality characteristics of Thai slum people that present obstacles to development work, including: acceptance of hierarchy and patron-client ties; people not listening to those who are of equal or lower status to themselves; a belief in personal fate to explain problems; an acceptance of authority and respect for officials; and a dislike of working in groups (p.149-150). The acceptance of existing social hierarchies, for example, means that those who are hierarchically lower can be marginalised and 'voiceless', as the majority of existing informal settlement communities in Thailand operate in a centralised and top down manner. This presents a threat to open space interventions being developed that meet the needs of all community members and not simply those who are further up the existing hierarchies. To increase the feeling that all members are equally responsible for the community's management and can be equally involved in development projects it is important that processes surrounding such projects are participatory, with land held collectively and managed non-hierarchically (Boonyabantha, 2009; Lemanski, 2008 cited in Archer, 2009). A review of the *Baan Mankong* project by Archer (2009), however, does also challenge some of these characteristics, stating that communities did demonstrate an ability to work in groups and managed to build professional relationships with CODI, their land owner and the district authorities. Whilst some residents continued to demonstrate deference to officials, they also gained some independence by being able to meet their own needs through savings groups and support groups.

All communities participating in the *Baan Mankong* programme displayed internal problems that presented barriers to the participatory and savings group based upgrading approaches. These included mismanaged funds, different ideas and internal politics. For example, members tactically used non-repayment of loans to undermine decisions they were unhappy with. There were also disagreements which led to community divisions, such as how to use the land or who benefitted the most from a decision. Communities with financial and social inequalities were also likely to lead to more divisions, as these were particularly sensitive issues (Boonyabancha, 2009; Archer, 2009). Conflict management is therefore important with solutions sought that have the least adverse effects for everyone (Usavagovitwong and Posriprasert, 2006). Such problems additionally impact on trust, impacting on the chances of future collective action. Participatory processes are therefore more likely to succeed in communities where there are higher levels of trust and which are more likely to adhere to the norms of collective action and reciprocity. According to Archer (2009), where the physical layout of upgraded communities facilitates community interactions and the participatory process itself, trust can be improved. Likewise, where there is a balance of power and reciprocity between community members and the state, participation is most effective. Typically, however, community members do not hold government agencies in high trust due to power inequalities within these vertical relationships relating to patron-client ties. Trust levels must thus be strengthened between the communities and the state to promote a more equal relationship. This can be achieved through the improved efficiency of the government in addressing problems in and facilitating cooperation with slum communities, essential for mutual benefit: *'reciprocity is a vital component in trust creation, and this has policy implications for the attitude of government bodies towards low income communities'* (Archer, 2009, p.217). To form such a relationship, close contact is essential, achieved through ensuring those with official positions, such as district officials, do not change too frequently.

Archer (2009) notes, however, that participation in collective action alone is not a proven method for improving community trust and further participation. During *Baan Mankong* projects, people were found to be less likely to participate once they had constructed their houses, impacting on the development of further community unity (Viratkapan and Perera, 2006; Archer, 2009). This has the potential to impact on an open space intervention. Participation is thus crucial at every stage of the upgrading process, including post relocation and consolidation stages, according to Viratkapan and Perera (2006). Other threats to participatory processes include that newcomers to the community and second generation settlers may not be as involved in community activities as the original community members, and that younger generations of residents are more likely to enter the formal sector as they are more educated than older generations. This has the potential to impact on the amount of time they can commit to community development activities and how much they relate to community unity. In addition, they may not understand the community needs as the older generations did. In response, Viratkapan and Perera (2006) state that increased attention must be paid to this potential issue in order to maintain and/or enhance the development performance of newly relocated communities. Viratkapan and Perera (2006) found that specialised community activities needed to be introduced that promoted active participation, in order for projects to be sustainable in the long term and for the community to be empowered and develop a sense of togetherness and belonging. These took the form, for example, of women's groups, vocational training or youth groups, supported through a partnership process involving community based organisations or the local authority. Likewise, it can be assumed that such an approach is more likely to increase open space interventions being maintained appropriately.

In terms of communities who do not have secure tenure meanwhile, these may be unwilling to invest financially or in terms of time for fear of eviction. Likewise, due to their lack of legal status they are not regarded as tenants of the state and are not legally positioned members of the city, meaning

they lack political influence and do not have the right to demand services. Consequently, they may not be able to ensure an open space intervention is maintained, as they will not be able to facilitate access to government agencies such as for sanitation or refuse collection, or hold government officials accountable if such roles are not performed (Archer, 2009). In addition, due to their social positions, low income households usually confront the inaccessibility of financial capital as a result of poor credit rating. Consequently, the development of household and community environments is difficult to actualise. Increasingly, however, a number of financial institutions have agreed to develop lending programmes targeted at low-income families by offering credit in the form of social collateral. This means that the credit risk for low income people is guaranteed by their reputation and social network (Bastelaer, 2000, p.2 cited in Chutapruttikorn, 2011). Such a lending programme has the scope to support the development of open space interventions in low income communities.

Local Government

As described, local government departments may be the landowners and therefore must be negotiated with prior to upgrading or implementing an intervention. CODI support community members in their negotiations with the local *Khet*. Government agencies also hold responsibility for sanitation and refuse collection as well as the maintenance of open spaces that they have developed. For example, the local government developed the sports park in Khlong Toei and continue to employ staff to maintain and manage the space. See Chapter 5.0 , 5.03 'Planned 'Public' Spaces (Public Actors)' for a more in-depth description.

NGOs

Since the 1980s NGOs have worked increasingly with low-income communities (Usavagovitwong and Posriprasert, 2006). Following the 1997 policy changes towards decentralisation, NGOs in Bangkok's informal

settlements focussed on developing community based organisations in order to foster an increasingly sustainable approach based on self-help and solidarity. These include community development, anti-eviction activities, and income and environmental improvement, often by providing community members with methods for changing their self perception in order to achieve their goals (Askew, 2002). In terms of *Baan Mankong*, NGOs from the Chumthonthai Foundation, played a pivotal role in supporting community based social and economic development to upgrade physical conditions. This included: supporting communities in surveying and analysing their physical environments along with architects from Sripatum University and CODI staff. Supporting the development of the financial organising group. Promoting the historical identity of the communities, related to their history and traditions, when negotiating with the landlord to make land sharing, rental or purchase agreements. This was also important for strengthening a community's identity and self esteem. Additionally, a crucial task of NGOs was to encourage community members to form the organisations and networks discussed (Usavagovitwong and Posriprasert, 2006).

Academics

Academics have aided slum dwellers in anti eviction activities within Bangkok (Askew, 2002). For example, in Pom Mahakan numerous academics from disciplines including architecture and planning, history, sociology and political science have supported the community in resisting the BMA's plans to evict them in order to develop a public park on the land (Herzfeld, 2003; Wungpatcharapon, 2009). In relation to *Baan Mankong*, meanwhile, academics have provided technical support to help communities design upgrading projects (Bhakil and Lucci, 2015; Usavagovitwong, 2012).

Architects

As described, once tenure security has been achieved, architects work in collaboration with small groups within the communities to: produce

detailed plans for recluster households and economic activities; resolve housing designs; plan infrastructure; assess open space requirements; and consider landscape design, common facilities and architectural characteristics within the available budget and limitations (Usavagovitwong and Posriprasert, 2006).

Landscape Architects

Despite the emphasis placed by CODI and the *Baan Mankong* programme on open space provision, infrastructure development and environmental improvements, landscape architects do not compose part of the team of experts during any existing upgrading projects. Research into the discipline reveals that this is possibly because it is relatively new to Thailand, having only been recognised since 1965 and officially approved by the Ministry of University Affairs in 1977. Chulalongkorn University, Bangkok was the only university to teach landscape architecture for twenty years until it was joined by two others in Bangkok and a third university in Chiang Mai, in the North of Thailand. Approximately 100 students a year graduate as landscape architects according to Aruninta (2008). Career paths, however, do not typically include interventions in informal settlements, with the most common options being working for a Thai firm (where an individual's long term options are limited by strict legislative rules and 'impractical' ministerial regulation and where no firms are working in informal settlements) or working abroad in neighbouring countries or the West, where practitioners can gain more experience and opportunities for advancement, earn more, have greater opportunities for higher education, and increased creative freedom (Aruninta, 2008). Aruninta (2008) writes that the majority of 4th year students from Chulalongkorn choose to do their practical training abroad, with one third seeking employment abroad upon graduation. Landscape architecture is regulated by The Council of Architects (CoA), who also standardise, regulate and enforce the professions of architecture and urban design. In 2008 there were approximately thirty landscape architecture firms in Thailand and around 80 freelance landscape architects. Of those, only 15 firms were registered

with the Thai Association of Landscape Architects (TALA) (Aruninta, 2008), a professional body whose aim is to share professional knowledge between members, develop professional standards of landscape architecture and foster collaborations between those involved in the discipline (Aruninta, 2008a). Less than half of individual landscape architects who are CoA members meanwhile held registered licences through CoA. The remainder were ineligible to practice under national regulations. Much of the reason for this lack of membership and low registration numbers is due to the exodus of new landscape architects upon graduation to other countries (Aruninta, 2008; Aruninta, 2008a). Landscape architects were also only marginally involved in recent large scale urban development and design projects, the numbers of which grew steadily from 2000 with national development planning guided towards long term planning following the 1997 financial crisis. Examples of landscape architecture and urban development projects include highways, mass transit systems and large scale land redevelopment projects initiated by the public sector and projects such as the A1 world Exposition Royal Flora Expo in Chiang Mai and Chiang Mai night safari Zoological Park. The reasons for the minimal involvement of landscape architecture firms is not well known. In general, project consultation teams have been led by architects and engineers, with few landscape architects involved (Aruninta, 2008; 2008a), a situation comparable with the Baan Mankong programme.

It has not been possible to review the scope, standard practices and procedures of landscape architecture in Thailand in relation to the development of informal settlements as the TALA and CoA websites are largely written in Thai (e.g. see TALA, 2012). A review of the course programmes offered by the landscape architecture departments at Chulalongkorn University⁶, Maejo University, Kasetsart University and Thammasat University meanwhile do not specifically mention modules related to informal settlement interventions although they may of course

⁶ It is impossible to determine the course program for the landscape architecture department at Chulalongkorn University as the description is in Thai

come under related modules (e.g. see – Chulalongkorn University, 2009; Maejo University, 2559; Kasetsart University, 2017; Thammasat University, ?). Likewise, it has not been possible to identify any examples of Thai landscape architects working in informal settlements in Thailand.

In summary, this fourth section has revealed that, despite rural to urban migration increasing from the 1950s, causation factors stem further back in Thailand's history, and attributing slum growth to this migration, as Askew (2002) writes, is 'unrealistic'. Instead, slum growth has been fuelled by a combination of factors: urban-rural economic disparities; the inability of planning institutions, administrative platforms and the market to provide affordable housing options for low income groups; social and economic inequalities; and the reliance of the urban economy on cheap labour and services (Askew, 2002; Usavagovitwong, 2012). The city's response meanwhile has historically reflected that of governments globally, predominantly focusing on reactive approaches that fail to address the multidimensional problems faced by slum dwellers. Furthermore, factors including the corruption of politicians, insufficient funds, the unequal and hierarchical systems of *sakdina* and patron-client relationships, and a lack of cooperation from landowners have influenced the success of upgrading projects (Archer, 2010; Dechalert, 1999). Following the shift towards decentralisation and participatory approaches to development in 1997, community engagement approaches to slum upgrading have been promoted. In the *Baan Mankong* program the urban poor are key actors in negotiating tenure security and implementing their own upgrading solutions for their communities, including improvements to their physical environments, (Archer, 2009; Bhatkal and Lucci, 2015; Boonyabanha, 2009). At present, local government officials, CODI staff, NGOs and professionals include architects and academics provide communities with expertise and technical support, and act at the level of policy and decision making. Stakeholders do not, however, include landscape architects

(Usavagovitwong and Posriprasert, 2006; Archer, 2009; UN Habitat, 2009; Usavagovitwong, 2012).

5.0 The Presence, Form and Use of Open Spaces

Introduction

This first of three thematic chapters is divided into three sections: the first, establishes an open space typology for the communities studied, offering detailed and rigorous physical descriptions of open space types. Here, various parts of research objective one are addressed: to determine whether open spaces exist and what types exist, and if notions of public spaces in the western city are relevant to the informal city in the global south. The open space typology additionally serves to give insight into the role of spaces within the particular culture, as advised by Billig (2009) and contributes to the sparse literature that exists on the urban form of informal settlements. The second section reveals spatial uses, addressing research objective two and establishing the significance of the various open spaces. The final section meanwhile is divided into three sub sections that explore dimensions influencing use, addressing the second part of research objective two. The first subsection uses Benn and Gaus' tripartite framework of *access*, *interest* and *agency* to explore dimensions of control; processes of spatial production, management and ownership that impact on public/private concepts and subsequent use. The second subsection reveals that dimensions of temporality; the school calendar and working patterns, seasons and climate are closely linked to use. The final subsection meanwhile explores dimensions of spatial physicality; physical access, visual access, comfort, and layout and amenities that likewise impact on activities performed.

N.B. Throughout this chapter image captions refer to images from left to right. All interviewee's names have been anonymised with Khun meaning Mr, Mrs or Miss and Nong used as a prefix to children's names. For a list of interviewees gender, age, community and any additional notes see Appendix 14.

5.01 An Open Space Typology

This first section provides an open space typology for the communities studied, produced from analysis of the interview transcripts, photographs and community maps created. The typology provides structured qualitative data covering the range of open space (OS) types that exist, partly addressing research objective one. The open spaces included in this typology (see Figure 5.1), are used for a variety of activities by differing amounts of people and display varying degrees of publicness. Their use reveals they meet various needs of community members and indicates their value, as well as that they are successful in different ways, justifying their inclusion here.

The typology provides rigorous physical descriptions of the eighteen open spaces types identified and which community they can be found in, for not all types exist in each community, revealing the differences in the urban form of the communities studied. It should be noted that whilst descriptions of form, dimensions, materiality and amenities existing within each open space type are offered, these vary across each open space of that type. The typology is split into three sections, those which adhere to all typologies described in the literature review, those which only adhere to one or two of those reviewed and those which don't adhere to any.

Figure 5.1: Typology of Open Spaces



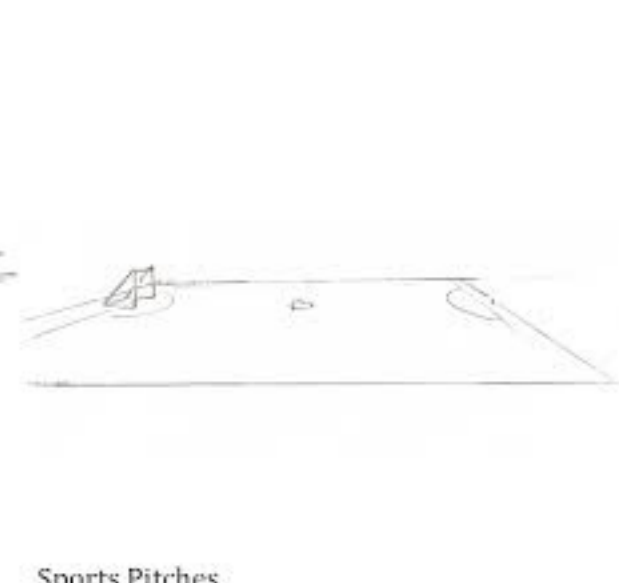
Sois (streets)



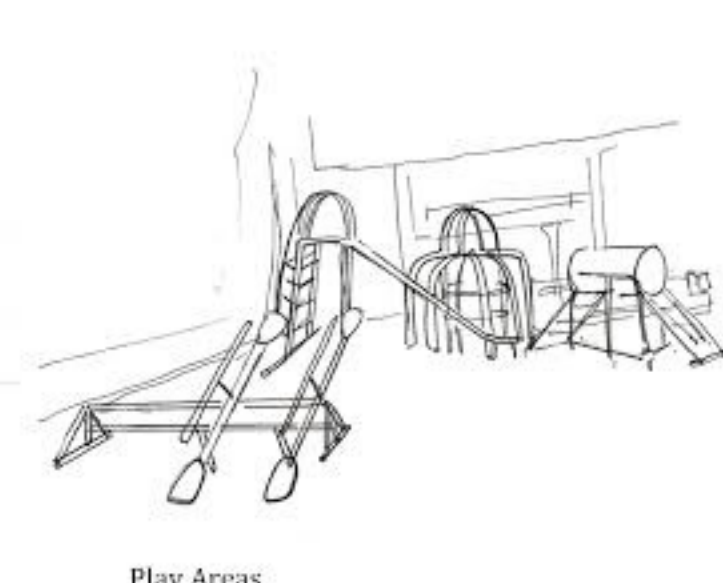
Sunams



Sports Park



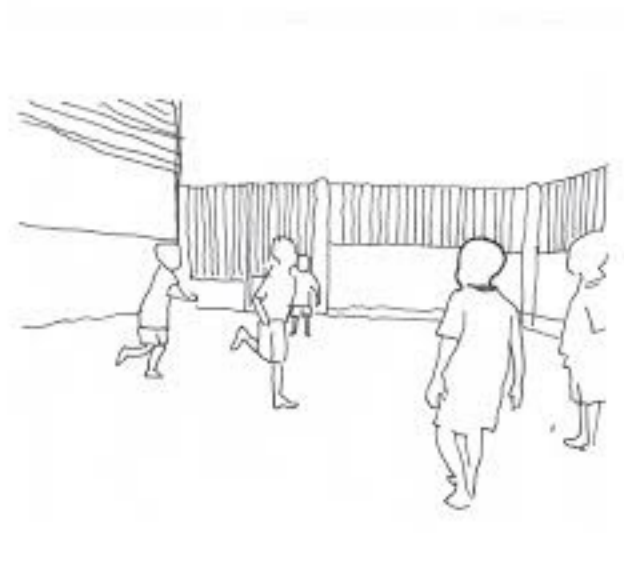
Sports Pitches



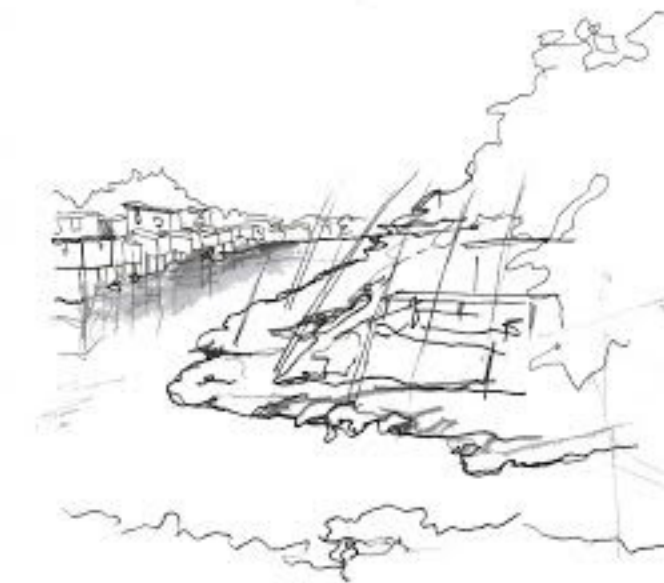
Play Areas



Gardens



School Yard



Khlongs (Canal)



Empty House Plots



House and Business Extensions



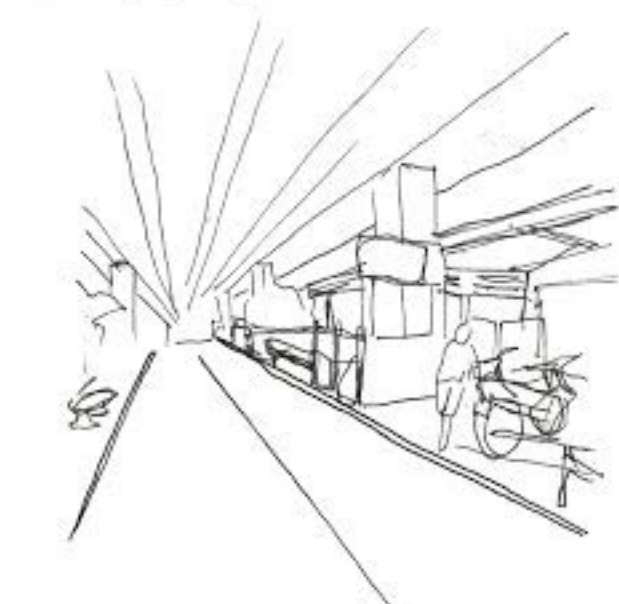
Doorsteps



Intersitial Left Over Spaces



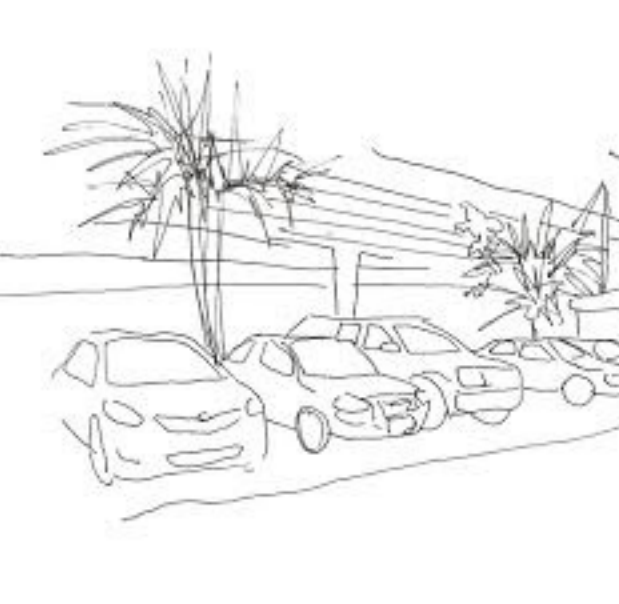
Tables and Chairs



Roads



Train Tracks



Car and Motorbike Parking Spaces



Nang Lerns



Platforms

Typology of Open Spaces

The following open spaces adhere to UN Habitat (2015b), Carr et al. (1992) and the PPG17 (2006) categorisation of public spaces:

Sois

Sois (streets) are the open spaces found most often in all the communities. These physically resemble European or American streets in terms of materiality however their dimensions vary between and within the communities studied. In the Khlong Toei (KT) communities (Hua Khong and Rom Klao) the majority of *sois* are approximately a metre wide, connecting main *sois* two and three metres in width, to the main road. In Rom Klao (RK), densely packed dwellings predominantly two storeys high with windows, doorsteps and balconies facing each other line *sois*. In Hua Khong (HK), *sois* are lined by mainly one-storey dwellings to both sides, some with overlooking windows. In Pom Mahakan (PM), *sois* vary in width but tend to be wider than a metre, bordered on one side by a lower density of larger one and two storey dwellings mostly offset from the path. These often have seating or gardens to the front. Here, *sois* connect houses to the peripheral main road, *khlong* (canal) and communal *sunams* (similar to civic squares). Running through both Bang Bua (BB) communities (Sapan Mai II and Chai Khlong Bang Bua) is a main *soi* that varies in width between one and three metres. Low-density two-storey housing straddles both sides in Sapan Mai II (SMII), and one side, furthest from the *khlong*, in Chai Khlong Bang Bua (CKBB). See Table 5.1 on the following page for amenities found in *sois* across the communities.

Table 5.1: some of the amenities found in sois in all communities.

Amenities	Hua Khong	Rom Klao	Pom Mahakan	Chai Khlong BB	Sapan Mai II
Seating	X (wider streets only)	X (wider streets only)	X	X	
Tables	X	X	X	X	
Spirit houses	X	X	X		X

Amenities	Hua Khong	Rom Klao	Pom Mahakan	Chai Khlong BB	Sapan Mai II
Rubbish bins	X		X		X
Water features			X		
Waterbarrels	X				
Utilities such as waterpoints		X			X
Bars		X			
Sheltering structures		X			
Trees	X	X	X	X	X

In all communities' trees, canopies, roof overhangs and umbrellas provide shade fully or partially along many *sois* and in places, households and businesses have 'extended' into pathways.

Sunams

Sunams tend to be the main community spaces typically located to the front or centre of the communities and resemble civic squares (see section 5.03 'Participatory developed 'public' spaces (public actors)' for an indepth description of the Rom Klao sunam (RKS)).

Sports Park (SP)

See section 5.03 'Planned 'public' spaces (public actors)' for detailed description

Playgrounds

Playgrounds with various pieces of equipment were identified in all communities, other than SMII.

Sports Pitches

Sports pitches were identified in RK and CKBB: the sports pitch in RK is fenced, tarmacked and approximately the size of a single tennis court. The sports pitch in CKBB is the size of a large football pitch, grassed and only has a football net and floor markings to support and define its function.

The following open spaces adhere to one or two of the typologies discussed in the literature review:

Gardens

Gardens were observed within *sois*, house and business extensions and doorsteps in all communities, and on or next to platforms in PM and CKBB. Gardens were also observed in left over spaces in HK. Gardens can be categorised as ‘amenity green space’ under the PP17 (2006), which includes domestic gardens, or ‘green open spaces’ in the UN Habitat classification (2015b). Within the communities, gardens vary in size from a single plant pot to large areas of land. Roofs, ledges and walls also accommodate potted, climbing and hanging plants.

Rom Klao Schoolyard

The Rom Klao schoolyard adheres to Carr et al. (1992) ‘playground’ category distinguished as a place for ‘*environmental learning or as community use space*’ (p.82). The concrete surfaced schoolyard contains few supporting amenities and is covered with a large canvas shade, which was put up after the fieldwork period.

Khlongs

Khlongs (rivers or canals) lie adjacent to the BB and PM communities and can be compared to ‘natural and semi natural urban greenspaces’ (PPG17, 2006). *Khlong* Bang Bua varies in width, between approximately 15- 20 metres, with a canalised bank to the community side and remaining natural opposite. Clumps of Morning Glory float on what appears to be polluted water, and debris lines the water’s edge. *Khlong* Bang Lamphu also varies between 10- 20 metres with sloped canalised banks to both sides, the water also appears polluted and no plant life is visible.

The following open spaces do not adhere to any of the typologies discussed in the literature review:

Empty House Plots (EHPs)

These are empty plots where houses were assumed (based on remaining infrastructure) to have once stood; only a few examples exist in Khlong Toei (see section 5.03 ‘Appropriated Open Spaces (private actors)’ for an indepth description of an EHP). For amenities observed within EHPs see Table 5.2.

House and Business Extensions (HBEs)

These largely lack physical boundaries and are typically appropriated spaces surrounding a dwelling ‘owned’ by individuals or small groups. Across all communities, HBEs resemble ‘living rooms’ with furniture, televisions, lighting, and ornaments visible. Tarpaulins or corrugated metal roof extensions provide shade to many. For amenities observed within HBEs see Table 5.2

Doorsteps

Almost every dwelling in Rom Klao has a doorstep, these are approximately 0.5m in depth, project into the *soi*, and run the full width of the dwelling. In the other communities the dimensions vary far more. Doorsteps are predominantly constructed from concrete and wood, with some enclosed by fences or walls. Tarpaulins or corrugated metal roof extensions provide shade to many. For amenities observed on doorsteps see Table 5.2.

Interstitial Left Over Spaces (LOS)

LOS’ only exist in KT and in PM. These are, undeveloped spaces generally between and beside dwellings. For amenities observed in LOSs see Table 5.2.

Table 5.2: amenities found within HBEs, EHPs, doorsteps and LOS' across the communities.

Spatial Amenities		Hua Khong	Rom Klao	Pom Mahakan	Chai Klong Bang Bua	Sapan Mai II
Seating	HBE	X	X	X	X	X
	D	X	X			X
	LOS	X	X			
	EHP	X	X			
Tables	HBE	X	X	X	X	
	D	X	X			X
	EHP	X	X			
Rubbish bins	HBE	X	X			
	D		X			X
	EHP	X				
Water features: some containing plants and/or fish or used for cooling the air	HBE	X	X	X	X	X
	D		X		X	X
	EHP		X			
Private washing machines	HBE		X		X	X
	D	X	X			
	EHP		X			
Televisions	HBE		X	X		
Sinks	HBE	X	X			
	D		X			
	EHP		X			
Snooker tables	HBE	X				
Ornaments	HBE	X	X		X	
	D		X	X	X	X
	EHP		X			
Hanging plants, lights and decorations	HBE	X	X			
	D		X			
	EHP		X			
Religious and spiritual items including spirit houses	HBE	X	X	X	X	X
	D		X		X	
	LOS	X				
	EHP	X				
	D	X				
Washing machines (income generating)	HBE	X	X			
Water Machines (income generating)	HBE	X	X			

Whilst an element may have been observed in a particular open space it does not mean that they exist in all examples of that spatial type across the communities. For example, see Figures 5.2-5.3 below of different HBE layouts in Rom Klao



Figure 5.2 Diagram of HBEs lining the main road in Rom Klao



Figure 5.3: Photograph of HBEs lining the main road in Rom Klao

Tables and Chairs

Chairs and tables vary in dimension and materiality within and across all communities studied.

Roads



Figure 5.4: Main and secondary vehicular roads adjacent to Hua Khong

The two-way, tarmacked main vehicular road, shown in Figure 5.4, approximately 7m wide runs parallel to the northwest of the Klong Toei communities beneath an expressway flyover. Mature and semi mature trees are dotted along one side of the main road, in the gap between the two flyovers, providing some shade and visual interest. How they came to be there (deliberately planted or self grown) is disputed by interviewees. A secondary smaller road lies to the southeast of HK and is approximately 6m wide.

Train Tracks

The single-track railway runs parallel to the northwest of the main vehicular road. Trains carry non-fresh goods to the Klong Toei port several times a day and night at regular times.

Car and Motorbike parking

Designated car and motorbike parking spaces of varying dimensions are largely located to the edges of the KT communities. In PM designated motorbike parking spaces exist

Nang lerns

Nang lerns exist only in the KT communities. These are located close to users' dwellings and, in general, are built from timber. *Nang lerns* resemble rural field shacks or village pavilions (see context chapter; vernacular architecture: diverse forms and traditions), with Khun Nae (N7) stating that similar structures, used for guests and sitting, exist where his parents originate from in Isaan. Some are roofed, generally with corrugated metal, and decorated with ornaments, hanging plants and lights (see section 5.03 'Self created 'public' spaces (private actors) ' for an indepth description of a *nang lern*).

Platforms

In CKBB and PM, concrete and timber platforms of varying dimensions project over the respective *khlongs*. Some in CKBB are roofed, generally with corrugated metal, and decorated with ornaments, hanging plants and lights, and have rubbish bins. Seating and tables were observed on platforms in both communities.

The Existence of Open Spaces: Conclusions

Contrary to the findings of UN Habitat (2012) who claim '*an absence of streets and open spaces*' (p. vii) in slum communities globally, the typology reveals that eighteen open space types exist in the communities studied. Moreover, more than half of these physically differ from the public spaces categorised by UN Habitat (2015b), PPG17 (2006) and Carr et al. (1992). Some meanwhile lack recognisable form; simply left over spaces, that are given functions and meaning through physical objects, such as seating,

contributing to Hernández-García (2009) findings in Bogotá. Thus, whilst UN Habitat (2015b) don't clarify whether their 'global public space toolkit' has been applied to informal settlement contexts, if it has many open spaces will have been overlooked or not considered to be of public value or significance. This renders their typology insufficient. For example, this study has found that whilst *sois* exist, their dimensions differ to that of typical European or American streets; they are largely narrower although widths and relationships to the built environment vary considerably. Gardens in the communities meanwhile often consist of a few potted plants. Thus, whilst these can be classified as open spaces of value, according to the PPG17 typology, what actually constitutes a garden within this context differs physically from European and American gardens. Other spatial types, such as *nang lerns*, do not physically resemble any public spaces found within the American, European or British contexts. This means that, in addition to reconceptualising the use of open spaces within the informal city, as called for by Beardsley and Werthmann (2008), assumptions in the literature regarding the types and physical form of open spaces must be challenged to include structures and forms not typical within the European and American contexts. This study additionally develops literature regarding the urban form of informal settlements, which is presently limited to the Mexican and Colombian contexts (e.g. see Hernández-García, 2009; Hernandez Bonilla, 2001) Increasing knowledge of the urban realm serves to increase the likelihood of workable solutions and responses being implemented by landscape architects.

In this section only rigorous physical descriptions are provided of open space types with the following two chapter sections exploring uses and the public/private nature of these spaces to support claims made for their inclusion within the typology.

5.02 Open space uses

This second section provides structured qualitative data describing spatial uses occurring and the way these map on to different types of open spaces addressing the first part of research objective two. Uses can be categorised into thirteen activity types however not all thirteen uses were identified in each type of open space identified or in every example of a particular spatial type across the communities.

Recreational Activities

The sports park, Rom Klao Sunam (RKS), and the train track in Khlong Toei and sports pitches (all communities) are used for exercise, playing sports and recreation, as detailed in Figure 5.5. These can be termed ‘social’ activities according to Gehl’s (2011) classification. Activities are largely initiated by users at different times of the day and for varying time lengths with the evening aerobics class led by an instructor paid by the local *khet* (district council). Table 5.3 below lists some of the recreational activities observed and described by users; in the sports park users also make use of the indoor and outdoor gym facilities.

Table 5.3: *recreational activities performed in the sports park, RKS, train track and sports pitches*

	Sports park	Train Track	RKS	Sports Pitches
Boxing	X			
Volleyball	X			
Basketball	X			
Football	X		X	X (CKBB)
Badminton	X	X	X	
Sepak Thakraw ¹	X			

¹ Similar to volleyball except the ball is woven and players are allowed to touch the ball over a net using their knees, feet, head and chest but not their hands (Hays, 2014, para. 16-19 of 79).

Takraw ²	X			
	Sports park	Train Track	RKS	Sports Pitches
Swimming	X			
Jogging	X			
Cycling	X			
Personal exercise regime	X		X	
Aerobics classes	X			



Figure 5.5: Woman and child playing badminton on train track in Rom Klao

Table 5.4 on the following page details open spaces and the communities they are located in where children were observed playing or that respondent’s described as being play spaces. For example, Nong Tal said of the RKS: *‘it’s a place that allow children to come here to play together otherwise they have to stay in their houses’* (RKCS1). Khun Mi meanwhile stated, *‘the children after school they don’t go to play in the playground they just come and play around here [the soi]’* (HK17). Children were also observed playing on parked vehicles in KT. As *sois* are the most prevalent open spaces in all communities the table reveals that these are among the most widely used open spaces for playing despite the lack of supporting

² Similar to volleyball except using a rattan ball and only the feet and head are allowed to touch the ball which they shoot into a hoop (Hays, 2014 para. 12 of 79).

equipment. Likewise, Hernández-García (2009) describes the street as the main play area of children in Bogotá.

Table 5.4: open spaces where children play

	Play (on equipment/ Supporting amenities)	Play (lacking amenities)
Sports Park	X	
<i>Sunams</i>	X (RK; PM; CKBB only)	
Play areas	X	
Sports Pitches		X
Platforms		X (CKBB only)
Roads		X
School yard		X
<i>Nang lern A</i>		X
Train Track		X
Doorsteps		X
HBEs		X (RK only)
<i>Sois</i>		X (RK only)
Benches		X

Socialising

Meeting, sitting and talking with others and ‘hanging out’ was observed and variously described by many interviewees to be dominant uses of the following open spaces: HBEs, see Figure 5.6 for example, and *sunams* (all communities); the EHP; roads; the sports park; doorsteps, and *nang lerns* (KT); wider *sois* (KT, PM, SMII); and platforms (PM, CKBB). These findings are in contrast to Hernández Garcia (2009), who describes the street as the main social space of the barrio in Bogotá. Khun Soj description of using her HBE in SMII, for example is reflective of descriptions given by other interviewees regarding socio-spatial use in open spaces across the communities:

‘it’s a gathering space for her and her friends and sometimes she will prepare her meals here and sometimes it also became like a dining table with her friend’ ... In the evenings she... ‘always like gathering with her friends here, chit chatting and sometimes she also watering the plants and eating, drinking coffee right here’ (BB11).

Whilst the specific activities may not be the same the fact that they involve groups of people gathering, sharing activities, spending time together and talking is. Nong T meanwhile, said of a platform in CKBB: '*normally the big group is just sharing and talking together... if they have some activities to do together come in this place and ask and spend things together and go together again*' (BB22).

These social activities are often accompanied by consumption of various meals or snacks and drinking (alcoholic and non alcoholic drinks) in most open spaces³: '*after working, 5 o'clock... they decide to come to sit here [a nang lern] and buy alcohol for drink or something for happy and joking and talking... normal maybe everyday, almost*' (Khun Tam, N1). It was additionally noted that consumption often takes place close to informal food stalls or more permanent cafes, which tend to be located close to the entrances of enclosed open spaces and line the edge of *sois* and roads.



Figure 5.6: HBE along main road, Rom Klao.

According to interviewees, socialising in *sois* (all communities) and *sunams* (KT; PM) occurs both during the day and night, with users walking around, meeting and talking to others on both a deliberate and casual basis when

³ other than: train track, gardens, left over spaces, play areas, sports pitches and *khlongs*.

they have free time: *'[I] n the evening.. if everything finished in her house and they come to meet friend here or walk around in... the chumchon or say hello or come here for talking out and relax or do something..'* (Khun Vo, PM3).

Other gatherings discussed are holding celebrations of special occasions, including on: a platform in Pom Mahakan (PM6), *nang lern A* (N4), the schoolyard (RK1) and a doorstep: *'sometime they have birthday or they have some people they buy alcohol for drink, they want to drink together. Maybe they buy food and bring food come to.. only sometimes'* (Khun Som, RK4).

Social activities also observed in OS include: *nang lern A* users playing lotto and music, 'grooming' each other for nits and chatting to passers by.

Interviewees additionally described using *nang lern A* and various other *nang lerns* for 'talking out' or resolving problems. Nong T (BB22)

meanwhile discussed playing chess on a platform in CKBB. HBE spatial users along the main road in KT were both observed and described by Khun Jai as being used for gambling and playing board games: *'You see there are many groups of people sitting in front, especially in this area from that edge to here. It's a public space'* (HK8).

Relaxing and Passive Activities

Interviewees of HBEs (BB; PM); the EHP, doorsteps, particular *sois*, several *nang lerns*, the sports park and both roads (KT); and *sunams* (RK; PM) described using these OS for relaxing alone or with others. These can be termed 'optional' activities according to Gehl's (2011) classification. These activities are performed throughout the day and evening with several interviewees in the RKS, choosing to sit in the same places daily. Others interviewed described going to the main or secondary vehicular road to relax (RK3; HK8; HK14). To aid relaxation and help the community, Khun Num (HK16), said that she sweeps the *soi* in front of her dwelling and beneath the expressway.

Certain community members also use *nang lerns*, HBEs and doorsteps (KT); particular areas within the sports park and along the main road; and benches and the stage in the RKS for sitting, sleeping, resting or napping. See Figure 5.7, for example of *nang lern A* in use. Khun Jai for example, pointed out those who, despite the noise, heat and dust experienced, were sleeping on benches located along the roadside links their socio-spatial practices to economic realities: *'especially in the evening there are more people sitting outside and weekends. Because people don't work'* (HK8).

Several *nang lern* users meanwhile, discussed using them for stress relief. These findings contribute to Thwaites et al. (2011) who suggest ordinary streetscapes and built up environments have the potential for restorative experiences. Other passive activities described and observed were residents going to OS to observe activities or people with the majority referring to the sports park, with *nang lerns*, the RKS, the EHP and a HBE (HK1) also discussed. Occasionally these activities were also associated with relaxation: *'for 5pm she going there [the sports park] to see people do activities and make her more relax'* (RK9).



Figure 5.7: Users of *nang lern A* relaxing
Also described and observed were the following passive activities laid out in Table 5.5:

Table 5.5: Passive activities performed and their location

	School Yard	Nang lerns	Nang lern A (HK)	Stage in the RKS	EHP (RK)	Benches (All communities)	Tables (close to preschool (RK))
Watching television		X					
Watching films	X						
Listening to music			X	X	X		
Listening to the radio			X	X	X		
Reading the newspaper			(Saturday day)				
'Beautifying' (including combing hair)			X				
Playing on mobile phones or tablets			X				
Smoking			X				
Waiting for lifts or people			X			X	X

Domestic Activities

The majority of OS, other than the *khlongs* and the train track, are used to support some form of domestic 'reproductive' activity, as detailed in Table 5.6. These can be termed 'necessary' activities according to Gehl's (2011) classification. For example, Khun Po explained how she uses her doorstep (and the table on it) for 'everything': '[s]it, washing up and washing clothes, cook and eating and meet friend... everything' (RK13).

Table 5.6: Domestic activities performed and their location

	L	HBE	D	SP	Su	NL	So	SY	R	T	B	P	EHP
Clothes drying	KT	X	X	X	RK		X					X	RK
Food preparation		X	X			HK		RK	X	X	X	CK BB	RK
Cooking		X	X			KT	KT / PM	RK	X			CK BB	RK
Dish washing	RK	X	X				KT						RK
Clothes washing	RK	X	X				KT						RK
Ironing clothes		X	X									PM	
Growing plants		X	X		RK		X					CK BB / PM	RK
Child care		X	RK	X	RK	HK		RK	X				RK
Drying food		X	X	X	RK	HK							RK
Sweeping		X	X	X	RK		HK / P M						

L= Left over space

D= Doorsteps

Su = *sunam*So = *Sois*

R= Roads

B= Benches

EHP= Empty House Plot

HBEs = House and business extensions

SP= Sports park

NL= *Nang lerns*

SY= School yard

T = Tables

P = Platforms

X = all communities

Childcare was observed across many OS with many parents and guardians taking their children or younger siblings to play in the RKS and sports park throughout the day with increased numbers in the late afternoon/ evening. Khun Sid's (BB29) grandson meanwhile, comes to sit and play whilst she relaxes on her *nang lern* and watches him. Other, less common domestic activities observed or described across open spaces include: dog walking in the sports park and the daily sweeping of the RKS (RKCS2) and less regular cleaning of the shrine there. Some domestic activities are for private purposes whilst others have commercial gain. For example, food

preparation and cooking across communities is performed both for personal consumption and to sell in all communities. Likewise, in CKBB, fish are caught and Morning Glory grown in Khlong Bang Bua for both personal consumption and to sell. Figures 5.8 – 5.13 depict some of the types of domestic activities occurring and their location.



Figure 5.8: Doorstep being used as a cooking and selling space in SMII
Figure 5.9: Doorstep being used to prepare food and wash dishes in RK



Figure 5.10: Platform in CKBB being used as a food preparation space



Figure 5.11: Clothes drying in a HK *soi*

Figure 5.12: Main road being swept, Khlong Toei. Food is being prepared on *nang lern* in foreground



Figure 5.13: EHP in HK used for washing and drying clothes and growing plants.. Food is being cooked in the *soi*

Storage

Almost all OS are appropriated to store surplus items including 'household goods', bicycles, food carts, wheelchairs, workbenches, motorcycles and cleaning items, with storage units also observed. Open spaces often utilised are: both sides of the road (KT), *soi* edges (all communities other than CKBB), HBEs (PM; RK; SPII), some platforms in CKBB, as shown in

Figure 5.14, certain LOS (RK) together with doorsteps and benches (all communities). To one edge of the RKS individuals also store household items in makeshift cupboards.



Figure 5.14: Platform used as a storage space in CKBB

Festivals and Ceremonies

Festivals and ceremonies take place in the sports park and on the main road, the RK schoolyard and in *sunams* in all communities, with *khlongs* also holding symbolic importance, see Figure 5.15. These can be termed ‘social’ activities according to Gehl’s (2011) classification. Merit is made in the RK and PM *sunams* and along the main road, with residents frequently observed going to the shrine in the RKS to ‘*wai*’⁴. The main *sunam* in PM is also used during funerals.

⁴ *waiing* is similar to a bow that is performed as a greeting or sign of respect



Figure 5.15: Girls preparing to float *Krathongs*⁵ in the *klong* from Pom Mahakan

Community Meetings

Community meetings were described by interviewees as being held in the schoolyard and *sunams* in all communities other than in CKBB. As responses indicate meetings are an important function of *sunams* is assumed they are also held in CKBB despite not being mentioned. These can also be termed ‘social’ activities (Gehl, 2011). Meetings focus on social welfare issues whilst the government sometimes also gives out money or brings safety improvements, such as fire extinguishers, to the chumchon (RK4). Committee meetings meanwhile are held in the EHP (Khun Soo, EHP1).

Keeping Animals

Roosters are kept caged and loose to forage in the sports park and on the main road in KT. The main road also acts as a foraging area for pigs as shown in Figure 5.16 below. In HBEs (all communities), doorsteps (KT;

⁵ A *krathong* is a ‘floating boat’ or ‘floating decoration’

PM) and LOS (PM) pets- including birds, cats, rabbits, dogs and roosters- are also kept caged and loose.



Figure 5.16: Foraging pigs in a rubbish dump along the main road, Khlong Toei

Car and Motorbike Parking

The main function of car and motorbike parking spaces is for parking, with a large area adjacent to the main road utilised in KT. Cars and motorbikes also park on roads in the sports park, and motorbikes are parked in *sois* in all communities, HBEs and doorsteps in KT and in the EHP (RK). At least one space in a Rom Klao *soi*, used for gathering during the day, is utilised for motorbike parking at night (RK1).

Thoroughfares

The main road and the train tracks function as major vehicular and pedestrian traffic routes. *Khlongs*, meanwhile support boat traffic. *Sois* (all communities) and the PM *sunam* facilitate both pedestrian and motorbike traffic; the sports park (KT) pedestrians, cars and motorbikes; and the RKS solely pedestrian movement.

Gardening

Interviewees from all communities indicate particular plant species are commonly grown for the following reasons, with many serving multiple purposes: 1.) Sensory benefits and decorative purposes, for example the aesthetic appeal of the form or flowers or the scent released. 2.) Environmental concerns, such as the creation of shade to reduce heat levels

in streets and households 3.) Nutritional and economic value, for example fruits, vegetables and herbs are used in dishes or drinks for private consumption or to be sold. Species include: Jackfruit, Tamarind, as depicted in Figures 5.17-5.18 below, Banana, Papaya, Mango, Kafir Lime and Butterfly Pea.



Figure 5.17: Jackfruit Tree, Khlong Toei

Figure 5.18: Tamarind, Khlong Toei

4.) Medicinal or health value. 5.) Spiritual or cultural meanings or superstitious beliefs. For example, many species commonly grown are believed to bring good luck, 'merit' or prosperity to the owner. Jackfruit, for example, is considered 'lucky' (HK5; G6), *'in tradition it's like the belief in our economics'* (G6) (See Figure 5.19 below for image of lucky plants).



Figure 5.19: Lucky plants, Rom Klao. These include those from the Wan family, believed to have medicinal properties. Others are associated with superstition and protecting the house from snakes

More generally, many stated that caring for plants and looking at or experiencing them was a means to relax or 'feel good'. Some gardens also became the medium for artistic expression, see Figure 5.20, in turn improving the aesthetic and sensory experience of an area and how people feel about their environment. In Pom Mahakan, gardens additionally contribute to the culture and history of the settlement that the community are trying to conserve (Herzfeld, 2003).



Figure 5.20: Garden decorated with birds nests and drinks bottles in HK (Image taken by and reused with the permission of Akarin Pongpandecha).

Rubbish Dumping

The main road and LOS in the Khlong Toei communities are used for dumping rubbish, particularly beneath and in between dwellings.

Economic Enterprises

The edges of roads in KT and *sois* in all communities other than CKBB are appropriated by both temporary and permanent ‘productive’ economic enterprises, with Khun Sunek (RKCS13) at least, selling both to residents and community outsiders from midday until 4am. These can be termed ‘necessary’ activities according to Gehl’s (2011) classification. Along the main road enterprises include a mechanic’s premises, workshops, bars, food stalls/ kitchens with associated cooking areas, convenience stores and laundrettes. In *sois*, both permanent and transitory food carts and drinks stalls tend to exist outside dwellings, or in places where the *soi* widens (KT; PM; BB1). These open spaces are also used by vendors selling food and other items from moving carts or trays with many vendors preparing the food at home and cooking it on the stall or cart, as described by Khun M (HK6). Shops selling both consumable and non-consumable goods also extend out onto the *sois* to increase business space (KT; PM; CKBB), advertise their wares or, in certain cases, use the space as ‘workshops’ (KT;

PM). Examples include seating and cooking areas associated with restaurants (KT; PM), seating and tables associated with convenience shops (KT; PM; CKBB) and seating associated with bars (HK). Some of these HBEs are also used for *'people to work there'* (Khun B, HK13) with uses in Pom Mahakan including: mending cages and selling goods, *'things like any kind... the seed for birds... it's make use of the area'* (PM10); drying freshly painted or lacquered bird cages (PM); and laundry businesses, with clothes washed and dried outside on the platform and ironed inside the house (PM6).

Likewise, some doorsteps in the KT, PM and SMII communities were observed being used as workshops (RK; HK) and 'business' spaces (RK; HK; PM; BB1) including: laundrettes, convenience stores, kitchens selling food and coffee shops. In all communities, tables were observed being used as workbenches and for selling goods. The train track, meanwhile, has an alternative use as a furniture workshop, and the sports pitch by the flats in Khlong Toei hosts thrice weekly food and non consumable goods markets. Figures 5.21-5.28 detail some of the economic enterprises observed and the open space in which they are located.



Figures 5.21-5.22: Shop/restaurants with outdoor sheltered seating and translucent light wells in RK and HK

5.0 The Presence, Form and Use of Open Spaces



Figure 5.23: Shop selling fireworks in Pom Mahakan

Figure 5.24: Food seller, Sapan Mai II



Figure 5.25: Street seller, Rom Klao



Figure 5.26: Convenience store adjacent to the main road, Khlong Toei. To the left a seating area for customers is visible



Figure 5.27: Movable food cart selling fruit on the main road, Khlong Toei

Figure 5.28: Train track being used as a workshop space by carpenters, Khlong Toei

The Use of Open Spaces: Conclusions

Having explored the open space types in the first chapter section, this second section has reviewed uses performed within them. Analysis reveals that all spaces are multifunctional with activities performed for different time periods; whilst some occur only occasionally others are daily events. Uses and the functions of an open space transform and consolidate the physical and social life of an open space on a daily basis, with these findings contributing to the body of work produced by Hernández-García (2009; 2013) and Hernandez Bonilla (2001). The following open spaces support the greatest variety of activities, ordered by those which support the greatest to fewest density of activities: *sois*, roads, the sports park, *sunams*, HBEs and doorsteps. These spaces can be described as having ‘looseness’ (Frank and Stevens, 2007): they are flexible enough to support a variety of necessary, social and optional functions. This study, suggests therefore that, whilst UN Habitat (2012) claims that streets in slums play practical and symbolic roles where social, cultural and economic activities are articulated, reinforced and facilitated, this description should be expanded to these open spaces also. Furthermore, the description itself requires expansion to include domestic reproductive activities.

The findings outlined in this section justify the inclusion of certain open spaces, in particular the roads, train tracks, doorsteps, car and motorbike

parking spaces and tables and benches, in the open space typology. Whilst such spaces may support few pedestrian functions in American and European contexts, explaining their absence from typologies reviewed, this study reveals that in these communities, these are open spaces that support multiple necessary, symbolic and social activities. The performing of 'unnecessary' social activities meanwhile has been identified as being as significant as the performing of instrumental, necessary activities (Madanipour, 2010a and Carr et al., 1992). This therefore indicates their value as a 'public' resource, offering community members the opportunity to perform these desired activities, often despite the limited size, potential clashes between uses and a lack of supporting amenities. In this context then, successful spaces are potentially those that offer the opportunity to perform a variety of activities. This is in contrast to the findings of the PPS (no date) who claim successful public spaces in the global north are those that offer activities.

This study has found that the majority of open spaces are used for socialising, recreation (social activities) and relaxation. According to the PPS (no date), the existence of social activities is an indication of the success of a public space, as they argue it to be a difficult quality to achieve. That the majority of the open spaces identified support this activity is therefore indicative of their success and potential value to community members. This is in accordance with the work of Madanipour (2010) and Carr et al., (1992). The PPS (no date) also claim, that when socialising people tend to feel a stronger sense of attachment to the place that facilitates such activities. The identified popularity of relaxation, meanwhile, is in contrast to the findings of Beardsley and Werthmann (2008) who suggest that passive recreation is '*not a priority*' (p.43), in the favelas they studied. That many open space users choose to position themselves beneath the dusty, dirty and noisy expressway flyover to relax rather than the open, green space of the sports park contributes to Thwaites et al. (2011) and Hidalgo et al. (2006), suggestions that built up environments have the potential for restorative experiences.

This research has additionally found that the majority of open spaces support uses not typically performed in the public spaces of the formal western city. These include 'domestic' reproductive activities, storage of household goods, economic enterprises and car and motorbike parking that can be classified as 'necessary' activities according to Gehl's (2011) criteria. For example, the sports park was found to support domestic activities such as the drying of clothes and the keeping of roosters, alongside more typical recreational activities. The prevalence of these uses indicates their importance within users' lives with the predominance of economic activities supporting Beardsley and Werthmann's suggestions concerning the reconceptualization of 'public' space to include '*productive space*' (2008, p.43) in informal settlement contexts. This study's findings indicate that in addition, conceptualisations need to include 'reproductive' domestic functions, as well as funerals and community meetings not typically performed within public spaces, at least in Britain. Thus, this study supports Schwab (2015) suggestions that uses actually performed by residents in open spaces could be the basis for the reconceptualisation of public spaces that Beardsley and Werthmann (2008) call for in informal settlements.

The study develops literature regarding uses of open spaces in informal settlements, which is presently limited to the Mexican and Colombian contexts, and challenges assumptions in the literature regarding what open spaces looks like and how they function. Increasing knowledge of spatial practices and user needs meanwhile increases the likelihood of workable solutions and responses being implemented by landscape architects considering a role in these contexts (Carr et al., 1992; Milgrom, 2008); Crawford, 2008a; Carmona et al., 2010). The relationship between OS and spatial uses is simplified in Appendix 12. Finally, the study reveals that whilst uses can be categorised into thirteen activity types, not all thirteen uses were identified in each type of space. In addition, whilst certain examples of an open space type support a particular activity, other spaces

of the same type within and across the communities do not. In response to this phenomenon, the remainder of this chapter and the following discussion chapter explore factors impacting on uses performed within an open space⁶.

5.03 Dimensions Influencing Open Space Uses

Having identified that certain OS support more activities than others, including different open spaces of the same type within and between communities the following three subsections explore why this is the case, addressing the second part of research objective two: influences on spatial use. In doing so, the subsections additionally explore why ‘invitations’ to use a particular space for a certain activity are recognised and accepted, while others, even for the same type of space either within or between the five communities, remain rejected. Thus, the factors impacting on the success of an open space are also addressed.

Following analysis of the data I have classified influencing factors into the seven clusters, which are primarily explored through analysis of the sports park, an EHP, a *nang lern* (*nang lern A*) and the Rom Klao sunam. The Community Lantern in Lock 1-2-3 is also drawn upon for comparative purposes (see methodology chapter section 3.03: Phase Three for Community Lantern description).

1. Dimensions of control
2. Dimensions of temporality
3. Dimensions of spatial physicality
4. Dimensions of basic need
5. Dimensions of social interaction
6. Dimensions of well-being

⁶ this is in acknowledgement that interviewees may not have described all activities performed and observations may not have been sustained enough to capture all activities occurring within a particular open space.

7: Dimensions of identity

The remainder of this chapter addresses the first three dimensions of influence: control, temporality and spatial physicality with 'how open spaces come into being', research objective one, additionally explored in relation to dimensions of control. The remaining clusters are explored in the following discussion chapter where the processes influencing the attachment of bonds to particular open spaces are additionally reviewed.

Dimensions of Control

Having established that certain open spaces support more activities than others, this first subsection explores processes that determine the public or private nature of an open space and subsequently inform uses actually performed. At the same time, how open spaces come into being is also addressed (objective one), understanding of which is currently lacking in the academic literature. Following this, the remainder of this chapter explores dimensions of temporality and spatial physicality that have also been identified by this study as impacting on use.

The relationship between the public and private spheres are dependent on culture and context (Carr et al. 1992; Madanipour, 2003; 2010a; 2010b). Whilst it was not possible to define precisely concepts of 'public' and 'private' in the communities studied, it was observed that privacy is difficult to achieve, in part due to the characteristics of the physical environment: even behind 'closed doors', limited dwelling sizes, thin walls and proximity of neighbouring dwellings means that almost everything occurring within dwellings or the *soi* can be overheard. Windows and gaps in walls also mean that interiors are often visible, with people eating, dressing, cooking and relaxing in plain view. Thus the private and public realm differs to that of the formal British city. Furthermore, during the fieldwork it became apparent that the perceived 'public' realm, based on personal notions, has been symbolically and physically zoned into

‘tribalised’ subspaces, to use Madanipour’s (2010a) phrasing. As these ‘privatised’ subspaces are not always demarcated or defined by physical boundaries this presents ambiguities for the community outsider. In relation to this body of research, this ambiguity additionally complicates the creation of a ‘public open space typology’ again explaining use of the term ‘open space’.

In response to this phenomenon, this subsection focuses on determining the public/private nature of an open space type and how this impacts on uses performed within it. To ground the discussion in the socio-cultural context, the formal and informal governing agents that both directly and indirectly influence the types and forms of OS created and their uses are initially described. Following this, Benn and Gaus’ tripartite framework of ‘*interest*’, ‘*agency*’ and ‘*access*’, is used to explore five processes of production, management and ‘ownership’ identified by this study, how these impact on the public/private nature of an open space and subsequently on use. These five processes have been classified as: planned spaces (private actors); planned ‘public’ spaces (public actors); participatory developed ‘public’ spaces (public actors); self-created ‘public’ spaces (public/private actors); and appropriated spaces (private actors). Using Ercan (2010) definitions, here public actors means those who act on behalf of the community to serve common wellbeing. Private actors refers to those who work on their own account for their own benefit. This subsection only discusses *symbolic* access with physical and visual access, that also contribute to the public or private dimensions of an open space (Ercan, 2008) explored in relation to dimensions of materiality.

Agents that Influence the Degrees of Publicness Displayed by an Open Space

Influencing bodies external to the communities that influence the types and forms of OS created and their uses include: the King, the national government, the Bangkok Municipal Authority (BMA) (local government), the district council (khet), the landowner- for example the Port Authority

or Expressway Authority who own land that Khlong Toei is developed on, the Community Organisations Development Institute (CODI), Bangkok universities and the police. Bodies internal to the communities include: community leaders (*Gumagun*), zone leaders, community committees (composed of a select group of community members), gang members, charities and NGOs, women and individuals of high social standing. Examples of their influence will now be given with those most widely discussed or alluded to by interviewees focussed on; namely the BMA and/or khet, landowners, community leaders and individuals of hierarchically higher social standing⁷:

In terms of external influences, the BMA and/or *khet*, possibly guided by decisions made at the national level, were involved in the development of several OS in Khlong Toei, to varying degrees; from funding the development of entire open spaces, to paying for amenities within existing spaces. For example, giving Rom Klao community member's plants and trees to plant (RK20). As for landowners, the BMA/khet also directly control and influence spatial use through the stipulation of particular rules and regulations. Residents are also at the mercy of decisions made at the local planning level. For example, in CKBB, several interviewees referred to a retaining wall, which the 'local government' plans to construct along the *khlong* edge meaning that overhanging dwellings and OS will be dismantled. Khun Saim stated that she couldn't protest that happening because it was the government rules so '*we need to just follow that*' (BB211). More indirectly, both landowners and the BMA/ *khet* influence spatial development and use in KT through fear of reprisals related to the insecurity of tenure faced. For example, Khun S and Khun Sot (HK12) both stated that whilst they would like a garden they can't plant anything because they don't know when they will have to move away: '*[i]t's hard... life here is uncertain, you don't know when the government will come and chase you so [I don't] really plant*' (HK8). Likewise, many residents said that

⁷ The influence of the King, CODI, Bangkok universities, police and gang members are discussed in the various parts of chapter 4.0: Context.

they did not have gardens due to lack of permission from the property owner: *'the residents they don't own the house, they rent, so they can't plant. That's one thing as well'* (HK12).

It was observed, however, that authority is often ignored, with people making claims on open spaces or using spaces in ways that contravened the 'rules'. In terms of internal governance, each community is presided over by a *Gumagun*, whose exact responsibilities are unknown by myself but are presumed to vary across communities. *Gumaguns* are supported by community committees in Khlong Toei and additionally by 'zone leaders' in Pom Mahakan. These bodies influence and monitor, which OS are created and, at least in Rom Klao, determine how new and existing OS are used (Rod Sheard, NGO1) and developed. In terms of OS creation, in CKBB and KT interviewees also said that it is necessary to ask the *Gumagun* or community committee for permission prior to building OS.

Planned Spaces (Private Actors)

The roads and train track in Khlong Toei are planned spaces created and managed by private actors: the Expressway Authority and Railways Authority respectively who are the landowners. The purpose of their construction relates to the development of the port. It is unknown who created the second, smaller road in Hua Khong, however the purpose likely relates to the development and use of the adjacent flats. See Figure 5.29 on the following page, for approximate land ownership. Landowners both directly and indirectly influence spatial use and the development of OS within these spaces to varying degrees, with regulation of use apparently largely limited. For, despite not being created for the use of community members, this study reveals all have been appropriated for multiple purposes with the roads supporting the greatest variety of activities. Thus, whilst the purposes of their creation and the intended beneficiaries means these cannot be termed 'public' open spaces (Ercan, 2010), that they support various social, necessary and optional activities for a diverse range of community members indicates they are 'of public use' according to The

Charter of Public Space (2013). This study thus contends that in meeting various needs, and for what they offer socially, economically and culturally, these open spaces have public value.



Figure 5.29: Approximate areas under different landownership in Rom Klao - based on information provided by Khun S (HK8)

Areas of the road have also been 'claimed' by small groups and individuals. These are generally tolerated but increased attention is paid to permanent interventions by landowners. Khun So (RK11), for example, described how, when she had built her convenience shop by the main road she hadn't asked permission. However the landowner, likely the Expressway Authority, came to check it, stipulating only that she and her husband must have been born in the community and that they didn't obstruct the roadway. Contradicting this, Khun Num, said that if you plant or build in a particular place under the expressway the landowner will intervene: *'the authorities come and ask to move it away, they just warn first but if you don't do anything they force you to do it'* (HK16). This direct and indirect control by the landowners seemingly reduces the occurrence of *symbolic* boundaries, increasing the degrees of 'publicness'. This in part offers an

explanation for the high levels of use and variety of activities identified, partially explaining the success of the main road.

Planned 'Public' Spaces (Public Actors)

Planned 'public' spaces are planned and created by public actors, such as the local government or *khet*, with construction seemingly part of a specific strategy for the community. Permission would also have been required from the landowner who may have had input into the spatial design but don't appear to have input into daily management. Only the sports park (SP) is developed in this manner, created for a specific purpose and intended uses with amenities and management supporting these. The sports park is therefore a clear example of a public open space based on the agency, interest and *symbolic* access.

Sports Park

The khet built the SP at around the same time the Rom Klao community was rebuilt following a fire, with the Hua Khong *Gumagun* implying this was in response to drug problems in the community, '*because no recreation place and also the kids can gather in a bad way*' (HK20). The SP is approximately 190m in length x 70m in width and effectively divided into various sub-spaces through the design and layout as shown in Figure 5.30-5.31 on the following page. Stalls and shops located close to entrance points.

The BMA/ khet employ staff in multiple roles including: sports trainers for aerobics, boxing and football; managers of the swimming pool, gym and boxing gym who segregate users based on age; cleaners to sweep and maintain different areas; and security guards who control how the SP is used, by whom and when, including preventing users from undertaking certain activities. This includes creating gardens (HK3; HK5) or vending, and limiting use by locking the gates at 8/8.30pm (HKCL, HK20) and turning off the lights (EHP3; HK4). This is why activities do not occur in the SP in the evening whilst they do in other OS identified.

Although the creation of individual gardens is prevented, on national holidays the municipality give out free plants that have to be planted in a particular area in the SP. According to Khun S: *'[i]t's legal because the municipal arrange it or else they can't just plant anywhere they want'* (HK8). As well as providing equipment, plants and furniture, groups associated with the BMA/ khet also take responsibility for removing elements from the SP; previously there were more trees, and therefore shade (HK3), and flowers (HK7); *'but those guys they cut them, and the table that was here [belonging to Khun Pe] was also removed so no-one comes here anymore'* (HK3). Despite attempts to control the appropriation of the SP, residents from peripheral dwellings have created gardens and seating areas to the northeast and southeastern edges. To the western edge a *nang lern* belonging to an extended family exists, and to the southeast residents have fenced off areas to keep roosters. Furthermore groups claim different areas at different times of the day, for example, groups of teenagers often sit on the steps to the gym in the evening. Thus, small areas with invisible *symbolic* boundaries exist, 'belonging' to small groups and individuals.

The sports park therefore adheres to the UN Habitat (2015b) description of a 'public open space'; it was developed by public actors on behalf of the community, is free of charge and is accessible during day light hours. That the sports park supports a variety of social as well as necessary activities, further informs its 'public' nature, according to Madanipour (2010a).

Through spatial management, the SP displays greater degrees of *symbolic* access, despite the occurrence of some physical and symbolic appropriation. This means that a variety of activities are performed by a greater diversity of users, indicating that management is influential on the success of an open space.

Participatory Developed ‘Public’ Spaces (Public Actors)

The third type of OS formation is through community participation. Identified spaces likely formed in this way are the *sunams*⁸, play areas, the schoolyard and sports pitches. Open spaces developed in this manner appear to have specific purposes with amenities supporting these.

Community participation is typically arranged between residents, the *Gumagun* and the community committee, and external public actors such as the khet and/or local politicians⁹, or internal organisations such as the Duang Prateep Foundation¹⁰. Permission to create an open space would also likely be required from the landowner. Whilst the external actors and internal organisation possibly had influence over spatial formation their involvement in the daily management and use is unknown. Instead, *Gumaguns* typically control use in participatory developed spaces, with the exception of the schoolyard, which is managed by the schoolteachers. Despite the *Gumagun* being a respected figure according to Thai social hierarchies, one community committee member described how use is about ‘*negotiations, it’s about telling and asking*’ (Khun Gum RK21), with individual and collective attitudes towards authority within and across communities varying.

⁸ It is acknowledged that the *sunams* in Pom Mahakan are more likely to have been created by the community due to the age of Pom Mahakan- approximately 200 years old

⁹ As there was some confusion amongst interviewees as to which of these bodies had made or influenced a particular decision they will be discussed together in relation to the RKS.

¹⁰ Established to provide an education to children and youths in poor communities (Duang Prateep Foundation, 2008)

Rom Klao sunam

The construction and management of the Rom Klao sunam (RKS) is a clear example of a participatory developed open space. According to Khun Aim (RKCS8), the RKS was created in the Thai year 2539 (1996AD), following a community fire. The *sunam* was designed by an architect or academic (Khun Gum RK21), with support from an external foundation and input from community members. The local *khut* funded the creation of the RKS and the fence for the internal shrine (RKCS8). Whilst she wasn't sure, Khun Sal said the sunam was created because:

'they want, this is for space for meeting, for activity and for.... children, for old people come to relax or... for the people in slum they can use this space... for activity and for sometime when they have a special day and for Thai culture, get married' (RKCS7).

The RKS is a concreted space to the front of the community measuring approximately 13.5 by 20m (see Figure 5.32-5.34 on the following pages for location of elements and surrounding context). The *sunam* is fenced but gates are permanently kept open, meaning it is physically accessible during the day and night.

5.0 The Presence, Form and Use of Open Spaces

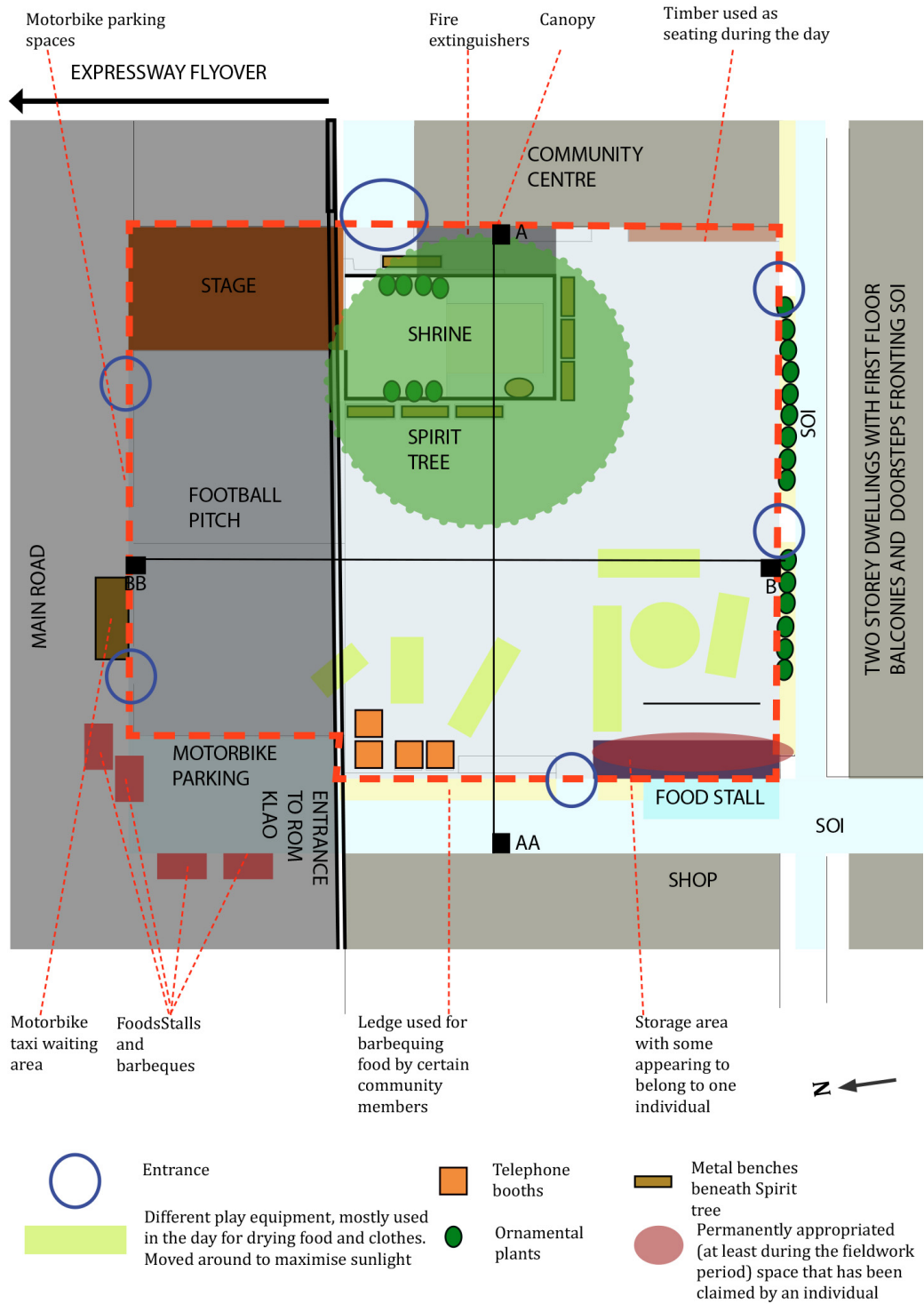


Figure 5.32: Plan of Rom Klao *sunam*, NTS

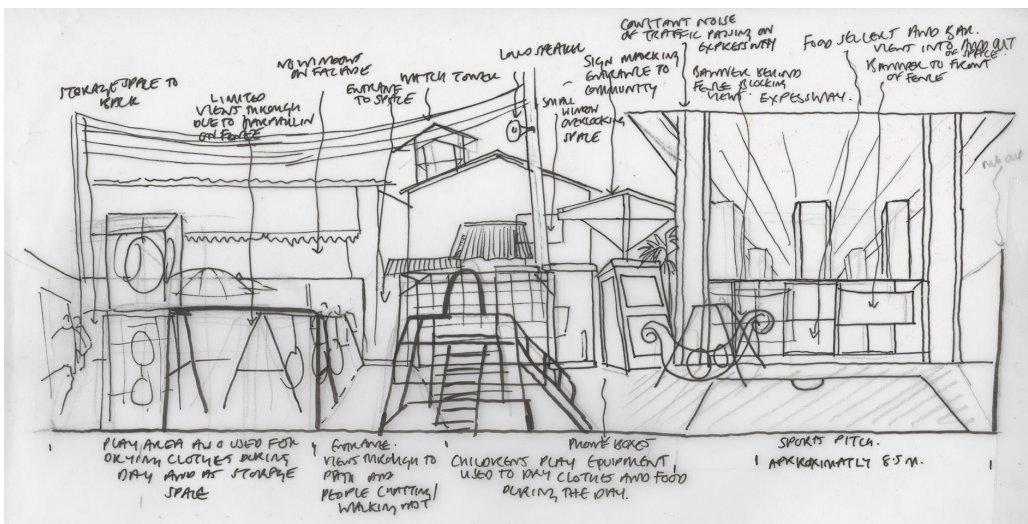
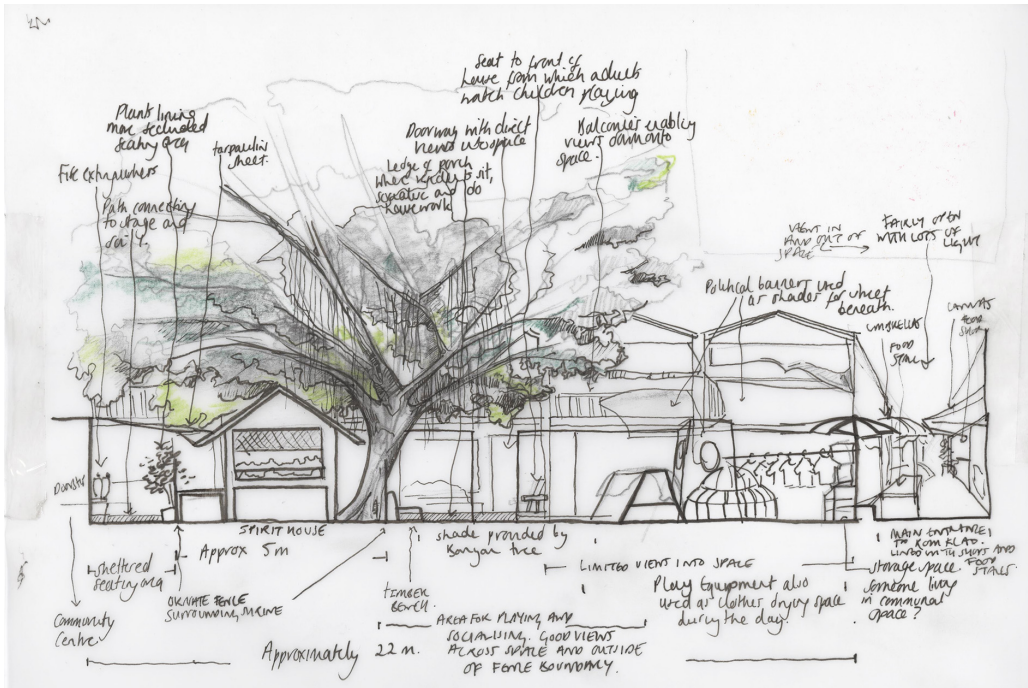


Figure 5.33- 5.34: Sections A-AA and B-BB across RKS, NTS

The *Gumagun* was present daily whilst I was observing in the RKS; talking to residents, observing activities taking place, keeping teenagers in check and undertaking necessary repair works. Possibly as a result of this continued presence, few groups and individuals appear to have claimed the RKS, at least during the day, with only one vendor seen during the study period. Again this indicates that management is influential on the ability of an open space to attract a variety of users and therefore its success. One corner however was observed to appear to have been appropriated by a resident as storage space, with the same resident sleeping on the stage

during the observation period. Furthermore, residents claim the play equipment to dry clothes whilst children are at school meaning the level of *symbolic* access changes throughout the day. Whilst it appears that the RKS is used by a range of users, of both genders and different ages, Khun His (RK4) claimed that those who are wealthier don't like their children to play there and mix with children who are poorer.

The RKS therefore adheres to UN Habitat (2015b) description of 'streets as public spaces'; it was developed by public actors with the community, and is publicly maintained, accessible and free of charge throughout the day and night (UN Habitat, 2015b). Furthermore, the RKS supports a variety of social as well as necessary activities, informing its 'public' nature. Due to the spatial management, whilst some physical and temporal appropriation occurs, the RKS is largely *symbolically* accessible with a variety of activities subsequently performed by a seemingly diverse range of users.

Self-Created 'Public' Spaces (Private Actors)

The fourth process of OS formation is self-creation through community and group decision-making for the benefit of individuals and small groups. Collective decisions are made both formally during community meetings and informally within smaller social networks such as *soi* members or neighbours. Authorisation is usually sought from the community or zone leader or community committee with the *Gumagun* influencing the type of space created and its physical form. Whilst permission is not sought from the landowner, they may have direct or indirect influence. For example, here Khun Y describes how the Port Authority control use in Rom Klao *sois*:

'[you] can cook [in the soi] but cannot cook always because... this land is not for them [the residents]. Maybe ... every month or every two month they [the Port Authority representatives] come to check ... [you must] keep it clean because this space can keep for stuff... storage, but you cannot sleep or cannot stay. If they come to see you have to take out' (RK20).

Production is self-directed by community members and is unplanned in the sense that interventions are not dictated by a wider masterplan. Again, spaces developed in this manner appear to have specific purposes and intended uses, with amenities supporting use. Identified spaces formed in this way are *sois*; doorsteps, gardens, platforms; car and motorbike parking; tables; chairs; and *nang lerns*. Creators typically control use in these spaces/structures. *Sois* however, are the anomalies; displaying several layers of regulation, which is apparently separate to the process of production.

Nang lern A

The construction and management of *nang lern A* is a clear example of a informal community decision-making. *Nang lern A* was built by ‘many people, those inside the *soi*’ (N7) as a space for ‘hanging out¹¹’, and is located on the site of a vegetable shop whose owner moved away (N7). *Nang lern A* is a timber-framed structure with planed and varnished timber planks to the base and a corrugated metal roof. The raised structure measures approximately 2.2 by 2m, with dimensions restricted by available space: ‘there isn’t much space inside the community so actually it’s [the land behind] a public area for hanging clothes. And it’s the area with most sunlight’ (HK7).

Khun Nae (HK7) stated, however, that the space is enough so they didn’t make it bigger. See Figures 5.35 -5.36 below for relationship between *nang lern A* and surroundings.

¹¹ Interviewees from other *nang lerns* gave varying reasons for their construction, including: for relaxing, eating and increasing happiness (N3), as a table and seating area (N1), and to increase revenue for the adjacent grocery shop with people sitting, gambling and buying drinks (N2).

5.0 The Presence, Form and Use of Open Spaces

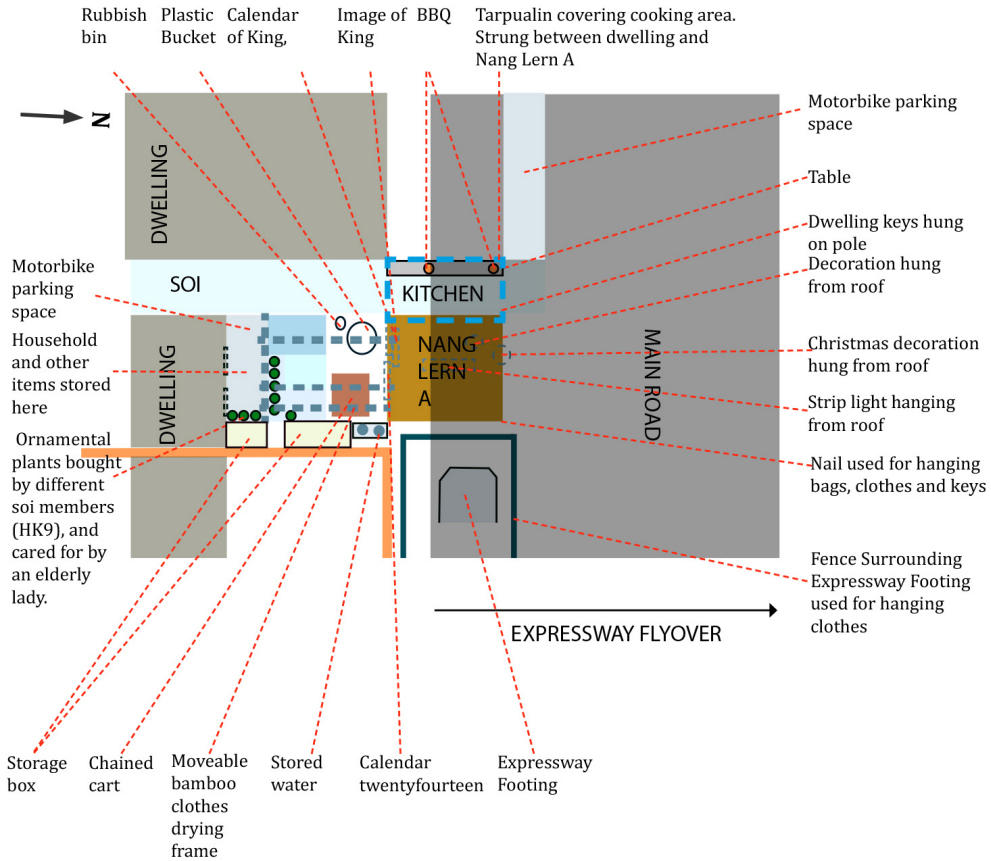


Figure 5.35: Plan of *Nang lern A* and adjoining land, NTS

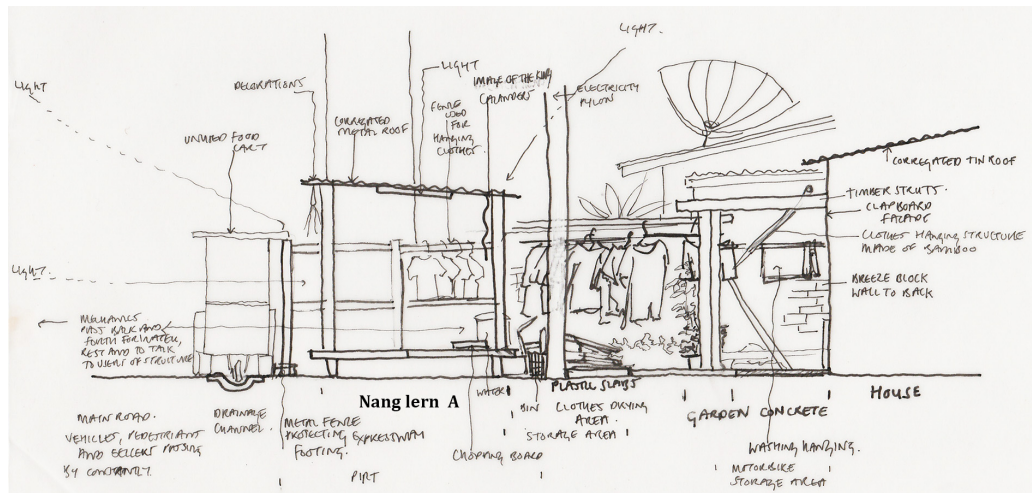


Figure 5.36: Elevation of *Nang lern A* detailing relationship with surroundings, NTS

Nang lern A is maintained by those who created it with Khun Nae describing it as a ‘public space’ that anyone is welcome to use (HK9). However, spaces created in this manner, due to their process of construction and repeated use and regulation by the same groups/individuals means that their *symbolic* accessibility is limited.

Indeed, across and within the range of self-created spaces users would varyingly say that they were either public or private or that permission to use them was required from the 'owner'.

This study finds that 'publicness' therefore varies across and between self-created spaces dependant on the owner(s), with the majority displaying *symbolic* inaccessibility. This means that they cannot uniformly be categorised as 'public' spaces. For example, according to two interviewees doorsteps in Hua Khong are private, with Khun S stating: '*After the roof is public*' (HK8). Others implied a 'semi-public' status, with Khun Som (RK4) saying as herself and her neighbours want to be 'more friendly' it was okay for them to sit on each other's doorsteps. Nong Ti meanwhile said that doorsteps are for '*all the neighbour or friend or everybody in the soi*' (RK12). Subsequently, uses also vary across self-created open spaces dependant on the possibilities presented by the form, management and owner. Despite this, all self-created spaces have been revealed to support a variety of social and necessary activities and therefore play significant symbolic and functional roles. This indicates their value to community members.

Appropriated 'Public' Spaces (Private Actors)

The final process of spatial formation is the appropriation of existing spaces for a particular use or uses. Spatial appropriation was observed in all communities, with smaller spaces carved out in larger open spaces by individuals and small groups who appear to control or 'own' these new subspaces. This is often without consulting other community members or asking the *Gumagun's* permission. Complex political/ power dimensions therefore often underpin appropriation. Three identified spaces adhere to this fairly broad description: empty house plots (EHPs); house and business extensions (HBEs); and interstitial left over spaces (LOS). Whilst these open spaces do not conform to those categorised by UN Habitat (2015b) or the PPG17 (2006), Carr et al.'s (1992) 'found/neighbourhood' spaces confirm their relevance as 'appropriated open spaces'.

In terms of how people come to appropriate or control land use, according to three respondents, those who 'claim' land first are the 'owners' (HK16; BB210; NGO3). Thus, communities tend to be developed by people 'claiming' space:

'It's not planned or anything... just like when there was just field, empty field, people started to put their house in some place and they come closer and more and more and more and in the end when they talk about the ownership. Surely the land is actually it belong to the Port Authority but in the practical because who got this shape of land first... no talking, no planning, no anything' (HK16).

Khun Num (HK16) and Khun S (HK8), agreed that other community members then have to rent from the 'owner' or ask permission before using a space or element within a space. Khun Num further stated that spatial use and 'ownership', for example what is public and what can be 'claimed' for personal use, is *'more like common sense... we don't have the confrontation much...'* (HK16). As long as what is developed does not cause permanent obstruction, take up too much space, or already 'belongs' to someone else, then people can build whatever they want to (HK16; HK20; RK21; HK5). Even activities that cause obstruction are tolerated to an extent: *'sometime when they cook and when it block the way you cannot walk. You have to wait until one dish finish!'* (HK20).

Whilst this sounds democratic, the 'rights' individuals have to an OS in terms of who can appropriate certain spaces and control spatial use for personal benefit depends on social status and proximity to a space according to Rod Sheard (NGO1) from Urban Neighbours of Hope. Those with higher status include: *Gumaguns*, current and ex committee members, elders, those who are wealthier and gang members. Thus this study finds spatial appropriation is not only a 'right' for those with higher social status but also an expression of that status and of power. Such actions are reflective of broader Thai cultural characteristics, which are focussed around accumulating material and symbolic capital, according to Askew

(2002). Hierarchically lower community members meanwhile apparently accept appropriation and control of spatial use seemingly out of respect or fear:

'People appropriate space all the time and other people are too afraid to have an issue with that. If you make an issue with the wrong people it can be really damaging to you and nothing will get done...'

'Disempowerment is a massive thing in the slum. So anyone who has a slight amount of confidence is streaks ahead of everyone else and they can do whatever they want' (Rod Sheard, NGO1).

Furthermore, the necessity of asking permission to use an open space or utilise the existing amenities, apparently depends on the OS 'owner', and an individual's respect for that person: *'they [the owner] want to grow that is okay but not allow anybody's come to the space and grow... If you see like a big tree it's just like that owner plant but... not the community comes to get to grow the plants'* (Khun Nar, G5). Khun Som (RK4), meanwhile, stated that people are selfish, making decisions that benefitted themselves only; despite Rom Klao houses being built to the dimensions agreed at community meetings following a fire, individuals increased dwelling for personal gain:

'this is my house, I can decide everything because this is my house'. Some people look they make more, they want to use more space, they want to make house. They selfish... but most the people said 'Wow you can do, I can do too' (RK4).

Appropriation and use of certain spaces also appears to be influenced by cultural expectations or understandings individuals or the collective community have of a particular space and how it can be used. For example, according to Khun S (HK8), the community has the 'right' to use space adjacent to the main road because they had been there before the expressway was built. Meanwhile, Khun Nae (HK9) stated that no-one would ever build a dwelling where *nang lern A* stands because the land

belonged to the expressway, but they have the 'right' to build a temporary shelter.

Empty House Plot

Spatial appropriation and control and the subsequent impact on use is clearly represented by an empty house plot (EHP) in Rom Klao. According to Khun Soo (EHP1) and Khun Son (EHP3), the dwelling where the EHP is located was not rebuilt following a fire, *'so it's turn to be a public space somehow.'* (EHP3). Despite this, Khun Son also said that it is mostly those from the *soi* who use it, whilst Khun Soo declared: *'[t]he people who use it must ... the member of this house around here knows. Some of them may come here from other sois but it's the people who known them, not the stranger'* (EHP1). At the time of the fieldwork, the EHP was presided over by a 'semi owner', a position gained because they had been on the community committee and had lobbied for funds from the *khut* to pay for the construction of a sheltering structure, shown in Figure 5.37, *'so people respect on that'* (EHP1). Consequently, it is accepted that the 'semi owner' makes decisions regarding who can use the space and for what activities, as described by Khun Soo:

'for normal activities it's okay, it's our Thai way, we don't ask anyone. But... if you want anything in special occasion you better tell... the owners here and also sometimes it's include asking for water for cleaning... this comes from the meters of this house. And also she have... the gas cookers over here, so also it's ask' (EHP1).

The 'semi owner' also indirectly impact spatial use and users by providing electricity for the EHP, turning the lights off at night at a time that suits them (EHP2).

The EHP has been divided between the surrounding dwellings, with neighbours apparently deciding between themselves who has what space and how they use it, see Figures 5.38-5.39 for uses, according to Khun Nar

(G5). As Figure 5.37 shows however, the 'semi owner' 'owns' the largest space.

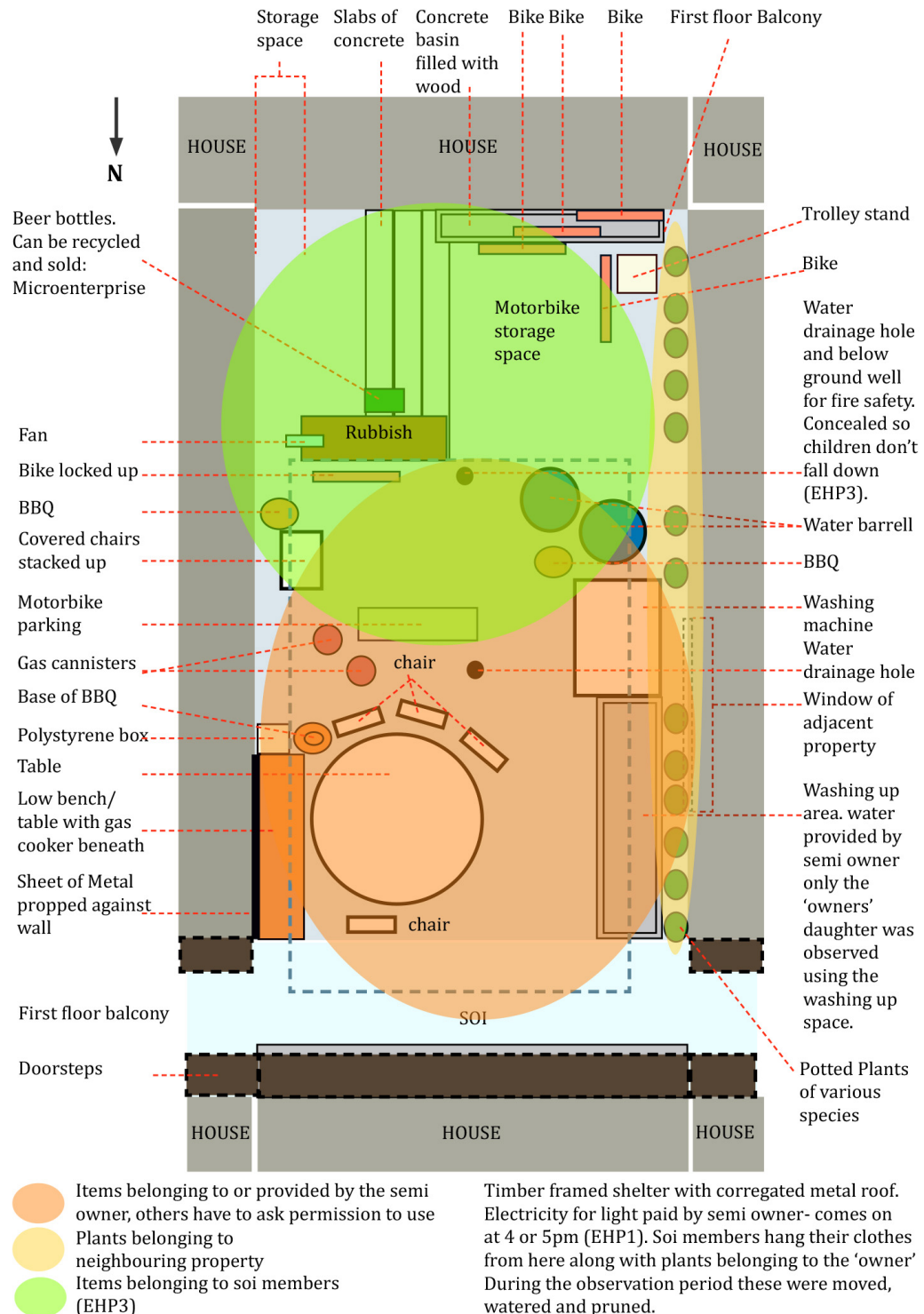


Figure 5.37: Plan of Empty House Plot, Rom Klao, detailing amenities and 'ownership' boundaries, NTS

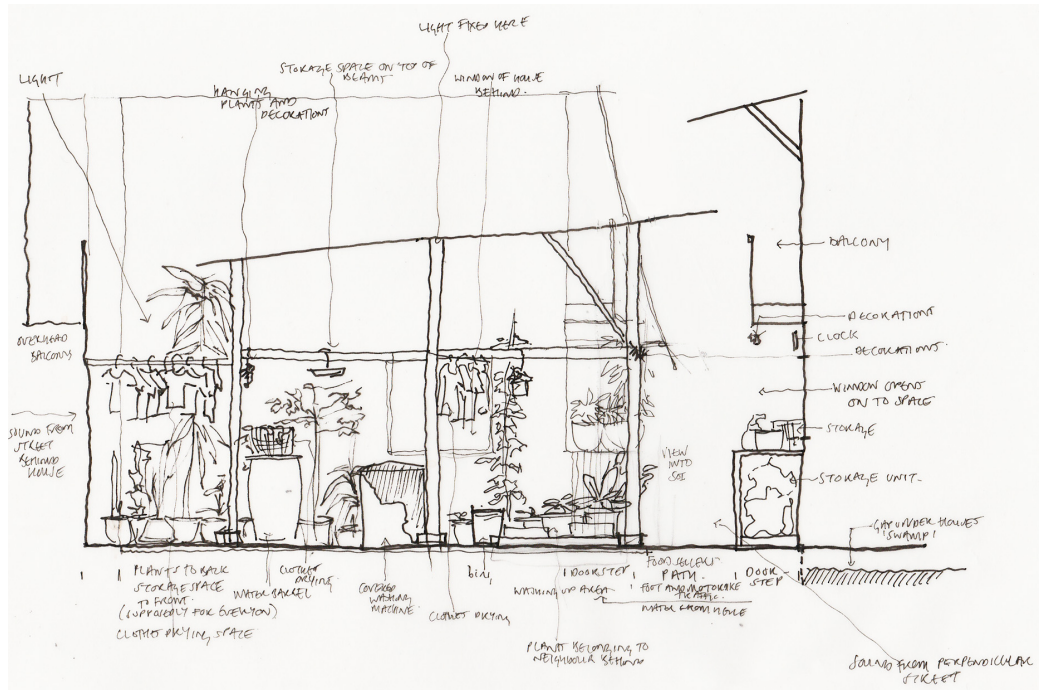


Figure 5.38: Section across EHP, NTS

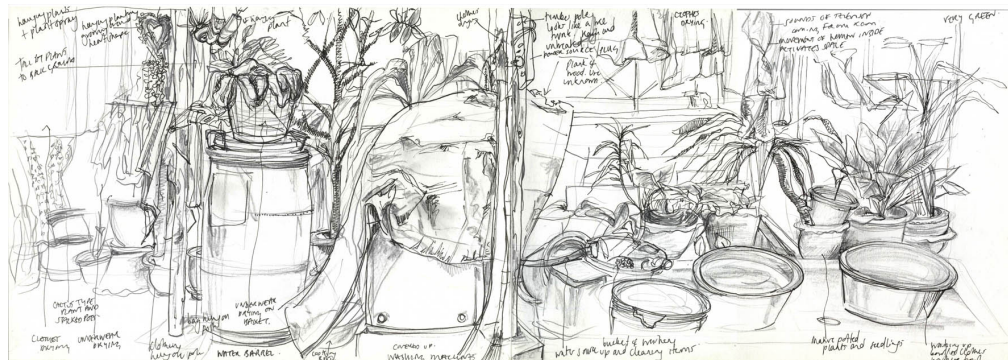


Figure 5.39: Drawing of washing up area in EHP. Water is provided by the semi owner, plants belong to neighbouring property.

This study finds therefore that, despite frequently being described as ‘public’ by users, appropriated spaces often acquire ‘semi-public’ or ‘private’ status. This is due to individuals or groups who ‘own’ them, controlling their use and access both physically and *symbolically*. The EHP, for example displays high levels of *symbolic* inaccessibility. Whilst all open spaces identified across the communities show varying degrees of ‘publicness’, appropriated spaces in particular are more ambiguous in terms of their public/private nature, at least by British understanding. This means that they cannot uniformly be categorised as ‘public’ spaces with activities performed within them dependant on the decision of the ‘owners’. Despite this, all appropriated spaces have been revealed to support a variety of social and necessary activities with these open spaces therefore

playing significant functional and symbolic roles within the communities, again indicating their value to users.

Dimensions of Control: Conclusions

The complexities existing in the processes of development, management and claims to open spaces means that many ambiguities exist in terms of the private or public nature of an open space type. Further complexities exist as a result of the difficulties in creating wholly private realms with the lack of privacy meaning it is not possible to form an opposite and relational meaning for the public realm as Madanipour (2003) claims is universally possible. Instead, shades of 'publicness' have been identified within the majority of open spaces, from the appropriation of whole areas to the temporary claiming of amenities, such as benches. Due to the problems in enforcing uniform public/private categorisations in these communities the term 'open space' is hence used within this study. This refers to all outdoor open space in contrast to interior dwelling space, supporting similar calls made by Hernández-García (2013) and Hernandez Bonilla (2001).

Despite this nomenclature issue, this study has identified some broad themes:

Firstly, that the size, adaptability and spatial constraints that shape private interior dwelling space likewise influence exterior open spaces, as does the lack of land and presence of amenities such as water or shelter. Again this challenges assumptions in the literature regarding what an open space looks like and how it functions. Secondly, the degrees of publicness displayed by an open space and subsequently the uses and diversity of users it receives, are influenced by the following: the *interest* of the agent: whether an open space was created to serve the community well being or for private benefit (small groups or individuals); the level of regulation and whether this is performed to benefit the community or private interests (*agents*); and the *symbolic accessibility*, which is informed by the presence

and activities of other users. Within these communities access is not however formalised within the binary of public or private but constantly negotiated and renegotiated. Here, the multiple and varying activities performed in open spaces and the consequential permanent and impermanent appropriation of space blur the private-public milieus, definitions and uses with aspects of the private domestic realm becoming available to public life. This is almost the reverse of the situation in the west where traditionally, basic needs typically occur indoors, for example, people usually retreat into their homes to relax or perform domestic chores. This study therefore challenges literature developed in the global north, regarding expectations of public spaces use and their functions. This study findings are also in contrast to Hernández-García (2013), who found that in the barrios of Bogotá, open spaces are largely public in terms of accessibility and ownership however they are not in terms of use. This study additionally supports Madanipour (2010b) in finding that those with increased '*political, economic or cultural power*' (p.237) are most dominant in shaping the physical features of the urban realm. Thus, different open spaces of the same type have different characters associated with the particular combinations of the 'owning' group and their interests, affecting accessibility and thus use and users and a space's public/ private nature. As life experiences reinforce the need for socialisation and recreation, people becoming adept at using and interpreting the language of *symbolic* accessibility. Here, people look out for their own interests meaning that appropriation is a social as well as physical phenomenon: a constant interaction between the material qualities of the site and the social structures in which it is embedded. Findings thus support Perdrazzini (1998 cited in Hernandez Bonilla, 2001) who claims that open spaces should be understood as the material, social and symbolic expressions of those produce manage and use them. Thirdly, open spaces that are managed by public actors on a daily basis, such as the sports park, display higher levels of publicness, indicating that spatial management is significant within the context for increased use by a greater diversity of users. This indicates that this element of a successful public space

discussed by the PPS (no date) is likewise applicable to successful open spaces. Fourth, whilst Jacobs (1961) states that, in order to be successful, spaces must be unequivocally public and should not mix with private spaces, examples of each type of space were found to support a variety of social, optional and necessary functions. According to The Charter of Public Space, (2013) this indicates that they are 'of public use' and means that all open spaces identified potentially have value. Fifth, over half of the OS identified are self-created by community members, or appropriated, with groups and individuals predominantly shaping the physical form of the settlements. These findings contribute to the work of Hernández-García (2013) and Hernandez Bonilla (2001) who likewise identify that in the popular settlements of Latin America studied; residents primarily define and construct open spaces. This indicates that these are the types of spaces most desired within the communities, or, most feasible within the constraints, again supporting claims made previously that notions of open spaces need to be expanded by landscape architects for the informal settlement context.

This study of how open spaces are created, managed and appropriated and how this influences use, develops literature regarding how the physical environment of informal settlements comes into being and is transformed as well as the logic behind decision-making. The study additionally increases knowledge regarding use of open spaces in informal settlement and influences on uses performed. Previously this was limited to the Mexican and Colombian context (e.g. see Samper, 2012; Hernandez Bonilla, 2001; Schwab, 2015). Increasing knowledge of these processes serves to increase the likelihood of workable solutions and responses being implemented by landscape architects.

Dimensions of Temporality

This chapter has established that certain OS support more activities than others, including those of the same type within and between communities.

In response, this third section is addressing influences on spatial uses (objective 2). Having explored the public/private nature of open spaces and revealed that processes of production, management and ownership along with uses are influential on the types of activities performed, this second subsection reviews dimensions of temporality that have likewise been found to be influential. Again, this has largely been explored through analysis of the sports park, EHP, *nang lern A*, RKS and the Community Lantern. Analysis of the movement maps and interview data produced for this study reveals that the school calendar and working patterns, seasons and climate all impact on how, when and what OS are used for and who the users are.

School Calendar and Working Patterns

Use and users of almost all OS changes throughout the times that they are physically accessible with increased diversity of users observed in the sports park, RKS, EHP and *nang lern A* in the evening as well as at weekends and on public holidays. This corresponds to school opening times and the pattern of the working day. For example, during the weekday mornings, between 8 and 10am the sports park and RKS are dominated by pedestrian traffic, with the majority apparently on their way to work or school. Gehl (2011) terms these necessary activities. Between then and 3pm mostly women, children and older community members of both genders use these spaces, reflecting typical socio-cultural gender behaviours. In the RKS, adults (mainly women) largely perform reproductive activities, including the drying of clothes and food from equipment, at the same time socialising, or sitting to observe activities, supervise children or rest. Young children meanwhile, mostly spend their time playing. Likewise, during these times children at play are the main users of the sports park, with some supervision and performing of domestic activities by adults (again largely women) occurring. From 3pm on weekdays and throughout the day until at least 6pm on the weekend and during the school holidays, greatly increased numbers of children and younger women and men were observed in both spaces. In the RKS during

these times, washing is removed from equipment, children play, adults observe activities performed, join in and socialise. In the sports park meanwhile adults and children participate in sports, socialise, play, relax and observe activities occurring. Here, notable gender and age divides exist for some activities with football largely performed by men and boys, and evening aerobics classes attended almost solely by women. In general, the elderly are under-represented in sports activities. Until 5pm increased numbers walk through both spaces apparently on their way from work or school. In the sports park many also head to the gym or the various sub spaces, in the RKS meanwhile those passing through carry goods from stalls located beneath the expressway. According to Khun Si (HK12), at least in the case of the *soi* she lives on, *sois* are likewise busiest when people are walking to and from work and school in the morning and evening. Similarly, interviewees described mainly using the Community Lantern after school, in the evenings and at weekends (CL1; CL2; CL8). Consequently Khun Wich stated he thinks spaces such as the CKBB *sunam* are important because:

‘in terms of community gathering, the different times will be different user who come and use this area. Like in the afternoon it will be a lot toddler or younger kids will come here to play or the adults will come and have a chit chat, talking about the problem and in the evening, teenagers or older kid will come here and talk together’ (BB21).

Seasons and Climate

In addition to being influenced by the school calendar and working patterns, activities performed in the majority of spaces also respond to temperature and climate with the following general patterns identified: in the mornings, until around 11am in the winter season those chatting in the RKS stand in the sunshine gaining warmth. From 11am onwards users move to perform activities in shaded areas that have access to a breeze, not lingering in areas exposed to sunlight. In the hot season however use of the RKS is less regular, with increased use occurring from mid afternoon, with

users again seeking shade and a breeze beneath the expressway. Likewise, during the rainy season RKS users tend to remain indoors or find shelter to perform activities (NGO2). In hot season evenings, more residents venture out, with increased numbers of teenagers at night according to NGO Jodie MacCartney:

'they just want the relief. It feels like a kind of burst, it feels like this ahhhh! You gotta get out! So then often it's quite swarmy... and it can be really noisy all night so we notice like so a lot of teenagers use it at night together...' (NGO2).

Similarly, in the sports park, activities primarily take place depending on the desire to seek or avoid the sun. Here however, there is less opportunity for shade. The busiest periods in the hot season are therefore between 8am and 10am and from 3pm, with those walking through avoiding exposed areas such as the sports courts and play area which constitute the majority of the overall space. From 9am, shaded areas to the edges particularly to the northern edge, see Figure 5.30, underneath trees or next to buildings, which access a breeze, are most popular for sitting and observing activities with areas selected changing in line with the sun's movement. In the evenings meanwhile, increased numbers of people sit, play and eat on the shaded flight of steps accessing the boxing gym and on benches to the front of this building. Thus, it is concluded that access to sunlight, shade and a breeze are influential on the localisation of spatial uses and how users interact with the physical form in both open spaces.

In contrast, Khun Gan described how children can't use the Community Lantern during the day because it is too hot, with shade creating structures limited, concluding the space *'not work in the reality'* (CL10). Contradicting this statement, however, Khun Akan said: *'it's not too hot here so a lot of people come here and sit here but the peak would be in the evening all the children come here to play football'* (CL11). Poor wind flow within the Community Lantern, due to the built up surroundings, likewise influences use, with Khun Cher (CL6) describing how people instead choose to use an

adjacent seating area, shown in Figure 5.40 below, that accesses increased wind flow.



Figure 5.40: Preferred seating area adjacent to Community Lantern, Lok 1-2-3.. Visible to the right of image

Despite the inconsistencies in interviewee's responses, this study's findings support Carr et al., (1992) and Whyte (1980) claims that access or relief from the sun is influential on use. Within these communities shade-creating amenities, such as trees are particularly desirable providing both physical and psychological comfort as highlighted by Khun Cha whose favourite thing about Pom Mahakan is: *'the houses with shading from trees that make you feel comfortable ... If you go just like somewhere that in the centre of the city you couldn't find something like this'* (PM10). In contrast to Whyte's findings for small urban spaces in New York, however, this study finds that access to a breeze is also desired.

Dimensions of Temporality: Conclusions

In addition to being affected by the public or private nature of an open space this study finds uses performed at a given time are closely linked

to temporal cycles including working patterns, climate and seasons. Uses are also carefully choreographed to ensure that spaces can be used by as many people as possible for the greatest range of possible functions. At the same time, use is influenced by gender expectations and socio-cultural norms, with the gender imbalances observable in the different activity types and the times that they are performed a mirror of social structures. Schwab (2015) observed a similar relationship in the informal settlements of Medellín.

The study supports the findings of the PPS (no date) and Whyte (1980) that access and relief from the sun is influential on use and therefore the success of an open space. Here, the physical comfort provided by shade is desired for the majority of the day by those performing activities, at least in the hot and winter season. Consequently trees and other shade providing elements are identified as important amenities influencing the performance of activities. In contrast to Whyte's findings for urban spaces in New York, however, this study finds that enclosed spaces are less well used than those that provide access to the breeze.

Dimensions of Spatial Physicality

Having explored dimensions of control and temporality that influence activities performed, this final subsection reviews dimensions of spatial physicality that have likewise been identified as influencing uses performed and user diversity. Analysis of the movement map and interview data produced for the four open spaces studied in depth and a shorter study of the Community Lantern reveals the localisation of uses in response to the spatial and physical configuration of a site. Additionally, findings reveal that the sports park, *nang lern A* and RKS receive the greatest use and diversity of users, indicating that these open spaces are more successful. This study explored this phenomenon through analysis of the following aspects, which the PPS (no date) claim contribute to the success of a space: physical accessibility; visual accessibility; and comfort.

In addition, the physical layout and amenities have also been analysed, for these have likewise been identified as significantly impacting on the success of a space (Carr et al., 1992; Carmona et al., 2010). These four aspects are expanded upon for the remainder of this chapter.

Physical Accessibility

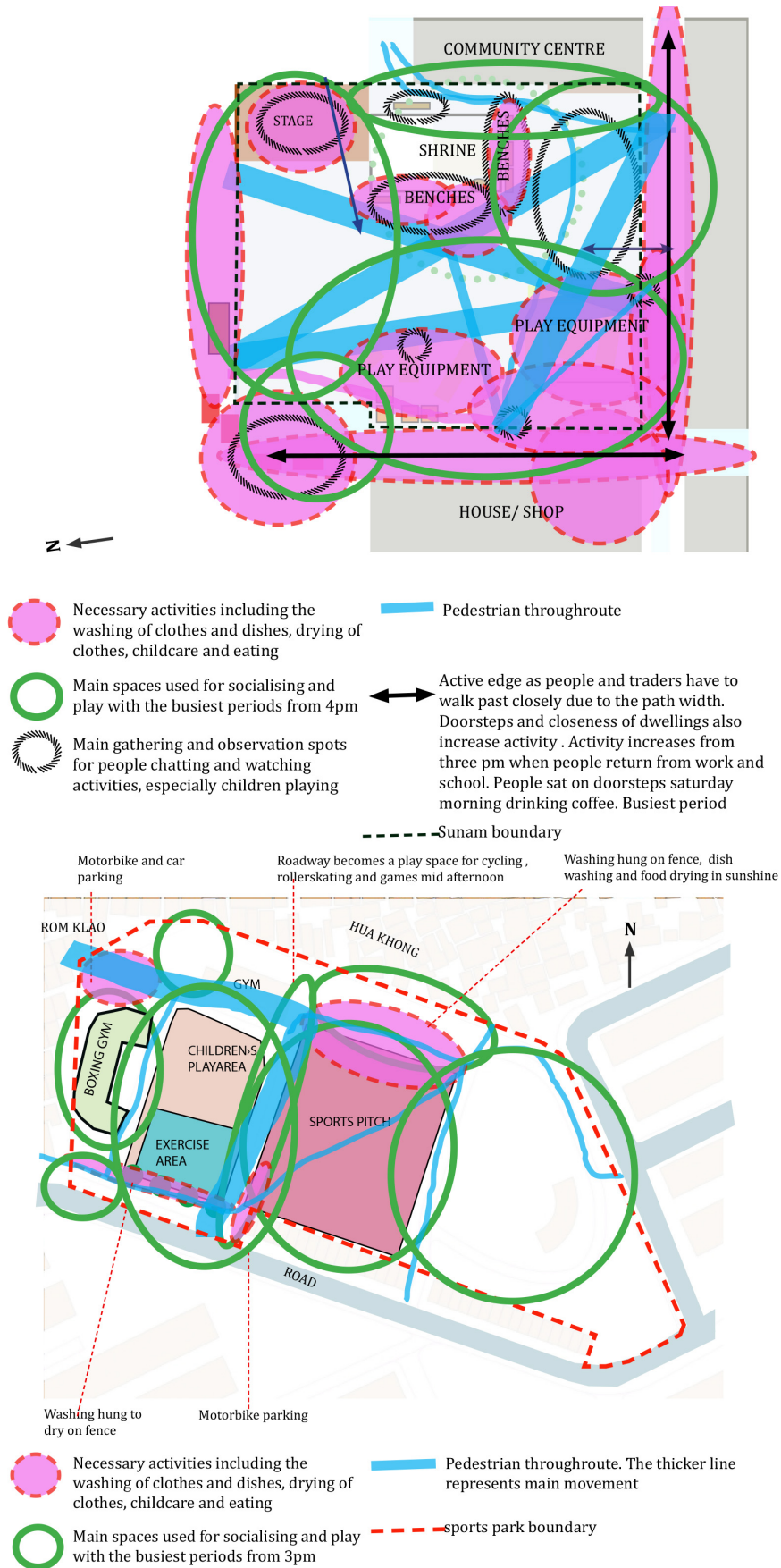
All four open spaces studied in depth and the Community Lantern are connected to the *soi* network, meaning they are accessible by foot and motorcycle. This latter point is important, for, due to the high temperatures experienced, this study finds that motorcycle access is influential on the publicness of an open space, subsequent use and the quality of life¹² within it. This finding lies in contrast to the work of Madanipour (2003); PPS, (no date); Carmona et al., (2010) and Gehl, (2010) who claims that pedestrian access is the main criterion for the publicness of a site and the density and types of uses performed. *Sois* are identified as being of a similar width- enough to allow motorcycle and foodcart movement, with the pavement of those surrounding the EHP, *nang lern A*, the RKS and sports park in similar states of repair and variously shaded by overhanging canopies. The sports park, *nang lern A* and RKS, which receive the greatest diversity of uses and users, meanwhile are additionally bordered by major *sois* and roads further increasing their accessibility to an increasing number of users as roads are wider and less obstructed than *sois*. *Nang lern A*, for example, is located adjacent to the main road and is shaded by the expressway, with those passing by often stopping to chat or eat with users who additionally interact with those selling from moving carts (HK9). In contrast, *sois* peripheral to the Community Lantern, identified as receiving the least diversity of uses and users, are exposed to the sunlight and are narrow in width. This study therefore supports Schwab (2015) that, as streets reconcile both movement and social space demands, it can be seen that the quality of connecting streets in terms of their width, the quality of the pavement, how obstructed they are and how shaded they are, also impacts on the

¹² See 'definition of terms'

accessibility of a space and the quality of public life within it. This study thus proposes claims by Whyte, (1980); Carr et al. (1992); Carmona et al. (2010); Franck and Stevens, (2007) that the relationship of a public space in the global north to adjacent streets is critical to success, is also applicable to open spaces of informal settlements, at least in Bangkok. As such, this research contributes to findings by Hernández-García (2009), who indicates connections are influential on the uses of open spaces within the barrios studied.

The centrality and porosity of the RKS and sports park further increases accessibility to different user groups. The RKS, for example, positioned between *chumchon* Rom Klao and the main road has numerous entrances meaning it is used as a pedestrian cut through. Whilst the RKS is fenced, the gates are permanently open, meaning it is physically accessible during the day and night. A low threshold around the edge however, prevents motorbikes entering and reduces mobility for wheelchair users and prams. Likewise, the sports park links the Rom Klao and Hua Khong communities with two peripheral vehicular roads. Consequently, clear patterns of use are discernible, with movement tending to occur between entrances rather than across the site. The sports park is fenced however and locked from 8pm until early morning (before 8am), preventing use during these times. In both spaces, those walking through or heading to particular facilities, greet and stop to interact with users of the space, become involved in activities occurring or spontaneously begin new activities. To highlight this potential, Figures 5.41-5.42 show the relationship between those walking through and those performing necessary or social activities in the RKS and sports park.

5.0 The Presence, Form and Use of Open Spaces



As well as connecting community members to the roads, themselves important infrastructural connections to the wider city of Bangkok, these spaces additionally link community members to services including shops and community facilities. The connectivity of these spaces has been taken advantage of by vendors who have set up food and coffee stalls in surrounding *sois* and dwellings, mostly located close to entrances, as revealed in Figure 5.43. This highlights the relationship between the location of a space, volume of use and the incidence of informal economic activity. It also establishes the relationship between leisure and consumption, and consumption as both an optional and social activity, with vendors selling to those observing activities, socialising or taking breaks from the activities. These findings contribute to those of Hernández-García (2009) and Schwab (2015) in the informal settlements of Latin America, and Whyte (1980) in the plazas of New York. Whyte, for example, claims that vendors are drawn to populated public spaces, in turn attracting other potential users.

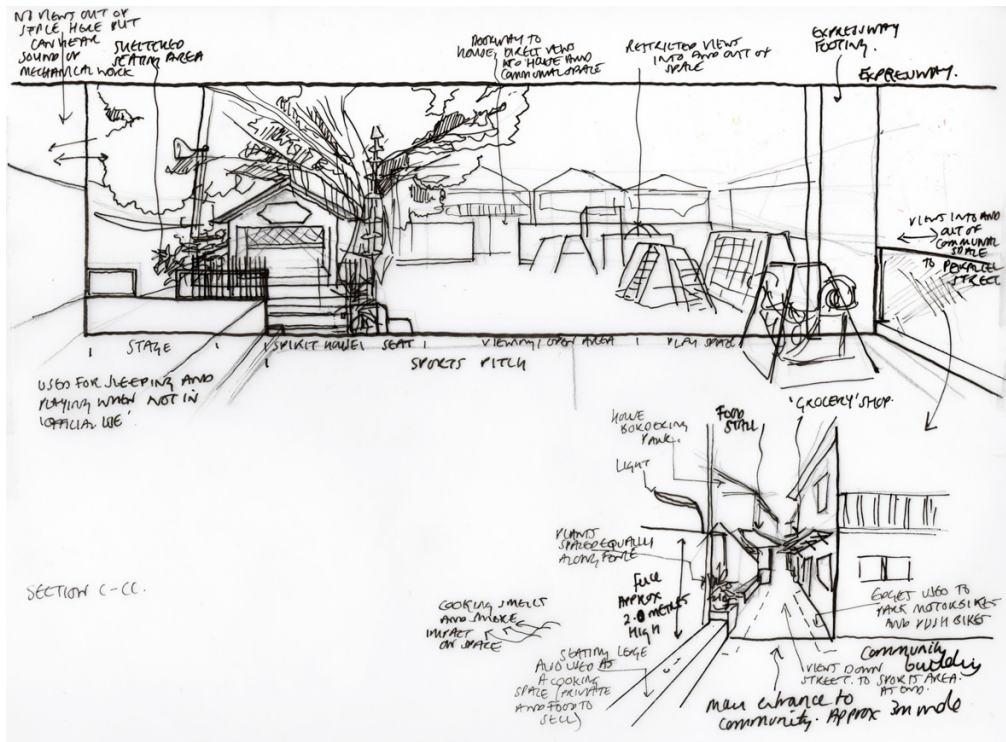


Figure 5.43: Section across RKS and connecting *soi* revealing relationship between entrances and economic enterprises

In contrast, the EHP and Community Lantern, which receive fewer uses and a decreased diversity of users, are located at non-centralised movement points within their respective communities. Furthermore, neither are porous. In the case of the Community Lantern this is due to the design of the platform structure, which prevents through routes from inside the community. Consequently, the ability of these spaces to support and be accessed by different user groups is limited, additionally limiting spontaneous interactions between passers-by and users of the space. This study therefore proposes that claims by Madanipour (2003); the PPS (no date) and Whyte (1980), among others that public spaces in the global north that are well connected within the movement system and that are permeable support an increasingly diverse population and greater variety of uses, is likewise applicable to open spaces of informal settlements, at least in Bangkok. In doing so, this research contributes to the work of Schwab (2015) in Medellín.

Visual accessibility

Both the sports park and RKS, which, of the spaces studied in depth, support the greatest diversity of uses, feature mature trees that are focal points within the urban landscape, whilst glimpsed views are possible from peripheral *sois*. Closer up, both are largely visibly accessible, as bordering fences are wire mesh, enabling views in and out from connecting spaces. In both spaces there are few visual obstacles, enabling largely interrupted long panoramic views and visual connectivity between the various sub spaces and connecting *sois*. This is taken advantage of by users who choose to sit in positions that afford clear views across the sites.

The frequency and density of social activities in the RKS is also influenced by the fact it is additionally overlooked by dwellings at ground and first floor level: sounds from here drift into the RKS and conversations are held between users, passers-by and those in surrounding dwellings, as detailed in Figure 5.44. As children play inside the RKS those carrying out domestic

or economic activities in connecting *sois*, on doorsteps and in dwellings supervise them. Similarly, in the EHP, which is also overlooked at ground and first floor level, social activities and play largely occurs in the area closest to the adjoining *soi* and dwelling entrances, as is visible in Figure 5.45.

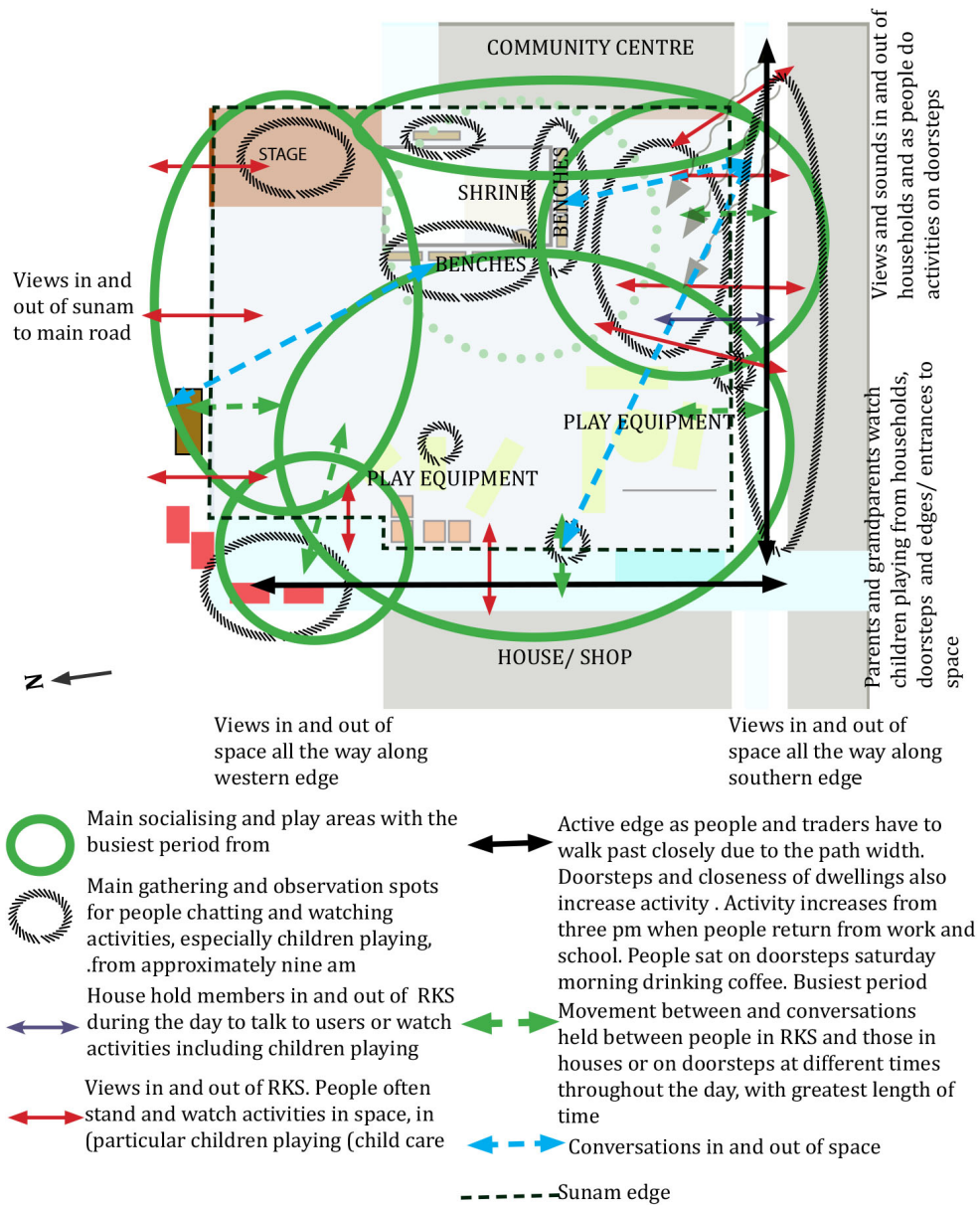


Figure 5.44: Diagram of relationship between sightlines, surrounding dwellings and social activity in RKS.

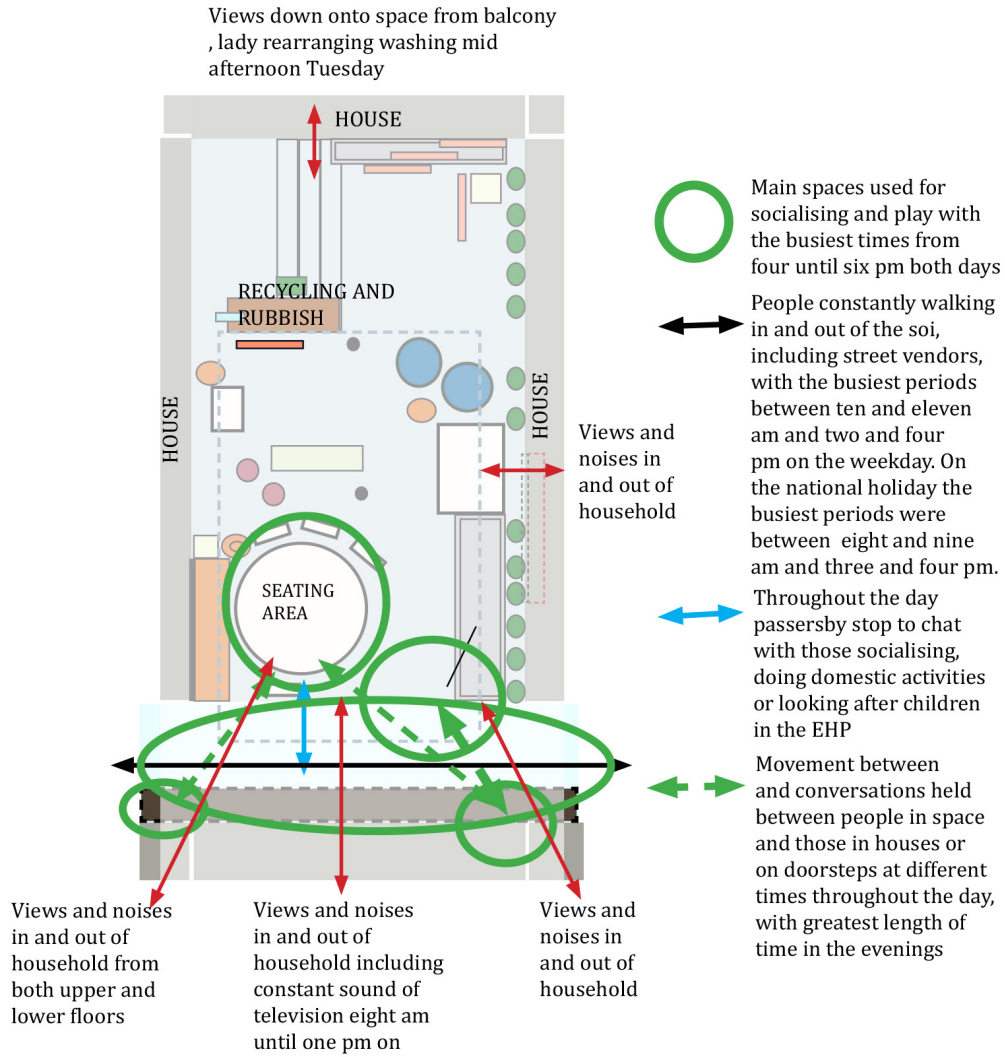


Figure 5.45: Diagram of relationship between social activities, dwellings and visibility in EHP, Rom Klao

In contrast, a lack of clear sight lines into the Community Lantern reduces visual accessibility; the site is delineated on two sides by the backs of windowless dwellings and on the third side by the seating structure, the materiality of which reduces visual connectivity with the peripheral *soi*. Consequently, the Lantern is only overlooked on one side, but by a *soi* likely predominantly used (based on findings in other communities) between 8am and 10am and 3pm to 5pm, with no dwelling or regularly used space to the opposite side. Thus surveillance of the Community Lantern is limited, with Khun Shor (CL5) giving this as the reason for children taking drugs, drinking and having sex on the structure. The flat topography, meanwhile, prevents the structure, which is the same height as surrounding buildings,

acting as a focal point. This study therefore proposes that claims by the PPS (no date); Carmona et al., (2010); Carr et al., (1992), Madanipour (2003) and Jacobs (1961), that clear visibility and the surveillance provided by active frontages influences users and uses occurring in public spaces in the global north is likewise applicable to open spaces of informal settlements, at least in Bangkok. In this context however, visual accessibility often relates to the need to supervise children whilst performing necessary domestic activities.

Comfort

Another prerequisite for the success of a space is whether it is comfortable (PPS, no date; Carmona et al., 2010). Other than environmental factors, which have already been established as influencing comfort, only three interviewees mentioned feeling or being 'comfortable' or the open space physically comfortable, as the reason they use it or why it is important to them. Of those, one referenced the sports park and three a *nang lern*. Khun Nae (HK9) for example, described how he likes coming to the *nang lern* outside his house because it is comfortable, offering views to the main road, which he enjoys. *Nang lerns* in general offer flexibility in use and in the degrees of engagement offered, with users able to sit alone or in groups. This indicates that *nang lerns* provide physical, social and psychological comfort. This study's findings therefore support Whyte (1980) who claims an important aspect of well-used spaces is properly orientated, comfortable and sufficient seating that provide views of activities.

Khun Men (RK5), meanwhile stated the *soi* by his dwelling is important for exercising because the sports park is too far to walk for him. Similarly four interviewees, stated that they like a particular space; the RKS (RKCS10); the EHP (EHP2; EHP3); and the SP (SP9), because they live close to them:

'the park is quite long way and if, when she go, she have to close her the window or the door, she, sometimes, she lazy to close or some she don't

want to go or something.’... ‘she just sit in here [the EHP].. and see if the people come in her house’ (Khun SK, EHP2).

Whilst all comments can be interpreted as related to physical comfort and convenience, this quote implies that for Khun SK use of the EHP is also influenced by the need to protect her property. Khun Si (HK12), meanwhile stated that the sports park has made her life better as it is more convenient than leaving the community to pursue similar activities. Likewise, Khun Chon, among several interviewees, claimed that as the sports park is close by it means they don’t have to leave the community and pay travel costs. These psychological and physical aspects of comfort are not discussed by the PPS (no date) in terms of factors that influence the success of a public space. However, this study suggests that within the Thai informal settlement context at least, such factors are influential on the use and therefore the likely value of open spaces.

Layouts and Amenities

This final subsection regarding dimensions of spatial physicality reviews how spatial layout and amenities influence the diversity of users and uses occurring within an open space by focussing on the sports park, RKS and Community Lantern.

In the sports park, available facilities divide the large open space into subspaces that are primarily defined by their functionality, surfaces, the bordering concrete path network and, in places, trees and benches. It is clear that the provision of these facilities for different recreational and leisure activities act as an open invitation for people to use them, for example see Figure 5.46. Additionally, users are also inventive in using these facilities for a wide variety of unprogrammed uses. For example, whilst sports and exercise activities primarily take place on the sports pitches, grassed areas and roads are also appropriated for their performance. Similarly, children appropriate sports pitches and the roads and incorporate exercise equipment into games and imaginative play. Bike

riding occurs over the whole of the sports park area, although in the evenings, when there are increased numbers of users, the use of certain spaces becomes more regulated by users to avoid spatial clashes. In addition, people were seen relaxing on benches that they had move to desired locations and on mats and in hammocks they bought themselves. Taken together, these diverse uses, enabled by the size, degrees of choice and opportunity for use, as shown in Figure 5.6, enable the sports park to meet various user needs and increase the potential to attract other users. Consequently, interviewees stated the sports park is important because it is for 'everyone' (SP1; SP3; SP10), with Khun Bet (SP3), Khun Pae (SP1) Khun Chon (SP10) similarly remarking: *'it is like a public space so everyone can comes and choose the activity that they want'* (Khun Pae, SP1).

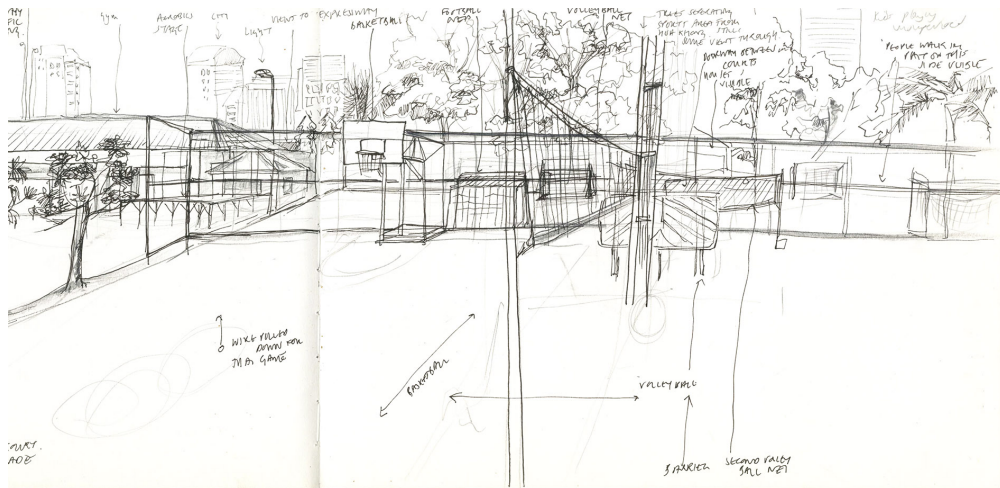


Figure 5.46: Drawing of sports pitches in sports park, detailing basketball posts, badminton nets and football goals

Likewise, the physical layout and amenities within the RKS support multiple leisure activities through the invitations offered by the available facilities to use them. Fewer activities are supported than the SP however, due to fewer variations in character and the limited dimensions. As for the SP, amenities are also imaginatively utilised for non-intended activities. For example, play equipment and other structuring elements are utilised as seating, which afford clear sightlines to connecting *sois*, suggesting that Whyte's (1980) claims that people will sit in public spaces in America where there are properly orientated places to sit is likewise applicable to open spaces, at least in Khlong Toei. Play equipment is also modified with

extra poles to increase the surface area for drying, and badminton is played despite the lack of nets. Thus, the RKS also offers degrees of choice and opportunity for use through the available facilities, enabling it to accommodate multiple activities and meet different user needs. As for the sports park, the variety of activities performed increases the potential of the RKS to attract other users and forms of activities. For example, many parents, guardians and the elderly observe and supervise children performing activities whilst socialising with one another. Those walking through meanwhile often spontaneously interact with users, become involved in activities occurring or generate new activity. In turn, others are drawn to the liveliness of these open spaces, including vendors who in turn attract others. Consequently, no one dominant user group was observed in either space, with children and adults of both genders present.

In contrast, whilst the Community Lantern was designed as a recreational and leisure space, the limited size and lack of subspaces and legibility mean only limited activities are supported. Consequently, teenage boys and younger children predominantly use it for playing football. Even so, the creation of the seating structure means that the area for playing has been reduced with Khun Somal (CL3) identifying this as a factor contributing to its lack of use. Indeed, Nong Tin (CL2) described how he now prefers going to the Rom Klao sunam, despite the distance to travel and exposure to the sun: *'[it is] bigger and have green... if [I] use this space, [my] team for football only have three person... if [I] play in Rom Klao each football team they can have up to seven per team'* (CL2). Four interviewees therefore felt it would be better if the structure was torn down and the football pitch made wider. The seating meanwhile, located to the edge of the football pitch, is appropriated by children for playing with these clash of uses identified by Khun Jana (CL7) as the reason for not sitting there. Here, despite being identified as spatial users in the other spaces analysed the elderly, women and teenage girls are under-represented: *'it's just suitable for little children but in the real life they have many kind of people. Like*

adults and... but this is only for football and some around like a big football so it's not proper to the place' (Khun Vow, CL4).

This study therefore proposes that claims by Carmona et al. (2010), Carr et al. (1992); Gehl (2010; 2011); Madanipour (2010); the PPS (no date) and Franck and Stevens (2007), that increased legibility, indicated through the physical amenities, increases the potential of a public space to attract users by 'inviting' them to appropriate it, can similarly be applied to open spaces of informal settlements, at least in Bangkok. Spatial layouts meanwhile with increased variety and openness, increase opportunities for use and choice, meaning that more activities can be accommodated, decreasing *symbolic* access. This substantially influences the ability of different people to perform activities and therefore the success of a space, confirming the work of Franck and Stevens (2007).

Dimensions of Spatial Physicality: Conclusions

This final chapter section has established that, in addition to being affected by the public or private nature of an open space and temporal cycles, uses performed within an open space are also influenced by: physical accessibility, visual accessibility, comfort, layout and spatial amenities, confirming claims by the PPS (no date).

In terms of physical accessibility, this study proposes that claims by Whyte, (1980); Carr et al. (1992) and Carmona et al. (2010) that increasing permeability, porosity, centrality and connections to circulation paths increases the variety and density of uses and numbers and diversity of users is likewise applicable to open spaces of informal settlements, at least in Bangkok. This research therefore contributes to findings by Hernández-García (2009) and Schwab (2015), who likewise indicate such aspects are influential on the uses of open spaces and quality of public life within the popular settlements in Bogotá and Medellín studied. Furthermore, the quality of connecting *sois* in terms of their width, how obstructed they are

and how shaded they are has also been found by this research to be influential on accessibility, contributing to the work of Schwab (2015). Whilst Madanipour (2003); PPS, (no date); Carmona et al., (2010) and Gehl, (2010) claim that pedestrian access is a main criterion for the publicness of a site and the density and variety of use it receives, this study finds that within the communities studied, motorcycle access is also influential, due to the high temperatures experienced. This research has additionally established the relationship between the centrality of a space, the intensity of use and the occurrence of informal trade, as well as the relationship between leisure and consumption. In doing so the study contributes to the work of Hernández-García (2009) and Schwab (2015) in the informal settlements of Latin America, and Whyte (1980) in the plazas of New York.

In relation to visual accessibility, this research finds that open spaces that are visually accessible from connecting spaces and that enable uninterrupted views to users and activities occurring, increases the types and density of activities occurring and the diversity of users present. Furthermore, open spaces bordered by active frontages and dwellings significantly increases the density and types of activities performed as well as perceptions of safety. Perceptions of safety meanwhile impacts on user groups, in particular the presence of women and those who are vulnerable. In doing so, this study proposes that the findings of PPS (no date); Carmona et al., (2010); Carr et al., (1992), Madanipour (2003) and Jacobs (1961) relating to public space use in the global north similarly apply to open spaces in informal settlements, at least in Bangkok. In the communities however, supervising children at play in open spaces whilst performing necessary reproductive or productive activities inside dwellings is an additional aspect of the relationship that is not discussed by these authors.

Concerning comfort, this research finds that environmental factors, particularly relief or access to the sun and rain and access to the breeze are influential on physical and psychological comfort. Views, along with the flexibility in use and degrees of engagement offered by seating have also

been found by this study, to be influential on physical, social and psychological comfort, at least in relation to the use of *nang lerns*. Thus this study suggests that claims by Whyte (1980), Carmona et al (2010) and the PPS (no date), that the success of a public space in the global north is influenced by comfort likewise applies to open spaces in informal settlements, at least in Bangkok. The study additionally establishes that distant to travel to a space impacts on physical and psychological comfort and therefore the diversity of users and types of uses an open receives, an aspect not discussed by these authors in relation to public spaces.

With regards to layout and amenities, this study reveals that open spaces with increased legibility, indicated through the facilities, increase the potential to attract users by 'inviting' them to appropriate it. Meanwhile, larger open spaces with increased diversity in character offer increased degrees of choice and therefore are able to support an increased diversity of both intended and unintended uses. This increases the possibility of an open space to meet the needs of a greater diversity of user groups and the potential to attract others and instigate further activities. A combination of these factors has been found by this study to decrease the likelihood of any one user group dominating, increasing safety, comfort and *symbolic* access and therefore the success of a space. Thus this study proposes that claims made by Carmona et al. (2010), Carr et al. (1992); Gehl (2011); Madanipour (2010) and PPS (no date) and Franck and Stevens (2007), that increased legibility increases the potential of a public space to attract a greater diversity and density of uses and users, can similarly be applied to open spaces of informal settlements, at least in Bangkok. Additionally, the study confirms the work of Franck and Stevens, (2007) that accessibility, freedom of choice and the physical amenities encourage 'looseness' of a space and its openness to appropriation. In contrast to Franck and Stevens' (2007) however, anonymity amongst strangers is not a social condition required for looseness in the open spaces studied.

This study of dimensions that influence spatial uses (control, temporal and spatial physicality) develops literature regarding uses of open spaces in informal settlements, which is presently limited to the Mexican and Colombian contexts. Increasing knowledge of spatial practices and user needs increases the likelihood of workable solutions and responses being implemented by landscape architects considering a role in these contexts. The following discussion chapter continues to review dimensions impacting on use, with the subsequent bonds formed with certain open spaces additionally discussed.

6.0 The Role, Meaning and Significance of Open Spaces

Introduction

This second discussion chapter continues to explore dimensions that influence spatial use and the types of open spaces created, addressing research objective two. Simultaneously, the chapter addresses the third research objective: To determine the role, meaning and significance of open spaces to users.

To meet these objectives, the chapter is divided into four sections. The first reviews the role of open spaces in meeting basic needs and is divided into three subsections. These review the significance and symbolic meaning of open spaces in relation to dwelling deficiencies, entrepreneurial success and safety and security needs. The second section reveals the role of open spaces for social interaction and is again divided into three subsections. The first two are related to the significance of open spaces for facilitating support networks and for strengthening community unity. The final subsection meanwhile reviews the mutually reinforcing relationship between social and necessary activities. The third section explores the restorative role of open spaces and their resultant significance and symbolic meaning. Finally, the fourth section explores the role of open spaces in facilitating group and individual identity and is divided into two subsections. These explore the significance and symbolic meaning of open spaces relating to spiritual and religious expression and cultural preservation. It is recognised that in places these categorisations are fictional in that they suggest distinctive differences when in fact there is much overlap between dimensions, however this is unavoidable.

To explore the dimensions that influence use and the meaning attached to particular open spaces, the chapter continues to take a comparative approach, again focussing on the Community Lantern and four open spaces studied indepth. Increasing knowledge of how individuals and groups use, experience, perceive and bond to open spaces and of the values embedded

within place attachments, increases the likelihood of landscape architects creating socially and environmentally sustainable designs (Hester, 2014). For, in analysing why a particular place is successful, and if this can be recreated elsewhere, Relph (1976) establishes that the emotional connections individuals and groups develop with a site are as influential as the physical qualities of a site and the activities that are performed there. For meaning to develop meanwhile, a space must resonate with people's lives and evoke patterns of use that create bonds with a space (Carr et al., 1992).

Throughout, data regarding the meaning and significance of open spaces will be analysed using my own approach and contribution to knowledge, with reference to the tripartite person-process-place framework provided by Scannell and Gifford (2010). The impacts of the socio-economic, physical, cultural and religious context will simultaneously be explored for human behaviour is acknowledged to be situational with meaning and significance developing in multiple ways and across scales from the local to the global.

This chapter develops literature regarding how meaning and identity become manifested in open spaces in informal settlements, which is presently limited to the Colombian and Mexican contexts (e.g. see Hernández-García 2009 and Hernandez Bonilla, 2001).

N.B. Throughout this chapter, image captions refer to images from left to right. All interviewee's names have been anonymised with Khun meaning Mr, Mrs or Miss and Nong used as a prefix to children's names. For a list of interviewees gender, age, community and any additional notes see Appendix 14.

6.01 The Role of Open Spaces in Meeting Basic Needs

This first chapter section explores dimensions of basic need that influence the performance of 'necessary' reproductive and productive spatial uses

and result in meaningful attachments being formed with particular open spaces (OS). Data analysis reveals that there are three¹ main factors related to the meeting of basic needs: dwelling deficiencies; economic needs; and safety. Following an initial introduction which gives an over view of where necessary activities are performed and by whom, these benefits will be explored in turn.

Dimensions of Basic Need

This study has found that many open spaces across all communities are dominated by the following necessary activities: reproductive domestic activities, storage and productive economic enterprises, which are performed in order to meet basic needs. Both reproductive and productive activities are dominated by women hence resulting in a gendered use of open spaces in relation to the meeting of basic needs. Indeed, according to Father Maier, women devote approximately fourteen hours of their day to domestic activities. Income-generating activities, meanwhile, fully support or supplement household income:

'[t]hese women have no money to start a business and no skills to speak of anyway. About all they can do is sell food. There are a lot of small food stalls here and the Slaughterhouse [Khlóng Toei] never sleeps, so there are always customers' (Father Maier, 2004, p.24)

These findings confirm those of Askew (2002), who also noted such a gender imbalance in Khlóng Toei (KT). Additionally, the findings contribute to the body of work produced by Schwab (2015) in the popular settlements of Medellín, who likewise identified gender imbalances in the different types of activities performed.

Despite this, only four KT interviewees suggested that open spaces are important because they enable domestic activities, or that such activities are important. Nevertheless, data analysis reveals that the majority of open spaces support some kind of domestic reproductive activity, chiming with

¹ Educational needs were also mentioned but only by one respondent.

the findings of Askew (2002). Of these domestic activities, drying of clothes, food preparation and cooking are the most commonly observed across all communities, particularly in *sois*, house and business extensions (HBEs) and on doorsteps. It was also observed that childcare and domestic activities often occur together. The prevalence of these activities in many open spaces indicates that these are important spatial uses as demonstrated in Figures 6.1-6.2, which record clothes drying and food preparation in a Hua Khong *soi* and domestic activities, including clothes drying and goods storage, on doorsteps in Rom Klao (Figure 6.3).



Figure 6.1: Clothes drying in Hua Khong *soi*. A barbecue is visible on top of the table to the middle of the image

Figure 6.2: Storage facility in Hua Khong *soi*. To the back of the image a community member making food and non consumable goods to sell is visible

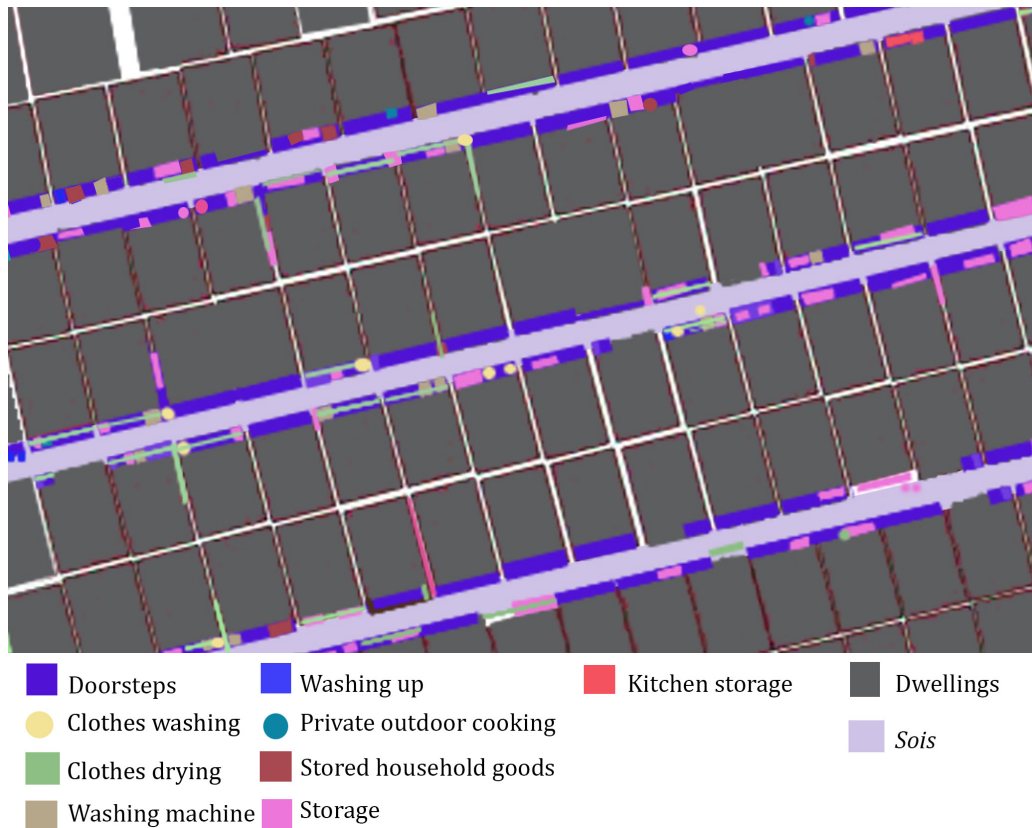


Figure 6.3: Plan of Rom Klao doorsteps detailing 'domestic' activities observed

In-depth analysis of the four open spaces (the EHP, *nang lern A*, sports park and RKS) further support these findings, with Figures 6.4-6.8, revealing the types of domestic activity occurring within each and where in the space they are located. The figures also show that again, clothes drying, childcare and storage are dominant necessary uses within the EHP, *nang lern A* and the RKS. Of those, the EHP, an appropriated space, and *nang lern A*, the self-created structure, support the most domestic activities with structures created in both to facilitate clothes drying. In all four spaces many domestic activities are conducted daily indicating this occurs across open spaces in the settlements to meet the basic needs of daily living. The practices of use, and design of the EHP and *nang lern A* by their creators to support these uses further indicates that these activities are desirable or necessary within the context.

6.0. The Role, Meaning and Significance of Open Spaces

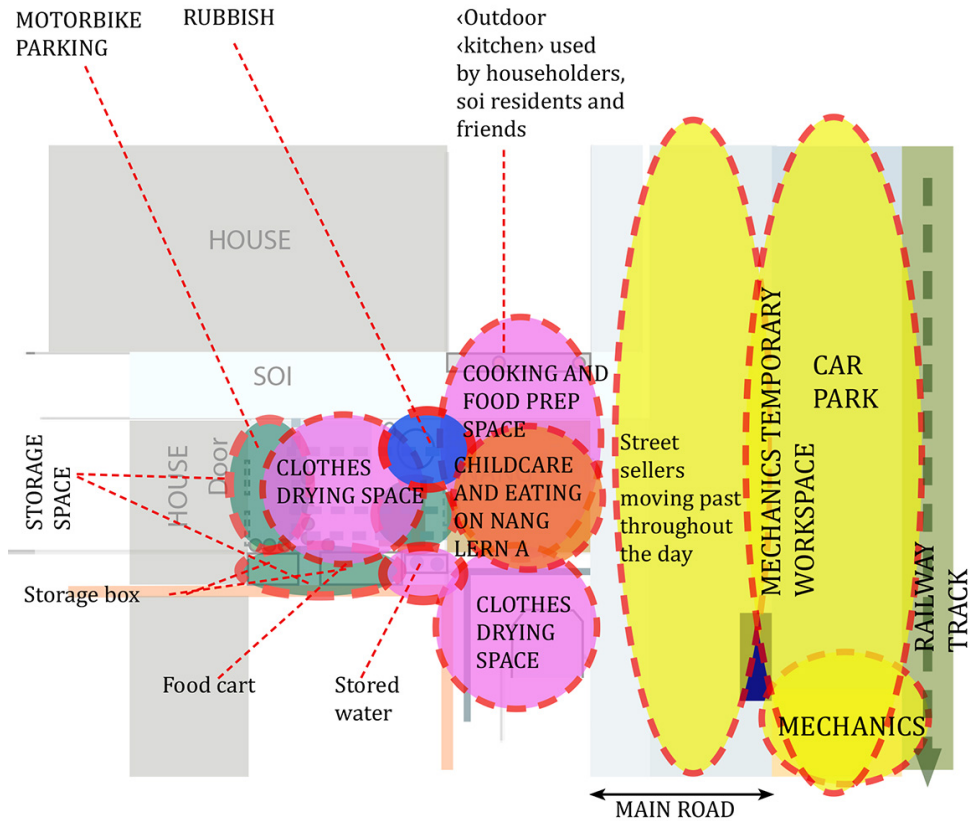


Figure 6.4: Diagram of reproductive activities occurring on *nang lern A* and location of productive activities along main road

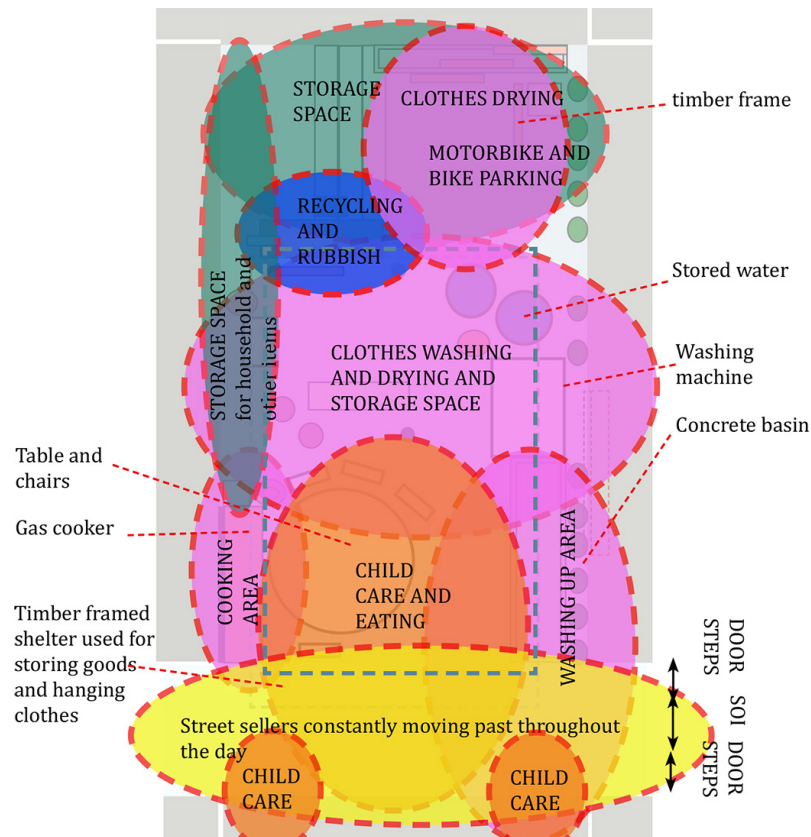


Figure 6.5: Diagram of reproductive activities in the EHP and on doorsteps and productive activities in the adjacent *soi*

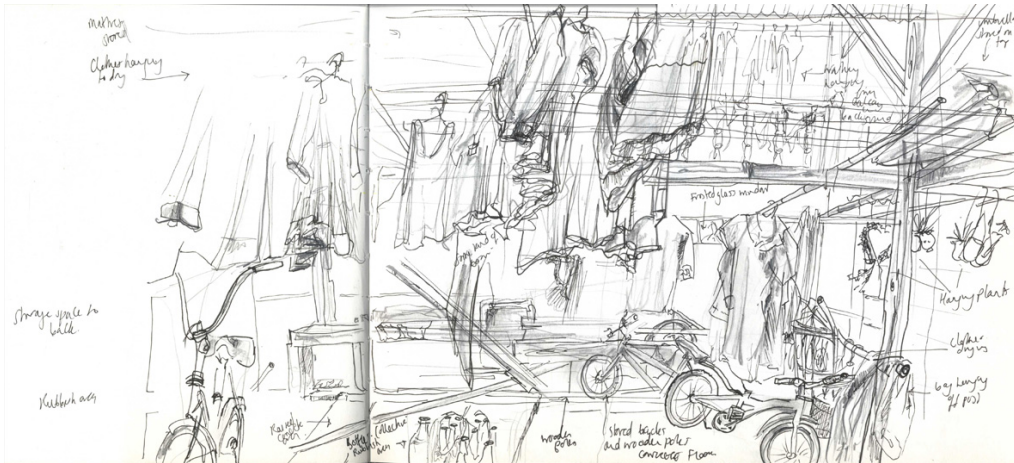


Figure 6.6: Drawing of drying clothes hanging from shelter in EHP, Room Klao

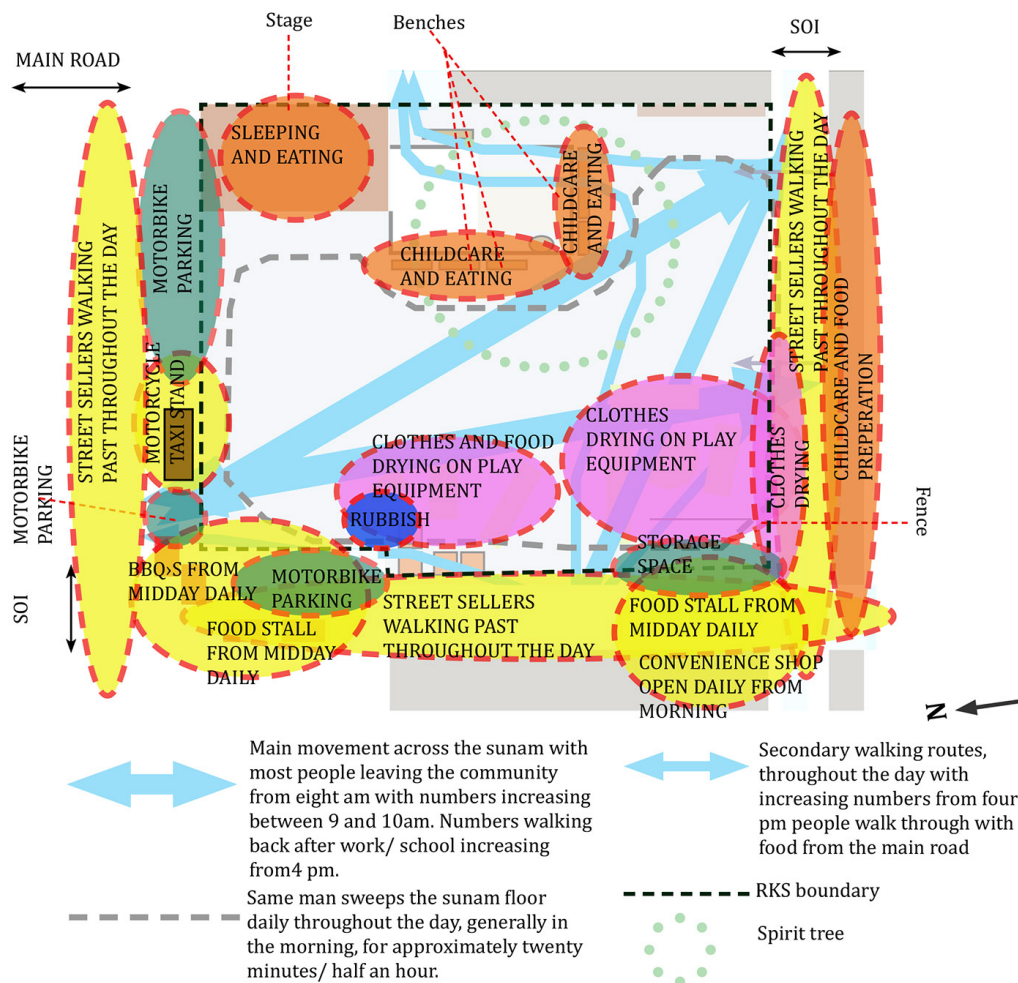


Figure 6.7: Diagram of reproductive activities in RKS and location of productive activities in sois close to entrances, Rom Klao

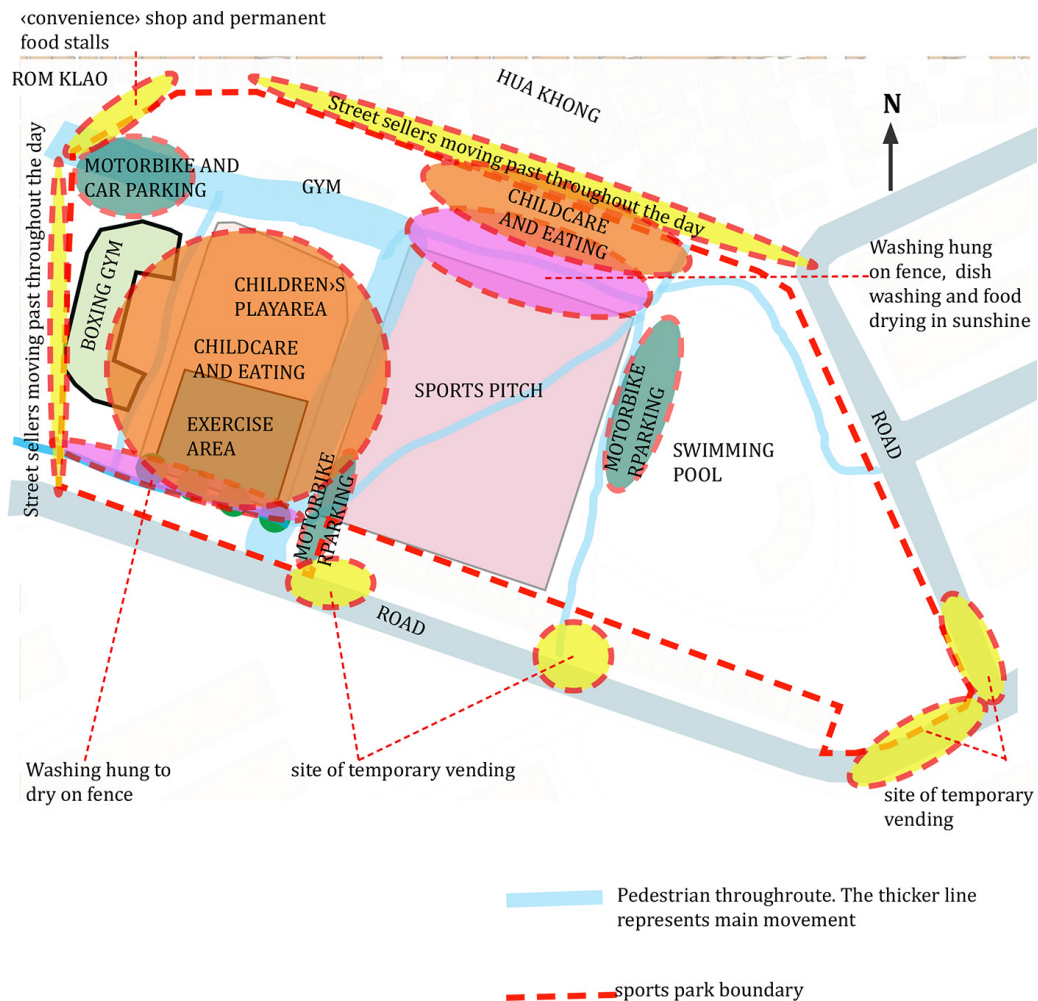


Figure 6.8: Diagram of reproductive activities in the sports park and productive activities in adjacent *sois* typically close to entrances, Khlong Toei

In terms of economic enterprises, many were observed across all communities within a variety of open spaces including: *sois* (especially at entrances and intersections- see Figure 6.10 for example), HBEs and on tables along both vehicular roads in KT, within the RKS and on doorsteps in all communities other than Chai Khlong Bang Bua (CKBB). Figure 6.9 for example, reveals the location of many informal economic enterprises in Hua Khong. The four open spaces studied indepth however do not support economic enterprises, likely due to the manner of their regulation or due to the their physical form. Despite this, each connects to *sois* or a road where vendors sell, as shown in Figures 6.4-6.5, 6.7-6.8. In this way these open spaces attract economic ventures even if they don't accommodate them

directly. Schwab (2015) identified a similar relationship in her study of open spaces in Medellín.



Figure 6.9: Map of Hua Khong detailing location of economic enterprises



Figure 6.10: Temporary vendors to the entrance of Rom Klao, adjacent to the RKS

In marked contrast, The Community Lantern does not support income-generating activities; moreover the lack of connectivity and narrowness of surrounding *sois* additionally prevents vendors from selling wares close by.

In addition, whilst parts of the Community Lantern have been appropriated for drying clothes and the temporary and more permanent storing of goods, as pictured in Figure 6.11, it supports the fewest 'necessary' activities and has not been designed to accommodate them. This is despite the Community Lantern replacing an existing open space, which likely supported these activities:

'I imagine if it's anything like our space people would have lost space to hang up clothes... initially when that was happening they would have been frustrated.. how do I use it because now they've taken over my.. this is my clothes drying area' (Karen, NGO2).



Figure 6.11: Timber being stored in Community Lantern, Lok 1-2-3

That the Community Lantern supports the fewest reproductive activities and no economic activities possibly relates to how it is managed, as in the RKS and sports park, where regulators limit these activities. However, as both the sports park and RKS still support higher levels of domestic activities with economic enterprises located in adjacent *sois* suggests that the Community Lantern does not meet user needs and is not functionally or

symbolically integrated into the Lock 1-2-3 communities. To explore this further, the significance of performing necessary activities in open spaces to meet basic needs are reviewed in relation to the three main influential factors identified: dwelling deficiencies, economic success and safety and security needs. Each of these factors will be discussed in turn in the context of the socio-economic and cultural processes occurring and how these inform the development of place attachments.

The Importance of Open Spaces Due to Dwelling Deficiencies

Open spaces are partly used for domestic reproductive activities because slum houses are to be slept in and not lived in (RKCS9; Father Maier). This partially relates to dwelling deficiencies, which can be attributed to the socio-economic situation of many slum dwellers. Dwelling deficiencies include limited interior space, see Figure 6.12, with many dwellings further subdivided into rented rooms, as well as a lack of facilities, light and flexible space. These factors all contribute to the type and number of activities that can occur inside, causing residents to seek out or create more spacious OS to perform activities. For example, Khun Soo (EHP1) stated that there is nowhere for her to dry her clothes other than the EHP, despite living in a two storey dwelling. Khun SK meanwhile also said of the EHP: *'[P]eople in the chumchon they can use this place when they cooking or they have another something more often, they come to use this place because their house too small or have no place'* (EHP2). Similarly, Khun Num said of her dwelling: *'it's really small. Inside they can just really wash dishes'* (HK16). Of the RKS, Khun Teem, further exemplified the importance of open spaces stating: *'if we don't have public place like here [I] have no place to live. Because house is very small'* (RKSC9). For Khun Surn, meanwhile the sports park, the largest open space in KT, is important because: *'she can bring her child, her daughter comes here to take a break because in the communities like the housing is so tiny and you cannot ... take a break and so comes here is like feel better'* (SP2).

In addition to a lack of space, many dwellings are insufficient for domestic activities or otherwise, with Khun L saying she uses open spaces because,

'her house not good now. Cannot building, no money. It look dirty, I don't like it but I can't do anything' (HK5). Furthermore, some dwellings are so structurally inadequate that they are unable to take the weight of a refrigerator (Father Maier). Along with the lack of interior space, this possibly explains why so many fridges, cupboards and other storage facilities, furniture and household goods are located in open spaces in all communities. In the forty plus years Father Maier has lived in Khlong Toei the number of pans and pots hung outside has increased. This is possibly because people acquire more material goods as they become wealthier or because the communities have densified over the time period forcing dwelling sizes to decrease.



Figure 6.12: Photograph showing limited interior space of dwelling in Rom Klao, causing the inhabitant to cook on her doorstep

Electricity for the fan or light is also expensive causing some residents to seek out open spaces daily, according to six KT interviewees:

'if [I] stay in [my] house, [my] house very fall down... [I] cannot stay in [my] house all day because if [I] stay in [my] house [I] have to use [my] electricity. [I] don't want to spend more money, [I] don't want to pay electricity... so [I] comes to stay here.... better light, and have friend for talking' (Khun , HK4).

Again, open spaces have the additional benefits of access to cooler air, which as well as having restorative benefits means residents can save money. As Khun Y describes, *'outside have more air, more fresh. If they sit inside just only have to put fan. Turn on the fan and have to use electricity*

more' (RK20). This study therefore suggests that whilst it is likely that people use open spaces to perform domestic reproductive activities, out of necessity or desperation to maximize a highly compromised spatial context, in doing so they will come to value them, with people exploiting every suitable environmental niche available to them. In meeting the basic needs of daily living people may also form attachments relating to place dependence. This theorization is guided by and contributes to the work of Stokols & Shumaker (1981 cited in Scannell and Gifford, 2010).

In addition to dwelling deficiencies, Khun Po (RK13) stated that if she wants to barbeque she cooks in the *soi*, due to the smell, to avoid smoke inside the home and due to the fire hazards, with many dwellings constructed from timber. Actions such as these can also be interpreted as being rooted in tradition and culture but performed in a manner adapted to the limitations of the urban realm. As the context chapter revealed, across Thailand the vernacular Thai house is raised, with the space beneath used for activities including cooking and washing. Likewise Khun Preep described how in rural areas domestic activities are performed outside houses and that historically, *'[m]ost Thailand we have a lot of ingredient we will prepare outside... in the past we use charcoal, we use wood, they cook outside'* (NGO3). This study therefore additionally finds that uses of open spaces such as doorsteps and *sois* replicates the traditional relationship between uses of interior dwelling spaces and exterior outside space. However, this is in a manner that responds to the limited and particular spatial arrangements of the urban realm. Through these customs, this study suggests people, particularly women, preserve and link to their traditional domestic culture and rural practices as well as other community members, forming cognitively based attachments to open spaces. This likely contributes to self-continuity, with open spaces where these activities are performed possibly become symbolically meaningful. Indeed, Khun B stated that she washes clothes on the doorstep because, *'in Thai culture the old people.. they like to wash the clothes by hand. In the house they have a washing machine but the mum doesn't like it'* (HK13). This

theorisation is guided by and contributes to the work of Scannell and Gifford (2010) and Carr et al., (1992) who claim that this cognitive-emotional connection of self to place is a component of place attachment. This study additionally contributes to work by Hernandez Bonilla (2001) and Hernández-García, (2013) who observed similar relationships in the popular settlements of Mexico and Bogotá respectively. Thus, this study argues that self-continuity is mutually constructive with the spatial and material realities in shaping open space use and in the forming of place attachments.

Likewise, several interviewees in the CKBB and KT communities also described how interior heat causes them to seek out cooler temperatures in open spaces. The majority of dwellings are roofed with corrugated metal increasing interior temperatures during the day. Whilst I was living in Lock 1 it became almost unbearable to be inside the house from 11am to 5pm due to the inescapable heat, with only the air con, unaffordable to many, making it possible. Furthermore, some dwellings also lack windows, and therefore ventilation as well as light. This is possibly due to fear of items being stolen or a function of the unaffordable expense of windows and the need to secure them (Pers., coms). Again, this suggests that some uses of open spaces replicates traditional patterns of outdoor use, which is partly a response to the climatic conditions. Thus, in performing activities outdoors, community members are again linked to their traditions and culture, likely forming cognitively based attachments to certain spaces in doing so. Khun Chai, for example, chooses to sit and drink with his friends on his *nang lern* instead of inside: *'house very small and not very comfortable and when [I] sit underneath on the bench and have more shade and more windy'* (N3). Similarly, Khun Wila said, *'[If I] stay at home is hot so come out here [the sports park] with breeze, with better weather, air'* (SP10).

The Importance of Open Spaces for Entrepreneurial Success

'[T]he informal manufacture and sale of food, clothing and other goods is significant as a source of work. Few households have nothing to make or sell' (Barker, 2012, p.44).

Having identified that dwelling deficiencies in part influences open space use, this third subsection reviews how uses are also shaped in response to basic economic need.

Within many open spaces vendors were observed selling goods and coffee, and preparing, cooking and selling food from fixed positions (Figure 6.13) and mobile carts to residents. According to Father Maier, business is also conducted on street corners when men sit and drink with selling and buying within the communities lucrative; food is cheaper and fresher than that from outside. Across all communities, the lower storeys of dwellings are often converted into 'convenience stores', 'coffee shops', 'restaurants', hairdressers and workshops, amongst other businesses. Again, the surrounding open spaces, particularly HBEs and doorsteps, are often utilised to support these activities, whilst *sois* are appropriated as seating areas and gathering spaces for customers internal to the communities.



Figure 6.13: Permanent food stall to the entrance of the RKS, Rom Klao

Khun Sa (HK11) believes that such open spaces help the shop he regularly sits outside of, visible in Figure 6.14, attract business: *'it helps, also people walking past if they want to rest, later they feel hungry they eat'* (HK11). This study therefore finds that open spaces play a vital role in supporting food production and economic activity within the communities, enabling these necessary activities to occur. This evidence supports Hernández-García's (2013) description of the important relationship between the home and open space in popular settlements. Consequently this study finds that whilst Askew (2002) claims that in KT the home constitutes, *'an important site of production, or preparation, in the case of food selling'* (p.143), this requires expansion to include open spaces. For dwellings alone have been identified as being inadequate for such activities due to the deficiencies mentioned.



Figure 6.14: HBE in Hua Khong, which Khun Sa believes contributes to the shops business success

Individuals seek out or create OS to sell consumable and non-consumable goods due to the multiple barriers to gaining an occupation outside of the chumchon with those living in slum and squatter settlements consequently facing a lack of secure employment (Duang Prateep Foundation, 2008). Barriers faced by residents include stigmatisation and a lack of qualifications according to interviewees, confirming the findings of Barker (2012). The difficulties faced in gaining gainful employment possibly also explains why, when asked what more was needed in the community, Khun Dee responded, jobs:

'her grandchildren go to school, she want to do some job she don't want to go to work out...lots of the volunteer... come to help children..., but they never think about the people or the women have no job or just look after grandchildren. And after grandchildren go to school they have no anything to do... she think this is important for make a job' (RK12).

Khun Pat, an internet café owner, who is representative of many who discussed owning businesses, likewise said it was 'easier' and 'really important' to have her own business in the community: *'If [I] didn't have*

[I] would have to go to work outside' (HK14), which she agreed would be problematic. Whilst Khun Pat didn't specifically reference the relationship between her business and open spaces the premise for those who do utilise them for economic opportunities is the same. Selling goods in open spaces in the communities additionally means that vendors do not have to travel far, which has both time and cost benefits and reduces competition, according to Khun M (HK6). Khun M's comment that vendors have less competition is interpreted as referring to the vast numbers of vendors selling on the sidewalks or markets in the main city. Additionally, the appropriation of open spaces means that rent does not have to be paid for business premises as it would in the 'formal' city (HK6; HK14; RK2; SP14). Similarly, food or medicinal plants grown saves money that would otherwise have to be spent on buying such raw materials. For others, a benefit of selling within the communities is the large volume of people within a high-density area. Khun Poy, who lives in a province around 35km away but travels to Hua Khong daily to work in her convenience shop, describes this benefit: *'it's quieter in the suburb. So it's for living, but for working she comes here. There are more people so she can do her business'* (HK10). Khun Poy, also described how her business, the area of which includes a seating area outside her shop and in the main *soi*, has enabled her to send her children to university. The significance of which is highlighted by the inaccessibility and unaffordability of education for many (Barker, 2012). Consequently, thirteen interviewees from four communities expressed their emotional connection to open spaces, describing their importance to them for either selling goods or saving money. Most explicitly of these, Khun F, who sells products in the *soi* outside her shop, at the same time 'advertising' her wares through their physical presence, said that outdoor space is *'very important, it's quite necessary'* (PM9).

This study therefore suggests that open spaces are key to economic success, with people, largely women, performing productive economic activities, out of survival necessity. In enabling basic survival needs to be met, this

study proposes open spaces will become valued, particularly by women, fostering the attachments relating to place dependence, repeated use and the affordances offered. Whilst an open space intervention would not necessarily create jobs, as called for by Khun Duang, it could provide the opportunity for economic activities to take place and therefore is more likely to foster attachment increasing the potential for successful integration. This theorization is again guided by and contributes to the body of work collated by Scannell and Gifford (2010). As revealed by Khun M and in the context chapter, the pursuit of economic goals in open spaces is not solely confined to the communities but occurs across Bangkok and Thailand. Figure 6.15 reveals a typical street scene in Bangkok. This study therefore finds that vending in open spaces replicates traditional economic activities, however their performance is again shaped by the challenges of such spaces and how open spaces intersect with survival options. Through these practices vendors thus, connect with and preserve their traditional economic culture and practices, as well linking to other community members and Thai citizens. This suggests that through these entrepreneurial processes people become emotionally and cognitively entwined with particular open spaces, resulting in certain open spaces developing symbolic meaning. These place attachments in turn contribute to self-continuity. This strengthens arguments made previously that self-continuity is mutually constructive with the spatial and material realities in shaping open space use and in the forming of place attachments.



Figure 6.15: Typical street scene of vendors in Bangkok city selling food

The Importance of Open Spaces in Facilitating Safety

Having identified that necessary open space use is in part influenced by dwelling deficiencies and the successes of economic entrepreneurship, this third subsection reviews how uses are also shaped by safety and security needs. Again, only four KT interviewees touched on either safety or security as being the reason as to why particular open spaces are important to them. However data analysis indicates that concern for safety is paramount, with open spaces acting as vantage points to observe for fire and theft, as well as places for safe play:

Fire is a very real threat in the communities due to building materials, the proximity of dwellings and narrowness of *sois*. Fear of fire was mentioned by several interviewees, including Group 1 (HKP1) in KT who believed that the Port Authority might deliberately start a fire to force them to leave the land. In general, as the majority of personal property is kept within uninsured dwellings and with no access to savings systems, the event of a fire means shelter, belongings and finances are lost, in turn making victims vulnerable to eviction, as observed following the fire in Rom Klao. Here, Khun To (HK4) describes how, as a result, the bench opposite her sister's

dwelling is important to her as a vantage point: *'normally they worry about the fire burn. If she stay here all... everyday, or all the time, if fire burn they know, if fire burn they can do anything'* (HK4). At the same time, Khun To also watches for those who might steal from her family: *'if anybody comes to steal or steal in the neighbour they can see. This is important for them'* (HK4). Likewise, Father Maier described how community members often sit with drying clothes to prevent them being stolen. Thus, in these situations, sitting and observation become important 'necessary' activities rather than 'optional', as described by Gehl (2011). By performing these necessary activities, this study suggests emotional responses related to the meeting of safety goals, a dimension of place attachments, are engendered to the open spaces that offer these advantages.

This interpretation is again guided by and contributes to the body of work collated by Scannell and Gifford (2010). Through supporting individual's safety and security meanwhile, it is assumed that these places also have restorative qualities, reducing anxiety, and therefore having mental as well as physical health benefits. Within the communities the significance of these activities and their performance within open spaces is again evidently shaped by the socio-economic context. Open spaces however are also the sources of danger; within the communities children play in the *sois* where hazards include cooking with boiling oil (Khun Preep, NGO3). As a result, Khun Poy (HK10) said it is better for children in Hua Khong since the development of the sports park. Nong Somp, also said he likes the field in the sports park because it looks *'safety for him'* (SP4). These findings indicate that open spaces have complex sets of meanings, being both ecosystems supporting livelihoods and acting as a source of respite from the dangers of unsafe housing, as well as themselves being sources of danger.

Dimensions of Basic Need: Conclusions

This study finds that many open spaces studied play a vital role in enabling community members, predominantly women, to carry out necessary reproductive and productive activities daily. In terms of necessary reproductive activities, open spaces are vital for their performance due to the inadequacies and limitations of dwellings including; a lack of space, risk of fire, structural inadequacy and high temperatures. These conditions are largely shaped by the realities and consequences of the socio-economic context. With regards to productive economic activities, this study establishes that open spaces are central to entrepreneurial success and the meeting of basic survival needs. This is again due to the limitations presented by dwellings but also due to the multiple barriers to gaining employment outside the communities. Vending within the communities meanwhile does not require a particular educational status, has time benefits as well as reduced competition for custom and reduced travel costs. Again, these conditions are shaped by the socio-economic context and its impacts on life opportunities. Guided by the framework provided by Scannell and Gifford (2010), this study proposes that through their daily pursuit of these necessary reproductive and productive activities community members (largely women) likely form attachments to, or dependence on, the open spaces that support them due to the highly compromised spatial context. Consequently these open spaces will become valued. Within the context however, in relation to these activities, the creation of a 'place' is less to with resultant meaning or affective relationships, as is typically emphasized in western notions of place, and more to do with the meeting of user needs.

Additionally, the performance of both reproductive and productive practices in open spaces is also interpreted by this research as being shaped by tradition and culture. Critically however, these activities are

performed in a manner adapted to the compromised conditions and challenges presented by the urban realm and the necessities of survival which result from the conditions of poverty. Through these customs and practices this study proposes that community members, particularly women, connect to and preserve the traditional domestic and economic culture and practices that are expected of them. At the same time connecting to other community members. Guided by the framework provided by Scannell and Gifford (2010), this study suggests that in doing so community members form cognitive and emotionally based attachments to the open spaces where they perform these activities. In turn these place bonds provide self-continuity, with the open spaces where these activities are performed becoming symbolically meaningful. This study therefore argues that self-continuity is mutually constructive with the spatial and material realities in shaping open space use and in the forming of place identity. These findings further support arguments developed in the previous chapter, that notions of what a public open space is should be expanded to include 'reproductive space' and 'productive' space, with designs supporting domestic and economic activities.

In terms of safety, this study finds that sitting and observation in open spaces become important necessary activities for some to meet basic safety needs. By meeting safety needs, this research suggests open spaces become central to individuals life experiences with individuals likely imbuing them with meaning and forming attachments, contributing to open spaces becoming valued. This interpretation is again guided by and contributes to the body of work collated by Scannell and Gifford (2010). In contrast, open spaces that don't support any of these necessary uses, or support limited uses of this type, will not invite repeated use and subsequently won't develop meaning. That the Community Lantern supports few reproductive activities and no economic activities implies it is not functionally or symbolically integrated into the community. This partially explains its limited use, particularly by women. In this context then, the creation of a

'place' is more than about the repeated performance of an activity there and an open space's affordances and functionality than any designed attribute such as the decorative aspects of the Community Lantern.

6.02 The Role of Open Spaces in Fostering Social Interactions

This second chapter section continues to explore influences on use by reviewing dimensions of social interaction that result in meaningful attachments being formed with particular open spaces. Data analysis reveals that there are three main benefits to social interactions: networks of support, community unity and mental and physical health. Following an initial introduction, which describes the dominant types of social activities, these benefits will be explored in turn. The section is ended with a discussion of the relationship between social and necessary activities to further explore how place attachments are fostered.

Within this section, mental and physical health will be briefly discussed given the amount of other studies supporting my findings (e.g. see Balke, 1987; Szabadi, 1988; Martin and Wade, 2000). In short, this study found that sports activities and play in open spaces are important for the mental and physical health of residents of all ages, as described here by Khun Ano; *'It's so important because [I] can exercise and when you exercise you get strong. When you strong, when you physical, then your mental is better and if your mental is better it's like a benefit for everyone'* (SP12). Sport and play are of heightened importance due to the socio-economic conditions of poverty, which result in disproportionate incidences of ill health, disease and mortality among slum dwellers (UN HABITAT, 2006; WHO, 2010; Chan, 2010; Patel and Kleinman, 2003). Within the communities, residents also experience high unemployment with many teenagers and women observed during the day, unable to leave for financial reasons or due to commitments including childcare and income generation. This is likely to contribute to boredom and feelings of frustration, which could be a factor

for the high rates of violence (Barker, 2012) experienced, at least in KT. The existence of open spaces and performance of social activities are also found by this study to be instrumental in reducing antisocial behaviour including drug taking and increasing feelings of self worth:

'[I]t's like a method that you.... can use for children to be away from drugs'... 'it's important because it's like a basic of the family to have the place like this... To make children away from like drug and alcohol and... for doing bad thing' (Khun Bu, SP7).

Likewise, in CKBB, Nong T said places such as the shaded platform by Khlong Bang Bua he and his friends frequent, are beneficial because:

'teens like [me] and [my] friend can come outside the house to sit here and enjoy. Because... sometimes in the house and people use drug or another thing so if they have a outdoor space or like public space that have like this to bring them out' (BB22).

Nong T's comment confirms the work of Ward Thompson (2012) who claims that children from difficult home circumstances often seek out places for respite and freedom from external pressures. Natural settings meanwhile are recognised by respondents as providing restorative environments, confirming the work of Kaplan (1995), Ulrich (1983), Ulrich et al., (1991), Groenewegen et al. (2006), van den Berg (2012) and Evans and Cohen (1987), among others. Finally, Nong Dee commented, *'when playing sport everyday [community members] have more power, more value in themselves and get them not go to take a drug' (RK3)*. These comments indicate that certain open spaces will become valued as they afford the possibility of performing social activities that contribute to improve mental and physical wellbeing, boosting self-esteem. This confirms the work of Korpela (1989 cited in Scannell and Gifford, 2010) who identifies that in allowing for cognitive freedom place experiences can have restorative qualities. Consequently, this study finds that open spaces where social

activities occur are liable to enhance positive emotions, fostering place attachments.

Dimensions of Social Interaction

Social activities, based on those identified by interviewees rather than Gehl's (2011)² descriptions, were observed or described across all open spaces in the communities studied. Of those, the most commonly occurring were 'gathering or meeting with friends' and 'playing', with interviewees of the four open spaces studied in depth consequently finding each to be important. Less frequently mentioned were sports or exercise, however this is likely because only the sports park and sports pitches have the affordances to support these.

Opportunities to meet, be with and talk to others were frequently mentioned across all communities as a reason for using, going to or creating a particular OS. Indeed, many interviewees identified, the connections between the following open spaces and socialising: the end *soi* and EHP (RK); various *KT nang lerns* and the sports park; various *sunams* across the communities; the communal garden in Pom Mahakan and a HBE (SMII), were mentioned as being important for socialising. For example, Khun Sun stated their *nang lern* is important because: *'it have many useful things about this but the main thing is about people can sit and talk and socialise'* (N6). More generally, Khun J feels that open spaces are important because they are *'gathering space, for meeting, for festival... for the community'* (BB15). Of the four spaces studied in depth, several respondents made similar comments regarding the importance of each for getting out of the house and meeting others. For example, Khun Pae felt the sports park is important for the community because: *'she feel don't want to just sit in the room like stuck in there. So maybe it's better that have a time to go outside and sometimes meet friends and just take a break or... breathing is*

² Gehl includes passive social activities such as hearing others or making eye contact however this was not mentioned by interviewees or captured by other methods used

better' (SP1). Likewise, Khun Sin feels *nang lern A* is 'moderately important' for the *soi* or wider community because: *'if we just only sit in the house and not meeting any others it's not okay. But also if there's no this place she have no idea where's to make it like meeting and also other things'* (N5).

These comments imply that open spaces create the possibility of meeting others with people deliberately seeking them out due to the social isolation of remaining inside. Khun Sin, supports this, stating that a benefit of *nang lern A* is that it is at the intersection between the main road and *soi*, meaning you can speak to the increased numbers of people passing by. Again, interactions sought out are both planned and spontaneous: *'just like a place to meet others by not appointment.... Like anyone can come and sit in the same time and they just start conversation... just like anytime she can like sit here and if someone come and sit just talk...'* (N5). This contributes to the work of Whyte (1980), who found that in New York plazas circulation and sitting are complementary. Findings also confirm Gehl (2011) claims that social activities often result from spontaneous interactions between users performing necessary and optional activities. Indeed, it was observed that users, such as those exercising, attract others into spaces in turn stimulating activities, or that people choose to sit in spaces close to activities. Nong Do (RKCS15), for example, said he chooses to play in the RKS because his friends do. Others, such as Khun T (HK4), said that they use certain OS, in this case a bench, due to the proximity to relatives, whilst vendor Khun M (HK6), said that being close to family influenced the decision to locate her food cart where she has in Hua Khong. Khun's Sin and N (Both HK9), meanwhile both said they preferred *nang lern A* to the sports park because *'he [Khun N] enjoys the traffic here, watching the traffic'* (HK9). In the RKS meanwhile, Khun Ay (RKCS3), describing how seeing children playing and being happy in the RKS is important to him because it makes him happy. When asked if he meant psychologically or spiritually important Khun Ay replied, *'something not psychological. It's like about [my] heart'...* *'basically it's not the importance in terms of like a just physical thing'* (RKCS3). These responses mirror the findings of Jacobs (1961), Carr et al.

(1992) and Whyte (1980) focused on the American and European contexts, that people watching is a frequent activity in public spaces.

Despite social interactions being a recognised important activity in open spaces for all ages and genders, the Community Lantern supports limited social activities beyond children playing and football, with women underrepresented in general. This again suggests that the Community Lantern has not been functionally or symbolically integrated into Lock 1-2-3. To explore this further, the significance of performing social activities will now be discussed along with how their occurrence contributes to place attachments. This is firstly in relation to support networks and secondly, in relation to community unity. Here, the economic, cultural and social processes that inform the importance of social interactions will also be explored. The final subsection meanwhile reviews the relationship between necessary and social activities.

The Importance of Open Spaces for Facilitating Support Networks

The connections between particular open spaces and knowing and supporting one another was described by nine KT interviewees. For example, Khun Sin said of *nang lern A*: *'if working here, like preparing for the cooking here, when someone pass by know her well... so can also help her preparing the things too. Like people help each other to do any task'* (N5). As well as physically supporting one another, Khun Sup implied that open spaces enable psychological support, saying that, in general, open spaces are where people can *'talk out and meet the friend and easy to talk. Normal like this'* (RK20). Indeed, many respondents commonly used the expression 'talking out' in relation to being stressed or upset. Of those, some described specific spaces as being important to them because they enabled such dialogue and the potential to problem solve. For example, Khun P (RK1), agreed the table in front of her dwelling is consequently important to her, whilst Khun Sup alluded to a bench in a *Rom Klao soi*. Further supporting this acknowledged relationship between open spaces and supporting one another is the shopkeeper Khun So's creation of a seating area for her

customers for this purpose: *'somebody when they have a problem or something they come to sit and they talking out and when they have a problem they really want to somebody help... important for her and important for them'* (RK11). Thus, some spaces are deliberately created to enable this activity. Four interviewees support this interpretation, describing how respective self-created *nang lerns* are the place for discussing problems; 'talking out'; and sharing information. Khun Nae (N7), Khun Sin (N5) and Khun Wan (N4) all made similar comments about their *nang lerns*, summed up by Khun Nae as:

'In the morning they just come and also, most of the members in this soi just do the same. After the work they come to meet up again and talking. Maybe stress releasing, sharing things to each other. Also solving problem to each other and after everything's get better they just going to sleep. That's the day done' (N7).

These comments suggest that people are connecting to certain open spaces because they facilitate social relationships rather than the physical attributes of the space itself. Again, the overriding factor driving the need for this type of social action are the socio-economic conditions. As Barker (2012, p.15) describes, *'the human misery'* and *'futility and powerlessness'* of living in such conditions is often overwhelming, leaving little sense of how to break out of them. Whilst each squatter neighbourhood and community is made up of unique compositions of people and settings, across the communities' commonalities are multitudinal daily challenges (Barker, 2012). Such daily vulnerabilities can only be assumed to cause much anxiety, mental illness and stress to individuals, highlighting the importance of being able to support and communicate with one another in day-to-day life. Indeed, Khun Som (RK4) agreed that spaces such as the doorstep and *soi* mean that her family, neighbours and friends can support one another and protect themselves against mental health problems.

This study therefore establishes that individuals deliberately seek out and create open spaces for physical and psychological support due to the

conditions of poverty faced. In doing so the study contributes to the work of Evans and Cohen (1987 citing Cohen & Syme, 1985;Gottlieb, 1987; House, 1981) who claim that interpersonal relationships provide the resources to protect against stress. The deficiency of dwellings conversely means limited types of such discussions can occur indoors. In experiencing stress relief, this study suggests people form socially based attachments to the open space that afford such restorative experiences, confirming the work of Korpela (1989 cited in Scannell and Gifford (2010). Consequently this study proposes that open spaces, such as *nang lerns*, will become meaningful, with individuals emotionally investing in them, reinforcing an open spaces value to them.

In addition to the conditions of poverty influencing social gatherings, communality also relates to particular open spaces facilitating cultural practices. Khun Nae, for example described how he always uses *nang lern A* for socialising rather than other OS or the dwelling interior because:

‘it’s just similar to Thai traditional idea of sharing. So when [I] sit here [I] can eat with others in the same time.. like a big family or like a big circle of friends... you can check and share the information of your daily life with others like ‘what did you do for the whole day before this meal?’ or ‘what you had for lunch?’ or ‘what you want to eat?’ so you can share... this place is probably the proper one to do so’ (Khun Nae, N7).

Likewise, Khun Sin said that spontaneously inviting others to join on *nang lern A*, see Figure 6.16, is, *‘quite a Thai norm... if we eating and someone pass by and we can see that also they see us so it’s like a normal... ask them to come and join the eating’ (N5).* The context chapter study of vernacular architecture and public spaces supports this statement, whilst Alex (NG01), said that in Thai culture:

'it's all communal and living together in each others space... Thai's can't bear to be by themselves... if you're stuck away by yourself in your home that really.. it causes stress... Thailand's come from a fairly traditional village culture... (NGO1).



Figure 6.16: *Nang lern* A users sharing food together

This study therefore additionally finds that uses of certain open spaces, such as *nang lerns*, replicates traditional uses of exterior space, but again in a manner that responds to the limitations of the urban realm. Through these customs, this research suggests individuals connect with traditional social culture and practice and gender dynamics as well as other community members, promoting a sense of 'belonging' within the communities and self-continuity . Consequently this is likely to lead to emotional investment in such open spaces relating to rootedness, resulting in the formation of socially based place attachments and engendering of symbolic meaning. These findings are again guided by and contribute to the body of work collated by Scannell and Gifford (2010), which claim that individuals become attached to places that appropriately represent them.

The Importance of Open Spaces for Strengthening Community Unity

Having identified that open space use is in part influenced by the importance of maintaining support networks, this second subsection reviews how social activities are also important for strengthening community unity. Again, this is explored in relation to the socio-economic and cultural processes that inform the formation of place attachments.

Open spaces were described by several respondents as being important for the following reasons: strengthening relationships between people; community relations; community unity; and assisting in a deeper sense of community. For example, Khun Prapasee stated that open spaces are important, *'in terms of bonding the people in the community. Better strengthen the relationship between people'* (BB27). Khun J (BB15) meanwhile, said she felt that this was because users all did or focused on the same thing. Likewise, Khun Men (RK5) feels it is better for the community, *'if they have the place where they more know each other and support each other'* (RK5). Khun Ano similarly stated of the sports park: *'it's so important for community because it's like many people comes to here and join together and they know each other and then they feel close and join like activities'* (SP12).

Alex (NGO1) proposed that a benefit of such unity is that the community functions better, with individuals less stressed and therefore personally able to function more adequately. In turn, this enables them to support each other, rather than focussing solely on themselves as they would in a dysfunctional community. Again, the conditions of poverty and resultant stresses faced increase the need for a unified community. This study therefore suggests that by facilitating social interactions, open spaces strengthen community unity, enabling individuals to experience increased stability and sense of 'belonging', reducing stress. Consequently, Scannell and Gifford (2010) suggest the experience of being in a place is enhanced and shaped, evoking emotional attachments to particular open spaces. In terms of specific open spaces, *sunams*, are the sites for collective discussion

with community meetings held in *sunams* in all communities other than CKBB³ according to interviewees. Many interviewees meanwhile stated that community meetings are important. In Hua Khong meetings are held monthly (HK8) with meetings in Rom Klao focusing on social issues including drug prevention and HIV advice (Khun Sal, RKCS7). Strategies are also put in place to combat threats such as eviction and achieve collective objectives such as mobilisation in the face of emergencies. This was observed following the Rom Klao fire and described by Karen (NGO2) who specifically stated that she believes the Rom Klao community has a deeper sense of community due to the existence of the RKS: *'there's a much deeper sense of ownership and 'we're in this together' kind of thing'* (NGO2). This confirms earlier work by Askew (2002) that unified communities are important for a variety of reasons and along with others factions, including good *Gumaguns* and significant individuals such as Duang Prateep, strengthen resistance to threats including eviction, fire and disease. These threats again are largely borne of the socio-economic conditions and vulnerability of slum dwellers. It was also noted by Khun Num (HK16) however, that communality often dies down after such events. Thus, this study proposes that open spaces, such as the *sunams* and sports park, where community meetings and gatherings take place will become meaningful to users as they come to symbolise the struggles faced or positive changes to the communities made. As such, emotional socially based attachments will be formed and the experience of being in a particular open space enhanced, contributing to group identity and belonging. These findings are both guided by and contribute to the work of Scannell and Gifford (2010).

Social and Necessary Activities in Open Spaces are Mutually Reinforcing

Having established that social activities in open spaces facilitate networks of support and community unity this final subsection reviews the

³ at least, no one mentioned the occurrence of community meetings in interviews

relationship between social and necessary activities. This is to further understand how meaning develops.

This research finds that the occurrence of social activities increases in line with the occurrence of necessary productive and reproductive activities. This is in contrast to the work of Gehl (2011), who writes that social activities are influenced by the quality of the physical environment and occurrence of optional activities. For example, the main road in KT and *sois* in all communities support the most social activities *and* the most necessary activities. Findings from the RKS, EHP and *nang lern A* further support these claims. In these open spaces, vendors and those watching children were notable attractors for others to gather in these spaces and engage in activities occurring⁴. In terms of the RKS, several food stalls are located to the periphery at the entrance of the main *soi* into Rom Klao, as revealed in Figures 6.17-6.20 At midday, a barbeque is lit with a large group of people migrating to sit and chat with those selling every afternoon into the evening. As a collective, they watch their children playing in the RKS and look after a young baby.

⁴ The anomaly is the sports park, which is predominantly used for sports and leisure activities with limited necessary activities occurring. This appears to relate to the management rather than choice.

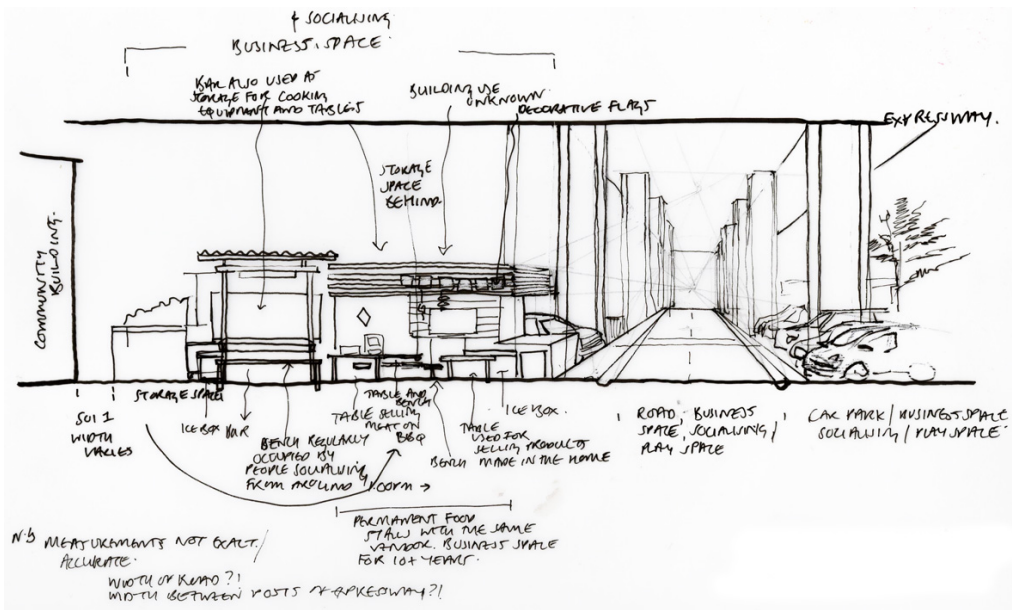


Figure 6.17: Drawing detailing the location of food stalls at the intersection of two thoroughfares and adjacent to the RKS, Rom Klao



Figure 6.18: Food stalls at the intersection of two thoroughfares and adjacent to the RKS, Rom Klao



Figure 6.19: Socialising and economic enterprises often occur together

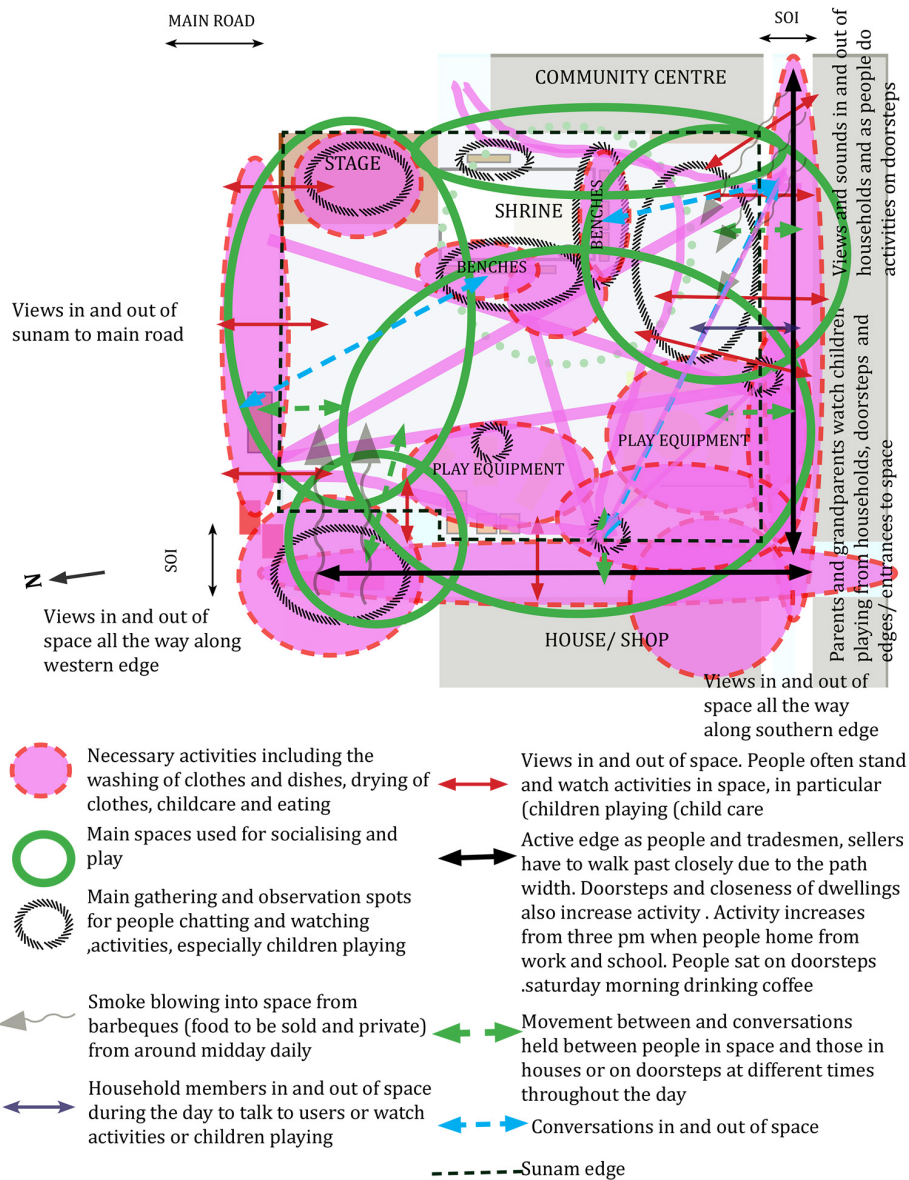


Figure 6.20: Diagram of relationship between necessary and social activities in RKS, Rom Klao

Similarly, as children play or eat in the EHP they were watched from an adjacent doorstep or from within the dwelling. Often at these times, particularly from 4-6 pm, others would chat with the observer, sitting on the doorstep or in the *soi*. On *nang lern A* as well as at times of childcare, socialising was observed to correlate with periods when food was being prepared and eaten, generally from around 8.30am until 9am and between 4 and 6pm, with passersby stopping to sit, chat or assist the chef. Whilst eating, neighbours and friends would chat between themselves and passers by, who would often stop for periods of time.

As such, this study establishes that it is primarily women that create and dominate social networks through their necessary roles in domestic maintenance, childcare and income generating activities- particularly the production and selling of food. This correlation is also acknowledged by Askew (2002), who writes that open spaces are not only valued for opportunities for economic gain but also for networks of social relations that are dominated by women who establish social spaces: *'[i]n this space, the imperatives of sustaining livelihood and patterns of sociability are often mutually reinforcing'* (Askew, 2002, p.145). Likewise, Askew (2002) finds these networks are often developed around necessary tasks including the taking care of children as well as watching dwellings. Consequently, these multiple advantages of the home and open spaces in the pursuit of economic advantage is why residents are persistently reluctant to live in flats or other accommodation offered by housing agencies (Thai University Research Associates, 1976 cited in Askew, 2002). Conversely, the following statement by Alex, indicates that open spaces, such as the Community Lantern, that have not been designed to support both activity 'types' meanwhile are liable to failure:

'they put a low bar across the threshold of all the public spaces [in chumchon 70 Rai] and fenced them in so people don't use them for [informal vending] and it's only used for recreational activities. Except that recreational activities and commercial activities go hand in hand here in the slum in that it's often the kids of the food sellers that are playing there and someone needs to keep an eye on the kids and so the food sellers and the kids and it's the attraction of the adults to go there. Because the adults won't necessarily go to a public playground just for their kids. Unfortunately a lot of them are more selfish than that and it's 'oh I can get some food so I'll drag along kids as well and they can have a play kind of thing' (NGO1).

This quote further illustrates the critical relationship between necessary and social activities and offers a partial explanation for the limited use of the Community Lantern. These research findings are therefore in contrast

to Gehl's (2011) work, which suggests that public spaces are only successful if optional and social activities occur. As necessary activities are conducted daily it also indicates a correlation with the incidence of social activities and suggests that attachments formed to open spaces where these activities occur are both socially and physically place based. This is due to the social relations that are facilitated, that result in friend and kinship support networks, and the affordances of the physical environment. As interviewees were more forthcoming regarding the importance of spaces that enabled social activities and their emotional attachments to them, this indicates that spaces where necessary activities also take place are, indeed, important to them, as interpreted from the data.

Thus this study argues, especially given the location of *nang lern A* besides the dusty, polluted and noisy main road and beneath the expressway, that social activities are less to do with the quality of the physical environment but relates, in part, to the incidence of necessary activities and the opportunity for meeting and being with others. This in turn is instead partly a response to the configuration of the physical environment. As the Community Lantern has largely been designed to support a limited type of social activities for children this suggests that women in particular are unlikely to form either social or place based attachments within it, meaning integration into the community is unlikely.

Dimensions of Social Interaction: Conclusions

This study finds that open spaces across the communities studied play a central role in enabling community members to perform social activities which are vital for improving mental and physical well-being, creating networks of support and for community unity. This study therefore contributes to the work of Ward Thompson (2012), Carr et al., (1992) and Evans and Cohen (1987). The necessity of performing such actions and achieving these goals is again shaped by the socio-economic context and

daily struggles and vulnerabilities experienced. Through their pursuit of social activities this study proposes that community members experience bolstered self-esteem, individual and community stability and an increased sense of 'belonging' along with feelings of stress relief. Thereby this study confirms the work of Korpela (1989 cited in Scannell and Gifford, 2010). This research also concludes that social activities are performed in relation to the incidence of necessary activities and the opportunity to be with others, rather than the quality of the physical environment. This is in contrast to the work of Gehl (2011), who writes social activities are influenced by the quality of the physical environment and occurrence of optional activities. Guided by the framework set out by Scannell and Gifford (2010), this study therefore proposes that individuals form emotional socially and place based attachments with the open spaces that support social activities. Consequently open spaces where social activities are performed develop meaning and value.

The performance of social activities in open spaces is additionally interpreted as being shaped by traditional social culture and practices, however in a manner that is adapted to the limitations of the urban realm. Through these customs and practices this study proposes that individuals connect to and preserve their culture, promoting feelings of belonging and self-continuity. In doing so, this research proposes that individuals will emotionally invest in open spaces that facilitate these activities, resulting in symbolic meaning developing. This strengthens arguments made previously that self-continuity is mutually constructive with the spatial and material realities in shaping open space use and in the forming of place identity.

In contrast, it appears that the Community Lantern is not functionally or symbolically integrated into the community as, according to the majority of interviewees, it does not get used as a gathering space and supports only limited recreational activities. Furthermore, in general, women, who dominate social networks and the mutually reinforcing occurrence of

necessary reproductive and productive activities, are underrepresented as a user group. This explains why the Community Lantern also supports limited necessary activities and why it is unlikely to invite repeated use and foster attachments for a large portion of the Lock 1-2-3 community, partially explaining its lack of success. Again, this suggests within these communities, 'place' is more about the repeated performance of an activity in a place and an open space's affordances and functionality than any designed attribute.

6.03 The Restorative Role of Open Spaces

Having explored dimensions of basic need and social interaction that impact on spatial use, this third section explores dimensions of wellbeing. This dimension has been identified as influencing the performance of 'optional' activities and resulting in meaningful connections forming with certain open spaces. Within this section I return to the spatial physicality's that enable open spaces to support improved mental and physical states. Data analysis from all fieldwork phases reveals that there are three main attributes that are sought out in open spaces: shade and fresh air; views and plants. Following an initial introduction, which describes the how open spaces facilitate mental and physical well being, the restorative value of these elements will be explored in turn.

Dimensions of Well Being

Eleven interviewees from all communities described how particular open spaces are important as a means for themselves or others to rest, destress or relax. Gehl (2011) describes these as optional activities. Again, the socio-economic and physical conditions faced are likely to increase the desire for these restorative experiences, offering respite from the stressors of daily life. Hidalgo et al. (2006) meanwhile, claim that restoration is a significant predictor of the success of a place, which people use to assess the aesthetic value of an environment.

Open spaces referred to were a *nang lern*, the EHP and the sports park in KT and various HBEs and *sunams* across the communities. For example, Khun Bee said of a Pom Mahakan *sunam*, see Figure 6.21, that it is important to him due to its peacefulness, compared to the city beyond the community's walls: *'it's very quiet and not look like city because not hear anything is noise'* (PM1). More surprisingly, however, was how some spaces referred to evoke similar feelings despite being positioned in areas seemingly not conducive to this activity. For example, Khun Nae describes *nang lern A's* importance as a space for these optional activities despite the structure's location beneath the expressway and beside a noisy, dusty and dirty main road:

'[I]t's quite important, even can call it most important space for [me]... like, when after the work very stressed one can come sit here and relax like thinking of many things that release the thinking. So is now is like part of... my daily life' (N7).



Figure 6.21: *Sunam* in Pom Mahakan with seating areas and a garden (to the rear of image)

Khun Somp (N3), meanwhile deliberately built his *nang lern* peripheral to the main road for relaxing, additionally using it for meeting friends and drinking. According to Carr et al (1992) this indicates a level of psychological comfort and is in contrast to the findings of Gehl (2011) who writes that optional activities only occur when spatial quality is improved. Many others described how they feel relaxed when in a particular space, ‘good’ or ‘*sabai jai*⁵’, or that they like or use a particular open space because they can relax there, destress, have the time to sit, or like sitting on there because it is relaxing. Open spaces referred to were the sports park and various *nang lerns* in KT; *sunams* in RK and the BB communities and several HBEs, doorsteps and benches across the communities: ‘[F]or [me] it’s feel like relax and in a good mood. And [I] can relax and watching around. Staying, just enjoy the free time’ (RKCS8). Here, Khun Aim is referring to the RKS, whilst Khun Soj went as far as to say, she, ‘has the... living space in her house but... nobody wants to go inside her house so they always sit here [in the house extension]. And she said it’s more relaxing here, makes her happy. Like talking to people, eating..’ (BB11). For others (HK16; PM7), other, more physical activities, such as sweeping in specific open spaces, helps them to feel relaxed: ‘[I] lovely to do and [I] happy when [I] do... when [I] clean out [I’m] very happy and ... relax’ (Khun Chat, PM7).

Thus, these open spaces evidently enhance positive emotion, which is linked to reducing the affective, physical and psychological impacts of stress (e.g. see Ulrich et al., 1991). The descriptions offered by respondents meanwhile indicate that many of these open spaces, which collectively representative both more ‘natural’ (e.g. the sports park) and more urban settings (e.g. *nang lerns*), meet the components of a restorative environment outlined by Kaplan (1995). The PM *sunam*, for example, most explicitly provides the opportunity to ‘get away’ from urban life; the majority meanwhile provide *fascination*, offering opportunities to people watch or views to activities, which observers

⁵ *Sabai jai* is generally used to mean relaxed, however also translate as: comfortable, tranquil, happy, physical wellness and inner peace (Luekens, 2013).

find engrossing; other open spaces provide a sense of extent, providing a feeling of being in a different world having finished one's working day despite the size limitations of those such as *nang lerns*. Finally, they potentially offer compatibility, providing shade, access to a breeze and a sense of security and comfort. The particular restorative capacity of *Nang lern's* may also relate to the fact these structures are physically reminiscent of traditional field huts⁶. Through the regulation of emotions and the reduction of cognitive thought meanwhile, individual place attachments are fostered, contributing to the work of Scannell and Gifford (2010).

To further explore this discussion, the following subsection review amenities that interviewees cite as contributing to restorative experiences. Here, the physical, economic, religious and social processes that inform the importance of restorative spaces and contribute to the development of place attachments will also be discussed.

The Importance of Open Spaces for Restorative Activities

The restorative role of particular open spaces appears to have much to do with the affordances of the physical layout or existence of certain amenities. Particularly trees or canopies that create shade and facilitate the activities that develop place attachments. This contributes to findings by Whyte (1980) relating to the plazas of New York. Multiple examples of the relationship between shade and people's position in an open space has been discussed previously. Khun Pat, also stated that she goes to the food stalls and associated seating along the smaller road in Hua Khong when stressed, *'because the area like her friends, she can be with her friend. And the weather is quite nice because not too hot. Better shading, they have the tree round here'* (HK14). In contrast, in CKBB Khun Wich (BB21) said people don't use many of the open spaces there due to a lack of shade. Strengthening the case for the relationship between particular climatic

⁶ see Context chapter, 4.02 Village Design and Vernacular Architecture. Vernacular Architecture: Diverse Forms and Traditions

conditions and restorative activities in open spaces some interviewees directly made the link between these and positive emotional states. This included feeling relaxed; *sabai*; good; or happy: *'[I]t's like a wind flow, maybe after they play football they have a tiredness and when they comes to sit here [pier by the khlong] the wind flow so make them feel dry and feel good'* (Nong T, BB22). Similarly, Khun Wich, said he feels relaxed when sat in the CKBB play area, *'it's cooler than inside the house because the space in the house is really small so if [I] came out and sit here [I] feel like it's cool from the water here and the wind so [I] feels better than in the house'* (BB21). Interviewees from all four spaces studied also drew parallels between these feelings/ emotional states and the physical external environment. Khun Chon and Khun Wila, for example, said they come to the sports park, in part, due to the *'cool weather with breeze and they feel sabai'* (both SP10). Khun Tu meanwhile, stated he uses his *nang lern* because *'can sit and relax and have windy. This important'* (N2). For Khun SK, when she is in the EHP, she feels:

'very fresh, feel very happy, feel very have more air, more, more light, more, more comfortable. More happy that they not cover, all cover, [here Khun Sk is referring to the lack of roof, as shown in Figure 6.22] because they leave have for the light, for the sun, for the windy' (EHP2).

These affective responses to the open spaces, chime with Ulrich (1983) model of restoration from stress, whereby, positive emotions are an outcome of restorative experiences along with the reduction of stress related feelings.

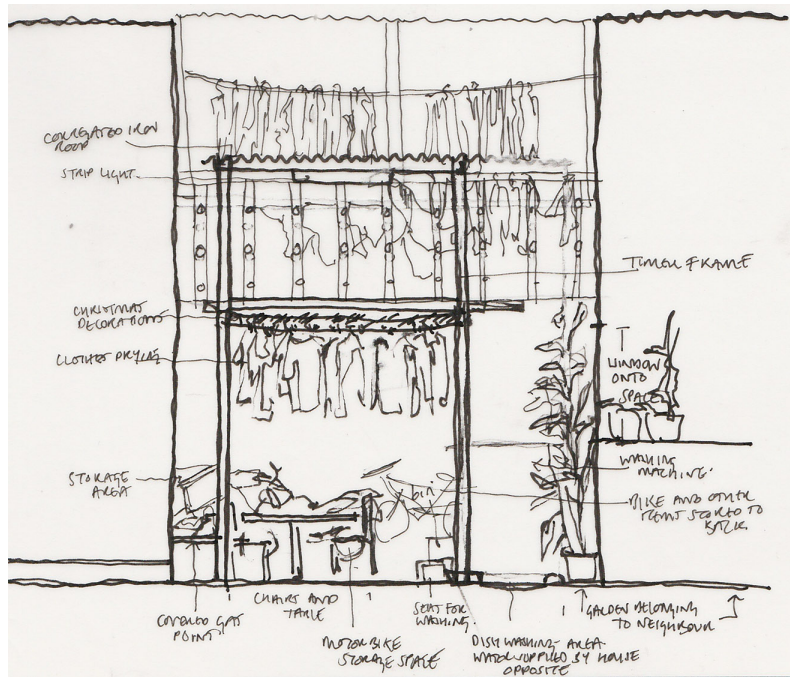


Figure 6.22: Section through EHP, Rom Klao, revealing the lack of roof

In addition to shade and access to a breeze, other affordances of the physical layout that support well being, identified by this study include the opportunity for observation and existence of plants.

In terms of views, Khun Pae (SP1) and Khun Soo (EHP1) both described how views in the sports park and into the EHP respectively, are important to them and/or good for them, with Khun Pae's comments similar to those made by Khun Soo: '*normally [I] live in a flat and when look to outside just only see the buildings... so when [I] come in here [the sports park] [I] can see the space and the environment that most good for [me]*' (SP1). In doing so, both imply this is beneficial for their mental health, confirming Kaplan's (1995) theories relating to being away, extent and compatibility, and restorative experiences. Khun Pae and Khun Soo's descriptions additionally correspond with Carr et al., (1992) who write that the physical and aesthetic quality of sites, including views, scenery and particular objects, draw people into the site.

In terms of plants, nature is important to certain community members as is being able to see plants and trees, with nine respondents stating this.

Reasons why are explored below, with many incidences of plant growing observed across all communities. Some responses indicate that users' connections to gardens or plants are shaped by their memories of their rural backgrounds. For example, for Khun Soit (G4), plants remind her of her hometown, which she returns to once a month. Likewise, certain open spaces, plants and trees were said to be important because the communities are their home or they have personal attachments due to familiarity, according to twelve other interviewees from all communities, other than SPMII. This indicates certain spaces; plants and trees assist in feelings of belonging and rootedness within the communities, fostering place attachments. These findings add to the body of work by Rishbeth (2014) and Carr et al., (1992). For Nong F (PM4), meanwhile, trees are important to her because she saw them 'already' when born. Similarly, Khun W (HK1), said it is important for him to see plants because during his childhood he was '*always with plants and trees. [I] grew up with green'... 'It's my life'*' (HK1). This indicates that plants and trees evoke childhood memories for some, linking people to their childhoods and past lives, possibly resonating due to the constant changes and challenges faced in daily life, facilitating the formation of individual place attachments. These findings contribute to research by Jorgensen et al., (2007) and Jorgensen and Anthopoulou (2003).

Seeing, planting or having plants and trees is also important to some because they make the physical environment more 'fresh', look more natural, or more like 'nature' (RK3; RK11; PM3): '*it look relax, look nice... very look like nature, when she see the plant, the tree'*' (Nong Dee, RK3). Nong Dee's comment, suggests that some are making aesthetic choices with regards to their physical environment, linking such affordances to perceptions of restoration. This study therefore confirms the work of Hidalgo et al. (2006) that certain urban environments, which feature vegetation, have the potential for restoration. Likewise, Khun Vo stated that growing plants is important to her because when she looks at them: '*this is nature, she look, feel good and she feel have more fresh'*' (PM3).

Similarly, Khun M stated that exterior space is important for 'green' (HK6). Khun Men further elaborated that seeing plants helps him to think clearly '*when [I] see the plant everything very clear for [me]*' (RK5). This indicates that Khun Men, experiences restored attention and enhanced mental health benefits when seeing plants. Ten interviewees meanwhile described how seeing plants in their respective communities, watering plants, growing plants or gardening makes them feel relaxed, happy or '*sabai jai*'. Others stated how they like seeing plants and that doing so makes them feel 'happy', joy or 'good': '*[I'm] sick so [I] needs the plants to cleaning the air... to breathe and it's also make [me] fresh. Like when [I] wake up in the morning and [I] see the plants. It make makes [me] feel good*' (BB11). For Khun Cha, he feels '*uncomfortable without the tree or relax space*' (PM10). These statements confirm the research of Ulrich (1983); Ulrich et al. (2003); Groenewegen et al. (2006); van den Berg, (2012); Kaplan (1995) and Evans and Cohen (1987) among others, that being in or viewing environments that include natural elements, promotes emotional, mental and physiological benefits and well being as well as directed attention restoration. Again, the environmental stressors of living in the communities including: over crowding, the heat, a lack of privacy and sensory stimulation, identified by Ulrich et al. (2003) as contributing to stress and fatigue, likely increase the importance of these elements to residents. Thus, this study finds that within the communities natural elements are desirable, with individuals or community members seeking them out or growing plants for the micro-restorative environments they provide. Khun T's meanwhile said that she grows plants purely because, '*... [I] just want nice or want to see the plants or the tree*' (HK4). This statement is reminiscent of the findings of Diana Balmori who found in her studies of the gardens of the homeless that they empower a sense of self by giving a creative focus to the grower's lives and forming spatial identity (Conan, 2010).



Figure 6.23: Residents relaxing in Rom Klao close to several gardens and trees

Dimensions of Well Being: Conclusions

This study finds that certain open spaces offer restorative environments, enabling the performance of optional activities and as such are sought out to reduce the effects of stress, which in turn has mental and physical well being benefits. The desire to engage in such experiences is again shaped by the socio-economic context and daily struggles and vulnerabilities experienced as well as the particular climatic conditions. Through experiencing feelings of stress relief and enhanced positive emotion this study proposes that individuals form place attachments, confirming the work of Korpela (1989 cited in Scannell and Gifford, 2010).

This study's findings indicate that the affordances open spaces offer, namely, those with access to a breeze and shade, those that offer views to activities occurring, and those with trees and plants contribute to restorative experiences facilitating the formation of place attachments. In

terms of desired climatic conditions this study has found that such affordances in an open space facilitates the performance of restorative activities and experiences, increasing positive emotions and contributing to the reduction of stress. These findings contribute to Ulrich's (1983) model of restoration and Kaplan's (1995) theories of restorative environments. The opportunity to observe scenes perceived as visually interesting meanwhile is identified as supporting mental well being, possibly due to the components of 'getting away', fascination and feelings of extent, again contributing to Kaplan's (1995) theories. Finally, this study identifies that plants and trees support restorative experiences; in some cases this is apparently shaped by memories of rural homes, and in others through the evoking of childhood memories, linking individuals to their past selves. This assists in feelings of rootedness and belonging, fostering place attachments. These findings contribute to the work of Rishbeth (2014), Carr et al., (1992), Jorgensen et al., (2007) and Jorgensen and Anthopoulou (2003). For others, plants aesthetically improve the urban environment, with such affordances contributing to restorative experiences. These findings contribute to the work of Hidelgo et al., (2006) that urban environments with visual diversity and vegetation have perceivable restorative qualities.. For some meanwhile, this creative focus possible empowers a sense of self, contributing to the work of Conan (2010) Other community members, experience restored attention and enhanced positive emotional and mental health benefits when seeing or growing plants due to the microrestorative environments they provide, confirming the research of (Ulrich (1983); Ulrich et al. (1991); Groenewegen et al. (2006); van den Berg, (2012); Kaplan (1995) and Evans and Cohen (1987) among others.

In the Community Lantern however, as described, the only shade providing structure is the platform, which is narrow in width, limiting use of the space during the day. Two interviewees, Khun Gan (CL10) and Khun Vow (CL4), said that Lantern could be improved by shade creating interventions: *'maybe only just one big tree they have a shade and that enough for mum and children play around...'* (CL4). Such an intervention

would also provide protection during the rainy season, meeting another physical need. Limited views due to the location and design and few opportunities for observation afforded due to the lack of use by community members means that others are not 'invited' to use the Community Lantern. Instead, people were observed sitting opposite under a shaded area. From there it is possible to see along the *soi* to the taxi rank station (where people gather during the day), and beyond to activities on the main vehicular drag. It is also possible to see into the preschool and listen to activities there. This position addition increases opportunities to interact with those passing by. Finally, there are few natural elements to be seen from the Community Lantern, with the only plants visible in the play area opposite. This suggests that the Community Lantern does not afford the desired restorative experiences discussed or foster related place attachments.

6.04 The Role of Open Spaces in Facilitating Identity

Having explored dimensions of basic need, social interaction and well being that impact on use, this final section explores dimensions of individual and group identity. Data analysis reveals that the processes that influence identity can be categorised into: spiritual and religious expression, cultural identity, and belonging. The first two processes will be discussed in turn in relation to the religious and cultural context, whilst belonging has been touched upon throughout the chapter.

The Importance of Open Spaces for Spiritual and Religious Expression

Most residents in all communities follow Buddhist teachings of some description whilst many KT neighbourhoods additionally dominated by those who follow a mix of Buddhist and animistic practices. Consequently, religious and spiritual beliefs are an important part of both individual and group identity. Beliefs and superstitions are symbolised by elements within open spaces, such as spirit houses typically found in *sois* and the

retention of sacred trees. This is despite the value of the land they grow upon for appropriation and development. For example, a shrine and spirit tree exists in the RKS, shown in Figure 6.24, and the sports park.



Figure 6.24: Spirit tree and shrine in RKS, Rom Klao

Several interviewees also described how particular garden plants are important due to belief and luck, with Khun Soit explaining how her plants have psychological benefits as a result, for, *'part of her plants is lucky plants so it means bring money to her'* (G4). In line with, and contributing to, the body of work collated by Scannell and Gifford (2010), this study suggests that such elements become personally important through their embodiment of religious and spiritual values and beliefs. Through the symbolism of these elements, individuals and community groups also become connected to wider religious and spiritual cultures leading to the formation of place-based attachments. This research therefore also contributes to the research of Hernandez Bonilla (2001) who identifies comparable occurrences in the popular settlements of Mexico.

Daily activities and spatial use also reflect spiritual beliefs and are an integral part of daily life and decision making, with Khun Aim (RKCS8) describing how prior to any decision making in Rom Klao people take advice from the *Noan*. The translator described this as a ‘superstitious thing’. During the fieldwork, users of the RKS were seen ‘*waiing*’, (making a respectful bow) to the shrine, as well as making merit and offerings. This RKS is also used for religious ceremonies including the monk’s ordination ceremony.

Interviewees additionally discussed undertaking certain activities or creating open spaces due to believing in karma (HK1; HK7). Shopkeeper Khun Soai, for example, described how she has created a sheltered seating area to the front of her shop *‘for other people to come and rest...’(HK7)*. The translator interpreted this as being due to Khun Soai’s desire to gain good karma, resulting from her belief that she had bad karma in her previous life explaining her poverty in this life:

“since [I have my] shop [I have] some income so [I] started to give to other people; to strangers, if they’re thirsty or hungry they given them food just like snacks and drinks. And also the animals, like the birds or dogs’ (HK7).

Khun W meanwhile described giving plants to his neighbours and telling them how to grow them: *‘[I] like giving, especially for those who are less fortunate. It makes [me] feel good’ (HK1)*. This study proposes then, that in performing religious and spiritual activities individuals will form place-based attachments to the open spaces, such as the RKS, that enable them, contributing to the development of an open space’s symbolic meaning. For, in preserving these practices individuals connect to those who share the same beliefs, as well as spiritual entities both past and present. Khun W’s comment meanwhile suggests such actions have restorative benefits leading to stress relief, the importance of which within the communities has been discussed, further contributing to place attachments and the success of an open space. These findings are inline with, and contribute, to

the texts of Carr et al. (1992) and Scannell and Gifford (2010) as well as Hernández-García (2009, 2013), Hernandez Bonilla (2001) and Low (1992).

The Importance of Open Spaces for Preserving Cultural Identity

In addition to religious and spiritual expression, festivals, national days of celebration, ceremonies and/or parties are also important to individuals and the wider community according to five interviewees. These are typically held in open spaces such as *sunams*, with Khun J (BB15) stating she thought that open spaces in general are important because they provided the opportunity for festivities to take place. In terms of specific open spaces, three interviewees feel that the RKS is important to them or community members, with Khun Aim describing here some of the ceremonies which take place there:

'special event like the ordination... the ceremony... the food party will be here. If someone graduate college or university, actually it's quite a big event for them since ... most of them are not much chance to get educated so the celebration will be here. Also ... the Song Kran festival around mid of April, the water festival they will give the small watering offering to the elders in the traditional way ... Also the New Years ceremony' (RKCS8).

Consequently, Khun Aim claimed that the RKS is '[the] *centre of the community*' (RKCS8). Likewise, the *sunam* in CKBB is used for festivals, whilst in Pom Mahakan, the *sunam* is used for special days, weddings and making merit according to interviewees. Here, Khun Sao describes how the Pom Makahan *sunam* is also used for funerals:

'sometimes when the people die but they tell the family please don't take me go to the temple... I want to stay here. When the Thai people, they dead... they have to keep for three day. For every night pray [family and neighbours for one or two hours] and for monk coming' (PM5).

Again, this study argues that in performing traditional and cultural activities community members are drawn together and connected to their wider culture and history, forming part of their identity. This will result in these place based attachments with these open spaces becoming symbolically meaningful. Khun Soo (EHP1) and Khun SK1 (EHP2) support this interpretation, saying that the EHP is important to them because they have parties there, and they prepare and cook food for festivities held in the RKS:

'if the members of the community have any special event like a ordination, the merit making of a new house⁷ to start the good luck with the new house. So the food for that can be cook over here [in the EHP] because... we have the cooker and also the gas over here' (Khun Son, EHP3).

Khun SK1 described this as being '*special for her*' (EHP2). Whilst not explicitly stated by either interviewee, it can be interpreted that the EHP therefore provides self-continuity, with individuals forming personal attachments to it through the symbolic act of cooking. Again, this is inline with and contributes to the texts of Carr et al., (1992) and Scannell and Gifford (2010), as well as Hernández-García (2009, 2013), Hernandez Bonilla (2001) and Low (1992). If these ceremonies did not take place within the communities meanwhile, residents would have to frequent public spaces in the formal city of Bangkok. This would be costly, both economically and in time, with many also facing stigma due to their societal positions. The existence of open spaces within the informal settlements for these activities is therefore likely to carry increased resonance, amplifying their significance.

Dimensions of Identity: Conclusions

⁷ *When Thai people build a new house, they have one day to have a ceremony to celebrate the new house*

Whilst few interviewees articulated why these open spaces are important to them, it is clear that the physical attributes of particular open spaces, such as the existence of shrines or lucky plants, either enable community members to perform activities that link them to their religion or culture or are representative of their religious or cultural beliefs. Through these symbolic acts or elements, individuals are connected to those who share their beliefs or traditions, both internal and external to the community as well as their history, contributing to a sense of 'belonging', meeting affiliation needs. This is particularly resonant given the stigma faced and precariousness of their circumstances. This is likely to lead to place based attachments to the open spaces that afford these connections, both through both their physical form and social aspects. This study's findings are inline with and contribute to the work of Scannell and Gifford (2010), Carmona et al. (2010) and Carr et al. (1992) as well as Hernández-García (2009, 2013), Hernandez Bonilla (2001) and Low (1992).

In contrast, whilst some interviewees claimed gatherings and festivals did take place in the Community Lantern, Khun Shor stated community members have to go to other community's open spaces instead:

'sometimes this community also use that space [belonging to another community] for some event. Sometimes just sharing space and food but sometimes if they have a gift for new year of something the gift was limited for that children that belong to that community, so just share only food and space' (CL5).

The fact that the Lantern is not used for community gatherings, festivities or religious or spiritual ceremonies is likely to decrease perceptions of the site's importance and value to many potential users. This again reduces the likelihood of positive attachments forming, impacting on its successful integration into the community.

7.0 The Potential Role of Landscape Architecture

Introduction

This fourth discussion chapter explores barriers to landscape architectural design approaches within informal settlement contexts, addressing research objective four. For, whilst I have established that certain spatial and physical features emerge as critical for the success of open spaces, the success of an intervention will also be constrained by the situational and circumstantial occurrences in existence within, and specific to, any given community. This is supported by evidence provided within previous chapters, which indicates that influences on spatial use are highly complex and often a response to cultural, political and economic processes.

Consequently, this chapter proceeds under the assumption that establishing a 'design tool kit'¹ alone cannot develop sufficient explanatory power concerning the actual perception and use of open spaces. Instead, this thesis adopts the standpoint that an essential characteristic of landscape architectural design and theory is that it should be situated within and critically respond to the specific site attributes, contextual processes, community dynamics and intimate knowledge of users specific needs. This is in order to create socially and ecologically sustainable design that accommodates aspects of users' daily lives and spatial practices, whilst also being flexible enough to allow for future development. Such an approach lies in contrast to generalised, absolute design universals or the designer's normative assumptions about practices of use necessary and desirable in the site (Lefebvre, 1991; Meyer, 2002; Milgrom 2008). This approach is also supported by UN Habitat (2012), who call for reliable and accurate data about the size and scale of individual informal settlements as well as adequate knowledge about specific problems, for they believe a 'one size fits all' is inappropriate given the physical and socio-cultural variations found across slums.

¹ See 'definition of terms'

To explore this further, the chapter is divided into three sections: addressing pre design, design phase and post design barriers. Pre design barriers focus on the urban realm and the economic value of open spaces. Design stage barriers meanwhile review the impact of culturally accepted behaviours on participatory processes and discuss the limitations of conventional landscape architectural spatial analysis methods. Here then, the fifth research objective is also addressed: To determine whether the design process for analysing and developing public open spaces needs to be reconsidered for the informal settlement context. Finally, post design barriers focus on behaviours that impact on successful intervention post completion. Here, then the sixth research objective is also addressed: to determine whether landscape architects have a role in these contexts and what that role is.

This chapter develops literature regarding whether ways of 'knowing' developed within the western tradition are legitimate for the Global South slum context as well as literature discussing the methodological practices of landscape architecture. As a caveat to the chapter, it is acknowledged that in addition to the barriers discussed, which focus primarily on physical, economic and socio-cultural behaviours to highlight that critical engagement is required, other barriers to successful intervention exist. For example, there are evident issues surround the funding of an intervention and the need to gain permission from the landowner with even gaining an interview proving difficult during the fieldwork.

N.B. Throughout this chapter, image captions refer to images from left to right. All interviewee's names have been anonymised with Khun meaning Mr, Mrs or Miss, and Nong used as a prefix to the names of children. For a list of interviewees gender, age, community and any additional notes see Appendix 14.

7.01 Pre Design Barriers to Successful Intervention

Physical and Socio-Cultural Impacts

This first section explores predesign barriers to the development and successful integration of an open space intervention, firstly focusing on constraints relating to the physical urban form and secondly to socio-cultural attitudes.

Tensions Between the Need for Shelter and Open Space Requirements

One of the main barriers to successful open space intervention, as highlighted by six interviewees from the Khlong Toei (KT) and Chai Khlong Bang Bua (CKBB) communities, is the lack of available space. In Khlong Toei, for example, between 80,000 and 100,000 residents live in an area of two square kilometres (Barker, 2012). Space is therefore a precious commodity, with the creation of dwellings of paramount importance to the majority of residents. In the newly developed CKBB community spatial limitations are equally pronounced, with the need to ensure community members have a reasonable private living space conflicting with the needs for open spaces. In the following quote Khun Ch in CKBB describes the difficulties of ensuring this when developing the community, with the task close to impossible: *'cannot calculate for everyone equal, but if you share the space to build the community space more it sound like impossible'* (Khun Ch, BB210). Similarly, potential interventions in existing open spaces are difficult due to the lack of space as highlighted by Khun M's negative response to such a proposal: *'it's impossible... the walkway's already small and if you have those things [spaces for relaxation or nature], it's impossible...'* (Khun M, HK6). Likewise, other interviewees highlighted that they are unable to increase the dimensions of existing spaces, namely the sports park (SP), *sunam* in CKBB and *nang lern A* due to a lack of available space. Many others, meanwhile, said that they did not have gardens due to lack of space.

The spatial limitations were further emphasised by nine KT respondents who discussed the consequential difficulties of growing particular plant species. Plant growth is further restricted in many open spaces by the lack of sunlight resulting from the closeness of dwellings and narrowness of sois (G5; G6). Furthermore, in KT, the swampy ground conditions mean that only potted plants can be grown. These findings contribute to knowledge regarding the specific problems associated with a settlement and the environmental conditions, as requested by UN Habitat (2012).

The Economic Value of Open Spaces Versus Individual and Community Needs

In addition to the lack of space, interview data analysis reveals that attitudes towards the creation of open spaces reflect those displayed toward public space development (at least by politicians and developers) in the wider Bangkok Metropolitan Area (BMA). There, instead of developing recreational spaces, the BMA has prioritised commercial enterprises and economic development over environmental priorities. According to the contextual literature (e.g. see Askew, 2002; Baker and Phongpaichit, 2005), the roots of this urban development trend stem from the socio-economic and political events occurring around the periods of modernization (1868-1910), the Second World War and more recently following 1990, when Bangkok was designated a 'world' city. Consequently, the square meterage of green public open space per person is well below that of any other Asian city in a similar state of development (AGC1, 2011). Rod Sheard, from NGO Urban Neighbours of Hope, echoed the AGCIs findings:

'There is no consideration for public by politicians for green spaces, for recreational stuff. It's a non-tangible thing like that versus getting cold hard cash from a developer... there's no competition... money rules everything here in Thailand from the judicial system to politics to... especially architecture and how buildings are designed and how streets are laid out. Or not laid out. There's very weak rules because we have a

weak judicial system and if you are a big developer you can do whatever you like and no one's going to tell you what to do because you're going to give a cut to the police' (Rod Sheard, NGO1).

Likewise, Rod drew parallels with attitudes towards the creation of open spaces within KT: *'[P]eople can't hide it [that money rules everything] in the slum because they're at the bottom of the pecking order but the same thing happens around the rest of Bangkok'* (Rod Sheard, NGO1). Father Maier supported this comparison; similarly making comments to the effect that within Bangkok and the communities themselves as entrepreneurial enterprises increase public space decreases. Meanwhile, supporting my interpretations of the causes of this apparently cultural attitude towards the development (or not) of open spaces, Father Maier attributed this conflict to globalisation. As a result Father Maier stated, there are no places to play or even gesticulate within KT, with culture and religion consequently being lost. Within open spaces in the communities studied many examples of tensions over spatial use relating to economic gain versus recreational use were also observed. The most common threat to open space- the appropriation of open spaces for informal vending- has already been discussed in previous chapters. The second most explicit example of economic drivers dictating spatial use relates to car parking, as mentioned by both Father Maier and Khun Gan (CL10). This conflict occurs in several of the larger open spaces in KT. For example, during the fieldwork a new swimming pool was being constructed in the sports park on an area where traders for a thrice-weekly market held in an adjacent sports pitch previously parked their cars. Consequently, traders began to park in other areas of the sports park. Here, economic interests have overridden the obvious health and safety issues and reduced the space available for the intended recreation and leisure functions of the sports park. As Khun Wila (SP10) remarked, *'the park, it should be park. Not like this, at least should not be any motorcycle or this...'* (SP10). Despite this, sports park users were not observed contending this happening. The prioritisation given to parking over recreation is therefore foreseeable as a

source of potential conflict when attempting to develop an open space intervention. This is described by, Khun Gan (CL10) who said that whilst it would be beneficial to the community to use space along the main road for recreation; *'it's used for parking so it might cause some problem between people and the other...'* (CL10).

A less explicit example of the conflict between economic enterprise and other spatial uses meanwhile, was expressed by Khun F (PM9) who stated that she can't grow plants because she needs to use the space outside her shop to advertise and sell goods. Whilst I have interpreted these conflicts as reflecting wider socio-cultural attitudes towards open space development and use, the specific conditions of the communities also likely play a role. For, as established previously, the realities and consequences of living within the communities mean that basic economic survival is likely to be influential on spatial development and use for many community members. This interpretation is strengthened by previous findings, which established that, within the communities certain open spaces are recognised as having importance and meaning due to their health and well being benefits, amongst other reasons. Despite this however, it is still apparently accepted that entrepreneurial activities dominate or impact on other desirable spatial uses. Supporting this view, a CODI member stated that the communities they work with often overlook the value of open spaces for recreation and other uses, and therefore do not consider including them during the design phase. As Rod said, it is apparent that: *'[m]oney will bulldoze anything, it doesn't matter...'* (Rod Sheard, NGO1).

Physical and Socio-Cultural Barriers: Conclusions

The overwhelming spatial limitations and resultant negative attitude displayed by at least one interviewee towards developing existing spaces suggest that open space interventions may not be feasible within slum communities with urban layouts similar to that of KT. Furthermore, the physical constraints indicate that not all physical attributes, identified as

important for the successful integration of a space in previous chapters, may be achievable. Alternatively, these spatial limitations suggest that a space may only be able to meet limited needs.

In relation to the communities studied, identification of these physical limitations again suggests that a landscape architect needs to reconsider notions of 'public space', expanding understanding to include smaller structural interventions, such as *nang lerns*, tables and benches, which are more feasible within the physical constraints of the context. Thus, this research supports similar calls by Margret Crawford (2008a) for site specific responses. As well as being more suited to the dimensions of the spaces available, these have also all been found to support and facilitate a variety of needs deemed important in daily lives, including social interaction and economic entrepreneurship. This interpretation is supported by interviewee responses who, when they were asked what open space interventions they would like in their community suggested: a *nang lern* (N5), a table (RK5), and more seating (HK11; RK3); '*if possible maybe can build a building or make a more space or give more chair or something for meet friend, for hang out*' (Nong Dee, RK3).

In terms of the conflict between economic priorities and other open space needs, this research indicates that certain community members will value existing open spaces for the economic opportunities they present, and may not support the creation of open spaces to meet other needs, such as recreation and leisure. Furthermore, it is conceivable that, unmanaged, an open space intervention may become appropriated as a 'productive' space, overriding other needs. Alternatively, an intervention may be appropriated for related activities such as parking, as has occurred in the sports park, with other users unlikely to challenge such activities. These findings again indicate that landscape architects need to reconceive the functions and use of open spaces for successful intervention²: expanding conceptions to include both productive and reproductive activities as well as parking and other uses not typically performed within public spaces in

² see 'definition of terms' for meaning

the west. Additionally, new interventions within these transient communities must be designed to be flexible enough to accommodate change and support future activities, or be connected to open spaces that can support uses that have the potential to cause conflict or compromise. If open space appropriation is also managed this additionally offers the potential of reducing spatial conflicts post intervention (see section 7.03 'spatial management and maintenance', for a further exploration of this). For, in addition to the transitional uses of open spaces described within previous chapters, social dynamics, spatial uses and open space needs will also change as different migrant groups enter the communities and in response to changing national and global political and economic events. It can be anticipated, for example, that as residents become wealthier there will be an increased desire for car and motorbike parking, further compromising spatial use, unless planning and management pre-empt this. Khun M highlights this, who when asked if she thought a playground would benefit children in the *chumchon*, replied that: '*if there's playground there's nowhere to park*' (HK6). Finally, to increase understanding of the particular well being, leisure and recreational benefits, as well as the economic opportunities, that open spaces can offer, it is proposed that landscape architects work closely with community groups in an advisory capacity from an early stage. By this it is meant, participating with community members during the design stage and discussing with them the potential benefits to increase their understanding as well as their concerns. A CODI employee claimed that communities they work with lack knowledge of the benefits of open spaces and therefore increasing understanding during the upgrading process would potentially increase support for their inclusion (pers. coms). Whilst people may use open spaces regularly, they may not have reflected on the multiple benefits to their lives.

These issues and proposals are specific to the communities studied and therefore cannot be compared to other communities as similar studies have not been conducted elsewhere in academia. However, identification of

these barriers increases the potential of successful intervention through exploration of reasonable and site specific solutions, an approach which can be generalised beyond the communities. Likewise, suggestions are based on indepth knowledge of spatial types that are both achievable within the physical constraints, meet identified community needs and are known to be desirable and important to residents for multitude socio-cultural, economic and/or religious reasons. This strengthens arguments made by this research for understanding the use, meaning and significance of open spaces as explored in previous discussion chapters. Thus, this research both supports and contributes to UN Habitat's (2012) call for accurate and reliable data with regards to the scale, size and location of settlements and knowledge of the problems and peculiarities of a site and its population. A landscape architect working in isolation from the communities would not be aware that these pre design barriers to intervention exist, potentially resulting in designs that are unable to meet present or future need. This study therefore confirms Meyer's (2002) and Lefebvre (1991), among others, calls for design responses to be situated in knowledge of the specifics of the existing site rather than generalised assumptions and a predetermined design toolkit. Additionally, the research confirms Crawford (2008a, b), Jacobs (1961) and Habraken (1998), among others, use and advocacy of relational approaches to public/open space design that centralise human lived experience. For, the issues and proposals discussed were identified through such methods.

7.02 Design Phase Barriers to Successful Intervention

The Impacts of Behaviour and Analysis Methods on Spatial Use

This second section explores design stage barriers to successful intervention. To do so I return to the Community Lantern. It is impossible to comment on how social hierarchies, community history or the Lock 1-2-3 built environment impacted on the participatory design phase and

subsequent use and misuse of the Community Lantern, as these are unknown and difficult to distil down to specifics. However, it is assumed that all these factors have consequences, for it is known that such factors, among others, combine in a multitude of ways to affect community dynamics (UN Habitat, 2003). To gain some insight, this section reviews community dynamics in the other KT communities studied that have the potential to impact on the participatory process and subsequent use. Whilst the first subsection reviews socio-cultural barriers the second explores socio-economic and religious barriers. These barriers influence the main behavioural traits identified. It is acknowledged that such socio-cultural processes may not exist within Lock 1-2-3, for social formations between slum communities are diverse, and marked by internal differentiation (Askew, 2002). However, parallels are drawn to highlight the potential problems presented during a participatory design process. The final subsection meanwhile explores the limitations of conventional spatial analysis techniques employed by landscape architects. Throughout, the benefits of an ethnographic approach, as undertaken by this thesis, are discussed. Understanding these dynamics and techniques are relevant to the fifth research objective: to establish whether the design process for analysing and developing open spaces needs to be reconsidered for the informal settlement context.

Socio-Cultural Barriers to the Participation Process

TYIN Tegnestue and Open Space architects apparently engaged in 12 months participatory work with the community when developing designs for the Community Lantern (TYIN Tegnestue Architects, no date) and worked closely with the Duang Prateep Foundation (CL4). It is also presumed that they undertook standard landscape architectural and architectural site analysis. Despite the use of these approaches to 'know' the site, previous discussion chapter's evidence that the project has not been functionally or symbolically integrated or accepted by the community as hoped. It is difficult to critique the practices of either organisation and

the particular challenges they faced, if any, are unknown, as neither responded to requests for interviews or information regarding the process. Dr Wijitbusaba Marome, assistant professor at the Faculty of Architecture and Planning, Thammasat University (Ac1), who was involved in the project however, claimed that adults hadn't involved themselves or helped, meaning that it was mostly students from a Bangkok university and children from the community who built the Community Lantern. Furthermore, only one of the twelve community members interviewed had been part of the preliminary analysis stage with the *Gumagun* at the time no longer community leader although it is likely that they were involved in the consultation process. Other respondents meanwhile stated either that 'foreigners' had simply turned up one day (CL5, CL7) or that they had heard of it but had had no involvement in the design (CL9). Khun Vow (CL4) and Nong Doe (CL12), however, did say that children from the community helped by providing labour during the construction stage. To explore possible problems presented during the participation process this subsection reviews socio- cultural barriers. Firstly focused on is the role and influence of the *Gumagun* and other figures of power within the communities who are likely to be involved in community consultations, and other community member's reactions to this differentiation of power. The *Gumagun* and other figures of power are the initial focus, because data analysis revealed that not only are these actors influential during the design process they, at least those encountered, are not impartial and may act on a whim, in retaliation or to serve a personal agenda.

In general, it was observed that decisions made by the *Gumagun* or community committee are given credibility by their hierarchical position, with community members appearing to respect decisions made, due to their own, lower, social positions. This is despite being in the majority:

'when you have a hierarchical society who ever has the head in the community, whether its official authority or not, they're the ones who control what goes on and as far as initiative goes you cant have any issue with that side of that.' (Rod Sheard, NGO1)

Supporting this, Khun Wan (N4) and Khun Nae (N7) stated that they would not change anything about *nang lern A* because the *Gumagun* had forbidden it. Khun Nae (N7), who was initially reluctant to say this on tape, later revealed that their reticence related to them, holding different political affiliations to the *Gumagun* prior to the leader holding the position. It was also heard many times throughout the fieldwork that interviewees did not have opinions with regards to open space interventions; and that it depended on what the *Gumagun* wanted for the community. For example, when asked whether she would have liked to have been involved in the design of the Community Lantern, or if she had any opinions on improvements, Khun Kaorn replied:

'in that part it's the business of the community leader because [I] choose, elect the people to take care of that so let them do it... [I] don't have any idea for changing because [I] think that is the business of the community leader and if the community leader say to be anything... just like okay, allow them to do and okay' (CL9).

This comment summarises the apparent feelings of many other respondents across the communities. Khun Khaorn additionally stated that there are no issues related to the Community Lantern and that the *Gumagun* was responsible for managing the space. However, in contrast, many other interviewees described various associated problems, which they alleged that no-one in the community takes responsibility for. It is possible therefore that Khun Kaorn has an affiliation with the leader and does not wish to speak against them, or that her comments are influenced by her respect for the *Gumagun*. It may also however be because, according to Rod, Thai's avoid conflict, preferring not to approach any one directly: *'in Thai society you avoid conflict at all costs. If you're the one who's starting the conflict you're the one in the wrong'* (Rod Sheard, NGO1)

The acceptance of *phuyai* and *phunoi* (hierarchy) and *lukphi/luknong* (patron-client) relationships³, and individuals respecting officials but not the opinion of those of equal or lower social status, are three of the 'personality characteristics of slum people' described by an NGO leader as 'obstacles to development work' (Somchai 1997 cited in Askew, 2002, p.149). According to Askew (2002), the inventory of characteristics compiled by the NGO is also, 'an outline of broader cultural characteristics of Thai society focusing around personal networks and the accumulation of material and symbolic capital' (p.150). These hierarchical relationships can also be seen to be an obvious limitation to community engagement within Thai slum communities, with those already powerful easily manipulating the process for their benefit leading to the exclusion of those who already have less power. This contributes to the body of work by Melcher (2013), Hou and Rios (2003), Puri (2004), Mosse (2001), who likewise draw attention to the potential of participatory methods consolidating existing social inequities. The limitations of participatory methods are demonstrated in the spatial layout of both newly developed Bang Bua communities, for which thirty percent had to be public space, according to CODI conditions for upgrading (Nattawut Usavagovitwong, Ac2) . In both however, the main open spaces are located close to the present *Gumagun's* house: in Sapan Mai II (SMII) the *sunam* lies opposite the leader's house, and in CKBB, of the three community spaces planned, two, a community office and a storage office, are also located next door (Khun Soitong Kampadeep, BB212). Although those interviewed in SPMII stated that they or their relatives attended community development meetings their influence on decision-making was apparently minimal. Khun G, for example, claimed that her mother only shared her ideas about the house and some other issues: 'only sometimes, only some issues that she makes the decision... my mother meeting join there but not share idea' (BB14). Khun J meanwhile said that she, 'never gave her opinions in the meeting... the leader is the one who manage everything ' (BB15). Additionally, similar to the

³ See Context chapter 3.03 'Administration under the Absolutist Monarchy' for a description of patron client relationships

reaction of Khun Kaorn in Lock 1-2-3, Khun J believed that it should be the *Gumagun* who makes the decisions relating to the community's urban development. This support for the *Gumagun*'s position as decision maker comes despite their decisions not benefitting other community members. Khun Soj for example cited the location of the newly built *sunam* as her reason for not using it:

'it's not in front of [my] house... The community right now... everybody wants to be at their house... it's like a single family instead of extended family... that why she thinks nobody share... she thinks that people from the other side of the community will be going to use that space more than on this side' (BB11).

Two other respondents said they and others use the *sunam* for community events and meetings but not daily. According to Khun Soj this is apparently due to too many elements inside the *sunam*, which prevent children from playing there (BB11). It appeared to me that that the *sunam* is in fact an extension of the *Gumagun*'s dwelling space, with seating, tables and washing up facilities visible as shown in Figures 7.1-7.2.



Figure 7.1: Sink in Sapan Mai II *sunam*



Figure 7.2: Seating visible in Sapan Mai II *sunam*

Despite this it is unlikely that Khun Soj or other community members challenged the leader over the *sunam*'s location or subsequent use. Thus, not only is this behaviour apparently culturally normal, but I experienced this particular leader as extremely dominating and patronising during my interview with them. This study therefore contributes to the body of work by those who similarly identify the consolidation of inequities, through the use of participatory processes (e.g. see Melcher, 2013; Hestor, ? cited in Hou and Rios, 2003; Puri, 2004; Hou and Rios, 2003; Mosse, 2001).

In addition to the personality characteristics discussed, Askew (2002) draws on research (Berner 1997: 194; Pinches, 1991) to claim that Bangkok slum dwellers work through the cultural categories that prevail within broader Thai society to achieve socially valued goals, with their perception of their environment, lives and actions marked by these. During community engagement, it is therefore likely that, if able to voice their opinions, those at all levels of the social hierarchy will support interventions that present them personally with opportunities to meet their immediate needs or to enable them to accumulate material, economic or social capital either physically or symbolically. Conversely, it also indicates that they will reject interventions that do not appear to offer these opportunities. Such agendas may not always be apparent to the community outsider however and are not typically analysed by

participatory processes, contributing to the work of Puri (2004) who highlights such limitations of the methodology and practice. The responses of five KT interviewees who, despite the obvious social and built environment issues, felt that community or specific spatial improvements are not required can be interpreted as such. Four others meanwhile, stated that existing spaces referred to, namely a *nang lern* and the Rom Klao *sunam* (RKS), are 'fine' or 'perfect' as they are. This is despite the visible problems and other interviewee responses revealing that this is not the case for each open space. Others were more explicit as to why they did not want certain interventions to occur, the reasons for which, based on some knowledge of community behaviours, can be seen to serve personal agendas. For example, Khun M, was categorical about not wanting any further open space interventions, instead claiming that the sports park is sufficient as: '*some green or a place to hang out... [I] don't want [an intervention] at my house. Because the walkway is already small*' (HK6). Based on use of other *sois* it is likely that Khun M has already appropriated an area peripheral to her dwelling for personal use, such as domestic activity and socialising space⁴. Releasing this for use by other *soi* members would reduce Khun M's social, material and possibly economic capital. In the Thai context at least, this further supports claims made in support of Beardsley and Werthmann (2008) for 'productive' open space interventions, as these appear likely to be supported by residents so that they can improve their economic status. In addition, findings further support arguments previously made, for designing spaces to be flexible enough to allow for some level of appropriation, for it is apparent that this culturally accepted behaviour will occur regardless, in order that individuals can achieve the socially valued goals described.

Finally, a further main behavioural and attitudinal pattern noted during the course of the research that presents a barrier during participatory processes and is also a cultural characteristic of Thai peoples is that of 'saving face.' In Thai culture it is common for people to say things so that

⁴ See discussion chapters 5.0 and 6.0 for more on spatial use and appropriation.

they don't upset another person or say what they think the other person wants to hear rather than what they actually think: *'One of the issues is that Thai's will never speak directly'* (Jodie MacCartney, NGO2). Again, in identifying the barrier to participation presented by this cultural behaviour, this research contributes to the work of Puri (2004) and Hou and Rios (2003). That all of the political and socio-cultural issues discussed in this section were identified using relational ethnographic methods meanwhile highlights the potential of utilising such methods for landscape architects, contributing to the work of Crawford (2008a, b) Rishbeth et al. (forthcoming) and Kim (2015), among others.

Socio-Economic and Religious Barriers to the Participation Process

The second most commonly discussed behavioural barrier to successful intervention following a participatory design process is that of apparently 'apathetic' or accepting attitudes to the circumstances community members find themselves in. This has been identified by this research as being influenced by the socio-economic context and religious beliefs.

An example of this is that, when asked what was needed in terms of community improvements, seven KT interviewees said they had no opinion or didn't know. Khun Sui's response is typical of many: *'normally she really not know, not know what is better here... she don't want to think about it'* (RK6). Khun Si meanwhile stated that she 'didn't know' what would make it better for children growing up within the communities; *'there are already schools, a park and the parents don't earn much and they can't really take care of their children well'* (HK16). This is despite the evident physical problems displayed within the urban layout and the fact that many open spaces in KT, including the Community Lantern, are covered in dog faeces and rubbish. In turn, the treatment of the physical environment appears to impact on how other people view and treat open spaces. Khun Num supports this assessment suggesting that, *'if everyone in the community care about it [opens spaces like the Community Lantern] and take care of it, lesser things will be destroyed and also taken away'* (HK16).

Within the context, such apparently accepting attitudes are apparently likely borne from *'the exclusion and dehumanisation of poverty'* (Perlman, 2010, p.15) as identified by Perlman (2010) in her study of favelas in Rio de Janeiro. Here Perlman drew on the work of Amartya Sen (1999) who views poverty as not simply the lack of income or of low income but as the *'deprivation of basic capabilities'* (p.89), including the capacity and freedom that people have to pursue courses of action that are in his or her best interests. In the favelas studied, Perlman found that many occupants were stigmatised, viewed with suspicion, rendered as *'nonpersons'* and as; *'having no scruples, being thieves, murders and drug addicts, trying for the easy life by harming others'* (p.157), by those from outside the communities. Perlman additionally identified that community members were threatened by violence and the drugs trade, impacting on personal safety and public security. A comparable attitude toward those living in the KT and Pom Mahakan (PM) communities was identified by those from outside, with residents likewise marginalised and caught in a *'culture of poverty'* (Barker, 2012, p.51). Similarly, in KT gangs and violence are common place (Barker, 2012), as described here by NGO Anji Barker who has witnessed first hand; *'the murders, the abuse, the crime. And she's seen the despair – the lives wasted by addiction, the generations of unemployment, and the mental surrender of the downtrodden'* (Turtle, 2013),

Perlman (2010) meanwhile describes how, for those affected by violence in her studies, *'[p]eople have no where to turn for help'* (pg. 187) causing, amongst other impacts, loss of piece of mind, loss of sense and security and loss of tranquillity, affecting both the mental and physical health of the residents. Consequently, stress related diseases in the favelas are endemic. Furthermore, Perlman noted that these social conditions *'weakened the trust and solidarity that has held their communities together'* (p.166). Drawing on Perlman's research and Anji Barker's comments, it seems highly likely that similar impacts can be assumed for those living in KT, with the social and economic realities and resultant inequalities and

struggles faced daily impacting on individuals self worth, feelings of disenchantment and helplessness. It also seems likely that this pressure would detract from people's capacity to focus on other, presumably seemingly less pressing issues: in this instance the development of open spaces. Thus, the apparently apathetic attitudes described can alternatively be interpreted as people needing to preserve their energy and time for more pressing needs. Indeed, Khun Num (HK16) discussed how residents gather and support one another in times of crisis but disband and focus solely on personal issues after. Askew (2002) writes that the 'fragility of these relationships' is a feature often commented on by slum dwellers themselves, using the expression *tang khon tang yu* 'everyone for themselves' (p.145) to describe the privatised attitudes. Thus, whilst a significant feature of slum life is the intense patterns of interaction and mutual friendship, this sociability does not incorporate whole settlements. As for the assumption that everyone has the same material status, Askew (2002) writes that the assumption of slum societies' communality is a sweeping generalisation.

Such privatised attitudes can be seen to be a barrier during participatory design processes, as community members may again display little interest, unless the intervention benefits them directly, for example by addressing basic survival needs. This was found to be the case when attempting interviews during the fieldwork, when several encountered were unable to spare the time as they needed to sell goods, look after children or prepare food to be sold. Had I offered payment for interviews it is likely the situation would have been different. This is also supported by the findings of the Duang Prateep Foundation, who unsuccessfully sought during the 1980s to:

'transform slum dwellers into the community that they envisaged. To those NGOs working closest to the poor people of the settlements... the day-to-day struggles of many households, and the multiple forces affecting them, were too intractable to allow the luxury of these ideals' (Maier 1993: Santisuda 1987 cited in Askew, 2002, p.158).

Similarly, when working on KT upgrading projects during the 1980s the NHA found that slum households often, '*ignored calls to participate if local upgrading projects had no immediate bearing on their quest for security and livelihood*' (Askew, 2002, p.147). Askew (citing the research of Pratt 1993, p.70) further notes that, as others have explored, conflict therefore arises between the aspirations of the NGOs and the values held by slum dwellers. 'Grassroots' NGO indicators place importance on the aims of: '*self reliant activity management, networking with other communities and consciousness of structured social inequalities*' (Askew, 2002, p.150). Ordinary slum householders meanwhile, appraised NGOs and *Gumaguns* on more immediate achievements that enhanced survival, access to resources and to living space (Askew, 2002). Twenty years on, it appears conditions and resultant attitudes have not changed, with TYIN's experience of working with the Lock 1-2-3 residents reflecting that of the NHA and Duang Prateep. This suggests that, within KT at least, similar conflicts may also arise between the aspirations of a landscape architect and the interests of present day community members unless an open space meets their particular immediate needs.

In addition to the socio-economic inequalities and their impacts it is interpreted that religious and/or spiritual beliefs also influence behaviours and attitudes. For example, several NGOs discussed how apparently accepting attitudes result from many believing that living in the communities is their fate due to bad karma accumulated from a previous life (pers. Coms). Some interviewees also made similar comments (e.g. Khun Soai, HK7). This was also identified by the NGO referenced by Askew (2002), who noted slum dwellers displayed a persistent belief in *wenkam* (personal fate) to explain misfortune (Somchai, 1997 cited in Askew, 2002). This study therefore confirms the work of Yunos et al. (2015;) and Hou and Rios (2003) who likewise highlight that apathetic attitudes present a challenge to participatory processes. That the socio-economic and religious issues discussed in this section were identified using relational ethnographic methods again highlights the potential of landscape

architects utilising such methods, contributing to and confirming the work of Crawford (2008a, b) Rishbeth et al. (forthcoming) and Kim (2015) among others.

Landscape Architectural Spatial Analysis Methods

In addition to the design stage barriers identified, standard spatial analysis methods typically used by landscape architects as a basis for developing a site has been identified during the fieldwork process as having limited scope and value. These tend to focus on increasing understanding of the physical affordances of places however are not suitable for exploring the meaning held in sites. Despite, this many theorists (e.g. see Relph, 1976; Swaffield, 2002; Lynch 1960), claim that understanding meaning and the resonance that sites hold for individuals is critical to design integrity; increasing the possibility of making design choices that meet specific needs rather than a designers assumptions about the practices of use that are necessary or desirable in a site. For as Khun Shor stated, *'sometimes foreigners think something but sometime it's different from Thai culture and sometime the kid of the different culture use... operate the space is different from the Thai kids'* (CL5). These claims are supported by the findings of the previous chapter, which established that meaning develops in multiple ways and is influential on the repeated use of a site. Therefore, as I have investigated within my own research, in order to understand the particular significance attributed to open spaces and their use, the multi-scalar contextual processes (social, economic, religious and cultural) must be explored and how these contribute to the development of place attachments and place identity. This study therefore again confirms the work of those previously mentioned who claim that relational methods such as ethnography offer the potential to address the identity and meaning of places.

Additionally, whilst conventional spatial analysis methods include using survey methods that review the specific ground conditions, such as looking at maps and testing the ground conditions, this research finds that such a process requires closer collaboration with local residents who have knowledge of, and solutions to, specific issues. Problems of not utilising such tacit knowledge is revealed in the Community Lantern where the designers have apparently underestimated the problems of the ground conditions. Consequently the space does not drain sufficiently, as can be seen to the bottom right of Figure 7.3, leading Khun Shor to claim that the *'first problem [with the Community Lantern] is about the floor'* (CL5).



Figure 7.3: Flooding in the Community Lantern, Lok 1-2-3

KT is built above a 'swamp', the water level of which is around 18 inches below ground. To accommodate the changing water levels residents have developed specialised construction techniques known as 'beer bottle construction', a process detailed in Figures 7.4-7.9. Here, buildings are 'floated' on supporting pylons sunk to a depth of around 12m. The top of the piling is around a metre below water level, which changes in level and viscosity. A hole in the pylon is filled with 'swamp' 'goop' (Father Maier).



Figure 7.4: Petrol cans waiting to be filled with concrete



Figure 7.5: Support beam construction methods



Figure 7.6-7.7: Support beam construction methods



Figure 7.8: Timber support beams to base of dwelling



Figure 7.9: Dwelling construction

These findings confirm that users knowledge, skills and perspectives should be centralised not only during the design process but also during the construction phase, contributing to the work Cooke and Kothari (2001), Cooke (2001) and Melcher (2013). This suggests that landscape architects must reconceptualise how they 'know' about sites, expanding their existing use of participatory methods

The Impact of Behaviour and Analysis Methods on Spatial Use: Conclusions

This research finds that there are several behaviours informed by the socio-cultural and economic context that have the potential to present challenges during a participatory design process within Thai slums. Acts of 'saving face' and the pursuit of personal agendas for example mean that responses cannot always be taken at face value. In terms of 'saving face', participants might say what they think designers or other community members wish to hear, rather than voicing their true beliefs. In terms of personal agendas, it will be difficult for an outsider to interpret reasons for decisions made or answers given. Both issues can be mitigated however, through recognition of these types of characteristic interactions, gaining the opinions of as many community members as is feasible and through critical self-reflection on the process. This has the potential to reduce the exacerbation of inequities and increase the likelihood of interventions meeting the needs of users. This study therefore confirms the work of Puri (2004), Cooke and Kothari (2001), Hester (1987) and Melcher (2013) and supports calls made by UN Habitat (2012) for a participatory approach, however in a reflective and informed manner.

Within the context of the communities studied, however, and presumably all slum communities in Thailand, the culturally accepted systems of hierarchy and patron-client relationships are more problematic for achieving empowerment and equity, the stated goals of participatory processes. For, as evidenced, more socially powerful community members are likely to control community decision-making to further their own

personal agendas, whilst other community members are unlikely to challenge them. Again, as evidenced, this has the potential to exacerbate existing inequities and impact on spatial use and users, and therefore the success of an open space intervention, contributing to the work of Melcher (2013), Hestor, ? (cited in Hou and Rios, 2003), Puri (2004), Hou and Rios (2003) and Mosse (2001). It would be difficult for a community outsider (particularly a non Thai), who lacks knowledge of the internal political situation and socio-culturally accepted behaviours, to determine what influences responses during the participation process however. Therefore, it is proposed that to increase design integrity⁵ a landscape architect should also consult with intermediaries respected by community members who can work in an advisory capacity. These should be people who have experience of working on community development and knowledge of specific community dynamics and needs and the influences behind powerful stakeholders' decision-making. In the case of KT, these include NGOs such as Duang Prateep and the Human Development Foundation. Furthermore, these groups have existing relationships with the landowners and supporting companies from whom it is necessary to gain permission and funding for development. Whilst the issues discussed may be specific to the communities that landscape architects should consult with those who have experience of working with a particular slum community is proposed as a cross-cultural generalizable approach.

In terms of socio-economic and religious barriers to a participatory design process, this study reveals that the social, economic and physical conditions that slum dwellers experience may manifest in a lack of interest/ participation, unless an intervention addresses an immediate survival need, confirming the work of Yunos et al. (2015) and Hou and Rios (2003). Such attitudes are further compounded in the communities studied by the Buddhist teachings, which lead many to believe that living in the communities is their personal fate due to bad karma accumulated from a previous life. Whilst the religious context is specific to Thailand the

⁵ see 'definition of terms' for meaning.

socio-economic and physical conditions and consequential attitudes mirror those identified by Perlman (2010) in the favelas of Rio de Janeiro. Given these communalities it seem highly likely that this finding can be generalised beyond the KT communities, with wider global implications for participatory processes. In the Thai context at least, this again supports arguments made within this research in support of Beardsley and Werthmann (2008) suggestions for 'productive' open space interventions. There, survival needs could be met by enabling economic activities such as informal vending.

Finally, this study argues, on the basis of its findings, that conventional spatial analysis techniques are limited in the knowledge that they are able to access. Firstly, they are unable to access the meaning and significance of open spaces to users, which this thesis has established as being influential on the repeated use of a site and its functional and symbolic integration into a community. Secondly, traditional survey methods marginalise those who will potentially use the site, with findings evidencing that collaboration would enable residents' tacit knowledge to be utilised with the potential for multiple positive outcomes. This confirms the work of Cooke and Kothari (2001), Cooke (2001) and Melcher (2013) and supports UN Habitat (2012) calls to engage with local residents knowledge and skills in order to generate adequate knowledge regarding the specific problems within a settlement. Marginalising users meanwhile is likely to lead to a loss of place identity and feelings of 'outsiderness', leading to a lack of care for the environment (von Meiss, 1990; Crang, 1998). This is supported by Khun Nae (NL7) who said that inhabitants should be involved in intervention discussions, however changes should not be too big or users will not be familiar with places, suggesting they won't emotionally connect in the same way. Furthermore Khun Nae suggested meetings held should be brief, easy to understand and not too academic or people won't understand and won't accept a new intervention, confirming UN Habitat's (2012) calls for simple and practical approaches. Thirdly, standard spatial analysis techniques, as for participatory approaches, reveal little about the

socio- cultural, economic or religious processes that influence the multiple behavioural and attitudinal patterns identified. This contribute to the findings of Hou and Rios (2003), who likewise highlight such limitations of participatory processes, leading this thesis to support calls made by several authors (e.g. see Rishbeth et al., forthcoming; Deming and Swaffield, 2011; Swaffield, 1997; Meyer, 2002; Crawford, 2008a, b) for a relational approach to site analysis. As evidenced by this research, undertaking an ethnographic approach increases knowledge of the social complexities within a given community as well as community values and the processes influencing the formation of place attachments and meaning. This knowledge could be used to frame critical analysis of responses during community engagement, increasing the integrity of participatory engagement and the potential of intervening in a manner that meets user needs. Thus this thesis contributes to the body of work (including Kim 2015; Whyte, 1980 and Lynch, 1960) in highlighting the methodological potential of an ethnographic approach to spatial analysis for the discipline of landscape architecture. As is evidenced by this research, ignoring basic social and cultural realities has the potential to cause an intervention to fail. Whilst there are acknowledged drawbacks associated with ethnographic approaches, such as the time and cost implications, working with organisations who have knowledge of community history, politics and problems will help compensate for this.

7.03 Post Design Barriers to Successful Intervention

The Impacts of Behaviour and Management on Spatial Use

Previous chapters have established that the physical attributes of a site affect whether or not it will resonate with user needs, ultimately impacting on the success of an open space. This final section continues to build on these findings, exploring barriers to successful intervention upon design completion, and again querying why members of a given community accept invitations to use particular open spaces and not others. To do so, the

section is divided into three subsections that explore culturally accepted behaviours that impact on use and therefore an open space's success; unacceptable spatial uses that cause conflict and impact on use. These appear to stem from decision made at both the national⁶ and local level, however only those influenced by issues at the local scale will be discussed here; and finally, practices of management and maintenance that impact on use. Here, the sixth research objective is also addressed: 'To determine if landscape architects have a role in these contexts and what that role is'.

Again the case of the Community Lantern and the socio-cultural processes that exist across Khlong Toei are explored for comparative purposes.

Socio-Economic and Cultural Barriers to Successful Intervention

'Many of the realities about slum life are bound to disappoint idealists'
(Askew, 2002, p.147).

This section outlines the problems personal agendas present post completion. For, in addition to slum dwellers ignoring participation calls unless the project addressed an immediate need the NHA upgrading projects of the 1980s were not utilised in the ways officials had foreseen. Instead of inhabiting the new properties slum dwellers sold off occupation rights to Bangkokians with higher incomes (Askew, 2002): *'In this context slum households were not passive, and they exploited whatever opportunities emerged to translate resources to immediate change'* (Askew, 2002, p.147).

This exploitation of opportunities continues today, with many forms identified throughout the fieldwork. These ranged from observing people sifting through the wreckage of burnt out houses for scrap metal, presumably to sell, to the appropriation of open spaces for economic

⁶ At the 'national' scale, in CKBB, Khun Prapasee, described how there was a design for an open space however the community was divided between those who support CODI and those who don't: *'so it doesn't go well. Because they have to take some land from the people that doesn't build the house'* (BB27).

entrepreneurship, to both temporary and permanent appropriation of space (see Figure 7.10), as explored in previous chapters.



Figure 7.10: Temporary and more permanent appropriation of space along the main road, Hua Khong

Even the Community Lantern is utilised for storing construction materials when dwellings are being built in the Lock 1-2-3 community (CL9). Here, Khun Gan discusses the Community Lantern’s appropriation, again implying that open space interventions are likely to be appropriated. Her statement also draws attention to the possibility that appropriation may not be immediate, but as the community dynamic changes so might spatial use:

‘it’s because of the group of the people who take care of the community. Sometime it change many time, so it not continue... someone in the community maybe just think for themselves. Like he use some place for parking something so it’s not for the real community. This boy, they have to go to another place for exercise’ (CL10).

In addition to people appropriating the Community Lantern, residents have also opportunistically exploited the structure, with the fence that originally

bounded one end of the space damaged, removed and not replaced (CL2). As a result there is nothing to protect surrounding dwellings from football games (CL12). The football goal has also been broken, as have the basketball nets with, according to Nong Tin people taking the broken elements to sell (CL2). These findings further indicate that a newly established intervention may not be utilised as intended by the landscape architect, if they lack understanding of such socio-cultural processes. Instead, the evidences suggests that, within Thai slums at least, residents will opportunistically utilise new interventions in a manner that enhances their survival and access to resources and living space. Whilst this is evidently influenced by the socio-economic context, such actions are apparently also culturally accepted within the communities, as established previously. These findings confirm the work of Hou and Rios (2003) who highlight that the narrow focus of participatory practices limits the ability of a design to address broader social, cultural and political issues

Again, this supports claims made previously that landscape architects need to rethink what they understand by open space; developing sites that meet the specific community needs of enhancing survival instead. This also supports claims made for spaces to be designed to be flexible enough to allow for some level of appropriation, for it is apparent that this culturally accepted behaviour will occur regardless of the designer's intentions, in order that individuals can achieve the socially valued goals described. Appropriation may occur relatively quickly following design completion, or it may take time, dependant on the changing social dynamic of a community or changing needs that may or may not respond to wider social, economical or political processes. This conceivably means that open space interventions must not only be immediately adaptable but must be designed to allow for future uses, intended or otherwise. Thus, this research confirms Lucien Kroll's calls for interventions to be designed to be flexible enough to support future activities (Milgrom, 2008). This also suggests that longer-term involvement by a landscape architect is required to support the management of such spatial uses, confirming proposals

made by Dorgan (2008), UN Habitat (2012) and Kroll 1984 (cited in Milgrom, 2008). This will be explored further in the final section.

Spatial appropriation also appears to occur for reasons other than survival. As discussed, one of the most common exploitations of open spaces in KT observed in this study are householders gradually making their dwellings larger, appropriating open spaces, usually *sois*, for HBEs or doorsteps. Khun Sui (RK6), for example, stated she would rather have a bigger house than more exterior space. The Hua Khong *Gumagun's* wife, Khun Sonjai, described this attitude as 'selfishness' that in turn causes others to behave in the same way:

'it's the selfishness... It's a problem around here, when there's something like this because the committee of community they tell this house that do it wrong 'okay should not be like this' they started to say bad word on them. Also they say 'this house can do why not mine can do' (HK20).

This indicates that such privatisation of space, whilst not 'allowed' by community leaders, at least in Hua Khong, is desired, accepted and practiced by many community members for personal benefit and as such is culturally normal, *'it's uncontrollable because people keep.. they're not in their territory, they keep pushing their house outwards, on to the street. It's uncontrollable, that's why it's dangerous'* (Khun Poy, HK10). Khun Poy's comment supports this interpretation, indicating that such attitudes are entrenched, with actions not necessarily relating to a person's hierarchical position. That appropriation prevails despite the reduction in available space for communal benefit, and in addition to the hazards presented⁷, further indicates that it is culturally acceptable. This is supported by Franck and Stevens (2007 citing Bourdieu, 1977), who write that an

⁷ As Khun Poy describes above, such practice is dangerous for, increasing dwelling sizes decreases the space between them, meaning that fires spread faster. Narrowing *sois* meanwhile makes escape more difficult.

individual's behaviour is constrained by what they think is allowed, possible or appropriate depending on the social conventions.

For some, appropriation of open space in this manner may relate to economic need, with rooms subdivided and rented out (Jodie MacCartney, NGO2). However it is unlikely to be essential to survival for all to inhabit a larger dwelling, for economic status varies across slum households (Askew, 2002). Viewed through a second lens it is therefore instead conceivable that the appropriation of open spaces for personal benefit additionally relates to two further personality characteristics outlined by the NGO leader: that slum dwellers like to build personal influence and honour; and that they have extravagant tastes and compete in displaying possessions (Somchai, 1997 cited in Askew, 2002). Open spaces are possibly therefore also 'privatised' as a symbolic and physical display of monetary wealth and social status, or aspirations for such. As discussed in section 7.02, such actions are reflective of broader Thai cultural characteristics, which are focussed around accumulating material and symbolic capital (Askew, 2002). Again, this supports the assumption that behaviours are shaped and influenced by cultural norms. Ignoring such norms meanwhile, may mean interventions will fail, as described by the NGO leader (Askew, 2002). In terms of the Community Lantern, this may also explain why teenagers sometimes prevent younger children from playing there, as described by Khun Kaorn (CL9). For, exploration of interview data suggests that this is likely related to social hierarchies and power dynamics, with elders respected or feared by those younger than them purely on the grounds of age difference.

Antisocial Behaviours and Spatial Conflicts

In addition to the socio-culturally accepted compromises over spatial use, other less culturally accepted uses occur, resulting in conflict. These again present barriers to the successful integration of future interventions and will be discussed now, primarily focussing on the Community Lantern.

The Community Lantern was vandalised after several weeks of its construction, reaching its current state of disrepair within four to six months (CL2). By the time of the fieldwork the structure had been partially dismantled, the fence removed and football goal and basketball nets broken, with community members apparently not attempting to fix the situation. Khun Vow stated he had anticipated the occurrence of such antisocial behaviour and as a result had been opposed to the project from the beginning; *'before this project happen it have been many project before this... some kind of playground like a small football something for the children it happen the same, so it's broken'* (CL4). Khun Vow's comment indicates that antisocial behaviour is commonplace within the Lock 1-2-3 community and therefore does not necessarily relate to the design of the Community Lantern. Several other interviewees supported Khun Vow, describing how it is teenagers who are the source of antisocial behaviour, with attitudes and actions related to the characteristics and tendencies of community members rather than a reaction to, or consequence of the spatial design. For example, Khun Somal stated that antisocial behaviour results from teenagers having a, *'lack of social responsibility so they destroy [the Community Lantern]'* (CL3). Likewise, Khun Vow stated that he thought that damage to the Community Lantern is due to the children's behaviour; *'have many kind of children like good and bad'* (CL4). These views were similarly expressed by Khun Cher (CL6) and Khun Jana (CL7), who feel the problem lies with community members *'that don't care'* (CL7) rather than a poor design *'... the problem main is come from people'* (CL6). Such comments therefore imply that, whilst this thesis identifies the Lantern as physically deficient in meeting the needs of community members, it may still have been vandalised and mistreated even if the design had been better.

When asked what community improvements are required, both physically in terms of open space interventions and socially in terms of addressing issues like stealing and drug taking, the responses of five interviewees from the Hua Khong and Rom Klao communities further support this

interpretation: all responded by saying that that they felt interventions would not be successful or that existing ones are unsuccessful. In their opinion, this is either because community members do not care about themselves or their community (HK16), or because it is difficult to change people's behaviour (RK5, RK12):

'cannot help [those with drug addictions], can not do anything because the people they meet the same place, they talking about the same everything... they turn back to do the same... They just have idea, project, nice talk but they never change the people, her opinion' (Nong Ti, RK12).

Khun Num elaborated further:

'the teenagers don't care about their own life and due to the family that have no time to take care of them so after 12 or 13 they start to get in worse way... Some kids are good, but it's about fifty percent and another bad fifty. Some who are good in the evening come and play football and enjoy their life in a good way but another fifty bad part. She says she is happy that you come in and are interested in the chumchon.. but in the truth sometimes, the truth is hurt. The kids don't care about themselves... sometimes for her many good ideas came in but sometimes it's not practical, it's not make things better so she's afraid that sometimes it cost a lot of money, cost a lot of time or other things too. So if it doesn't really help anything she's afraid that it's a waste of time and a waste of money' (HK16).

These comments not only supports indications that the source of such behaviour is more complex than the spatial design but that such behaviours and attitudes can be found across at least two other KT communities. This suggests that a new intervention in any KT communities could also be subject to such treatment. Drawing on interview analysis such antisocial treatment of open spaces, lack of care for the community and the urban realm can again be interpreted as stemming from the *'dehumanisation of poverty'* (Perlman, 2010) and the conditions and

resultant inequalities faced daily. Again I draw on Amartya Sen's (1999) description of poverty as the deprivation of capacity; the denial of people's ability to pursue their own best interests, exemplified by the fact that many teenagers appear unable to break the cyclical pattern of behaviour to improve their own quality of life. That Perlman (2010) identified similar social conditions in the Favelas of Rio de Janeiro indicates that a similar reaction to open space interventions may also occur there. Similar patterns of behaviour also occur in deprived areas of the UK (Ward Thompson, 2012), implying that these findings can additionally be applied to this context.

The socio-economic conditions leading to the *'cycle of poverty'* (Barker, 2012) may result in some being unable to view open space interventions as opportunities to improve their living conditions, instead venting their boredom and frustrations on them post design. This is supported by Barker (2012), who identifies concurrent *'cycles of violence'*, which were personally observed at the Community Lantern, with users accepting degrading conditions despite the reduced usability. Nong Doe (CL12), who said that it felt okay to use the Community Lantern despite the damage caused and faeces present, evidences this. It can further be predicted, based on the responses already discussed and for the reasons outlined, that unless there is an effective *Gumagun*, as appears to be the case in Rom Klao, limited attempts will be made by community members to intervene or repair damage to interventions, resulting in them falling into further disrepair and further reducing usability. That community members are unlikely to intervene is evidenced by comments made by Khun Ay, who said he feels he can't tell teenagers to stop drinking in the RKS at night, despite them preventing surrounding householders from sleeping. This is potentially due to *'saving face'* or conflict avoidance as discussed previously, or due to fears of reprisals, as described here by Khun SK:

'at night time have young people they come to sit and talk... sometime the neighbour they come to complain them, 'please don't louder, quiet' or

something, but they very angry and they hit them. She said it's sometimes danger' (RKCS3).

Meanwhile, if an intervention becomes associated with negative meanings, for example with drug taking, as occurs in the Community Lantern, it is likely to be avoided by other community members due to the perceived threats to personal safety and security. This confirms the work of Carr et al., (1992), Jacobs (1961) and Ward Thompson (2012). In turn, findings from chapter 6.0, where the relationship between open spaces and community unity was explored, indicate that the physical degradation of an open space has the potential to degrade social relationships within a given community. That the 'cycle of poverty' is identified by Barker (2012) to exist for the most vulnerable across the twenty one Khlong Toei communities indicates that a new open space intervention in any given community there may be subject to the same treatment with similar social impacts.

Spatial Management and Maintenance

Such findings possibly partly explain why the sports park and RKS are more successful in meeting user needs in the face of these attitudes, apparently common to the KT communities. For, in contrast to the Community Lantern, the RKS and SP- which are both approximately twenty years old- continue to be relatively well-treated, with equipment and amenities largely intact. Another explanation for the post completion success of these open spaces that challenges antisocial behaviour and prevents the resultant degradation of interventions relates to spatial management and responsibility.

As described, the RKS is a well-used space within Rom Klao and is relatively well looked after by the community. The concreted surface, which is cracked in places, with water pooling in certain areas due to poor drainage, was generally kept clean, with a resident sweeping several times a day (at least during the observation period), collecting rubbish and disposing of dog faeces. At the time of observation the majority of

equipment was working although a swing was broken and remained unfixed during the research. The shrine, plants and spirit tree are well looked after, with Khun Teem (RKCS9) watering plants daily. As I have identified, this care for the RKS is likely due to the physical attributes of the space and its meaning to community members. However, it also appears that the management of the site by the *Gumagun* impacts on spatial use: whilst conducting research the *Gumagun* was observed daily, talking to residents, observing activities taking place, keeping teenagers in check and undertaking necessary remediation works. Likewise, the sports park is managed by the local khet (or BMA) who employ security guards to control how the SP is used, by whom and when. These were observed preventing undesirable behaviour such as damaging equipment. Cleaners were also seen daily in the space, sweeping up rubbish across the many sports pitches, roads and play area and watering the grassed lawns. All equipment (sports and play) is in good working order and surfaces are in in good condition. Furthermore, the multiple subspaces and prevention of activities, such as cooking, reduce clashes between spatial uses and potential accidents. The sports park is also locked at night from 8pm, likely explaining why noise is not an issue there in the evenings⁸.

In contrast, whilst admittedly far less time was spent conducting research at the Community Lantern, the Lock 1-2-3 *Gumagun* was never observed to be present, and management and maintenance of the site were not evident. Khun Vow meanwhile claimed that there is nobody internal or external to the community who takes care of the maintenance. Likewise, Khun Shor (CL5) stated that there is no-one in the community who listens to or resolves the problems caused by the space, such as the sewage smell. Khun Somal, however, contradicts Khun Vow's statements, saying that she tries to keep the Community Lantern clean:

⁸ Although this is acknowledged to bring its own problems including teenagers hiding there at night to take drugs (RKCS3) and with reports of guards being beaten up for preventing people entering at night (HK20).

'there's no people take responsibility here... at night it's really hard. But the police or the authority doesn't care about what happen here so it's not only her but everyone have to be responsibility, but just only her is responsible' (CL3).

Khun Kaorn (CL9) meanwhile claimed her husband and sometimes neighbours swept or cleaned the space. Whichever the reality, it is apparent that the Community Lantern lacks regular maintenance and management, affecting cleanliness and control of users behaviour. This presents an additional post design barrier, for it enables the antisocial behaviour described to continue unchallenged, in turn resulting in safety and security issues and discouraging other social groups from using the space. Whilst it is difficult to identify how much influence the *Gumagun's* presence would have, it is presumed that as they are generally respected due to their position, their presence has a positive impact. Therefore, their lack of presence likely impacts on behaviour as well as the safety and in turn usability of a site. Nong Tin (CL2) for example described how noone turns the lighting on for the Lantern meaning it can't be used in the evening:

'the foreigner should turn on the light around 6 to 9 at the evening but noone will turn on the light for the children... no one turn on the light for him so the children say that someone who stolen the light and then go to the flea market or something' (CL2).

Assessments made are supported by Khun Num (HK16) who indicated that the personal traits and relationships of a community leader or community committee impact on how well a community functions, which in turn has been evidenced to impact on spatial use. For example, Khun Num stated that she felt although everything in Hua Khong had improved 'somehow' since she was younger, in some senses the community was better in the past. She attributed this deterioration not only to the increase in drug use over time, but also to the fact that *'the officer and also the community member... is now lesser quality'* (HK16). In addition, the responses of the

designer to such issues can also be seen to have impact. For example, at the Community Lantern, despite Nong Tin (CL2) claiming that the architects returned within a few weeks and witnessed the state of disrepair, they did attempt to maintain the space⁹, with the Community Lantern continuing to be vandalised. As Khun Dee says,

'if somebody very want to help, or can help, please help by continue, you understand? Maybe just come to help but leave them... not continue help... Just only come maybe one time, they not do by continue... Leave them and make them very upset' (RK12).

This study therefore confirms the work of UN Habitat (2012) who claim that unless long-term post implementation maintenance is included in programme design it can lead to interventions becoming deteriorated with users feeling abandoned. This research likewise supports suggestions by UN Habitat (2012) that a landscape architect, in participation with community members, should undertake such a role. These findings additionally contribute to work by von Meiss (1990) and Crang (1998) who claim that being marginalised from such processes means that users are less likely to establish a sense of belonging and are less likely to care for their environment. .

In addition to maintenance, festivities and community events are also typically organised by community committees headed by the *Gumagun*. Whilst these and other ceremonies are held in the RKS for the Rom Klao community, which is well used by a diversity of users, none are held in the Community Lantern for the Lock 1-2-3 community (CL5), although the architects did include a stage for community meetings (TYIN Tegnestue Architects, no date). This lack of programming means that opportunities and experiences are not provided for different community members, explaining in part the lack of social diversity. These findings contribute to

⁹ To remind the reader, by this point the fence had been removed however despite Nong Tin (CL2), Nong Doe (CL12) and Khun Gan (CL10) feeling that a replacement fence was necessary to improve the space and protect surrounding buildings and *soi* from ball games, a new fence was not erected.

those of Carr et al. (1992), Carmona et al. (2010), Franck and Stevens, (2007) and Cullen (1971). Community events have also been identified in the previous discussion chapter as contributing to community unity, with open spaces where these occur developing meaning as a result, contributing to place attachment and identity. It is concluded therefore, that the lack of programming by the *Gumagun* has also contributed to the Community Lantern becoming associated with negative meaning, in turn impacting on how it is treated and reducing invitations to certain community members, particularly women, to utilise the space. This confirms the UN Habitat (2012) suggestions that unless long term participatory management and programming of an open space intervention are considered, the outcomes likely include feelings of desperation and despair. This study further suggests that this has the possibility of contributing to weakened solidarity within communities. Again this study therefore supports UN Habitat's (2012) calls for designers to have long-term post involvement in open space programming, in participation with community members, a role which is not typically assumed by landscape architects.

The Impacts of Behaviour and Management on Spatial Use: Conclusions

In terms of socio-economic and cultural barriers to successful intervention post implementation, this research finds that culturally accepted spatial appropriation within Thai informal settlements is highly likely. This suggests that a landscape architect must reconceive notions of acceptable degrees of 'publicness' displayed by an open space, at least for this particular cultural context. These findings support suggestions made previously, that in order to effectively meet user needs and expectations an intervention should be designed to be flexible, adaptable and robust enough to support and allow a certain level of appropriation for potentially unintended, but socially valued uses. At the same time, an open space must still be able to meet other needs for a diverse group of users in order to

continually exist as a successful open space. Examples of where the two appear to coexist most effectively are the sports park and the RKS: in both appropriation largely occurs to the edges, impacting minimally on a range of necessary, optional and social spatial uses by a wide range of user groups. Although the sports park is admittedly far larger than other open spaces and therefore it could be argued that it is able to support both intended and unintended (but predictable) uses as a result, the fact that the unintended uses which impact on both physical and symbolic access do not dominate relates, in part, to the flexibility of the space, as demonstrated by the much smaller RKS.

The other reason that these open spaces are able to accommodate a certain level of appropriation also apparently relates to how they are regulated and maintained in a largely sufficient condition for use. However, this research finds that a landscape architect cannot assume a *Gumagun*, community committee or any given community will manage a newly established open space intervention so that it continues to meet the needs of a range of community members and is largely symbolically accessible. Additionally, as leaders with differing agendas change, the interest in maintaining an open space has the potential to also change, as has the manner in which it is used and the level at which it is appropriated, depending on the whims, decisions and actions or inactions of powerful stakeholders. Thus, this thesis proposes that not only should a landscape architect collaborate with users during the design phase, they should also collaborate post intervention with longer term spatial management, maintenance and programming. In doing so, this study supports like proposals made by UN Habitat (2012), Dorgan (2008) and Kroll 1984 (cited in Milgrom, 2008). That appropriation may occur immediately or in the indeterminate future implies that the length of involvement is also potentially indeterminate.

In terms of antisocial behaviour, the research findings indicate that the occurrence of vandalism does not necessarily relate to an ill-conceived design that fails to serve community needs. Furthermore, that there is the

potential for far reaching social consequences that impact beyond the site's boundaries. Instead, such attitudes are likely also informed by the multigenerational cycle of poverty. Nevertheless, anticipating such destructive behaviours, and if possible, understanding their causes, has the potential to increase the success of an intervention post implementation. This proposal is illustrated again by the deterioration of the Community Lantern: in addition to being vandalised, the second platform that originally formed part of the tiered platform structure was torn down by residents (CL7), allegedly due to children and teenagers taking drugs (CL5, CL7) and alcohol and having sex (CL7). In Khun Shor's (CL5) opinion, the Community Lantern being used in this manner was because others couldn't see what was happening, directly relating to the spatial design. Likewise, as a result of the design, seating created opposite the tiered structure act as steps, enabling children to climb on to adjacent neighbouring rooftops, which is annoying for those who live and work there. Furthermore, people urinate in the space however due to the design there is nowhere for the water to drain to, causing the site to smell, especially during the hot season (CL5). Nong Maw (CL1) and Khun Cher (CL6) also described how children can't play football there due to the dog faeces which directly relates to the lack of fencing. Consequently, Khun Cher said he thought that the *'open space is not the proper for kids to come and play because it's like open like this.'* (CL6). Khun Somal (CL3) stated that as a result the seating area located opposite was used more often because *'over that space it's not clean and not many seating area for people so this '* (CL3). Had the Community Lantern been designed to meet more user needs, other community members may also have been more likely to prevent vandalism. Thus, this study evidences that, whilst antisocial behaviours likely stems from the socio-economic context it is apparent that they are also enabled through the spatial design. By predicting the likelihood of certain behaviours, through prior knowledge of community behaviours, a design can be modified accordingly. For example, simply improving robustness and visibility would have an impact. Nong Doe, supports this, saying that whilst he thinks the design is good: *'the kids when he come here to play they*

destroy the thing and... maybe the football messy. So just like activity that people here that broke the stuff' (CL12). Thus this study thus contributes to the work of Hou and Rios (2003) who highlight that inability of participatory practices to address broader social, cultural and political issues, leading to the irrelevance of outcomes. Likewise, standard methods of analysis utilised by landscape architects are ineffective in accessing such knowledge.

These descriptions of antisocial behaviour are partially based on findings accessed through the use of ethnographic techniques, again leading this study to argue for the use of such methods by landscape architects to support and confirm conventional spatial analysis techniques and participatory practices. Here such methods enable the exploration of socio-economic and cultural processes occurring in order that post completion predictions can be made and acknowledged within the design and post design processes, increasing the possibility of successful intervention:

'first you have to understand the nature of the children inside is quite aggressive... everyone have a good attitude to do [the Community Lantern] but if the children don't realise or see the value of that space, so it's useless ... first we have to understand the nature of the children is different from the outside... If the community give the good thing but the family don't get instruct or anything good for the children so it will happen the same' (Khun Shor, CL5).

Supporting this, NGO Rod Sheard, stated: *if you try to control it [spatial use] without putting thought into what actually the communal dynamics are it actually breaks it [the dynamics] apart'* (NGO1). Again, these findings contribute to arguments made by Rishbeth et al (forthcoming), Kim (2015) and Tornaghi and Knierbein (2014 cited in Mady, 2015), in support of relational perspectives, to 'know' about public space. It is acknowledged of course that ethnographic approaches come with their own limitations including time constraints and cost implications. These

could partly be overcome through collaboration with NGOs and others who have insight into a community, as suggested previously. This research does not propose exclusively using ethnographic techniques, but instead supports arguments made by Crawford (2008a) and Sandercock (2003), that ways of knowing should be multiple and sensitive to the context. Ethnographic techniques, for example, have been shown by this study to produce knowledge, which can support and confirm findings from the other methods discussed and enhance reflection of them. Additionally, when armed with this knowledge this study proposes it is possible to recognise potential issues and outcomes of design suggestions.

Whilst the issues discussed are specific to the communities studied, that analytical approaches should be multifarious in order to deal with the scale and complexity of the problems associated with informal settlements is generalizable, confirming proposals made by UN Habitat (2012) and Crawford (2008a,b). In addition, this chapter has contributed to the limited knowledge that exists on the barriers to open space interventions in Thai slums. This study warns however, that simply attempting to improve the physical environment is not an adequate solution to improving the social ills present within communities or the quality of life for residents. Furthermore, many of the socio-cultural problems identified are outside the realms of the skills, experience and scope of work of a landscape architect. If the physical environment is to be improved, this research suggests that this should occur alongside other strategies focussed on inhabitants wellbeing, with landscape architectural interventions potentially part of wider social programs, supporting calls made by UN Habitat (2012). At the same time, this is likely to increase the chances of successful integration.

8.0 Conclusions

Introduction

This concluding chapter opens by summarising the research findings in response to the research aims and six objectives. Following this, empirical, theoretical and methodological contributions to knowledge are discussed and comparisons drawn with the existing academic literature. The final section, meanwhile concludes by suggesting future directions for research.

8.01 Summary of Findings

As laid out above, this first section summarises the findings in response to the research aims and objectives.

The Existence of Open Spaces

This study has established that open spaces do exist, meaning all exterior space and not including interior dwelling space. These findings meet the first part of research objective one: to determine whether open spaces exist.

Eighteen open space types have been identified, of these *sois* are the most abundant across all of the communities studied with *sunams*, house and business extensions (HBEs), motorbike parking spaces, gardens, doorsteps, tables and benches also existing in all communities. Play areas exist in the Khlong Toei communities (Hua Khong and Rom Klao), Chai Khlong Bang Bua and Pom Mahakan. A *khlong* lies peripheral to both Bang Bua communities and Pom Mahakan. Platforms exist in Chai Khlong Bang Bua and Pom Mahakan. Sports pitches are located in Rom Klao and Chai Khlong Bang Bua. Empty house plots (EHPs) and left over space (LOS) can be found in the Khlong Toei communities and Pom Mahakan, Only in the Khlong Toei communities do a sports park, *nang lerns*, car parking spaces, roads and a train track exist, with a school yard also found in Rom Klao. These findings meet the second part of research objective one: what types of open space exist.

How Open Spaces Come into Being

This study has established that different actors produce open spaces for varying purposes through five different modes:

1. Planned spaces created by private actors (construction is not aimed at meeting community needs), include the main road and train track (KT).
2. Planned 'public' spaces are planned and created by public actors (construction is aimed at meeting community needs), such as the local government or *khet*.
3. Participatory developed 'public' spaces are planned and created through community participation (construction is aimed at meeting community needs). This process typically involves residents, the community committee, the *Gumagun* and public actors such as the *khet*, or internal organisations such as the Duang Prateep Foundation.
4. Self-created open spaces are produced through community and group decision-making by both public and private actors (construction is typically aimed at meeting a small group of community members needs). Collective decisions are made both formally at community meetings and informally and within smaller social networks. In both instances, authorisation is usually sought from the community or zone leader or community committee. Production is self-directed by community members and is unplanned in the sense that decisions aren't dictated by a wider masterplan but developed in response to immediate needs and aspirations.
5. Appropriated 'public' spaces involve the claiming of existing spaces for a particular use or uses by small groups and individual community members (construction is typically aimed at meeting a small group of community members needs). Again, this is without deliberative planning and often without consulting other community members or asking permission from the *Gumagun*.

These findings address the third section of research objective one: how open spaces come into being.

Use of Open Spaces

Uses can be categorised into thirteen activity types. The most commonly occurring activities identified in different spatial types across the communities are, in order of frequency of occurrence: recreational activities, socialising, relaxation and domestic reproductive activities.

Approximately half of open spaces across the communities meanwhile support the following uses: Storage (including household items, motorbikes and food carts), productive economic enterprises, car or motorbike parking, pedestrian or vehicular traffic, and the keeping of animals.

These findings address the first part of research objective two: To determine how open spaces are used.

Influences on Spatial Use

This study finds that some activities occur only occasionally whilst others are daily events; furthermore, not all activity types occur in each type of space. Additionally, whilst certain examples of an open space type support a particular activity, other spaces of the same type within and across the communities do not. These findings respond to the second part of research objective two: influences on spatial use (and therefore spatial success. Here success is defined as: an open space enabling a variety of activities to be performed by users. In terms of open spaces that were developed for use by the community as a whole, successful spaces are those that support a variety of uses by diverse group of users of all ages and abilities. Whilst blurring of public and private areas is acceptable, open spaces intended for use by the wider community should be largely symbolically accessible through management).

Various factors have been identified by this study as impacting on uses within and between the communities. These have been classified into the following seven clusters, each of which will be expanded on in turn:

1. Dimensions of control
2. Dimensions of temporality
3. Dimensions of spatial physicality
4. Dimensions of basic need
5. Dimensions of social interaction
6. Dimensions of well-being
7. Dimensions of identity

Dimensions of Control

Exploration of the processes and reasons for a space's creation (*agency* and *interest*) (Benn and Gaus, 1983, cited in Madanipour, 2003, 2010a), spatial management, ownership and use were all found to impact on the public or private nature of an open space, or their *symbolic* accessibility (Benn and Gaus, 1983, cited in Madanipour, 2003, 2010a). In turn this influences the density and types of uses and the diversity of users a space receives. In general, planned open spaces created by community outsiders (private actors- not acting for the benefit of the community) such as the main road, planned 'public' spaces (public actors- acting on behalf of the community) such as the sports park, and open spaces created in participation with community members (public actors) such as *sunams*, display the greatest 'looseness' in terms of the variety of activities and diversity of user groups they support, and are argued to be more public in nature.

Spaces that are developed for community members and managed by public actors on a daily basis, such as the sports park and the Rom Klao *sunam* (RKS), also displayed higher levels of 'publicness' and symbolic accessibility, indicating that *interest* and management significantly impact on the use and diversity of users an open space receives. In terms of management, this relates to preventing or limiting appropriation, or the privatisation, of open spaces, to minimise impact on the intended function/s of an open space for the wider community.

Self-created and appropriated spaces (public/private actors- with examples identified of production for both community and individual use) reveal varying levels of ‘publicness’ across and between them, with public/private status depending on the creator’s/appropriators decision or behaviour, which in turn impacts on use and users. The majority however, displayed *symbolic* inaccessibility with use limited to specific user groups. Despite this, all self created and appropriated spaces/structures have been revealed by this thesis’ study to support a variety of social and necessary activities with these open spaces therefore playing significant functional and symbolic roles.

Dimensions of Temporality

Use and users of almost all open spaces change throughout the times that a space is physically accessible. This study has found that the school calendar and working patterns, seasons and climate all impact on how, when and what open spaces are used for and who the spatial users are as well as influencing the physical amenities existing within an open space.

Dimensions of Spatial Physicality

This next section continues to discuss influences on use, here in relation to spatial physicality, whilst also addressing the implications this has for landscape architectural design approaches:

Physical accessibility:

Findings imply that to increase the types and density of uses performed within an open space by a diversity of users and therefore it’s success, an intervention should be well connected to the movement network, should be located centrality, should be porous and should be physically accessible to all abilities and ages. This study thus proposes claims by Whyte, (1980); Carr et al. (1992); Carmona et al. (2010); Franck and Stevens, (2007) that the relationship of a public space in the global north to adjacent streets is critical to success, is also applicable to open spaces of informal settlements, at least in Bangkok. As such, this research contributes to work by Hernández-García (2009) and Schwab (2015) located in Latin America.

Within the communities, physical accessibility is not only influenced by pedestrian access but also by motorcycle access. This finding lies in contrast to the work of Madanipour (2003); PPS, (no date); Carmona et al., (2010) and Gehl, (2010) who claim that pedestrian access is the main criterion for the publicness of a site. This study therefore finds that to increase the accessibility of a space and the quality of public life within it, connecting *sois* should be wide enough to enable motorcycle and foodcart movement and should be unobstructed and shaded, building on work by Schwab (2015). In addition, this study finds that well connected spaces are more likely to attract vendors, further increasing use, supporting UN Habitat (2012) claim that open spaces attract and connect community members to services, shops and community facilities. These findings contribute to those of Hernández-García (2009) and Schwab (2015) in the informal settlements of Latin America, and Whyte (1980) in the plazas of New York.

Visual accessibility:

Findings reveal that to increase use and therefore success, open spaces should enable views in and out and feature few visual obstructions within them, allowing uninterrupted views. For, open spaces with these qualities invite people into them, as potential users can see they are safe and identify activities occurring as well as other users. Open spaces should also be overlooked by dwellings or shops at both ground and first floor level as those that are, were found to support increased frequency and density of use and diversity and density of users. Here, carers are able to supervise children playing whilst performing activities indoors, with the dynamics of activities occurring in adjacent interiors enhances the dynamic of the open spaces and increasing the number of social interactions. The location of an open space in relation to dwellings or active frontages is additionally significant in reducing antisocial behaviour and increasing perceptions of safety. This study therefore proposes that claims by the PPS (no date); Carmona et al., (2010); Carr et al., (1992), Madanipour (2003) and Jacobs (1961), that clear visibility and the surveillance provided by active

frontages influences spatial users and uses occurring in public spaces in the global north is likewise applicable to open spaces of informal settlements, at least in Bangkok. In this context however, visual accessibility often relates to the need to supervise children whilst also performing necessary domestic activities.

Comfort and Convenience:

This study finds that environmental factors, particularly relief or access to the sun and rain and access to the breeze are influential on physical and psychological comfort. The presence of shade creating amenities, such as tree or canopies, is therefore key to the success of an open space. Views, along with the flexibility in use and degrees of engagement offered by seating have also been found by this study, to be influential on physical, social and psychological comfort. Seating should afford clear sightlines to activities occurring both inside and outside the space, for the opportunity to observe activities' occurring is a desirable spatial attribute. Thus this study suggests that claims by Whyte (1980), Jacobs (1961), Carmona et al (2010) and the PPS (no date), that the success of a public space in the global north is influenced by comfort likewise applies to open spaces in informal settlements, at least in Bangkok. Additionally, this study establishes that distance to travel also impacts on physical and psychological comfort and therefore the diversity of users and types of uses an open space receives. Since the need to observe dwellings is a factor in people electing to use a particular open space, an aspect not discussed by these authors in relation to public spaces.

Layouts and amenities:

This study proposes that to support a wide variety of uses and users, an open space must be legible, with the function/s signified through the material choices, available amenities and the edge design. Findings also indicate that open spaces with a greater variety of subspaces or supporting infrastructure further increase legibility, the choices available and the opportunities for interaction and incidences of activities. This study

therefore proposes that claims by Carr et al., (1992); Carmona et al. (2010); Madanipour (2010), the PPS (no date) and (Gehl 2010), that increased legibility, indicated through the physical amenities, increases the potential of a public space to attract users by 'inviting' them to appropriate it, can similarly be applied to open spaces of informal settlements, at least in Bangkok. In turn, this reduces any one user group dominating and decreasing symbolic access for this has been found to substantially impact on the ability of different people to perform activities. This confirms earlier work by Franck and Stevens (2007). The subdivision of larger spaces additionally reduces clashes between activities; with safe play a particular priority due to hazards in many open spaces, including the cooking of food.

Influences on Use and the Meaning and Significance of Open Spaces

The following section continues to discuss influences on use, whilst also discussing how, through their roles and use, open spaces develop meaning and significance, fostering place attachments. This addresses the third research objective. Again, the implications for landscape architectural design approaches are also considered.

The Role of Open Spaces in Meeting Basic Needs

This study found open spaces support basic needs, making up for dwelling deficiencies, economic needs and safety and security. Basic needs can be attributed to the socio-economic context and poverty experienced, which enforce the need for particular activities to be performed in open spaces.

Dwelling Deficiencies:

Dwellings tend to be small and too structurally inadequate to bear the weight of furniture. Many are also in a poor state of repair, created from flammable materials, and interiors are hot during the day, all of which impact on the type and occurrence of activities that can be performed indoors. Consequently, out of necessity to maximize a highly compromised spatial context, women largely perform necessary reproductive activities in

open spaces. In meeting the basic needs of daily living, this study proposes women in particular will value certain open spaces and form attachments to them relating to place dependence and repeated use, contributing to the work of Stokols & Shumaker (1981 cited in Scannell and Gifford, 2010). This implies that open space interventions must be designed to support the performance of reproductive activities.

Economic Need:

Due to multiple barriers including: stigmatisation, a lack of qualifications, and the cost and time required to travel to workplaces external to the community, many residents of informal settlements experience a lack of gainful employment. Consequently, economic entrepreneurship is essential for many for survival, with informal productive enterprises observed within many open spaces across all communities. Again, it is predominantly women that perform these necessary activities, therefore it is concluded that in meeting basic survival goals, this user group in particular will value open spaces and will form place-based attachments through repeated use due to the physical affordances. These findings are informed by and contribute to the work of Scannell and Gifford (2010). This implies that to increase the successful integration of an intervention, the performance of economic activities should be accounted for in an open space design.

Safety and Security:

Observation for fire and theft are important necessary activities within the communities studied. Through performing these activities to meet survival needs, positive emotional responses, a function of place attachments, are engendered. Through enabling these goals to be met it is also concluded that open spaces afford restorative, mental and physical health and well being benefits, the importance of which is again shaped by the socio-economic context. However, as open spaces can also be the source of danger, this study proposes open spaces have complex sets of meanings. These findings are informed by and contribute to the work of Scannell and

Gifford (2010), and again imply that open space interventions should afford visually accessibility.

The Role of Open Spaces in Fostering Social Interactions

This study has found that across all communities', the potential for social interactions significantly influences use and the formation of meaningful attachments with open spaces, again related to the socio-economic context and daily struggles associated with the poverty experienced. This provides a much needed counter point to the social isolation of remaining inside with three main benefits identified: networks of support, community unity and improved physical and mental health (this latter benefit is discussed in relation to the first two benefits identified).

Networks of support:

Open spaces play a vital role in enabling community members to communicate with one another, increasing the potential of both physically and psychologically supporting one another, which contributes to improved mental and physical health, bolsters self esteem as well as individual and community stability and increases senses of belonging. At the same time feelings of stress are decreased and incidences of antisocial behaviour are reduced. Through their pursuit of these activities positive emotions are engendered, increasing the value and significance of an open space, with socially and place based attachments formed. These findings contribute to the work of Scannell and Gifford (2010), Korpela (1989 cited in Scannell and Gifford, 2010), Ward Thompson (2012), Carr et al., (1992) and Evans and Cohen (1987).

Community unity:

Increasingly unified communities are also able to mobilise themselves during emergencies such as the threat of eviction, disease or fire. The achieving of these collective objectives has been identified by this study as resulting in strong emotional attachments being formed with particular open spaces that come to symbolise struggles faced or positive changes that are made to the community. This again contributes to group identity

and reinforces feelings of belonging, with these open spaces becoming meaningful to users, fostering place attachments. These findings are both guided by and contribute to the work of Scannell and Gifford (2010) and build on the work of Hernandez Bonilla (2001). These findings imply that social activities are pivotal to the success of an open space and opportunities for these to occur should be afforded through the physical design of an intervention.

The Restorative Role of Open Spaces

Certain open spaces play important restorative roles, enabling individuals to rest, destress and mentally 'escape'. In turn, this engenders positive emotional states; a reduction in stress related feelings, improved mental and physical well being and restored directed attention, with meaningful connections formed with the open spaces that provide restorative experiences. These findings contribute to Ulrich's (1983) model of restoration from stress. This study has found that shade, fresh air and access to a breeze, views, and trees and plants are aspects conducive to creating micro-restorative environments. Providing users with the opportunity to 'get away', soft fascination, a sense of extent and compatibility, here relating to a sense of security and comfort. These findings contribute to the work of Kaplan (1995). In terms of plants for some, connections to gardens or plants are shaped by their memories of their rural backgrounds. Likewise, certain open spaces, plants and trees are important because the communities are their home or they have personal attachments due to familiarity. This indicates that certain spaces; plants and trees assist in feelings of belonging and rootedness within the communities, determined by this study to resonate due to the constant changes experienced, fostering place attachments. These findings add to the body of work by Rishbeth (2014) and Carr et al., (1992). For others, plants and trees evoke childhood memories, linking people to their childhoods and past lives, facilitating the formation of individual place attachments. These findings contribute to research by Jorgensen et al., (2007) and Jorgensen and Anthopoulou (2003).

Plants additionally make the physical environment feel fresher, and look more natural and aesthetically pleasing, which along with the process of growing plants, improves mental health, restores attention, promotes positive emotional states and contributes to a sense of self, again leading to the development of place attachments. These findings contribute to the research of Korpeal (1989 cited in Scannell and Gifford, 2010); Ulrich et al. (1991); Groenewegen et al. (2006); van den Berg, (2012); Kaplan (1995) and Evans and Cohen (1987) among others, who propose that being in or viewing environments that include natural elements, promotes emotional, mental and physiological benefits and well being as well as directed attention restoration. In addition, this study confirms the work of Hidalgo et al. (2006) who suggests that certain urban environments have the potential for restoration. Thus, this study proposes that open space interventions should feature plants, uninterrupted views and shade, with community members likely to repeatedly use a space with these affordances due to the micro-restorative environment provided. Again, the significance of these amenities relates to the socio-economic conditions faced as well as the climatic conditions and environmental stressors associated with living in the communities.

The Role of Open Spaces in Facilitating Identity

Across all communities, this study has identified that open spaces contribute to individual and group identity through three main processes: spiritual and religious expression; cultural identity; and belonging. The significance of open spaces in meetings these needs relates to the socio-cultural context as well as religious and spiritual beliefs. This implies that larger open space interventions should be designed to support community meetings, gatherings and religious and cultural activities.

Spiritual and religious expression, cultural identity and belonging:

Through the physical structure and available amenities, open spaces support the performance of religiously, spiritually and culturally important activities. Beliefs, superstitions and traditions are also symbolised by particular elements found in open spaces, including lucky plants and spirit

houses, or the open spaces themselves, leading to these becoming personally important to individuals. In performing traditional or religious activities in open spaces, and/or through the symbolism of particular elements/ open spaces, individuals become connected to other community members, their wider religion or culture and to their history, contributing to individual and group identity and self continuity. Dependant on the activity, this is likely to increase the value and significance of an open space, fostering socially and place-based attachments formed. These findings contribute to the body of work by Carr et al. (1992), Scannell and Gifford (2010), Hernández-García (2009; 2013), Hernandez Bonilla (2001) and Low (1992).

Likewise, this study identifies that the performance of reproductive, productive and social activities in open spaces replicates traditional patterns of use in exterior space. However, this is in a manner that responds to the limited and particular arrangements of the urban realm. Through their customs, people, particularly women, preserve and link to traditional domestic, economic and social culture and practices, as well as other community members. This again contributes to self -continuity and feelings of belonging, leading to certain open spaces becoming valued and the formation of place based and social attachments. Thus, this study argues that self-continuity is mutually constructive with the spatial and material realities in shaping open space use and in the forming of place attachments.

This study of the dimensions that influence spatial uses (control, temporal and spatial physicality and meaning) challenges debates surrounding the use of open spaces and develops the literature in existence, which is presently limited to the Mexican and Colombian contexts. Increasing knowledge of spatial practices and user needs increases the likelihood of workable solutions and responses being implemented by landscape architects considering a role in these contexts.

Barriers to Landscape Architectural Design Intervention

This study has established that multiple pre design; design stage and post design implementation barriers to landscape architectural design approaches exist within the communities studied, addressing the fourth research objective. The implications of these findings will be discussed in relation to the potential role of landscape architects and the contributions to knowledge.

Pre Design Barriers

These include constraints relating to the urban form, socio-cultural attitudes and the landowner.

Within the communities studied, there is a lack of available space, with the creation of dwellings of paramount importance for the majority. This indicates that large open space interventions are not feasible within existing communities. Furthermore, the physical constraints mean that not all spatial or physical attributes identified by this study, as being important for the successful integration of an open space may be achievable.

Economic development is generally prioritised over other open space benefits, reflecting socio-cultural and political attitudes found in the wider Bangkok city. The specific conditions of poverty are also likely to be influential, with basic economic survival a priority for many, with productive activities largely performed in open spaces. These findings suggest that community members will value existing open spaces for the economic opportunities they present and may not support the creation of open spaces for other activities.

Landowners meanwhile present both threats and opportunities to open space development dependent on their individual approach. For example, in Khlong Toei and Pom Mahakan open space development and use is dependent on the permission of the landowner who enforces particular

rules and regulations. Residents largely adhere to these for fear of reprisals related to the insecurity of tenure faced, as both landowners wish to relocate the communities from their land. In contrast, in Bang Bua the landowner cooperated with CODI and allowed the communities to remain on their land and upgrade their communities. These findings add to research by Askew (2002) that landowners are influential figures in slum upgrading. This research therefore supports CODIs approach in securing tenure security where possible, for residents are more likely to wish to invest financially and in terms of time in open space interventions and their living environments once their legal position is confirmed (Viratkapan and Perera, 2006; Yap and De Wandeler, 2010; Usavagovitwong and Posriprasert, 2006).

Design Stage Barriers

Socio-cultural barriers to successful intervention - see 'participation'.

Socio-economic and religious barriers to successful intervention - see 'participation'.

Post Design Barriers

This study has shown that open space interventions may not be utilised in the manner intended by the designer, with users instead opportunistically exploiting an intervention for personal benefit. This is largely understood to relate to residents needing to meet basic survival needs and/or access to resources and living space. This is also a symbolic and physical display of monetary wealth and social status, or aspirations for such. These findings confirm previous research conducted by Askew (2002). Such actions are also apparently culturally accepted, meaning that, despite the potential for conflict with other desired activities, other community members are unlikely to protest.

Antisocial behaviours and spatial conflicts:

In the Khlong Toei communities' antisocial behaviour is apparently commonplace with attitudes and the consequential vandalism not necessarily a reaction to, or consequence of the spatial design. Such

attitudes can again be traced to the socio-economic context and the dehumanising effects of poverty, with many unable to break out of cyclical patterns of behaviour. Consequently, some residents may be unable to view open space interventions as opportunities to improve their living conditions, instead venting their boredom and frustrations upon them. These findings contribute to work by Perlman (2010) and Ward Thompson (2012). This implies such responses to an intervention will also occur in Rio de Janeiro and England. Without an effective *Gumagun*, limited attempts are likely to be made by community members to intervene, or repair damages, resulting in interventions falling into further disrepair, further reducing usability. If an intervention becomes associated with negative meanings, meanwhile, it likely to be avoided by other community members due to perceived threats to personal safety and security. As open spaces have been revealed to facilitate social interactions and community unity, these findings indicate that the physical degradation of an open space has the potential to degrade social relationships within a given community and the capacity for individuals to support one another.

Spatial Management and Maintenance:

Managed open spaces where figures of authority are more visible and where site maintenance occurs regularly have been found by this study to meet user needs more effectively. In open spaces that are not managed the occurrence of antisocial behaviour in the form of vandalism, rubbish dumping and spatial appropriation is increased, along with safety and security issues, decreasing *symbolic* access.

Open spaces with programmed community events by the community committee or *Gumagun* are also identified as being more successful. Findings indicate that open spaces where such activities do not occur are less likely to become associated with positive meaning, in turn impacting on how the site is treated as well as reducing invitations to other community members to utilise the space. Outcomes include decreasing individuals personal feelings of self worth, with the possibility of this contributing to weakened community solidarity.

A Review of the Design Process for Analysing and Developing Open Spaces

Addressing research objective five, this study has reviewed spatial analysis techniques and participatory practices typically undertaken by landscape architects. Findings suggest that the design process for analysing and developing open spaces needs to be reconsidered for the informal settlement context as discussed below.

Survey Analysis Design Methods

The traditional methods typically used by landscape architects to understand the spatial and material qualities of places prior to design development have been revealed by this study to be limited in scope and value in informal settlement contexts. Firstly, they are unsuitable for exploring the meaning held in sites that this study has established to influence repeated use of an open space. Secondly, this study has also revealed that the process of surveying requires closer collaboration with local residents who have tacit knowledge of, and solutions to, specific issues. Landscape architects do not typically conduct collaboration at this stage of the design, with findings confirming the research of Cooke and Kothari (2001), Cooke (2001) and Melcher (2013).

Participation

This study's findings reveal that there are multiple limitations of community engagement participatory methods that have the potential to impact on the success of an open space intervention within Thai slum communities:

As evidenced in the *Baan Mankong* communities, figures of authority, such as the *Gumagun*, or those who are hierarchically higher, are likely to dominate decision-making in relation to the types of open space developed, their location and their use for personal gain, retaliation or on a whim. A community leader may also be corrupt and therefore have the potential to 'break' a community. Socially lower members meanwhile may be unwilling to participate or may accept limited involvement during participatory

processes. They are also unlikely to challenge a decision made by those who are hierarchically higher due to *sakdina* and patron-clientism traditions. These members therefore have the potential to become marginalised or 'voiceless', with the consequence that open space interventions may be developed that do not meet their needs or are against their interests and are less 'public' in nature. This culturally embedded characteristic of social interactions is evidently in conflict with the stated goals of participatory processes, which are to fully engage local people in the development or design process and increase the involvement of those who are socially and economically marginalised (Cooke and Kothari, 2001; Cooke, 2001; Melcher, 2013). The majority of informal settlements in Thailand meanwhile operate in this centralised and top down manner. These findings confirm earlier work by Somchai (1997 cited in Askew, 2002) regarding the personality characteristics of slum dwellers, and add to claims by Askew (2002) that community leaders have a considerable impact on the empowerment of residents. The findings additionally challenge claims by CODI that *Baan Mankong* is a decentralised and non-hierarchical response to housing problems with collective action approaches encouraging traditions of subordination to be broken down (Archer, 2009; Boonyabancha, 2009; Bhatkal and Lucci, 2015). Instead, this study has evidenced that participatory approaches may be unsuccessful in breaking down this cultural phenomena. In so doing, this study adds to the body of work, which discusses the challenges surrounding participatory work identified during the *Baan Mankong* programme (e.g. see Archer, 2009, Boonyabancha, 2009; Yap and De Wandeler, 2010).

Statements made by a community members cannot be guaranteed to be reflective of how that person truly feels, as they may be motivated by fear of upsetting another community member or the designer. Instead, it is culturally normally for a person to say what they believe is socially acceptable or what they think the other person wants to hear. This is a behavioural trait that is unlikely to be recognised by a designer who is unfamiliar with this cultural norm.

Successful participation relies on the input of a broad range of participants (Cooke and Kothari, 2001; Cooke, 2001; Melcher, 2013). However, evidence suggests that within the communities, unless the proposed intervention personally benefits an individual, for example by addressing basic survival needs or quests for material, social or economic capital, users are unlikely to engage in the participation process. These attitudes are again grounded within cultural characteristics that prevail within broader Thai society, with the achieving of socially valued goals prioritised (Askew, 2002). In addition, the research establishes that 'apathetic attitudes' are born from the 'culture of poverty' (Barker, 2012 p.51), with the socio-economic and physical conditions that residents face causing significant mental and physical health impacts. This is likely to impact on their capacity to focus on or devote time or resources to certain issues: in this instance the development of open spaces. These findings add to Archer's (2009) discussions of the challenges presented by working with community members in the *Baan Mankong* programme at both the local and network scale. Findings additionally support Sen's (1999) theories relating to poverty being the deprivation of capacity. Comparisons drawn with Perlman's (2010) study of the favelas of Rio de Janeiro reveals that slum dwellers experiences globally may manifest in a lack of interest during the design phase unless an intervention addresses an immediate survival need. In Thailand, such attitudes are also borne of religious beliefs relating to personal fate. This suggests that, within the Khlong Toei communities at least, conflicts will arise between the aspirations of a landscape architect and those of present day community members unless an open space meets a particular immediate need.

Whilst community members may participate in the construction of an open space, as evidenced by the Community Lantern, they are less likely to participate in the management and maintenance. This has the potential to impact on the success of an open space intervention in the long term. These findings add to those by Viratkapan and Perera (2006) and Archer (2009), who likewise observed that once people had constructed their houses in

Baan Mankong they were less compelled to participate in other community development activities. Challenging Archer's (2009) claims however that individuals are less likely to participate following a disaster due to the breaking of social bonds, this study found that community members, at least in Khlong Toei, did participate immediately following a disaster (in this case a fire) with interest waning thereafter. The emphasis placed by CODI on co-production, collective tenure and open spaces and the community environment as a shared asset, however, means that there will be an increased impetus for community members who are part of programmes such as *Baan Mankong* to become equally involved in development projects and share the responsibility for deciding how a space is used and for its maintenance (Boonyabancha, 2009; Lemanski, 2008 cited in Archer, 2009). This will enable development projects to continue long after tenure security is achieved with responsibilities coming with being part of the land owning collective (Archer, 2009). Gaining communal tenure will additionally mitigate against the sale of land to outsiders, protecting individuals and open space developments from market forces. This again increases the likelihood of an open space intervention's success in the long term. For, newcomers to the community, along with second generation settlers and the younger generation of residents, who are more likely to enter the formal sector, are less likely to be as equally involved in community development activities as original community members, according to Viratkapan and Perera, (2006). Thus this thesis supports co-production of open spaces and CODI's proposals for tenure security to be collective rather than individual household ownership

Finally, residents may not trust the intentions of an outsider due to power inequalities, again relating to patron-client ties and societal vertical relationships, unless they have established a long term working relationship with a community. This was experienced in Pom Mahakan, where there was a general mistrust with regard to outsider's intentions for the community. These findings add to Archer's (2009) discussions regarding the power inequalities existing between community members

and government officials that impact on the effectiveness of participatory processes.

These findings contribute to the work of Melcher (2013), Hestor, 1987 (cited in Hou and Rios, 2003), Puri (2004), Hou and Rios (2003) and Mosse (2001).

The Potential Role of a Landscape Architect

Addressing research objective six, this study proposes that there is a role for landscape architects in the planning, design and management of open space interventions in informal settlements. For, as discussed, this thesis has provided evidence for the existence, use, meaning and significance of open spaces in daily lives, along with the physical factors which impact on spatial success. Thai landscape architectural practice however does not typically include informal settlement interventions in Thailand (Aruninta, 2008), with a review of landscape architectural practices in Southeast Asian countries revealing a similar situation. This is despite the existence of informal settlements in Southeast Asian countries, where the majority of the world's urban poor live (UN Habitat, 2012). Likewise, there are currently few examples of landscape architects working on open space developments in informal settlements globally. Notable examples include: Lucinda Hartley who worked in informal settlements in Vietnam and Cambodia, and went on to launch Community Oriented Design – co(design) studio, focusing on sustainable design and engaging and mobilising communities to design and construct community improvement projects including creating public spaces (CoDesign Studio, 2012); and Kounkuey Design Initiative (KDI), a community development organization that includes a team of landscape architects who work in participation with communities in America, Africa and Latin America to improve environmental, economic and social quality of life through the development of public spaces (KDI, ?). Despite the lack of landscape architects physically working within these contexts, this study's identification of a role has implications for landscape architects proposing to work within informal settlements both in Thailand and more widely in

Southeast Asia, where twenty eight percent of the urban population lived in slums in 2007 (Ooi and Phua, 2007). These implications will now be discussed. It should be understood, however, that whilst a participatory approach is advocated in all contexts, this must be underpinned by ethnographic study to aid critical reflection on participatory processes, as well as: specific understanding of the types of open spaces in existence; their role, use and meaning; and the factors that influence use, within each country. For the research findings discussed are sensitive to the specific context of Thailand and are not transferable to the other Southeast Asian countries.

Broadly, this role, in participation with community members, encompasses improving and maintaining existing open spaces or planning, designing and maintaining open space interventions. This is either in existing communities or those that are being upgraded or newly developed, as part of programmes such as *Baan Mankong* with organisations such as CODI, or as a private landscape architectural practice. In the first instance, prior to the design stage, this includes investing time in developing relationships with community groups in order to develop trust and increase support, and therefore the likelihood of a broader range of participants participating. At this stage, an important role for a landscape architect is acting within an advisory capacity in order to gain community support. This includes increasing resident's knowledge of the value and benefits of open spaces and the opportunities they afford in relation to the economic, domestic reproductive and social realities of their lives, their mental and physical health, and their cultural, religious and spiritual identities. This is acknowledged to increase the likelihood of community members participating and being positive with regards to proposed changes and outcomes; an important factor contributing to the success of an intervention (Usavagovitwong and Posriprasert, 2006; Archer, 2009; Yap and De Wandeler, 2010; Archer, 2010; Viratkapan and Perera, 2006).

Specifically in relation to *Baan Mankong*, alongside these roles, landscape architects also have the skills and knowledge to support community

members whilst they survey informal settlements in order to build up databases of information relating to community problems, the physical layout and tenure types, in order to draft citywide plans for upgrading solutions. Again in relation to *Baan Mankong*, landscape architects additionally have a role in supporting community groups in negotiations with landowners and government agencies in order to gain communal tenure security. More generally, in communities such as Khlong Toei, negotiations may also relate to open space use. For, landscape architects knowledge of the benefits of open spaces means that they are well placed to convince landowners that improving the environmental living conditions of informal settlements can help transform them into formal settlements that generate rental income, as discussed by Boonyabancha (2009). Gaining secure tenure is also vital for encouraging community members to invest their time and finances in improving their environments and developing open space interventions without the fear of eviction or relocation (Viratkapan and Perera, 2006; Yap and De Wandeler, 2010; Usavagovitwong and Posriprasert, 2006). Secure tenure will also mean that residents may demand their rights to services and infrastructure and can ensure an open space is maintained as they become legally positioned members of the city, with access to government agencies such as for sanitation or refuse collection (Usavagovitwong and Posriprasert, 2006; Boonyabancha, 2009; Archer, 2009). This will enable residents to improve their lives and is likely to increase the influence of the urban poor as economic actors within the city (Archer, 2009; Archer, 2010). Again, this thesis therefore supports CODI's emphasis on securing land tenure and house registration certificates as an integral part of the upgrading process.

During the design stage, there is a role for landscape architects, again due to their skills and knowledge, to assist communities in making decisions and planning, managing and administering their community layouts, infrastructure and open space construction in response to specific needs, local priorities and possibilities. To increase success, this study has found open spaces should be designed in accordance with: the physical

constraints; in response to the location of dwellings and existing or proposed infrastructure; the climate; and the socio-economic and cultural realities of resident's lives, and poverty experienced (See 8.01 'Influences on Spatial Use'). Open spaces should also be designed to support a variety of uses, see 8.01 'Use of Open Spaces', by a diverse user groups of all ages and abilities throughout the day. Here, a landscape architect should support community members in utilising their tacit knowledge of their communities whilst also teaching them new skills in order to empower them and ensure interventions and improvements are sustainable.

Post intervention, this study concludes that landscape architects have a role in longer-term post design management, maintenance and spatial programming, again in participation with community members. For, as evidenced by this thesis, a landscape architect cannot presume that any one *Gumagun* or community committee will take responsibility for such activities. Open spaces intended for use by the wider community meanwhile must be regularly managed and maintained to increase their 'public' nature and symbolic accessibility. This is in order to meet user needs most effectively and relates to preventing or limiting the appropriation of areas within an open space or the open space itself by individuals or groups, for this may impact on the intended function/s of an open space for the wider community. A well managed and maintained space that is programmed for community events, festivals, meetings and other activities has also been revealed by this study to increase the likelihood of users establishing a sense of belonging and identity (von Meiss, 1990) and therefore caring for their environment (Crang, 1998). This mitigates against the occurrence of antisocial behaviour and an open space becoming associated with negative meaning, thus increasing the likelihood of an intervention remaining open to 'public' use. That appropriation of open spaces may occur immediately or in the indeterminate future implies that length of involvement by a landscape architect is also indeterminate and dependent on a particular community. Thus, this study suggests that landscape architecture should move from an

expert role to an empowering role with the legacy possibly less about the space but the societal processes that support the space.

Throughout all stages, an important part of a landscape architects' role may additionally be conflict management, with solutions sought that have the least adverse effects and are equally beneficial to all members. This is in order to increase support for an open space intervention, the 'public' nature of an open space and to increase responsibility being shared for an intervention's management. These proposals regarding a landscape architects role support CODI's practices of establishing partnerships between community members and multiple stakeholders, including architects, academics and NGOs, for these actors can provide knowledge, support, skills and expertise to community members during physical upgrading processes. This empowerment of residents is likely to increase the sustainability of interventions. At the same time, the findings regarding a landscape architect's role challenge CODIs practices of not currently including landscape architects as part of the team of stakeholders. This is despite open space interventions being a significant part of upgrading schemes and, as evidenced by this study, providing opportunities for strengthened communities and social support systems, a stated goal of *Baan Mankong* (Boonyabancha, 2009), as well as economic improvement.

Socio-Economic and Cultural Realities

Whilst performing these roles, this thesis finds that a landscape architect must be aware of the socio-economic and cultural realities of working in such contexts and the impacts these may have on participatory processes. These are discussed in 8.01 'Participation' and include power dynamics and social hierarchies, mistrust of outsiders, and a lack of participation during management and maintenance stages.

In relation to the problems presented by social hierarchies, a landscape architect must consider community power relations during participatory processes. It is also important that they talk to ordinary community members and provide opportunities for everyone to speak and voice their opinions, not only community leaders, in order to gain understanding of

how residents perceive themselves and one another and their ability to work collectively. These findings support similar claims made by Usavagovitwong and Posriprasert (2006) and Archer (2009).

In terms of community members potentially not trusting landscape architects, it is important that trust levels are strengthened and an equal relationship developed from the early stages of intervention. This is in order to increase the likelihood of community members supporting, cooperating and participating during all planning, design and maintenance stages. As Archer (2009) described in relation to community leaders, by being accountable, working closely in participation with community members, being open to collective input, being transparent, addressing problems, facilitating cooperation and embeddedness, and maintaining close contact with a community throughout all stages, a landscape architect may achieve this. There should also be little change in whom the landscape architect is throughout the design and implementation process. Increasing trust and equality will also more effectively empower communities, mobilise them into action, and encourage them to make repayments where necessary (Archer, 2009), again increasing the success of participatory projects.

With regards to the identified likely lack of participation by community members in the management and maintenance of open space interventions, a landscape architect must pay increased attention to this potential issue in order to maintain their sustainability in the long term. To encourage active post intervention participation, the introduction of specialised community activities, such as vocational training or youth groups, and the programming of open spaces in participation with the landscape architect is proposed. Such a process additionally empowers community members and fosters a sense of togetherness and belonging (Viratkapan and Perera, 2006). Again, this suggests that the length of time a landscape architect is involved post construction is indeterminate and dependent on a particular community.

Prior to working in informal settlements in the various capacities outlined within this section, findings suggest that a landscape architect, particularly those whom have studied outside of Thailand, will firstly need to reconceptualise the following: their notions of 'open spaces' to include uses actually performed; the physical form of open spaces; notions of public/private dichotomies; and their methods of 'knowing'. These aspects are expanded on in section 8.02 'Contributions to knowledge', in relation to empirical, theoretical and methodological contributions to knowledge and the implications for landscape architectural practice. It should also be emphasised that the predictable patterns of destructive attitudes and behaviours seemingly formed from the multigenerational cycle of poverty evidence that simply attempting to improve the physical environment is not the solution to improving the quality of life for residents. Furthermore, many of the socio-cultural problems identified are outside the realms of the skills and experience of a landscape architect. If the physical environment were to be improved alongside other strategies focussed on inhabitants' wellbeing however, as proposed by UN Habitat (2012), it can be seen that the chances of successful integration are increased. This study therefore proposes that, whilst the issues discussed here are specific to the communities studied, as a generalizable approach, open space interventions should be implemented alongside other strategies that focus on the complex problems associated with informal settlements.

8.02 Contributions to Knowledge

This second section reviews this study's empirical, theoretical and methodological contributions to knowledge. Here, the implications for landscape architects contributing to the planning, design and management of open space interventions in informal settlements in the global south are additionally discussed. In combination with the previous section, the section additionally reveals how the thesis has addressed gaps in the literature that exists on the relationship between people and the physical

space of informality and how it challenges debates surrounding the existence, development, form, use and the associated identity, meaning and significance of open spaces.

Empirical Contributions to Knowledge and the Implications for Practice

This study has established various empirical contributions to knowledge:

1. The open space typology and community maps contribute to the sparse academic literature that exists defining the built form of slums as called for by UN Habitat (2012). Contradicting UN Habitat's (2012) claim that there is an absence of open spaces and streets in slum communities globally, the findings demonstrate that, in the Bangkok slum context at least, eighteen different types of open spaces exist. These findings add weight to those by Samper (2012), Schwab (2015), Hernández-García (2013) and Hernandez Bonilla (2001) who reveal that, in the popular settlements of Bogotá and Medellín, Colombia and Xalapa, Mexico, open spaces also exist.
2. Findings reveal that over half of open spaces types identified are self-created or appropriated. This also contributes to knowledge on the development of the urban form in informal settlements and the body of work produced by Hernández-García (2013) and Hernandez Bonilla (2001) in the popular settlements of Latin America studied; residents primarily define and construct open spaces.
3. The typology provides detailed physical descriptions of the variations found in the urban form, revealing that many of the identified open spaces physically differ from those in Europe and America, as categorised by UN Habitat (2015b), the PPG17 (2006) and Carr et al., (1992). For example, *sois* tend to be narrower than typical European or American streets, and, whilst both the PPG17 and Carr et al (1992), define streets as places designed for pedestrians and closed to auto traffic, *sois* must enable motorbike and food cart traffic. Others, such as *nang lerns*, do not physically

resemble any public spaces found within the American, European or British contexts. Instead being more similar traditional rice huts found in rural Thailand. These findings challenge assumptions in the literature regarding what an open space looks like and how they function and increases knowledge and understanding of the physical form of open spaces in existence within Thai slum communities.

4. Data has been provided regarding the range of uses that occur within open spaces and insights provided on the location of their performance, some of which are not typical within American or European public spaces. The identification of specific community needs is vital when working within informal settlements in any given context to capture residents support and increase the likelihood of a 'sense of belonging' and identity developing. All spaces have been revealed to be multifunctional, with uses transient; transforming and consolidating the physical and social life of an open space on a daily basis. These findings contribute to the body of work produced by Hernández-García (2009; 2013), Hernandez Bonilla (2001) as well as that identified by Hernández-García (Riano, 1990; Saldarriaga, 1997; Viviescas, 1996; Rojas and Guerrero, 1997; Nino and Chaparro, 1997 and Avendano and Carvajalino, 2000). This work focuses on the use of open spaces and the documentation of social practices in the Colombian, Brazilian and Mexican contexts. This study supports UN Habitat's (2012) claim that streets in slums play practical and symbolic roles and suggests that this description should be expanded to other open spaces also. The study explains and evidences why roads, train tracks, doorsteps, car and motorbike parking spaces and tables and benches should be included within the open space typology. Whilst these may support few pedestrian functions in American and European contexts, explaining their absence from the global north based typologies studied, findings reveal that in the communities studied they all support multiple necessary, symbolic and social

activities. The majority of open spaces are used for socialising and relaxation, with these recognised to be important activities by users. The existence of social activities is an indication of the success of a space as it is a difficult quality for a space to achieve (PPS, no date). That the majority of the open spaces support such activities is indicative of their value in daily lives. This is in accordance with the work of Madanipour (2010), Carr et al., (1992) and the PPS (no date). Untypical within the American and European context, open spaces are also dominated by a variety of necessary activities including: 'domestic' reproductive activities, storage of goods, economic productive enterprise, childcare and car and motorbike parking. Other non-typical uses include the holding of funerals and meetings within *sunams*. These findings challenge literature developed in the global north, regarding use and function of open spaces and expectations of these. Findings additionally support CODI's approach in channelling loans into community cooperatives specifically for open space development, as well as their emphasis on collective tenure. Without such loans, low income households tend to be unable to access financial capital due to their societal positions and poor credit rating (Bastelaer, 2000, p.2 cited in Chutapruttikorn, 2011), making the development of community environments impossible. The savings groups and interest charged meanwhile, mean that a community have the capacity to act collectively and is a method for protecting the whole community if an individual is unable to pay a monthly repayment. This also helps to protect more vulnerable members and prevents open space collaborations being dominated by the wealthier. The findings further emphasise the importance of embedding the development of open spaces, which have been designed to meet the majority of community members needs, in the upgrading process. For, whilst this is discussed as part of the process of upgrading, the reality of finalised communities observed in *Baan Mankong* and the available literature (e.g CODI, 2006; 2008), suggests that emphasis is largely

placed on designing housing layouts. This is supported by a CODI member stating that residents largely overlook open spaces during the upgrading process and don't recognise their importance (Pers. Coms).

5. The study provides evidence of the mutually reinforcing relationship between social and necessary activities. See 'Theoretical Contributions to Knowledge' for further discussion.
6. This thesis illustrates the gender and age divides that exist in the performance of particular activities and the times that they are performed, and reveals their reflection of social structures. For example, women dominate reproductive and productive activities in open spaces during the day. Women are also more likely to take part in activities such as aerobics in the evenings whilst men and boys largely play football at this time. These findings add weight to those of Schwab (2015), who observed a similar relationship in the informal settlements of Medellín.
7. This thesis emphasises the importance of environmental factors, specifically sunlight, shade and access to a breeze, on the localisation of spatial uses and how users interact with the physical form of open spaces throughout the day and evening. Findings are in contrast to Whyte (1980) who found that in New York, the absence of wind was critical to the use of plazas.
8. Close observation of a series of open spaces has provided valuable insights into the physical qualities of successful spaces, including their physical and visual accessibility; physical layouts and amenities; and comfort (shade) and convenience. Findings confirm the PPS' (no date) and Carr et al., (1992) claims that these qualities, which contribute to the success of public spaces, likewise impact on the success of open spaces in informal settlements, at least in the Thai context. In terms of the implications for practice, these

findings suggest that landscape architects should encourage the reblocking of communities during upgrading processes. Here dwellings can be clustered around open spaces where a range of activities can take place. The resultant physical form is also more conducive to the long-term success of an open space intervention.

9. This study has identified the constraints relating to the urban morphology that present pre and design stage barriers to successful intervention. These findings increase site-specific knowledge, regarding the problems associated with the physical environment, cultural complexities and the socio-economic problems of three informal settlements in Bangkok, as requested by UN Habitat (2012).

Prior to this study no similar studies regarding the built form of informal settlements and spatial practices of their inhabitants have been identified for the Thai slum context within English speaking academic literature. Findings provide useful insights for designers with a future role in the design of open spaces of these urban contexts that adequately address user needs (Carr et al., 1992; Milgrom, 2008; Carmona et al., 2010). Finally, the findings additionally respond to UN Habitat's (2012) calls for reliable, adequate and accurate localised qualitative data about individual informal settlements.

Theoretical Contributions to Knowledge and the Implications for Practice

Again these proposals are made under the caveat that understanding and reconceptualization should be dependant on the local and national cultural context and physical location of an informal settlement.

Reconceptualising Notions of Open Spaces Based on Uses Actually Performed

This study finds, that to increase the likelihood of an intervention becoming valued, well used and functionally and symbolically integrated into a Thai informal settlement, landscape architects must design open

spaces to support multiple necessary, social and optional functions, reflecting culturally normal practices of use. For example, necessary and social activities must be allowed to occur together, through the arrangement of elements such as benches and food carts. The predominance and necessity of performing entrepreneurial activities identified by this study meanwhile, supports Beardsley and Werthmann's suggestions for the reconceptualization of open spaces, at least in Thai informal settlements, to include '*productive space*' (2008, p.43). Findings additionally indicate, that conceptualisations here again need to be extended to include 'reproductive' domestic functions that likewise dominate open spaces. Consequently, whilst Askew (2002) writes that within Thai slum communities '*the home itself constitutes an important site of production, or preparation, in the case of food selling*' (p.143) findings reveal that this description can further be extended to open spaces. In terms of the implications for practice, this means that part of a landscape architect's role should be to challenge any proposals for communities to be moved into flats during upgrading processes. At the same time, evidence is provided that supports Hernández-García's (2010) description of the important relationship of home and open space in popular settlements. In contrast to the findings of Beardsley and Werthmann (2008) who suggest that passive recreation is 'not a priority' in the Favelas studied, the performance of optional activities have been shown by this study to be of significance and should likewise be catered for in design interventions in Thai informal settlements. These findings support Schwab (2015) and Beardsley and Werthmann's (2008) suggestions that uses actually performed by the residents in open spaces could be the basis for the reconceptualization of open spaces in informal settlements. However, this study stresses that this is context dependent.

Reconceiving the Physical Attributes of Open Spaces

To increase the likelihood of inviting repeated use, notions of the physical characteristics of open spaces of value within Thai informal settlements require reconsideration to include structures and forms not typical within

the European and American contexts. Here, notions must be expanded to include vehicular thoroughfares and empty house plots as well as solutions that are smaller in scale and more modest, such as doorsteps, *nang lerns*, tables and seating areas. Concepts of gardens must also be expanded to range from single plant pots to the roofs, ledges and walls that were found to accommodate potted, climbing and hanging plants. For, examples of each type detailed were found to support multiple necessary, social and optional activities, indicating their important role in meeting daily needs. Tables and benches for example, as well as being more suited to the physical dimensions available, also support and facilitate social interaction and economic entrepreneurship. These findings add weight to similar arguments made by Crawford (2008a). Failure to reconceptualise understandings of the physical forms of open spaces in Thai informal settlements additionally means that open spaces of value, non-typical to the European/American context, will be overlooked when using the global typology produced by UN Habitat or other bodies.

Reconceiving Notions of ‘Public’, ‘Private’ and Ownership

Jacobs (1961) states that in order to be successful open spaces must be unequivocally public and shouldn't mix with private spaces. However, within the Thai informal settlement context, this study reveals public/private is not a clear-cut binary, with culturally accepted shades of ‘publicness’ displayed by the majority of open spaces. Despite this, examples of each type of space were found to support a variety of social, optional and necessary functions and play significant functional and symbolic roles indicating their value and success. The scales of ‘publicness’ displayed relates to the complexities that exist in the processes of development, management, ‘ownership’ and use. Thus, different open spaces of the same type have different characters associated with the particular combinations of the ‘owning’ group and their interests, affecting accessibility and thus use and users and a space’s public/ private nature. Here, the multiple and varying activities performed in open spaces and the

consequential permanent and impermanent appropriation of space blur the private-public milieus, definitions and uses with aspects of the private domestic realm becoming available to public life. Symbolic access is therefore constantly negotiated and renegotiated. Here, people look out for their own interests meaning that appropriation is a social as well as physical phenomenon: a constant interaction between the material qualities of the site and the social structures in which it is embedded. Findings thus support Perdrazzini (1998 cited in Hernandez Bonilla, 2001) who claims that open spaces should be understood as the material, social and symbolic expressions of those produce manage and use them. This study findings are in contrast to Hernández-García (2013), who found that in the barrios of Bogotá, open spaces are largely public in terms of accessibility and ownership however they are not in terms of use.

A consequence of the blurring of public/private space within Thai informal settlements means there are problems in enforcing uniform categorisations. In particular, self created and appropriated open spaces are most ambiguous in terms of their public/private nature eluding western understanding of these concepts as a dichotomy. Thus, it is proposed that notions of 'public' and 'ownership' are also reconceptualised for the Thai informal settlement context, supporting similar arguments made by Hernández-García (2013). Failing to do this means that open spaces perceived as 'private', based on *agency* and *interest*, such as the main road will be overlooked, with limited insights into their use, the urban form and the needs of residents gained. In addition, findings indicate a certain level of physical and temporal *symbolic* privatisation of open spaces should be anticipated and accepted, but managed. Failing to understand the complexities of 'ownership' and the need for informal modes of spatial and social control means failing to understand the requirements of these social groups. Therefore norms, expectations and determinants of success will be skewed. Due to the problems in enforcing uniform public/private categorisations in these communities it is proposed that the terminology 'open space' is used rather than 'public open space'

when analysing the urban form of informal settlements, supporting similar proposals made by Hernández-García (2013).

Prior to this study, no similar studies regarding the public private nature of opens spaces within Thai slum contexts have been conducted within English speaking academic literature. These findings expand knowledge on how the physical form of informal settlements comes into being and the processes influencing appropriation, contributing to the body of work by Hernández-García (2009; 2013) and Hernandez Bonilla (2001) as well as that identified by Hernández-García (Riano, 1990; Saldarriaga, 1997; Viviescas, 1996; Rojas and Guerrero, 1997; Nino and Chaparro, 1997 and Avendano and Carvajalino, 2000), focused on the Latin American context. The findings also challenge notions in the literature regarding ‘public’ and ‘private’ as a dichotomy.

Reconceiving Ideas Related to Permanence and Logic

Thai informal settlements are cities ‘in motion’, incrementally developed by the residents themselves, with the social make up nature of communities also transient: changing in response to changing political and global events. The temporal occupation and articulation of space and shifting claims to and requirements from open spaces, means that ideas of permanence formed in relation to the formal city requires reconception here. In terms of open space design, this suggests that open spaces in Thai informal settlements must be designed to be ‘loose’ enough to support a variety of uses for current inhabitants but also the indeterminate users of the future. Inline with this, ideas of when a space can be considered to be successful may also need to be reassessed with use, users and characteristics evolving overtime. Concepts of ‘logic’ also need to be revisited within this context, for size, adaptability and spatial constraints shape the form of open spaces, as does the lack of land and presence of amenities such as water or shelter. Open spaces are also shaped by the use and users they receive and the social relations occurring within them, with those with increased political or economic power most dominant in

shaping the physical features of the urban realm, confirming the work of Mehrotra (2010), Kostof (1991), Madanipour (2010). The urban form thus reflects highly complex socio-cultural processes and political structures. These findings challenge literature that proposes that the physical form of informal settlements does not display a logic, and supports similar arguments made by Samper (2012), and Hernández-García (2013), that the logic is different one to that of environments designed by professional architects and urban designers.

The Relationship Between Necessary, Social and Optional Activities

Contrary to the writings of Gehl (2011), within the communities studied, this study found that the performance of social activities and the success of an open space are less influenced by the quality of the physical environment and occurrence of optional activities. Instead, incidence of social activities generally correlates to the occurrence of necessary activities. Illustrating this critical relationship, those (typically women) watching children, putting out washing or vending are notable attractors to open spaces or structures. Similarly commercial and recreational activities often occur together with those vending, typically located within open spaces or close to entrances and selling to those observing activities or resting, whilst also watching children at play. This correlation supports earlier work by Askew (2002) who claims that patterns of sociability are often mutually reinforcing with the imperatives of sustaining livelihood. Critically, this study finds that this relationship can be further extended to a variety of other necessary activities and the opportunity for social interaction. This relationship, between necessary and social activities, mirrors the distinctive social dynamic in informal settlements, with women creating and dominating social networks through their necessary roles in domestic maintenance, childcare and income generating activities: particularly the production and selling of food. Findings additionally highlight the relationship between the location of a space, intensity of use and the occurrence of informal trade, contributing to the work of Hernández-García (2009) and Schwab (2015) in the informal settlements

of Latin America, and Whyte (1980) in the plazas of New York. Evidence provided of the relationship between social and optional use, meanwhile, suggests that the restorative value of open spaces is less to do with the physical environment but that attachments are formed with spaces that are perceived as secure, comfortable environments or those that support social activities conducive to stress release and problem solving. This is in contrast to the findings of Gehl (2010) who writes that optional activities only occur when spatial quality is improved.

Methodological Contributions to Knowledge and the Implications for Practice

Survey Analysis Design and Participation

Despite the limitations of survey analysis design techniques and participatory processes identified, this research supports an approach, such as that employed by CODI, to landscape architectural practice that utilises these methods. For, as revealed by this research methodology, conventional landscape architectural methods of analysis increase knowledge of the physical qualities of successful open spaces as well as spatial uses and their localisation within a space, among other data. This thesis finds however that survey analysis design should be conducted in participation with community members. For, as evidenced, community members have local knowledge of a site and suitable construction techniques required to overcome site specific problems. Co-conducting site survey analysis with their tacit knowledge increases the sustainability and longevity of interventions.

Findings also indicate that participatory design processes (whereby residents collectively make decisions and plan and manage their open spaces in response to specific needs, local priorities and the realities of the physical constraints of the urban realm) increase the likelihood of users supporting an intervention. In turn this is likely to increase users caring for their environment, reducing antisocial behaviour. These findings add weight to proposals by CODI (Archer, 2009) and other organisations such

as UN Habitat (2012) that residents should be key actors in upgrading their communities. This thesis finds however that landscape architects should practice participatory methods in awareness of the potential issues outlined in 8.01 'Participation'. Furthermore, findings reveal that landscape architects should work closely with communities and third parties such as NGOs, both for identification of needs and articulation of intervention aims and to secure access to gatekeepers and to the communities. Throughout, the accuracy and reliability of community input should also be critically reflected upon, which these third parties could additionally contribute to. Other problems meanwhile, such as the culturally normal behaviour of 'saving face' can be mitigated by increasing understanding of what is desired across the societal order through gaining the opinions of as many community members as is feasible. These findings support similar arguments made by UN Habitat (2012).

Ethnography

To aid critical reflection on participatory approaches and survey analysis design methods, and increase the potential for developing open spaces that are socially and environmentally sustainable, it is proposed that these methods are supported by relational perspectives. This thesis has highlighted the potential of ethnography to overcome some of the limitations of the two methods discussed as outlined below:

1. Through the use of ethnographic techniques it has been possible to identify the types of open spaces in existence, how they have come into being, uses actually performed and influences on use for different user groups. Furthermore, this ethnographic study has highlighted the temporal and transformative nature of the use and form of open spaces and is a method revealed to be suitable for interpreting rapidly changing environments. Not all identified uses are typical within public spaces found in America and Europe, with this study therefore contributing to arguments by Meyer (2002); Milgrom (2008); and Crawford (2008a), among others, for designs

to be grounded within knowledge of the specifics rather than the general in order that needs of those who inhabit spaces are met.

2. As evidenced by this thesis, ethnographic engagement increases knowledge of the opportunities present within a community and the types of open spaces feasible within the specific physical constraints. In addition, it has enabled the identification of the types of open spaces that meet needs and those that are desirable, important and have meaning to residents, as well as the exploration of specific contextual processes (physical, social, economic, cultural and natural) that influence the forming of attachments to be explored. This underscores that developing a global 'design toolkit' for creating open spaces is insufficient for successful intervention.
3. This ethnographic study has revealed that pre design, design stage and post design barriers to successful intervention exist within the communities studied and that multiple social, cultural, political, historic, religious and economic processes, along with the built environment, combine in multiple ways to impact on community dynamics and inform behavioral and attitudinal patterns. These complexities within a given community are likely to be influential at all levels of the societal order, impacting on the outcomes of participatory processes and therefore the success of open space interventions. Crucially these behaviors may not be recognized or understood by an outsider who has not invested in ethnographic methods of 'knowing', limiting critical reflection and with the potential to exacerbate existing social inequalities.
4. Behavioural and attitudinal patterns may also negatively impact on how open spaces are used post completion. Increasing understanding of these increases the potential for engaging users sufficiently during participation and of producing designs that are accepted by a given community. This also enables trajectories of use to be predicted and management plans made accordingly, with

designs modified to prevent or reduce the occurrence of undesirable behaviours, increasing the possibility of meeting the needs of the wider community. For example in this study, through an ethnographic approach the processes of spatial production have been identified, revealing that appropriation, typically unacceptable in public spaces in America and Europe is culturally acceptable in informal settlements in Bangkok and may occur immediately or in the indeterminate future. When a landscape architect is teamed with intimate knowledge of the processes occurring within a given settlement they will therefore be able to conceive of certain levels of appropriation as a sign of spatial success. Trying to design out claims to space completely, meanwhile, may result in whole relationships of use failing. This study has identified however that management to maintain the public nature of a space must balance appropriation levels. Understanding the processes informing behaviours and attitudes also means that the aspirations of a landscape architect can more closely match the expectations and interests of community members.

Findings build on arguments made by Lefebvre (1991), Kroll 1984 (cited in Milgrom, 2008), Jacobs (1961), Habraken (1998) and Crawford (2008a, b), among others, who believe that the urban space should be understood as something linked to lived experience and everyday activities rather than specialist practice. In addition, the body of research represented by this thesis contributes to work by Kim (2015) in highlighting the potential of the method for the discipline of landscape architecture. Thus building on arguments by (Rishbeth et al., forthcoming) and Deming and Swaffield (2011). As there are acknowledged issues associated with ethnographic approaches, such as the time and cost implications, it is again proposed that to increase insight and the potential for critical reflection a landscape architect should work closely with communities and organisations who have intimate knowledge of a particular communities history, politics,

dynamics, problems and needs, and that are respected by community members.

Finally, this study proposes landscape architectural methods for 'knowing' informal settlements should be multiple, heterogeneous and interpretive, responsive to specific times and contexts. This contributes to similar arguments made by Crawford (2008a, b) and Sandercock (2003) and supports UN Habitat's (2012) belief that a 'one size fits all' approach is inappropriate given the variations found in slums.

8.03 Future Research Suggestions

This final section offers some proposals for future research:

- 1.) To increase the validity, reliability and generalizability of the findings from all research phases it is suggested that the research is repeated in other informal settlements in Bangkok and wider Thailand as well as globally and comparisons drawn.
- 2.) As few men, teenagers and children were interviewed it is proposed that future research focuses on these social groups.
- 3.) To increase the validity of the findings it is proposed that prior to beginning research, increased time is spent understanding the social dynamics in a community that will invariably impact on the study findings.
- 4.) This research has focused on the local level, exploring the realities of daily life and the physical form of informal settlements as well as the complexities and cultural specifics of interactions that have the potential to present problems to participatory practices. It has also explored the role of landscape architecture within the design and planning of open spaces and made suggestions for the movement from an expert role to an empowering role. As part of this trajectory, it is proposed that future research focuses on whether there is a role for landscape architects as intermediary

'knowledge brokers'; translating findings from open space intervention approaches above to organisations such as UN Habitat and local and national governments, and exploring the feasibility of their upgrading proposals at the local level.

Appendices

APPENDIX 1: Hua Khong open space plan, NTS



- Outdoor bathroom
- Dwellings
- Office building/ community building
- Spirit House
- Vehicular road
- Rail track
- Sois
- Expressway footing
- Fence
- Entrances

- Loud speaker
- Phone booth
- Businesses
- Workshop
- Washing machines
- Cart/ workbench
- Water dispensing machine
- Outdoor kitchen food to sell
- Making clothes/ items to sell in informal sector
- Clothes washing
- Clothes drying
- Washing up
- Outdoor cooking private
- Food storage
- Food preparation (to sell)
- Storage
- Doorstep
- Unfinished area

- Tree canopy
- Childrens play area
- Pets in cages
- Table
- Car parking
- Rubbish
- Tree
- Sports pitch
- Water
- Seating/ bench/ workbench
- Motorbike parking
- Plants and gardens
- Stage for meetings and festivals
- Snooker table



- Expressway
- Dwellings
- Office building/
community building
- Vehicular road
- Rail track
- Sois
- Shelter
- Roof overhangs
- Canopies
- Umbrellas

APPENDIX 3: Rom Klao open space plan, NTS



- Tree Canopy
- Tree
- Plants and Gardens
- Hanging Plants

- Children's Playarea
- Sports Pitch
- Stage/ Platform for Meetings and Festivals

- Pets in Cages
- Water Feature
- Ornaments

- Table/ workbench
- Seat/ Bench/ Workbench
- Furniture
- Sink
- Air Conditioning Unit
- Television
- Outdoor tap

- Car Parking/ Garage
- Motorbike Parking
- Bicycle Storage

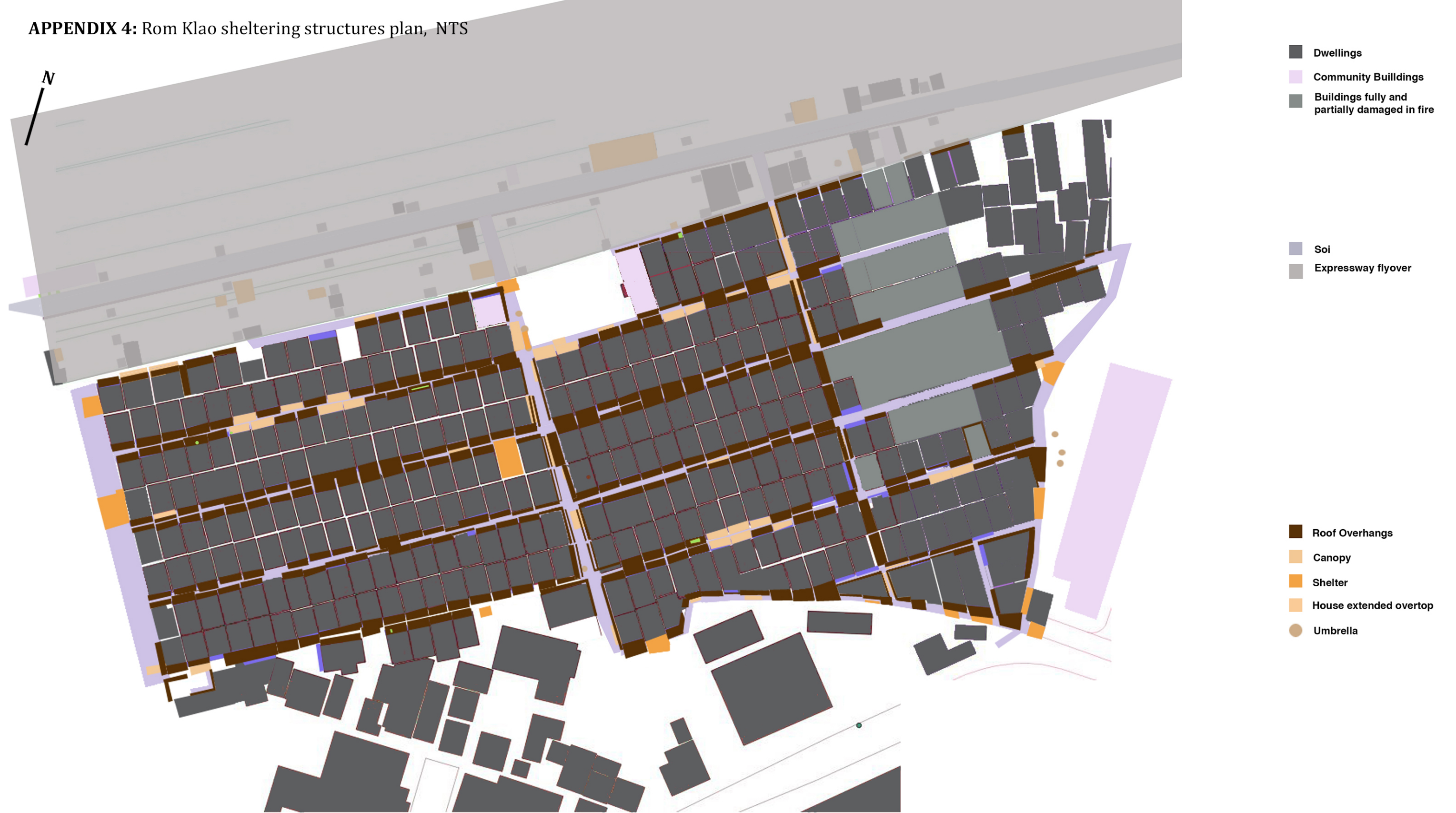
- Rubbish
- Rubbish Bin

- Storage
- Kitchen Storage
- Storage Space

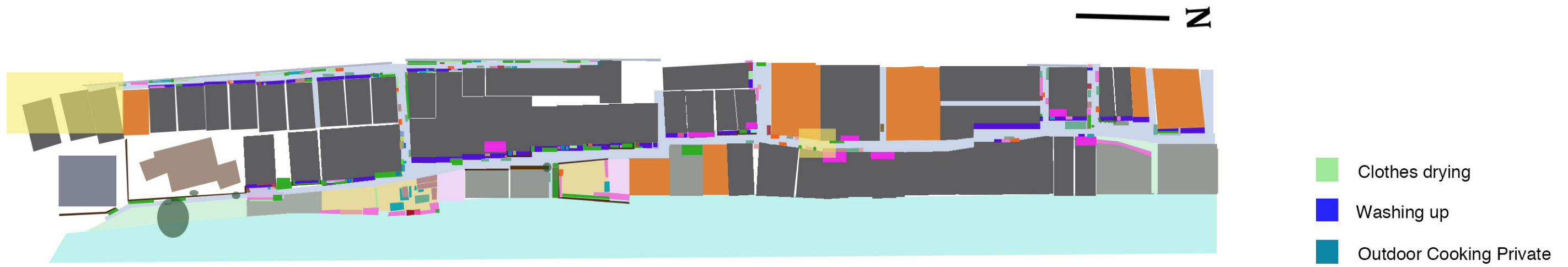
- Phone Booth
- Business/ Informal sector work
- Work shop
- Washing machines- business
- Cart/ work bench
- Water machine- business
- Outdoor kitchen- food for sale
- Clothes Washing
- Clothes drying
- Washing Machine Private
- Washing up
- Outdoor Cooking Private
- Food Storage
- Cleaning things/ Household Storage

- Dwellings
- Community Buildings
- Buildings fully and partially damaged in fire
- House Extension
- Timber structure
- Spirit House
- Vehicular Road
- Rail track
- Soi
- Expressway Footing
- Gutter
- Fence
- Wall
- Entrances
- Doorstep
- Raised Ledge
- Steps

APPENDIX 4: Rom Klao sheltering structures plan, NTS

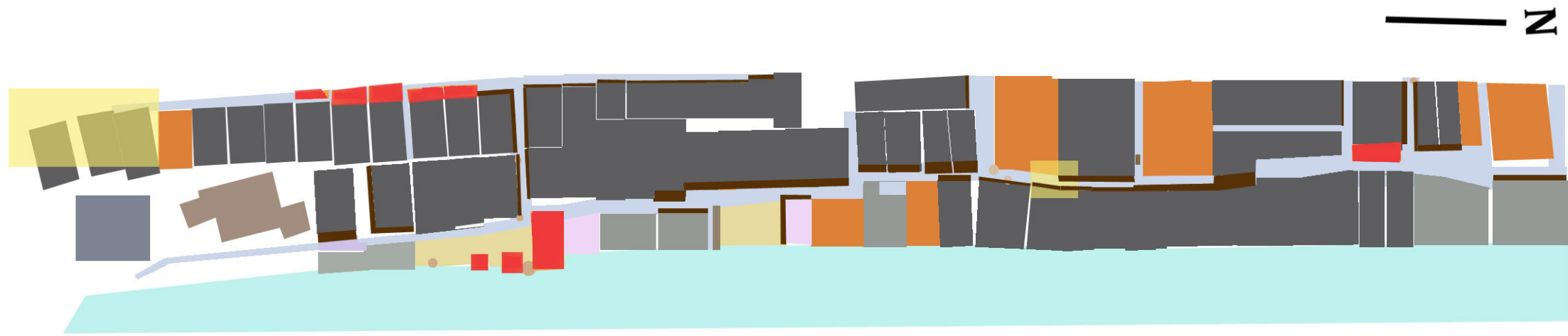


APPENDIX 5: Sapan Mai II open space plan, NTS



- | | | | | |
|-----------------------------|--------------------|----------------------------------|--------------------------|------------------------------------|
| ■ CODI Upgraded Houses | ■ Doorstep | ■ Cart/ work bench | ■ Table/ workbench | ■ Storage |
| ■ Community Buildings | ■ Wall | ■ Outdoor kitchen- food for sale | ■ Seat/ Bench/ Workbench | ■ Kitchen Storage/ cleaning things |
| ■ Original Dwellings | ■ Fence | ■ Business/ Informal sector work | ■ Outdoor tap | ■ Storage Space |
| ■ Houses under construction | ■ Timber structure | ■ Water machine- business | ■ Sink | |
| ■ Soi | ■ Ornaments | ■ Phone credit machine | ● Hanging plants | ■ Motorbike Parking |
| ■ Khlong | ■ Pets in cages | ■ Post box | ● Tree | ■ Bicycle Storage |
| ■ Spirit House | ■ Water feature | ■ Rubbish | ■ Plants and Gardens | |
| ■ Community space | | ■ Rubbish Bin | ■ Scrub and weeds | ■ Area Unfinished |

APPENDIX 6: Sapan Mai II sheltering structures plan, NTS



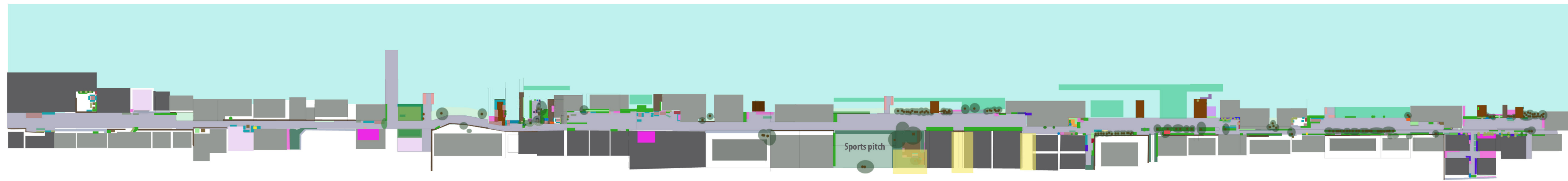
- CODI Upgraded Houses
- Community Buildings
- Original Dwellings

- Soi
- Khlung

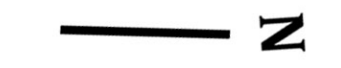
- Community space

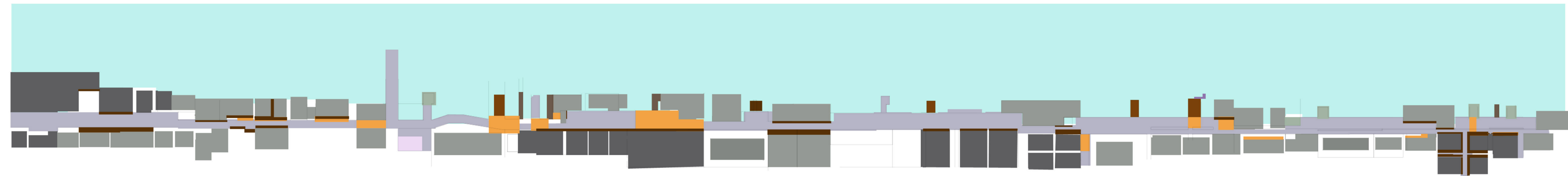
- Area Unfinished

- Roof Overhangs
- Canopy
- Shelter
- Umbrella



- | | | | | | | | | | | |
|------------------|----------------------|-----------------|--------------------|--------------------------------|----------------------------------|-------------------------|-------------------|------------------|-------|-----------------|
| Khlong | CODI Upgraded Houses | Doorstep | Storage | Business/ Informal sector work | Clothes drying | Table/ workbench | Rubbish | Timber structure | Light | Area Unfinished |
| Soi | Original Dwellings | Wall | Hanging plants | Cart/ work bench | Washing up | Seat/ Bench/ Workbench | Rubbish Bin | | | |
| Dirt | Community Buildings | Fence | Tree | Morning Glory | Outdoor Cooking Private | Outdoor tap | Motorbike Parking | | | |
| Drainage Channel | Spirit House | Water feature | Plants and Gardens | Fish nets | Kitchen Storage/ cleaning things | Sink | Bicycle Storage | | | |
| | Play area | Ornaments | Scrub and weeds | | Tree House | Washing Machine Private | | | | |
| | Sports pitch | Pets in cages | Grass | | Floating piers | | | | | |
| | | Religious items | | | Wooden piers | | | | | |

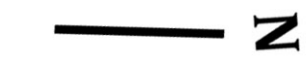




- Khlong
- CODI Upgraded Houses
- Soi
- Original Dwellings
- Community Buildings

- Timber structure
- Roof Overhangs
- Shelter

- Floating piers
- Wooden piers



Appendix 9: Questions for Residents, Phase Two

Questions originally developed for Pom Mahakan and amended as Phase Two progressed. Communities were visited in the following order: Pom Mahakan, Hua Khong, Rom Klao and Bang Bua.

General questions to all:

- What is your name?
- How old are you?
- What is your job? **Additional for Hua Khong:** Do you have any other jobs?
- Where are you from?
- Please tell me what you will do today? **Amended to from Hua Khong onwards:** Please tell me what you will do today- Morning to night?
- What do you do for special occasions? What does this include? **Amended to from Hua Khong onwards:** where do you go for special occasions?
- What do you do on the weekdays or days when you aren't working? **Amended to from Hua Khong onwards:** what do you do in your spare time?
- Are there other spaces outside of here that you go to? What do you do there? **Amended to from Hua Khong onwards:** when you leave the *chumchon* where do you go and what do you do there?
- Where do you go to make merit or get married?
- **Additional for Hua Khong and Rom Klao:** What do you do under the expressway?
- **Additional for Rom Klao and Hua Khong:** What would you like to be different in the *chumchon*?
- **Additional for Hua Khong:** What was it like here before?
- **Additional for Rom Klao and Bang Bua:** What was it like here before the urban layout changed?
- **Additional for Bang Bua:** Were you involved in the participation process?
- **Additional for Rom Klao:** What are the biggest problems in this community?
- **Additional for Rom Klao:** How do you think this could be resolved if there was the budget to do so/ what more is needed/ where should it go?
- **Additional for Bang Bua:** Are you happy now? What has changed since?
- **Additional for Bang Bua:** What more do you think is needed here in terms of outdoor spaces?
- **Additional for Bang Bua:** Have you built anything else since the architects left?
- **Additional for Bang Bua:** What improvements are needed for the future?

- **Additional for Bang Bua:** How important is it to you to have communal spaces?
- **Additional for Bang Bua:** What are the benefits of communal spaces?
- **Additional for Bang Bua:** What do you use communal spaces for?

Additional questions for people in a specific space or doing a specific activity:

- what are you doing? **Amended to for Bang Bua:** What do you do here?
- **Additional from Hua Khong onwards:** What else do you do here?
- How does this space allow you to do that?
- Why don't you do that inside your house?
- What does it mean to you to have this space?
- What else happens here?
- Who else uses this space?
- Who may use these plants?
- Why do you do that here?
- **Additional for Rom Klao and Hua Khong:** Where do you go for community meetings?
- **Additional for Rom Klao:** What is discussed there?
- **Additional for Rom Klao and Bang Bua:** What happens here at night?
- **Additional for Rom Klao:** Why have you created this space when the park is so close?
- **Additional for Rom Klao and Bang Bua:** Is this space public or private?
- **Additional for Rom Klao and Bang Bua:** How would you improve this space so it could function better in relation to how you use it?
- **Additional for Rom Klao and Bang Bua:** Why did you make it like this?
- **Additional for Rom Klao:** What did you do before you had this?
- **Additional for Rom Klao:** How has it made things better? (what has it enabled you to do that you couldn't do previously?) **Amended for Bang Bua too:** How has it improved your life?
- Do spaces like this improve community relations?

Additional questions for garden owners:

- What do you grow these plants for?
- **Additional for Bang Bua:** what plants do you grow?
- How important are they to you?
- What does the garden (or plants) mean to you?
- Why do you keep them where you do? **Amended for Rom Klao and Bang Bua:** Why do you grow them here?
- How much time do you spend looking after them?

- **Additional for Rom Klao:** Are they for your use only or do other people use them as well?
- **Additional for Bang Bua:** What do you like about growing plants?
- **Additional for Rom Klao and Bang Bua:** How do you feel when you see trees and plants?
- **Additional for Bang Bua:** What benefits do you think plants have?
- **Additional for Bang Bua:** What do other people say to you about growing plants?
- **Additional for Bang Bua:** What more would you like?

Additional questions for street sellers/ people making goods:

- Where do you sell that?
- Why do you sell it there?
- Where did you make it?
- Who buys from you?

Additional questions for those cooking outside:

- Why are you cooking outside?
- Do you sell the food or is it for you/ your family?
- Where do you sell it?
- Who buys from you?
- Why do you sell it there?
- **Additional for Rom Klao:** Why don't you do that inside?

Additional questions for Rom Klao only:

- What do you do if you are stressed or upset?
- Is it important for you to be able to meet/ sit and chat with others?
- Why is outdoor space important to you?
- What do you use it for?
- Do you use the park, what for?

Appendix 10: Questions for Urban Design Professionals and Academics

1. Have you been to any slum settlements and if so, how did you find it?
2. What has been your involvement and what projects have you worked on?
3. Do you know the district authorities future intentions are for slum communities in Bangkok?
4. Do you know if the district authority has been involved with the planning, design or management of specific areas in slum communities?
5. If so, please could you tell me more about that project or projects?
6. Do the district authority prioritise public spaces development in slum communities in your experience/ to your knowledge?
7. Which policies outline or address the development of public spaces in slums and what are the targets?
8. how often have you met with different slum communities and who do you tend to meet with?
9. What are the main problems experienced by the different communities that figure at these meetings?
10. In general, what do the different communities say they want or need in terms of public spaces or related equipment?
11. How would you, as an academic, go about designing and planning public spaces for slum communities in Bangkok and whom would you work with?
12. If a foreign designer wished to be involved in the development of public spaces within slum communities what guidelines would they have to work within?
13. How would they go about the process?

Appendix 12: Activities performed and their location

	LOS (KT/ PM)	HBE (All)	D (All)	SP (KT)	Su (All)	NL (KT)	So (All)	SY (RK)	R (KT)	T (All)	B (All)	PI (PM/ CKBB)	EHP (KT)	K (SMII/ CKBB /PM)	G (All)	CP (All)	TT (K T)	PA (KT/ PM/ CKB B)	SPi (RK/ CKB B)	Total
Recreational Activities		RK	RK	X	RK/ PM/ CKB B	X	X	X	X		X	CKBB	RK	CKBB		KT	KT	X	CKB B	16
Socialising		X	KT/ SMII /CK BB	X	X	X	X	X	X	X	HK/ RK/ PM/ CKB B	X	RK		X	HK		X	X	16
Relaxing and Passive Activities		SMII /CK BB/ PM	KT	X	RK/ PM	X	KT		X	X	X	X	RK		KT	HK		RK/ CKB B		14
Domestic Activities	KT	X	X	X	RK	X	X	X	X	X	X	CKBB	X	SMII/ CKBB	KT/ PM, SMII					14
Storage	RK	X	X		RK		X		X		X	BB2	RK							9

	LOS	HBE	D	SP	Su	NL	So	SY	R	T	B	PI	EHP	K	G	CP	TT	PA	SPi	Total
Economic enterprises		KT/ PM/ CKB B	KT/ PM/ CKB B		RK		X		X	X					KT/ PM		X		KT	9
Car (C) and Motorbike (M) parking		KT (C/ M)	KT (M)	X (C/ M)			X(M)		X(C/ M)				RK (M)			X				7
Thoroughfares				X	RK/ PM		X		X					X			X			6
Keeping animals		X	X	X	RK		X		X											6
Festivals and Ceremonies				X	X		KT		X					X						5
Gardening	HK	X	X	X			KT						RK		/					5
Community Meetings				KT	KT/ PM/ SMII			X												3
Total	3	9	9	10	10	4	11	4	10	4	5	5	7	4	4	4	3	3	3	

LOS= Left over space
HBEs = House and Business Extension

Su = Sunam
NL= Nang Lern

R= Road
T = Tables

EHP= Empty House Plot
K= *Khlong*

D= Doorsteps
SP= Sports Park
TT= Train Tracks

So = *Sois*
SY= School yard
SPi= Sports Pitch

B= Benches
Pl = Platforms
PA= Play Areas

G= Gardens
CP= Car and Motorbike parkin

X = all communities that those OS exist in
SPii = Sapan Mai II
HK= Hua Khong
KT= Khlong Toei communities (Rom Klao and Hua Khong)
PM= Pom Mahakan

CKBB= Chai Khlong Bang Bua
RK= Rom Klao

APPENDIX 13: Scope and Focus of Non Resident Interviews

Name/ Alias	Organisation	Scope and focus of non resident interviews
Rod Sheard (NGO1)	NGO: Urban Neighbours of Hope	<p>Rod Sheard was interviewed because he lived in the Rom Klao community and due to his long standing involvement within Khlong Toei and the individuals who live there.</p> <p>The interview covered questions relating to the following: the use and success of open spaces in Rom Klao and factors impacting on these; how and why he personally used open spaces in Rom Klao; the benefits and importance of open spaces to community members and himself.</p> <p>In addition to these questions, the interview focused on Rod’s perception of the use and importance of open spaces in Rom Klao and what more he felt was needed there in terms of open space provision, what previous mistakes had been made by professionals developing open spaces within Rom Klao and what approach he felt would be more successful. These questions were asked to increase understanding of why certain open spaces developed by community outsiders or in participation with community members were used more than others. As Rod had also lived in other Khlong Toei communities questions additionally focused on his views regarding the relationship between the physical environment and community stability as well as the control and appropriation of space.</p>
Jodie McCartney (NGO2)	NGO: Urban Neighbours of Hope	<p>Jodie MacCartney was interviewed because she lived in the Rom Klao community and due to her long standing involvement within Khlong Toei and the individuals who live there.</p> <p>The interview covered questions relating to the following: the use and success of open spaces in Rom Klao and factors impacting on these; how and why she personally used open spaces in Rom Klao; the benefits and importance of open spaces to community members and herself.</p> <p>In addition to these questions, the interview focused on Jodie’s perception of the use and importance of open spaces in Rom Klao and what more she felt was needed there in terms of open space provision, what previous mistakes had been made by professionals developing open spaces within Rom Klao and</p>

		<p>what approach she felt would be more successful. These questions were asked to increase understanding of why certain open spaces developed by community outsiders or in participation with community members were used more than others.</p> <p>As Jodie had also lived in other Khlong Toei communities questions additionally focused on her views regarding the relationship between the physical environment and community stability as well as the control and appropriation of space.</p>
Father Joseph Maier	NGO: Human Development Foundation, Klong toei	<p>Over several meetings during the fieldwork, research findings and fledgling ideas were discussed with Father Joseph Maier. In addition to this being the focus of meetings, Father Maier also discussed socio-cultural aspects of life within Khlong Toei relating to the following:</p> <p>The importance of open spaces for informal sector work; the role of Khlong Toei dwellings for sleeping and as a kitchen only; that it is a matriarchal society; the role of grandparents as childcarers; the importance and meaning of gardens; the role of women within the communities relating to food, childcare, money, neighbourhood safety and socializing and how this relates to open spaces; the change in society and impacts on open space use, culture, language and religion with the arrival of 7/11 shops, facebook, mobile phones and globalisation along with increasing numbers of residents becoming wealthier; the change in society and open space use as more Burmese and Cambodians arrive in the communities; the idea that ownership is not permanent relating to Buddhist beliefs and that public/ private do not exist as concepts; the historical layout of Thai settlements; the reducing connection between residents and their villages of origin; the impacts of different political movements on who controls movement within the communities; the relationship between the port and Khlong Toei; the response of local construction techniques to ground conditions;</p>
Nattawat Usavagovitwong	Assistant Professor. Department of Architecture, Sripatum University	<p>Interview questions related to the following: Nattawat's personal involvement in any informal settlement upgrading projects in their capacity as an architectural academic, the district authorities involvement and intentions for informal settlements in Bangkok (in relation to upgrading) and any policies relating to this; the extent of the district authorities involvement in the planning, design or management of informal settlements and open spaces. The local government policies that address the development of open spaces in informal settlements and any related targets.</p>

		<p>The focus of the interview was twofold; firstly to gain insight into their experience as an academic working with slum communities alongside CODI and other stakeholders on Baan Mankong upgrading projects. This included gaining insight into their perception of the successes or failures of participatory processes, the role they played within this and problems they experienced. In addition the associated logistics, including time invested and funding of planning, designing and management of open spaces in informal settlements. The aim was to increase insight into the realities of developing open space interventions in slum communities including potential problems impacting on participatory processes and/or the success of open space interventions.</p> <p>Secondly, it was impossible to secure an interview with a local government member during the fieldwork, consequently the interview also focused on gaining insight into the city's existing and future policies and intentions relating to slum upgrading and the importance placed on investing in public open spaces or experiences in relation to this.</p>
Dr Wijitbusaba Marome	Assistant professor. Faculty of architecture and planning, Thammasat University	<p>Interview questions related to the following: Dr Wijitbusaba's personal involvement in upgrading projects in her capacity as an architectural academic, any difficulties faced and reflections on her and my experiences. In addition, questions also focused on the district authorities involvement and intentions for informal settlements in Bangkok (in relation to upgrading) and any policies relating to this; the extent of the district authorities involvement in the planning, design or management of informal settlements and open spaces. The local government policies that address the development of open spaces in informal settlements and any related targets.</p> <p>The focus of the interview was twofold; firstly to gain insight into Dr Wijitbusaba's experience as an academic working with slum communities alongside CODI and other stakeholders on Baan Mankong upgrading projects. Secondly, to gain into Dr Wijitbusaba's experience as an academic working with community members on the Community Lantern in Lok 1-2-3. Both parts of the interview included gaining insight into her perception of the successes or failures of participatory processes in each case, the role they played within these and problems they experienced for both. In addition the associated logistics, including time invested and funding of planning, designing and management of open spaces in</p>

		informal settlements. The aim was to increase insight into the realities of developing open space interventions in slum communities including potential problems impacting on participatory processes and/or the success of open space interventions. Secondly, it was impossible to secure an interview with a local government member during the fieldwork, consequently the interview also focused on gaining insight into the city's existing and future policies and intentions relating to slum upgrading and the importance placed on investing in public open spaces or experiences in relation to this.
Prateep Ungsongtham Hata (NGO3)	NGO: Duang Prateep Foundation founder and Khlong Toei resident	<p>Khun Prateep was interviewed during Phase 1 of the fieldwork, the focus of the interview was to gain an understanding of the development of Khlong Toei in order to identify where was safe to conduct research and which communities of the twenty plus that exist would be of most research interest.</p> <p>Questions also covered the physical development of the communities; the backgrounds of original settlers; the successes and failures of different upgrading schemes that have been implemented; upgrading and open space intervention processes; the use of open spaces; the importance of open spaces; the factors impacting on community unity within the different Khlong Toei communities; the relationships between open spaces and mental and physical health, social stability, community well being and antisocial behaviour within the communities; the relationship between residents and plants and trees; the impacts of improving the urban environment on tenure security.</p>

Appendix 14: List of Interviewees (Residents)

Alias	Gender	Age	Profile	Notes	Employment status
Hua Khong Community, Khlong Toei					
Khun W (HK1)	M	62	resident		Retired hospital porter
Khun Pe (HK3)	F	54	resident		Community shopkeeper
Khun No (HK4)	F	66	resident	Extended family	Unemployed due to illness. Looks after grandchildren
Khun T (HK4)	F	58	resident		Unemployed due to illness
Khun L (HK5)	F	61	resident		Unemployed-looks after grandchildren
Khun M (HK6)	F	67	resident		Food seller within community
Khun Soai (HK7)	F	84	resident		Community shopkeeper
Khun Jai (HK8)	F	66	resident	A household	Housewife
Khun S (HK8)	M	62	resident		Truck driver
Khun Nae (HK9)	M	32	resident	Extended family	Community restaurant owner
Khun Sin, (HK9)	F	36	resident		Unemployed
Khun Poy (HK10)	F	54	Lives outside of community		Community shopowner
Khun Sa (HK11)	F	55	resident		Taxi driver
Khun Si (HK12),	F	60	resident		Unemployed-housewife
Khun B (HK13)	F	35	resident		Unemployed-looks after nephew
Khun Pat (HK14)	F	35	resident		Community shop owner
Khun Piy (HK15)	F	52	resident		Binds documents at home for a company in the

					city
Khun Num (HK16)	F	56	resident		Informal seller, outside community
Khun Mi (HK17)	F	84	resident		Retired
Khun Ponpet (HK20)	M	-	Community leader		
Khun Sonjai (HK20)	F	-	Community leaders wife		

Alias	Gender	Age	Profile		Employment status
Rom Klao Community, Khlong Toei					
Khun Sou (RK2)	F	54	resident		shopkeeper
Nong Dee (RK3)	F	17	resident		student
Khun Som (RK4)	F	40	resident		-
Khun Men (RK5)	M	72	resident		Retired taxi driver
Khun Sui (RK6)	F	63	resident		Retired domestic worker in the city. Now looks after grandchildren
Khun Faw (RK9)	F	47	resident		PAT labourer
Khun So (RK11)	F	66	resident		Shop keeper
Khun Dee (RK12)	F	40	resident	Extended family	
Nong Ti (RK12)	F	17	resident		
Khun Po (RK13)	F	46	resident		-
Khun Sup (RK20)	F	44	resident		-
Khun Y (RK20)	F	68	resident		unemployed
Khun Gum (RK21)	M	60+	resident	Community committee member	

Alias	Gender	Age	Profile	Notes	Employment status
Lok 1-2-3 Community, Khlong Toei					
Group 1 (HKP1)	F	-	residents	Group of five middle aged	

				women	
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Alias	Gender	Age	Profile	Notes	Employment status
Pom Mahakan Community					
Khun Bee (PM1)	M	25	resident		Goods seller (outside of <i>chumchon</i>)
Khun Vo (PM3)	F	50	resident		Retired
Nong F (PM4)	F	teen ager	resident		Student
Khun Sao (PM5)	F	51	resident		-
Khun Yo (PM6)	F	49	resident		Unemployed-Housewife
Khun Chat (PM7)	M	48	resident		Goods seller (outside of <i>chumchon</i>)
Khun F (PM9)	F	50	resident		Shop keeper
Khun Cha (PM10)	M	40	resident		Goods seller (insider community)

Alias	Gender	Age	Profile	Notes	Employment status
Sapan Mai II Community, Bang Bua					
Khun Soj (BB11)	F	62	resident		retired
Khun G (BB14)	F	35	Visiting family		-
Khun J (BB15)	F	86	resident		Informal seller in community

Name/ Alias	Gender	Age	Profile	Notes	Employment status
Chai Khlong Bang Bua Community, Bang Bua					
Kuhn Wich (BB21)	M	43	resident		-
Nong T (BB22)	M	15	resident		-
Khun Prapasee (BB27)	F	51	resident	Secretary to the community leader	
Khun Sid (BB29)	F	70	resident		Retired
Khun Ch (BB210)	F	80	resident		-
Khun Saim (BB211)	F	63	resident		-
Khun Soitong	F	42	resident	Community	

Kampadeep (BB212)				leaders daughter	
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Alias	Gender	Age	Profile	Notes	Community
Gardeners					
Khun Soit (G4)	F	50	resident		Rom Klao
Khun Nar (G5)	F	75	resident		Rom Klao
Khun Pee (G6)	M	-	resident		Rom Klao

Alias	Gender	Age	Profile	Notes	Community
Empty House Plot					
Khun Soo (EHP1)	F	39	resident		Rom Klao
Khun SK (EHP2)	F	56	resident		Rom Klao
Khun Son (EHP3)	F	55	resident		Rom Klao

Alias	Gender	Age	Profile	Notes	Community
Lantern House					
Nong Maw (CL1)	M	5	resident		Lok 1-2-3
Nong Tin (CL2)	M	15	resident		Lok 1-2-3
Khun Somal (CL3)	F	55	resident		Lok 1-2-3
Khun Vow (CL4)	M	-	resident		-
Khun Shor (CL5)	F	-	resident		Main road
Khun Cher (CL6)	M	55	resident		Lok 1-2-3
Khun Jana (CL7)	F	63	resident		Lok 1-2-3
Khun Sodet (CL8)	F	61	resident		Lok 1-2-3
Khun Kaorn (CL9)	F	54	resident		Lok 1-2-3
Khun Gan (CL10)	M	-	Resident		Lok 1-2-3
Khun Akan (CL11)	F	33	resident		Lok 1-2-3
Nong Doe (CL12)	M	17	resident		Lok 1-2-3

Alias	Gender	Age	Profile	Notes	Community
Rom Klao Sunam					
Nong Tal (RKCS1)	M	14	resident		Rom Klao
Nong Gae (RKCS2)	M	11	resident		Rom Klao
Khun Ay (RKCS3)	M	26	resident		Rom Klao
Khun Sal (RKCS7)	F	41	resident		Rom Klao
Khun Aim (RKCS8)	F	69	resident		Rom Klao
Khun Teem (RKCS9)	F	64	resident		Rom Klao
Khun Sha (RKCS10)	F	79	resident		Rom Klao
Khun Sunek (RKCS13)	F	Over 50	resident		Rom Klao
Nong Do (RKCS15)	M	Approx. 9	resident		-

Alias	Gender	Age	Profile	Notes	Community
Open space type: <i>Nang Lern</i>					
Khun Tam (N1)	M	62	resident		Rom Klao
Khun Tu (N2)	M	54	resident		Hua Khong
Khun Chai (N3)	M	57	resident		Rom Klao
Khun Wan (N4)	F	57	resident	<i>Nang Lern A</i>	Hua Khong
Khun Sin (N5)	F	36	resident	<i>Nang Lern A</i>	Hua Khong
Khun Sun (N6)	F	20	resident	<i>Nang Lern A</i>	Hua Khong
Khun Nae (N7)	M	32	resident	<i>Nang Lern A</i>	Hua Khong

Alias	Gender	Age	Profile	Notes	Community
Open space type: Sports park					
Khun Pae (SP1)	F	29	resident		Flats 13
Khun Surn (SP2)	F	46	resident		Rom Klao
Khun Bet (SP3)	M	23	resident		Flats -
Nong Somp (SP4)	M	16	not a resident	Visiting friends and using facilities	-
Khun Bu (SP7)	F	44	resident		Hua Khong
Khun Ban (SP9)	F	63	resident		Rom Klao
Khun Wila (SP10)	F	41	resident		Rom Klao
Khun Chon	F	30	resident		Flats 18

(SP10)					
Khun Ano (SP12)	F	64	resident		Flats 16
Khun N (SP14)	F	38	resident		Flats -

Bibliography

Adger, N. W. and Brooks, N. (2003) Global environmental change. In: M. Pelling (Ed.) *Natural disasters and development in a globalizing world*. London, Routledge. pp.19 –42.

AGCI. (2011) *Asian Green City Index. Assessing the environmental performance of Asia's major cities*. Available from: http://sg.siemens.com/city_of_the_future/_docs/Asian-Green-City-Index.pdf [Accessed 2nd August 2016].

Agnew, J. (2011) Space and Place. In: J. Agnew and D. Livingstone (Eds.) *Handbook of Geographical Knowledge*. London, SAGE. Forthcoming. Available from: <http://www.sscnet.ucla.edu/geog/downloads/856/416.pdf> [15th August 2016].

Alfonso, A.I. (2004) New graphics for old stories: representation of local memories through drawings. In: S. Pink. L. Kürti and A. I. Afonso. (Eds.) *Working images. Visual research and representation in ethnography*. London and New York, Routledge. pp. 66-83.

Allen, R. (2000) *The New Penguin English Dictionary*. London, Penguin Books Ltd.

Alsayyad, N. (2004) Urban informality as a 'new' way of life. In: A. Roy and N. Alsayyad (Eds.) *Urban Informality: Transnational Perspectives from the Middle East, Latin America and South Asia*. United States of America, Lexington Books. pp.7-30.

Alsayyad, N. and Roy, A. (2004) Prologue/dialogue urban informality: crossing borders. In: A. Roy and N. Alsayyad (Eds.) *Urban Informality: Transnational Perspectives from the Middle East, Latin America and South Asia*. United States of America, Lexington Books. pp.1–6.

Altman, I and Low, S. (1992) Preface. In: I. Altman and S. M. Low (Eds.) *Place attachment*. New York, Plenum Press. pp.xi-xii.

American University. (2003) *Centre for the Global South*. Available from: <http://www1.american.edu/academic.depts/acainst/cgs/about.html> [Accessed 2nd August 2016].

Archer, D. (2009) *Social capital and participatory slum upgrading in Bangkok, Thailand*. PhD thesis, University of Cambridge. Available from: <https://www.repository.cam.ac.uk/bitstream/handle/1810/244821/Diane%20Archer%20thesis.pdf;sequence=1> [Accessed 20th March 2017].

Archer, D. (2010) *Empowering the urban poor through community-based slum upgrading: the case of Bangkok, Thailand*. Nairobi, 46th ISOCARP

Congress. Available from:
http://www.isocarp.net/Data/case_studies/1648.pdf [Accessed 11th August 2016].

Arimah, B and Adeagbo, D. (2000) Compliance with urban development and planning regulations in Ibadan, Nigeria. *Habitat International*, 24(3), pp.279-294. doi:10.1016/S0197-3975(99)00043-0

Aruninta, A. (2008) *Landscape architecture in Thailand. Series: The state of the profession around the world*. Available from:
http://www.academia.edu/221462/Landscape_Architecture_in_Thailand_Series_The_State_of_the_Profession_around_the_World [Accessed 11th August 2016].

Aruninta, A. (2008a) 2007 – 30 years of landscape architecture in Thailand. *International Federation of Landscape Architects Newsletter*, No. 74, pp. 8-9. Available from:
file:///Users/tomosevans/Downloads/2007_30_Years_of_Landscape_Architecture.pdf [Accessed 24th March 2017].

Askew, M. (2002) *Bangkok Place Practice and Representation*. Oxon, Routledge.

Baker, C. and Phongpaichit, P. (2005) *A history of Thailand*. Cambridge, Cambridge University Press.

Balke, B. (1987) Exercise and mental health. *The Journal of the American Medical Association*, 258(15), pp.2133-2134.
doi:10.1001/jama.1987.03400150125046.

Barker, A. (2012) *Slum life rising how to en flesh hope within a new urban world*. Australia, UNOH Publishing.

Barrett, G. (2012) Priest walks the talk in Bangkok slums — lives to write about it. *Huffington Post*, [online]. Available from:
http://www.huffingtonpost.com/greg-barrett/priest-walks-the-talk-in-b_1944767.html [Accessed 2nd August 2016].

Bayat, A. (2004) Globalization and the politics of the informals in the global south. In: A. Roy and N. Alsayyad (Eds.) *Urban informality: transnational perspectives from the Middle East, Latin America and South Asia*. United States, Lexington Books. pp.79-102.

Beardsley, J. Werthmann, C. (2008) Dirty work. *Topos*, 64, pp.36–42.

Bell, J. (2010) *Doing your research project A guide for first-time researchers in education, health and social science*. 5th ed. New York, Open University Press.

Bhaskar, R. and Lawson, T. (1998) Introduction: Basic texts and developments. In: M. Archer, R. Bhaskar, A. Collier, T. Lawson and A. Norrie (Eds.) *Critical Realism Essential Readings*. London, Routledge. pp. 3-15.

Bhatkal, T. and Lucci, P. (2015) *Community driven development in the slums: Thailand's experience*. London, Overseas Development Institute. Available from: <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9668.pdf> [Accessed 11th August 2016].

Biermann, F. Pattbery, P. and Zelli, F. (2010) Global climate governance beyond 2012: an introduction. In: F. Biermann, P. Pattbery and F. Zelli. (Eds.) *Global climate governance beyond 2012: architecture, agency and adaptation*. Cambridge, Cambridge University Press. pp.1-12.

Billig, N. (2009) Evaluation of open space form and use in an Istanbul squatter settlement. L. Lička and E. Schwab (Eds.) *Landscape – Great Idea! X–LArch III, Vienna, 29 April – 1 May 2009*. University of Natural Resources and Applied Life Sciences, Vienna. Available from: http://www.rali.boku.ac.at/fileadmin/data/H03000/H85000/H85200/X_LArch_3_2009_090531_xlarch_all.pdf [Accessed 11th August 2016].

Binns, T. (2006) Doing fieldwork in developing countries: planning and logistics. In: V. Desai and R. B. Potter (Eds.) *Doing Development Research*. London, SAGE Publications Ltd. pp.13-24.

Bjork-Kelvy, I. (2010) Forewords. In: World Health Organisation. (WHO) and United Nations Settlement Programme. (UN-Habitat) (Eds). *Hidden Cities: Unmasking and Overcoming Health Inequities in Urban Settings*. Switzerland, World Health Organisation and United Nations Human Settlements Programme. pp. V. Available from: http://www.who.int/kobe_centre/publications/hiddencities_media/who_un_habitat_hidden_cities_web.pdf [Accessed 14th March 2013].

Blaikie, P. Cannon, T. Davis, I. Wisner, B. (1994) *At Risk: Natural hazards, people's vulnerability, and disasters* London, Routledge.

Boonyabanha, S. (2005) Baan Mankong: going to scale with “slum” and squatter upgrading in Thailand. *Environment and Urbanization*, 17(1), pp.21-46. Available from: <http://journals.sagepub.com/doi/pdf/10.1177/095624780501700104> [Accessed 20th March 2017].

- Boonyabancha, S. (2009) Land for housing the poor- by the poor. Experiences from the Baan Mankong nationwide slum upgrading programme in Thailand. *Environment and Urbanization*, 21(2), pp.309-329. DOI: 10.1177/0956247809342180 [Accessed 20th March 2017].
- Brand, P. Davilá, J.D. (2011) Mobility innovation at the urban edges. *City: analysis of urban trends, culture, theory, policy, action*, 15(6), pp.647-661. Available from: <http://www.tandfonline.com.eresources.shef.ac.uk/doi/pdf/10.1080/13604813.2011.609007> [Accessed 18th July 2016].
- Brewer, J.D. (2000) *Ethnography*. Buckingham, Open University Press.
- Bristol, G. (2005) Pom Mahakan: Community design and human rights. *Annual Conference of the Association of Community Design, New York 31 March- 2 April 2005*. Bangkok, Centre for Architecture and Human Rights. Available from: <http://cahr.kmutt.ac.th/file/editor/pdf/Papers/Community%20Design%20and%20Human%20Rights-illus.pdf> [Accessed 11th August 2016].
- Bryant, A. and Charmaz, K. (2012) Introduction Grounded Theory research: methods and practices. In: A. Bryant and K. Charmaz (Eds.) *The SAGE Handbook of Grounded Theory*. London, SAGE Publications Ltd. pp.1-128.
- Buchanan, P. (2013) The big rethink part II: urban design. *The Architectural Review*, [online] Available from: <http://www.architectural-review.com/home/the-big-rethink/the-big-rethink-urban-design/8643367.article> [Accessed 7th August 2016].
- Callahan, W. A. (2005) Social capital and corruption: vote buying and the politics of reform in Thailand. *Perspectives on Politics*, 3(3), pp.495-508. doi: 10.1017/S1537592705050310 [Accessed 20th March 2017].
- Calman, L. (2011) *What is Grounded Theory?* Available from: <http://www.methods.manchester.ac.uk/medialibrary/docs/gt.pdf> [Accessed 2nd August 2016].
- Carmona, M., Tiesdell, S., Heath, T. and Taner Oc, T. (2010) *Public places urban spaces: the dimensions of urban design*. 2nd ed. London, Routledge.
- Carr, S. Francis, M. Rivlin, L. and Stone, A. (1992) *Public Space*. United States of America, Cambridge University Press.
- Carrus, G., Scopelliti, M., Fornara, F., Bonnes, M. and Bonaiuto, M. (2014) Place attachment, community identification, and pro-environmental engagement. In: L. C. Manzo and P. Devine-Wright (Eds.) *Place*

attachment: advances in theory, methods and applications. Oxon, Routledge. pp.154-164.

CartoGIS, College of Asia and the Pacific, The Australian National University. 2016. Thailand Regions. Scale: 300 kilometers to 1". Canberra, The Australian National University. Available from: <http://asiapacific.anu.edu.au/maponline/base-maps/thailand-regions> [Accessed 14th August 2016].

Castells, M. (1983) *The city and grassroots. A cross-cultural theory of urban social movements.* London, Edward Arnold Ltd.

Chadchaidee, T. (1994) *Essays on Thailand.* Bangkok, Thanapol Vittayakarn Co., Ltd.

Chaichongrak, R. and Panin, O. (2002) *The Thai house: history and evolution.* Trumbull, CT, Weatherhill.

Chan, M. (2010) Forewords. In: World Health Organisation. (WHO) and United Nations Settlement Programme. (UN-Habitat) (Eds). *Hidden Cities: Unmasking and overcoming health inequities in urban settings.* Switzerland, World Health Organisation, and United Nations Human Settlements Programme (UN-HABITAT). pp. IV. Available from: http://www.who.int/kobe_centre/publications/hiddencities_media/who_un_habitat_hidden_cities_web.pdf?ua=1 [Accessed 2nd August 2016].

Chaplin, S. (1999) Cities, sewers and poverty: India's politics of sanitation. *Environment and Urbanism*, 11(1), p.145-158. Available from: <http://eau.sagepub.com.eresources.shef.ac.uk/content/11/1/145.full.pdf+html> [Accessed 2nd August 2016].

Charter of Public Space. (2013) *Charter of public space.* Available from: <https://drive.google.com/a/sheffield.ac.uk/file/d/0B5-VDO042qGmQ11XRFhkaFRLTDA/view> [Accessed 2nd August 2016].

Chulalongkorn University. (2009) *Department of Landscape Architecture. Faculty of Architecture Chulalongkorn University.* Available from: <http://www.land.arch.chula.ac.th/eng/> [Accessed 24th March 2017].

Chumchon in Bangkok. (2005) Chumchon Nai Khet Krungthep Mananakhon Pi Po So 2548. Available from: <http://cpd.bangkok.go.th:90/web2/strategy/reportstudy50/resident/50-3%20comunitystudystudy2548.pdf> [Accessed 23rd August 2016].

Chutapruttikorn, R. (2011) *Life on the tracks: Reconstructing home in informal railway settlements, Bangkok.* PhD thesis, Newcastle University.

Clos, J. (2013) Foreword. In: UN Habitat. (Ed.) *Streets as public spaces and drivers of urban prosperity*. Kenya, UN-Habitat. pp.iii-iv. Available from:

<http://mirror.unhabitat.org/pmss/getElectronicVersion.aspx?nr=3513&alt=1> [Accessed 9th August 2016].

Clos, J. (2015a) Foreword. In: UN Habitat. (Ed.) *Global public space toolkit: from global principles to local policies and practice*. Kenya, UN-Habitat. pp.iv-v. Available from: <http://unhabitat.org/wp-content/uploads/2015/10/Global%20Public%20Space%20Toolkit.pdf> [Accessed 9th August 2016].

Clos, J. (2015b) Foreword. In: UN Habitat. (Ed.) *Planned city extensions: analysis of historical examples*. Kenya, UN-Habitat. pp.iv-v. Available from: <http://unhabitat.org/books/planned-city-extensions-analysis-of-historical-examples/> [Accessed 9th August 2016].

Clos, J. (2015c) Foreword. In: UN Habitat. (Ed.) *UN-Habitat global activities report: 2015 – Increasing Synergy for Greater National Ownership*. Kenya, UN-Habitat. pp.iv-v. Available from: <http://unhabitat.org/books/un-habitat-global-country-activities-report-2015-increasing-synergy-for-greater-national-ownership/> [Accessed 9th August 2016].

CODI. (2006) Bang Bua canal community network in Bangkok: The redevelopment of 12 canal-side communities along Klong Bang Bua Available from:

http://www.codi.or.th/downloads/english/Baanmankong/Canal_side/Bang%20Bua%20Story%20March%202006.pdf [Accessed 14th August 2016].

CODI (2006a) Move the houses back from the canal. *A translation of a Thai-language story in the Kom Chad Leuk Thai-language Newspaper, 29 March, 2006*. Available from:

http://www.codi.or.th/downloads/english/Baanmankong/Canal_side/Bang%20Bua%20Story%20March%202006.pdf [Accessed 14th August 2016].

CODI. (2008) CODI update: 50 community upgrading projects.

Environment and Urbanisation, 20(2), pp.587-589. Bangkok, Community Organisations Development Institute. Available from: <http://www.environmentandurbanization.org/codi-update-50-community-upgrading-projects> [Accessed 14th August 2016].

Collier, A. (1994) *Critical Realism. An introduction to Roy Bhaskar's Philosophy*. London, Verso.

- Conan, M. (2010) Introduction. Reinventing landscape form and the experience of beauty. In: D. Balmori (Ed.) *A Landscape Manifesto*. New Haven, Yale University Press. pp.viii-xliii.
- Connell, R. (2008) Extracts from Southern theory: the global dynamics of knowledge in social science. *Australian Humanities Review*, 44.
Available from:
<http://www.australianhumanitiesreview.org/archive/Issue-March-2008/connell.html#extracts> [Accessed 14th August 2016].
- Conradson, D. (2003) Doing organisational space: practices of voluntary welfare in the city. *Environment and Planning A*, 35, pp.1975-1992.
doi:10.1068/a3584
- Cook, G.C. (2002) Henry Currey FRIBA (1820-1900): Leading Victorian hospital architect and early exponent of the 'Pavilion Principle'. *Postgraduate Medical Journal*, 78(9), pp.352- 359. Available from:
<http://pmj.bmj.com/content/78/920/352.full.pdf> [Accessed 2nd August 2016].
- Cooke, B. and Kothari, U. (2001) The Case for Participation as Tyranny. In: B. Cooke and U. Kothari (Eds.) *Participation the new tyranny?* London, Zed Books. pp.1-15.
- Cooper Marcus, C. (1992) Environmental memories. In: *Place attachment*. In: I. Altman and S. M. Low (Eds.) *Place attachment*. New York, Plenum Press. pp.87-112.
- Corner, J. (1999) Introduction: recovering landscape as a critical cultural practice. In: J. Corner (Ed.) *Recovering landscape: essays in contemporary landscape architecture*. U.S., Princeton Architectural Press. pp.1-26.
- Corner, J. (2006) Terra Fluxus. In: C. Waldheim (Ed.) *The Landscape Urbanism Reader*. New York, Princeton Architectural Press. pp.21-33.
- Cox, W. (2012) *The evolving urban form: Bangkok*. Available from:
<http://www.newgeography.com/content/003367-the-evolving-urban-form-bangkok> [accessed 29th November 2014].
- Crang, M. (1998) *Cultural Geography*. London, Routledge.
- Crawford, M. (2008a) Introduction. In: J.L. Chase M. Crawford and J. Kaliski (Eds.) *Everyday Urbanism*. New York, The Monacelli Press. pp.6-11
- Crawford, M. (2008b) Preface: The current state of Everyday Urbanism. In: J.L. Chase M. Crawford and J. Kaliski (Eds.) *Everyday Urbanism*. New York, The Monacelli Press. pp.12-15

Crook, M. (2011) *Hanging on for better times in Bangkok's Klong Toey slum*. Available from: http://travel.cnn.com/bangkok/life/hanging-better-times-197731_ [Accessed 2nd August 2016].

Cullen, G. (1971) *The precise townscape*. Oxford, Architectural Press.

Curran, P. ASLA and Schneider, E. (2006) Bringing solutions to Sub-Saharan Africa: Landscape Architects advocate Landscape Infrastructure Solutions in Kibera Slum in Nairobi, Kenya. Available from: <http://www.asla.org/ppn/article.aspx?id=2980> [Accessed 3rd December 2012].

Curry, M. (2002) Discursive displacement and the seminal ambiguity of space and place. In: L. Lievrouw and S. Livingstone (Eds.) *The Handbook of New Media*. London, SAGE Publications. pp.502-517.

Da Silva, O. and Pink, S. (2004) In the Net: anthropology and Photography. In: S. Pink, L. Kürti and A. I. Afonso. (Eds.) *Working images. Visual research and representation in ethnography*. London and New York, Routledge. pp.156-163.

Danermark, B., Ekström, M., Jakobsen, L. and Karlsson, J. Ch. (2002). *Explaining society: Critical Realism in the Social Sciences*. Oxon, Routledge.

Davis, M. (2006) *Planet of Slums: Urban Involution and the Informal Proletariat*. London, Verso.

de Laine, M. (2000) *Fieldwork, participation and practice Ethics and dilemmas in qualitative research*. London, SAGE Publications.

Dee, C. (2001) *Form and fabric in landscape architecture A visual introduction*. London, Spon Press.

Dee, C. (2012) *To design landscape art, nature and utility*. Oxon, Routledge.

Dechalart, P. (1999) *NGOs, advocacy and popular protest: a case study of Thailand*. CVO International working papers No. 6, London School of Economics and Political Science. Available from: <http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan041250.pdf> [Accessed 24th March 2017].

Delanty, G. and Strydom, P. (2003) Introduction. What is the philosophy of social science? In: G. Delanty and P. Strydom (Eds.) *Philosophies of Social Science: The classic and contemporary readings*. Philadelphia, Open University Press. pp.1-12.

- Deming, M.E. and Swaffield, S. (2011) *Landscape architecture research: enquiry, strategy, design*. Hoboken, John Wiley and Sons Inc.
- Dettmar, J. (2005) Nature dominated development in urban landscapes. In: Institute for Landscape Architecture, ETH Zurich (Ed.) *Landscape Architecture in Mutation-essays on urban landscape*. Langenau, Honold Druck & Medien. pp.79-97.
- Dewan Verma, G. (2001) Indore's habitat improvement project: success or failure? *Habitat International*, 24(1), pp.91-117. doi: 10.1016/S0197-3975(99)00031-4
- Doan, A.E. and Portillo, S. (2016) Not a woman, but a soldier: exploring identity through translocational positionality. *Sex Roles*, pp.1-14. doi:10.1007/s11199-016-0661-7
- Dorgan, K. A. (2008) Principles of engagement: (mis)understanding the community-design studio. *Cityscape*, 10(3), pp.9-19. Available from: http://www.jstor.org.eresources.shef.ac.uk/stable/pdf/20868667.pdf?_=1468682347167 [Accessed 2nd August 2016].
- Duang Prateep Foundation. (2008) *Experiences of the past provide a vision for the future 30 years Duang Prateep foundation*. Bangkok, Sikkha Asia Printer.
- Ercan, M. A. (2010) Less public than before? Public space improvement in Newcastle city centre. In: A. Mandanipour (Ed.) *Whose public Space? International case studies in urban design and development*. Oxon, Routledge. pp.21-50.
- Evans, G. W. and Cohen, S. (1987) Environmental stress. In: D. Stokols and I. Altman (Eds.) *Handbook of Environmental Psychology. Volume 1*. New York, Wiley-Interscience Publicaton. pp.571- 610.
- Few, R. (2003) Flooding, Vulnerability and Coping Strategies: Local Responses to a Global Threat. *Progress in Development Studies*, 3(1), pp.43-58. Available from: <http://pdj.sagepub.com/cgi/doi/10.1191/1464993403ps049ra> [Accessed 4th February 2013].
- Fiori, J. and Brandao, Z. (2010) Spatial strategies and urban social policy: urbanism and poverty reduction in the Favelas of Rio de Janeiro. In: F. Hernandez, P. Kellett, P. and L. Allen (Eds.) *Rethinking the Informal City: Critical Perspectives from Latin America*. United States, Berghahn Books. pp.181- 205.

Frampton, K. (1991) In search of the modern landscape. In: S. Wrede and W. H. Adams (Eds.) *Denatured visions: landscape and culture in the twentieth century*. New York, Museum of Modern Art. pp.42- 61.

Franck, K. A. and Stevens, Q. (2007) Tying down loose space. In: K. A. Franck and Q. Stevens (Eds.) *Loose space: Possibility and diversity in urban life*. Oxon, Routledge. pp.1-33.

Gandy, M. (2006) Planning, anti-planning and the infrastructure crisis facing metropolitan Lagos. *Urban Studies*, 43(2), pp.371-396.
doi: 10.1080/00420980500406751

Gehl, J. (2011) *Life between buildings using public space*. Washington, Island Press.

Gehl, J. (2010) *Cities for people*. Washington, Island Press.

Ghosh, N. (2012) *Children in Bangkok slums facing dire plight*. Available from: <http://www.thejakartaglobe.com/archive/children-in-bangkok-slums-facing-dire-plight/> [Accessed 14th August 2016].

Girod, C. (2006) Vers une nouvelle nature. In: Institute for Landscape Architecture, ETH Zurich (Ed.) *Landscape Architecture in Mutation-essays on urban landscape*. Langenau, Honold Druck & Medien. pp.19-33.

Glass, M.R. (2015) Teaching critical reflexivity in short-term international field courses: practices and problems. *Journal of Geography in Higher Education*, 39(4), pp.554-567. Available from: <http://www.tandfonline.com.eresources.shef.ac.uk/doi/full/10.1080/03098265.2015.1084610?scroll=top&needAccess=true> [Accessed 14th August 2016].

Glick Schiller, N. and Schmidt, G. (2015) Envisaging place: urban sociabilities within time, space and multiscale power. *Identities*, 23(1), pp.1-16. Available from: <http://www.tandfonline.com.eresources.shef.ac.uk/doi/abs/10.1080/1070289X.2015.1016524> [Accessed 8th August 2016].

Grahn, P. and Stigsdotter, U. A. (2003) Landscape planning and stress. *Urban Forestry & Urban Greening*, 2(1), pp.1-18. Available from: http://ac.els-cdn.com/S1618866704700199/1-s2.0-S1618866704700199-main.pdf?_tid=7581f172-5378-11e6-9eaa-00000aab0f6b&acdnat=1469568931_f24a3e1f0251ec5d8523002b18d78113 [Accessed 2nd August 2016].

Grasseni, C. (2004) Video and ethnographic knowledge: skilled vision in the practice of breeding. In: S. Pink, L. Kürti and A. I. Afonso. (Eds.) *Working images. Visual research and representation in ethnography*. London and New York, Routledge. pp. 12-2.

Gray, D. D. (1989) Bangkok's slums harbouring hopes as well as squalor, violence, despair. *Los Angeles Times*. Available from: http://articles.latimes.com/1989-08-13/news/mn-658_1_slum-children [Accessed 23rd July 2016].

Green, J. (2011) *Interview with Tim Duggan Make It Right Foundation*. Available from: <http://dirt.asla.org/2011/01/12/interview-with-tim-duggan-make-it-right-foundation/> [Accessed 2nd August 2016].

Groen, A. (2011) *Building towards safety: Tenure security & the improvement of living conditions in Bangkok slums*. Bachelor thesis, University of Amsterdam. Available from: <http://dare.uva.nl/cgi/arno/show.cgi?fid=215672> [Accessed 24th August 2016].

Groenewegen, P., van den Berg, A. E., de Vries, S. and Verheif, R. A. (2006) Vitamin G: effects of green space on health, well-being, and social safety. *BMC Public Health*, 6(1), pp.49-57. Available from: <http://www.biomedcentral.com/1471-2458/6/149> [Accessed 2nd August 2016].

Habermas, J. (1989) *The structural transformation of the public sphere: an enquiry into a category of Bourgeois Society*. Trans. by Thomas Burger with the assistance of Fredrick Lawrence. Cambridge, Polity Press.

Habraken, J. (1998) *The structure of the ordinary: form and control in the built environment*. Cambridge, massachusetts, MIT Press.

Hardoy, J. Mitlin, D. Satterthwaite, D. (2006) *Environmental problems in an urbanizing world*. London, Earthscan.

Harris, P. G. (2011) Climate Change. In: G. Kutting (Ed.) *Global Environmental Politics Concepts, Theories and Case Studies*. London, Routledge. pp.107-118.

Harris, A. and Moore, S. (2013) Planning histories and practices of circulating urban knowledge. *International Journal of Urban and Regional Research*, 37(5), pp.1499-1509. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/1468-2427.12043/epdf> [Accessed 2nd August 2016].

Hartig, T. Evans, G.W. Jamner, L.D. and Garling, T. (2003). Tracking restoration in natural and urban field settings. *Journal of Environmental Psychology*, 23(3), pp. 109-123. doi: 10.1016/S0272-4944(02)00109-3

Harvey, D. (1990) *The Condition of Post Modernity: an Enquiry into the Origins of Cultural Change*. Oxford, Basil Blackwell.

Harvey, D. (1993) From space to place and back again: Reflections on the condition of postmodernity. In: J. Bird, B. Curtis, T. Putnam, G. Robertson and L. Tickner (Eds.) *Mapping the Futures: Local Cultures, Global Change*. London, Routledge. pp. 3–29.

Hasan, A. (2004) The changing nature of the informal settlement in Karachi due to Global restructuring and liberalisation and its repercussions. In: A. Roy and N. Alsayyad (Eds.) *Urban informality: transnational perspectives from the Middle East, Latin America and South Asia*. United States, Lexington Books. pp.67-78.

Hays, J. (2014) Traditional Thai sports, recreational sports in Thailand and Tiger Woods. Available from:
http://factsanddetails.com/southeast-asia/Thailand/sub5_8e/entry-3271.html [Accessed 14th August 2016].

Hedesstrom, T. and Whitley, E. (2000) What is meant by tacit knowledge? Towards a better understanding of the shape of actions. *8th European Conference on Information Systems, Vienna, 3-5 July 2000*. Vienna, Austria, ECIS. pp.46-51. Available from:
<http://is2.lse.ac.uk/asp/aspecis/20000021.pdf> [Accessed 9th October 2014].

Hernández, B., Hidalgo, M. C. and Ruiz, C. (2014) Theoretical and methodological aspects of research on place attachment. In: L. C. Manzo and P. Devine-Wright (Eds.) *Place attachment: advances in theory, methods and applications*. Oxon, Routledge. pp.125-137.

Hernandez, J. (2009) Production, use and language of open spaces in popular settlements, two case studies from Bogata. *FORUM Ejournal*, 9, pp.31-48. Available from:
[http://research.ncl.ac.uk/forum/v9i1/Papers/Hernandez%20\(2009\)%20Production,%20Use%20and%20Language%20of%20Open%20Spaces.pdf](http://research.ncl.ac.uk/forum/v9i1/Papers/Hernandez%20(2009)%20Production,%20Use%20and%20Language%20of%20Open%20Spaces.pdf) [Accessed 11th August 2016].

Hernandez Bonilla, M. (2001) Public spaces in the urban popular habitat of Mexico: The case of Xalapa, Veracruz. *Forum Journal*, 5(1), pp.27-35. Available from:
<http://research.ncl.ac.uk/forum/v5i1/bonilla.pdf> [Accessed 11th August 2016].

Hernández-García, J. (2013) *Public space in Informal Settlements: The Barrios of Bogotá*. Newcastle Upon Tyne, Cambridge Scholars Publishing.

Hernández, F. and Kellet, P. (2010) Introduction: Reimagining the Informal in Latin America. In: F. Hernández, P. Kellett and L. Allen (Eds.)

Rethinking the informal city critical perspectives from Latin America. United States, Berghahn Books. pp.1-19.

Herzfeld, M. (2003) Pom Mahakan: Humanity and order in the historic center of Bangkok. *Thailand Human Rights Journal*, 1, pp.101-119. Available from: https://web.stanford.edu/dept/archaeology/cgi-bin/drupal/files/THRJ1-light_1.pdf [Accessed 29th November 2014].

Herzfeld, M. (2013) Pom Mahakan eviction would be a calamitous loss. *Bangkok Post*, Friday September 27, 2013, p.11.

Hester, R. T. (1987) Participatory design and environmental justice: pas de deux or time to change partners? *Journal of Architectural and Planning Research*, 4(4) Special Issue: Design and Democracy, pp.289-300. Available from: <http://www.jstor.org.eresources.shef.ac.uk/stable/pdf/43028856.pdf> [Accessed 23rd July 2016].

Hester, R.T. (2014) Do not detach! Instructions from and for community design. In: L. C. Manzo and P. Devine-Wright (Eds.) *Place attachment: advances in theory, methods and applications*. Oxon, Routledge. pp.191-206.

Hidalgo, M.C., Berto, R., Galindo, M.P., and Getrevi, A. (2006) Identifying attractive and unattractive urban places: categories, restorativeness and aesthetic attributes. *Medio Ambiente y Comportamiento Humano*, 7(2), pp.115-133. Available from: https://mach.webs.ull.es/PDFS/Vol7_2/Vol7_2_f.pdf [Accessed 23rd July 2016].

Himanshu, P. (1997) *Slum networking of Indore City*. Available from: <http://architexturez.net/doc/az-cf-166249> [Accessed 9th August 2016].

Hou, J. (2010) (Not) your everyday public space In: J. Hou (Ed.) *Insurgent public space Guerilla urbanism and the remaking of contemporary cities*. London, Routledge. pp.1-17.

Hou, J. and Rios, M. (2003) Community-Driven Place Making: The Social Practice of Participatory Design in the Making of Union Point Park. *Journal of Architectural Education (1984-)*, 57(1), pp.19-27. Available from: http://www.jstor.org/stable/pdf/1425736.pdf?_=1471275498931 [Accessed 15th August 2016].

Hoy San Diego. (2016) Eviction could mark end of the line for Bangkok's railway carpenters. *The San Diego Union- Tribune*, [online]. Available from: <http://www.sandiegouniontribune.com/hoy-san-diego/sdhoy-eviction-could-mark-end-of-the-line-for-bangkoks-2016may29-story.html>. [Accessed 7th May 2017].

Hubbard, P. Kitchin, R. Bartley, B. and Fuller, D. (2002). *Thinking geographically: Space, theory and contemporary human geography*. London, Continuum.

Hubbard, P., Kitchin, R. and Valentine, G. (2004) Introduction. In: P. Hubbard, R. Kitchin and G. Valentine (Eds.) *Key Thinkers on Space and Place*. London, SAGE Publications. pp.1 -15.

Human Rights Watch. (2014) *Thailand: unending repression 6 months post-coup*. Available from: <https://www.hrw.org/news/2014/11/24/thailand-unending-repression-6-months-post-coup> [Accessed 2nd August 2016].

Ingold, T. and Vergunst, J. L. (2008) Introduction. In: T. Ingold and J. L. Vergunst (Eds.) *Ways of Walking Ethnography and Practice on Foot*. Surrey, Ashgate Publishing Company. pp.1-19.

IOM Thailand. (2011) *Thailand migration report 2011. Migration for development in Thailand: overview and tools for policymakers*. Available from: http://publications.iom.int/system/files/pdf/tmr_2011.pdf [Accessed 2nd August 2016].

IPCC. (2007) *Climate Change 2007: Impacts, Adaption and Vulnerability. Contribution of Working Group II to the Forth Assessment Report of the Intergovernmental Panel on Climate Change*. M. L. Parry, O.F. Canzani, J. P. Palutikof, P. J. Van der Linde, and C. E. Hanson (Eds.) Cambridge, Cambridge University Press.

Jacobs, J. (1961) *The Death and Life of Great American Cities*. London, Penguin Books.

Johnson, T. E. (1978) *Urban social structure: a case study of slums in Bangkok, Thailand; Case study of slums in Bangkok, Thailand*. PhD thesis, University of Hawaii at Manoa. Available from: https://scholarspace.manoa.hawaii.edu/bitstream/10125/.../1/uhm_phd_7913780_r.pdf [Accessed 9th August 2016].

Jorgensen, A. and Anthopoulou, A. (2007) Enjoyment and fear in urban woodlands – does age make a difference? *Urban Forestry and Urban Greening*, 6(4), pp.267-278. doi: 10.1016/j.ufug.2007.05.004

Jorgensen, A., Hitchmough, J. and Dunnett, N. (2010) Woodland as a setting for housing-appreciation and fear and the contribution to residential satisfaction and place identity in Warrington New Town, UK. *Landscape and Urban Planning*, 79(3-4), pp.273-287. doi:10.1016/j.landurbplan.2006.02.015

Kabir, K. H. (2012) Why is drawing important to research? *Journal of Landscape Architecture*, 7(1), pp.34-45. doi: 10.1080/18626033.2012.693779

Kaliski, J. (2008) The present city and the practice of city design. In: J.L. Chase M. Crawford and J. Kaliski (Eds.) *Everyday Urbanism*. New York, The Monacelli Press. pp.88-109.

Kaplan, S. (1995). The restorative benefits of nature: Towards an integrative framework. *Journal of Environmental Psychology*, 15(3), pp.169-182. doi: 10.1016/0272-4944(95)90001-2

Kaplan, S. and Berman, M. (2010) Directed Attention as a Common Resource for Executive Functioning and Self-Regulation. *Perspectives on Psychological Science*, 5(1), pp.43-57. doi: 10.1177/1745691609356784

Kasetsart University. (2017) *Landscape Architecture*. Available from: <http://www.arch.ku.ac.th/2013/en/programs/Bandscape> [Accessed 24th March 2017]

KDI. (?) *Kounkuey Design Initiative (KDI)*. Available from: <http://www.kounkuey.org/about.html> [Accessed 7th May 2017]

Kees van Donge, J. (2006) Ethnography and participant observation. In: V. Desai and R. B. Potter (Eds.) *Doing Development Research*. London, SAGE Publications Ltd. pp.180-188.

Kellett, P. and Napier, M. (1995) Squatter architecture? A critical examination of vernacular theory and spontaneous settlement with reference to South America and South Africa. *Traditional Dwellings and Settlement Review: Journal of the International Association for the Study of Traditional Environments*, 6(2), pp.7-24. Available from: http://www.jstor.org.eresources.shef.ac.uk/stable/pdf/41757181.pdf?_=1470589779079 [Accessed 10th July 2016]

Kim, A. M. (2015) *Sidewalk city: remapping public space in Ho Chi Minh City*. Chicago, The University of Chicago Press.

Kirkby, A. (2003) *Slum growth 'shames the world'*. Available from: <http://news.bbc.co.uk/1/hi/sci/tech/3161812.stm> [Accessed 10th July 2016]

Klausner, W. (2013) *Thai society in transition: social and political implications*. 5th ed. Bangkok, Charansanitwong Printing Co., LTD.

Kostof, S. (1991) *The city shaped: urban patterns and meanings through history*. London, Thames & Hudson Ltd.

Landscape Architecture for Humanity. (2012) Redesigning design for positive social impact. Available from: <http://laforhumanity.org/redesigning-design-for-positive-social-impact/> [Accessed 7th May 2017].

Landscape Institute. (2008) *Five Year Strategy Framework*. Available from: http://landscapeinstitute.org/PDF/Contribute/StrategyDevelopmentPlanandBudget2011-12_000.pdf [Accessed 9th August 2016].

Landscape Institute. (2012) *Landscape Architecture: A guide for clients*. Available from: <http://www.landscapeinstitute.org/PDF/Contribute/Landscapearchitecture-Aguideforclients2012A3.pdf> [Accessed 23rd July 2016].

Lang, P. (2007) Stalker on Location. In: K. A. Franck and Q. Stevens (Eds.) *Loose space: Possibility and diversity in urban life*. Oxon, Routledge. pp.193-209.

Lang, P. (2008) Stalker Unbounded: Urban Activism and the Terrain Vague as Heterotopia by Default. In: M. Dehaene and L. De Cauter (Eds.) *Heterotopia and the City: Public space in a post civil society*. Oxon, Routledge. pp. 215–224.

Lefebvre, H. (1991) *The production of space*. Trans. by Donald Nicholson-Smith. Malden, Blackwell publishing.

Levy-Leboyer, C. (1982) *Psychology and Environment*. Trans. by David Canter and Ian Griffiths. London, SAGE Publications Inc.

Lim, M. (2011) *Women of Northeast Thailand: privilege and obligation*. Available from: <http://berkeleycenter.georgetown.edu/letters/women-of-northeast-thailand-privilege-and-obligation> [accessed 29th November 2014].

Llosa, M. V. (1990) "Foreword". In: H. de Soto. *The Other Path: The Invisible Revolution in the Third World*. New York, Harper and Row Publishers.

Lockwood, M. (1993) Facts or Fiction? Fieldwork relationships and the nature of data. In: S. Devereux and J. Hoddinott (Eds.) *Fieldwork in Developing Countries*. Colorado, Lynne Rienner Publishers, Inc. pp. 164-178

Lootsma, B. (1999) Synthetic Realisation: The Dutch Landscape Toward a Second Modernity. In: J. Corner (Ed.) *Recovering Landscape: Essays in Contemporary Landscape Architecture*. U.S., Princeton Architectural Press. pp.251-274.

Low, S. M. (1992) Symbolic ties that bind: place attachment in the plaza. In: I. Altman and S. M. Low (Eds.) *Place attachment*. New York, Plenum Press. pp.165-185.

Low, S.M. (2000) *On the plaza: the politics of public space and culture*. University of Texas Press: United States of America.

Luekens, D. (2013) *Phrases every visitor to Thailand should know: sabai*. Available from:
https://www.travelfish.org/beginners_detail/thailand/89 [Accessed 7th August 2016].

Lynch, K. (1960) *The Image of the City*. Cambridge Massachusetts, M.I.T. Press.

Lyubimov, A. (2012) *Critical Realism Theory*. Available from:
http://www.fsc.yorku.ca/york/istheory/wiki/index.php/Critical_realism_theory [Accessed 3rd December 2013- URL no longer works].

Madison, D. (2012) *Critical Ethnography: Methods, Ethics and Performance*. United States of America, SAGE publications Ltd.

Mady, C. (2015) Book review: public space and relational perspectives: new challenges for architecture and planning. *Urban Studies*, 52(6) pp.1197-1199. doi:10.1177/0042098015572086

Madanipour, A. (2003) *Public and private spaces of the city*. Oxon, Routledge.

Madanipour, A. (2010a) Introduction In: A. Madanipour (Ed.) *Whose public Space? International case studies in urban design and development*. Oxon, Routledge. pp.1-15.

Madanipour, A. (2010b) Whose Public Space? In: A. Madanipour (Ed.) *Whose public Space? International case studies in urban design and development*. Oxon, Routledge. pp.237-242.

Maejo University. (2559) *Faculty of architecture and environmental design*. Available from: <http://www.global.mju.ac.th/faculty.aspx?id=10> [Accessed 24th March 2017].

Martin, J.C. and Wade, T. J. (2000) The relationship between physical exercise and distress in a national sample of Canadians. *Canadian Journal of Public Health*, 91(4), pp.302-306. Available from:
<http://www.jstor.org.eresources.shef.ac.uk/stable/pdf/41993175.pdf> [Accessed 9th August 2016].

Mason, J. (2002) *Qualitative Researching*. 2nd ed. London, SAGE Publications Ltd.

May, T. (2002) *Qualitative Research in Action*. London, SAGE Publications Ltd.

Mayo, S.K. and Gross, D.J. (1987) Sites and services-and subsidies: the economics of low cost housing in developing countries. *The World Bank Economic Review*, 1(2), pp.301-335. Available from: http://www.jstor.org.eresources.shef.ac.uk/stable/3989832?seq=3#page_scan_tab_contents [Accessed 18th July 2016]

Mayer, M. (2006) Manuel Castells' The city and the grassroots. *International Journal of Urban and Regional Research*, 30(1), pp.202-206. doi: 10.1111/j.1468-2427.2006.00652.x

Mayoux, L. (2006) Quantitative, qualitative or participatory? Which method, for what and when? In: V. Desai and R. B. Potter (Eds.) *Doing Development Research*. London, SAGE Publications Ltd. Pp.115-129.

McDowell, L. (1992) Doing gender: Feminism, Feminists and research methods in Human Geography. *Transactions of the Institute of British Geographers*, 17(4), pp.399-416.

Mehrotra, R. (2004) Introduction. In: R. Mehrotra (Ed.) *Everyday Urbanism. Margaret Crawford vs. Michael Speaks*. New York, The University of Michigan. pp.12-13. Available from: <https://taubmancollege.umich.edu/sites/default/files/files/MAP%20books/mud1.pdf> [Accessed 18th August 2016].

Mehrotra, R. (2010) Foreword. In: F. Hernández, P. Kellett and L. K. Allen (Eds.) *Rethinking the informal city: critical perspectives from Latin America*. United States, Berghahn Books. pp.xi-xiv.

Meinhold, B. (2012) Klong Toey Community Lantern is a multi-use sustainable social center in the heart of Bangkok. *Inhabitat*, [online]. Available from: <http://inhabitat.com/klong-toey-community-lantern-is-a-multi-use-sustainable-social-center-in-the-heart-of-bangkok/> [Accessed 7th August 2016].

Melcher, K. (2013) Equity, empowerment, or participation: prioritising goals in community design. *Landscape Journal*, 32(2), pp.167-182. doi: 10.3368/lj.32.2.167

Meth, P. and Williams, G. (2006) Literature Reviews and Bibliographic searches. In: V. Desai and R. B. Potter (Eds.) *Doing Development Research*. London, SAGE Publications Ltd. pp.209-221.

Meyer, E. (2002) The expanded field of landscape architecture (1997). In: S. Swaffield (Ed.) *Theory in landscape architecture. A reader*. Philadelphia, University of Pennsylvania Press. pp.167-170.

Milgrom, R. (2008) Lucien Kroll: design, difference, everyday life. In: K. Goonewardena, S. Kipfer, R. Milgrom and C. Schmid. (Eds.) *Space, difference, everyday life. Reading Henri Lefebvre*. New York, Routledge. pp.264-281.

Mohit, R.S. (2002) A level playing field: security of tenure and the urban poor in Bangkok, Thailand. In: G. Payne (Ed.) *Land, Rights and Innovation: Improving Tenure for the Urban Poor: Improving Tenure Security for the Urban Poor*. pp.278-299.

Mollard, M. (2015) Colombia's infrastructure reclaimed as public space. *The Architectural Review*, [online] Available from: <http://www.architectural-review.com/rethink/colombias-infrastructure-reclaimed-as-public-space/8684196.fullarticle> [Accessed 7th August 2016].

Mosse, D. (2001) 'People's knowledge', participation and patronage: operations and representations in rural development. In: B. Cooke and U. Kothari (Eds.) *Participation the new tyranny?* London, Zed Books. pp.16-35.

Mossop, E. (2006) Landscapes of Infrastructure. In: C. Waldheim (Ed.) *The Landscape Urbanism Reader*. New York, Princeton Architectural Press. pp.163-177.

Mukhija, V. (2001) Upgrading housing settlements in developing countries. The impact of existing physical conditions. *Cities*, 18(4), pp.213-222. doi:10.1016/S0264-2751(01)00014-2

Mulder, N. (2000) *Inside Thai society*. Chiang Mai, Silkworm Books.

Müller, A.-L. (2010) Review: Elisa T. Bertuzzo (2009). Fragmented Dhaka. Analysing everyday life with Henri Lefebvre's theory of production of space. *Forum: Qualitative Social Research*, 11(3), pp.321-323. Available from: <http://www.qualitative-research.net/index.php/fqs/article/view/1535> [Accessed 14th August 2016].

Murphy, M. (2005) *Landscape architectural theory. An evolving body of thought*. United States of America, Waveland Press Inc.

Mutunayagam, N. B. (1974) *Towards principles for the control of squatter settlements in Bangkok, Thailand*. Degree of Masters of Engineering Thesis, Asian Institute of Technology. Available from: http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1011&context=arch_crp_facultyschol [accessed 29th November 2014].

Nassauer, J. I. (2002) Messy ecosystems, orderly frames (1995). In: S. Swaffield (Ed.) *Theory in landscape architecture. A reader*. Philadelphia, University of Pennsylvania Press. pp.196-206.

National Statistical Office. (2010) *The 2010 population and housing census (whole Kingdom). Executive summary*. Available from: <http://popcensus.nso.go.th/file/popcensus-10-01-56-E.pdf> [accessed 29th November 2014].

Nikitin, C. (2011) What is the Place for Public Space in our Cities? *Project for Public Spaces*, [online] Available from: <http://www.pps.org/what-is-the-place-for-public-space-in-our-cities/> [Accessed 7th August 2016].

Nonaka, I. and Takeuchi, H. (1995) *The knowledge-creating company*. New York, Oxford University Press.

Norgaard, R. B. (1994) *Development betrayed: the end of progress and a coevolutionary revisioning of the future*. London, Routledge.

Ooi, G. L. and Phua, K.H. (2007) Urbanisation and slum formation. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*. 84(1), pp.27-34. doi:10.1007/s11524-007-9167-5 [Accessed 20th March 2017].

Orobitg Canal, G. (2004) Photography in the field: word and image in ethnographic research. In: S. Pink, L. Kürti and A. I. Afonso (Eds.) *Working images: visual research and representation in ethnography*. London, Routledge. pp.28-42.

Ouyyanont, P. and Yoshihiro, T. (2001) Aspects of place and role of the Chinese in late nineteenth century Bangkok. *Southeast Asian Studies*, 39(3), pp.384-397. Available from: http://ci.nii.ac.jp/els/110000281084.pdf?id=ART0000718458&type=pdf&lang=en&host=cinii&order_no=&ppv_type=0&lang_sw=&no=1471944398&cp= [Accessed 23rd August 2016].

Patel, V. and Kleinman, A. (2003) Poverty and common mental disorders in developing countries. *Bulletin of the World Health Organisation*, 81(8), pp.609-615. Available from: <http://www.who.int/bulletin/volumes/81/8/Patel0803.pdf> [Accessed 9th August 2016].

Perlman, J. (1976) *The myth of marginality: Urban poverty and politics in Rio de Janeiro*. Berkley, University of California Press.

Perlman, J. (2004) Marginality: from myth to reality in the *Favelas* of Rio de Janeiro, 1969 – 2002. In: A. Roy and N. Alsayyad (Eds.) *Urban*

Informality: Transnational Perspectives from the Middle East, Latin America and South Asia. Lanham, Lexington Books. pp.105-146.

Perlman, J. (2010) *Favela: Four decades of living on the edge in Rio de Janeiro*. Oxford, Oxford University Press.

Pink, S (2004) Introduction: situating visual research. In: S. Pink, L. Kürti and A. I. Afonso (Eds.) *Working images: visual research and representation in ethnography*. London, Routledge. pp.1-10.

Planetearth. (2005) *Megacities- our global urban future*. Leiden, The Netherlands. Available from:
<http://yearofplanetearth.org/content/downloads/Megacities.pdf>
[Accessed 10th July 2016].

Polanyi, M. (1983) *The Tacit Dimension*. Gloucester, Massachusetts, Peter Smith.

Pornchokchai, S. (2003) *Global report on human settlements 2003 city report: Bangkok*. Available from:
<http://thaiappraisal.org/pdfNew/HABITAT1new.pdf> [Accessed 8th August 2016].

PPG17. (2006) *Planning Policy Guidance 17: Planning for open space, sport and recreation*. London, Department for Communities and Local Government. Available from:
<http://webarchive.nationalarchives.gov.uk/20120919132719/http://www.communities.gov.uk/documents/planningandbuilding/pdf/ppg17.pdf> [Accessed 9th August 2016].

Project for Public Spaces (PPS). (no date) *What makes a successful place?* Available from: <http://www.pps.org/reference/grplacefeat/>
[Accessed 9th August 2016].

Project for Public Spaces (PPS). (no date a) *What is placemaking?* Available from: http://www.pps.org/reference/what_is_placemaking/
[Accessed 9th August 2016].

Puri, E. (2004) Understanding participation: theoretical foundations and practical implications. *Economic and Political Weekly*, 39(24), pp.2511-2517. Available from:
<http://www.jstor.org.eresources.shef.ac.uk/stable/pdf/4415152.pdf>
[Accessed 18th July 2016].

Rabibhadana, A. (1975) *Bangkok slum: aspects of social organisation*. PhD thesis, Cornell University. Available from:
http://find.shef.ac.uk/primo_library/libweb/action/display.do?tabs=viewOnlineTab&ct=display&fn=search&doc=TN_proquest302743571&indx=1&reclids=TN_proquest302743571&reclidxs=0&elementId=0&rend

erMode=poppedOut&displayMode=full&frbrVersion=&frbg=&&dscnt=0&scps=primo_central_multiple_fe&tb=t&mode=Basic&vid=SFD_VU2&srt=rank&tab=remote&dum=true&vl(freeText0)=Bangkok%20slum%3A%20aspects%20of%20social%20organisation&dstmp=1471200089218 [Accessed 14th August 2016].

Ramos, M. J. (2004) Drawing the lines: the limitations of intercultural *ekphrasis*. In: S. Pink, L. Kürti and A. I. Afonso. (Eds.) *Working images. Visual research and representation in ethnography*. London and New York, Routledge. pp.135-155.

Rekittke, J. (2009) Grassroots landscape architecture for the informal Asian city. In: The New Urban Question-Urbanism Beyond Neo-Liberalism, *The 4th International Conference of the International Forum on Urbanism (IFOU)*, Amsterdam, Delft, 2009. Available from: http://newurbanquestion.ifou.org/proceedings/5%20The%20Transformation%20of%20Urban%20Form/full%20papers/D036_Rekittke_Joe rg_The%20New%20Urban%20Question.pdf [Accessed 9th August 2016].

Relph, E. (1976) *Place and placelessness*. London, Pion Ltd.

Rishbeth, C. F, Ganji. and G, Vodicka. (forthcoming) *The superdiversity of sitting outside: UK case studies for ethnographically informed urban design*. Submitted to Local Environment.

Rishbeth C. (2014) Articulating transnational attachments through on-site narratives. In: L. C. Manzo and P. Devine-Wright (Eds.) *Place attachment: advances in theory, methods and applications*. Oxon, Routledge. pp.100-111.

Rivlin, I. (2007) Found Spaces: Freedom of choice in public life. In: K. A. Franck and Q. Stevens (Eds.) *Loose Space*. Oxon, Routledge. pp.38-53.

Rose, G. (1997) Situating knowledges: Positionality, reflexivities and other tactics. *Progress in Human Geography*, 21(3), pp.305-320. doi: [10.1191/030913297673302122](https://doi.org/10.1191/030913297673302122) [Accessed 20th March 2017].

Rose, G. (2001) *Visual methodologies: an introduction to the interpretation of visual materials*. London, SAGE Publications.

Roy, A. (2004) Prologue/ Dialogue Urban Informality: Crossing Borders. In: A. Roy and N. Alsayyad (Eds.) *Urban Informality Transnational perspectives from the Middle East, Latin America and South Asia*. United States of America, Lexington Books. Pp.1-6

Roy, A. (2005) Urban informality: toward an epistemology of planning. *Journal of the American Association of Planning*, 71(2), pp.147-158. doi: [10.1080/01944360508976689](https://doi.org/10.1080/01944360508976689)

- Saiyasak, C. (2006) *The meaning and significance of merit making for northeast Thai Buddhists*. Available from: http://www.academia.edu/4769060/THE_MEANING_AND_SIGNIFICANCE_OF_MERIT_MAKING_FOR_NORTHEAST_THAI_BUDDHISTS [Accessed 11th November 2014].
- Sandercock, L. (2003) *Cosmopolis II. Mongrel cities in the 21st century*. London, Continuum.
- Sanghera, G.S. and Thapar-Bjorkert, S. (2008) Methodological dilemmas: gatekeepers and positionality in Bradford. *Ethnic and Racial Studies*, 31(3), pp.543-562. doi: 10.1080/01419870701491952 [Accessed 20th March 2017].
- Samper, J. (2012) *Toward an epistemology of the form of the Informal city: Mapping the process of informal city making*. Available from: <http://informalsettlements.blogspot.co.uk/2012/07/toward-epistemology-of-form-of-informal.html>. [Accessed 5th January 2016].
- Satterthwaite, D. Huq, S. Pelling, M. Reid, H. and Lankao, P.R. (2007) Adapting to climate change in urban areas: the possibilities and constraints in low- and middle-income nations. *Human Settlements Discussion Paper Series: Theme: Climate Change and Cities – 1*. Available from: <http://pubs.iied.org/10549IIED.html> [Accessed 30th May 2013].
- Sayer, A. (1992) *Method in Social Science: a realist approach*. 2nd ed. London, Routledge.
- Scannell, L. and Gifford, R. (2009) Defining place attachment: A tripartite organizing framework. *Journal of Environmental Psychology*, 30(1), pp.1-10. Available from: <http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S0272494409000620> [Accessed 8th August 2016].
- Schmid, C. (2008). Henri Lefebvre's theory of the production of space: towards a three-dimensional dialectic. In: K. Goonewardena, S. Kipfer, R. Milgrom and C. Schmid. (Eds.) *Space, difference, everyday life. Reading Henri Lefebvre*. New York, Routledge. pp.27-45.
- Schwab, E. (2015) *Urban Promises? Spatial Justice in Public Space Based Upgrading Programmes of Popular Settlements in Latin America*. PhD thesis, Institut für Landschaftsarchitektur
- Segre, R. (2010) Formal- informal connections in the Favelas of Rio de Janeiro. In: F. Hernandez, P. Kellett and L. Allen (Eds.) *Rethinking the Informal city: critical perspectives from Latin America*. United States, Berghahn Books. pp.163-179.

Sen, A. (1999) *Development as freedom*. Oxford, Oxford University Press.

Sennett, R. (1977) *The fall of public man*. London, Faber and Faber.

Sennett, R. (2016) *Quant. The Public Realm*. Available from: <http://www.richardsennett.com/site/senn/templates/general2.aspx?pageid=16&cc=gb> [Accessed 18th August 2016].

Sharma, K. (2000) *Rediscovering Dharavi. Stories from Asia's largest slum*. New York, Penguin Group.

Sheffield University (2012) *Studying Landscape at Sheffield*. Available from: <http://www.shef.ac.uk/landscape/study> [Accessed December 3, 2012].

Silverman, D. (2000) *Doing qualitative research: A practical handbook*. London, SAGE Publications.

Simons, L. (2014) Can Thailand avoid another coup? *National Geographic*. Available from: <http://news.nationalgeographic.com/news/features/2014/01/140113-thailand-red-yellow-shirts-thaksin-bhumibol-insurgency-bangkok-world/#.VtQ85oyLQnU> [Accessed 23rd July 2016].

Simonsen, K. (2007) Practice, spatiality and embodied emotions: an outline of a geography of practice. *Human Affairs*, 17(2), pp.168 - 181. doi: [10.2478/v10023-007-0015-8](https://doi.org/10.2478/v10023-007-0015-8)

Silverman, D. (2000) *Doing qualitative research a practical handbook*. London, SAGE Publications.

Somekh, B. (2006) *Action Research: a methodology for change and development*. Maidenhead, Open University Press.

Somrongthong, R. Wongchalee, S. and Laosee, O. (2012) Depression among adolescents: a study in a Bangkok slum community. *Scandinavian Journal of Caring Sciences*, 27, pp.327-334. doi: [10.1111/j.1471-6712.2012.01037.x](https://doi.org/10.1111/j.1471-6712.2012.01037.x)

Speaks, M. (2004) Every day is not enough. In: R. Mehrotra (Ed.) *Everyday Urbanism. Margaret Crawford vs. Michael Speaks*. New York, The University of Michigan. pp.34-42. Available from: <https://taubmancollege.umich.edu/sites/default/files/files/MAP%20books/mud1.pdf> [Accessed 18th August 2016].

Staeheli, L. A. and Lawson, V. (1995) Feminism, Praxis and Human Geography. *Geographical analysis*, 27 (4), pp.321-338. doi: [10.1111/j.1538-4632.1995.tb00914.x](https://doi.org/10.1111/j.1538-4632.1995.tb00914.x) [Accessed 20th March 2017].

- Steier, F. (1991) *Research and Reflexivity*. London, SAGE
- Sthapitanonda, N. and Mertens, B. (2005) *Architecture of Thailand A guide to traditional and contemporary forms*. Singapore, Editions Didier Millet.
- Swaffield, S. (2002) Conclusion: the theoretical terrain of landscape architecture. In: S. Swaffield (Ed.) *Theory in landscape architecture. A reader*. Philadelphia, University of Pennsylvania Press. pp.227-230.
- Szabadi, E. (1988) Physical exercise and mental health. *British Medical Journal (Clinical Research Edition)*, 296(6623), pp.659-660. Available from:
http://www.jstor.org.eresources.shef.ac.uk/stable/pdf/29529967.pdf?_=1470685096680 [Accessed 8th August 2016].
- Tacchi, J., Slater, D., Hearn, G. (2003) *Ethnographic Action Research*. New Dehli, United Nations Educational. Available from:
<http://eprints.qut.edu.au/4399/1/4399.pdf> [Accessed 8th August 2016].
- TALA. (2012) *Architect Council of Thailand*. Available from:
<http://www.act.or.th/th/news/info.php?id=772> [Accessed 20th March 2017].
- Thai Meteorological Department. (2012) *The climate of Thailand*. Thailand, Thai Meteorological Department. Available from:
http://www.tmd.go.th/en/archive/thailand_climate.php [Accessed 29th November 2014].
- Thammasat University. (?) *Landscape Architecture*. Available from:
<http://www.tds.tu.ac.th/en/programs/bachelor-ln.html> [Accessed 24th March 2017].
- The economist. (2016) Twentieth time lucky? *The economist*, [online] 20 February. Available from:
<http://www.economist.com/news/asia/21693251-some-generals-come-up-new-plan-saving-thailand-democracy-twentieth-time-lucky?zid=306&ah=1b164dbd43b0cb27ba0d4c3b12a5e227> [Accessed 23rd August 2016].
- Theguardian (2014) Thailand: no return to democracy until 2016 says minister. *The Guardian*, [online] 27 November 27. Available from:
<http://www.theguardian.com/world/2014/nov/27/no-return-election-democracy-thailand-until-2016-minister> [Accessed 29th November 2014- URL no longer available].
- Thwaites, K. Helleur, E. and Simpkins, I.M. (2005) Restorative urban open space: Rexploring the spatial configuration of human emotional

Fulfilment in urban open space. *Landscape Research*, (30)4, pp.525-547. Available from: <http://www.tandfonline.com/doi/pdf/10.1080/01426390500273346?needAccess=true> [Accessed 15th August 2016].

Thwaites, K. Simpkins, I.M. and Mathers, A. (2011) Towards socially restorative urbanism: exploring social and spatial implications for urban restorative experience. *Landscape Review*, 13(2), pp.26-39. Available from: <http://journals.lincoln.ac.nz/index.php/lr/article/view/676> [Accessed 9th August 2016].

Trieb, M. (1999) Nature recalled. In: J. Corner (Ed.) *Recovering landscape: essays in contemporary landscape architecture*. New York, Princeton Architectural Press. pp.29-43.

Turner, J. (1968) Housing priorities, settlement patterns, and urban development in modernizing countries. *Journal of the American Institute of Planners*, 34(6), pp.354-363. doi: 10.1080/01944366808977562

Tuan, Y.F. (1977) *Space and place: the perspective of experience*. London, University of Minnesota Press.

Turner, J. (1972) Housing issues and the standards problem. *Ekistics*, 33(196), pp.152-158. Available from: https://www.jstor.org/stable/pdf/43617935.pdf?_=1471253298448 [Accessed 9th August 2016].

Turtle, M. (2013) *Trying to get out of the slum*. Available from: <http://www.timetravelturtle.com/2013/01/klong-toey-slum-bangkok-helping-hands/> [Accessed 7th August 2016].

TYIN Tegnestue Architects. (no date) *Klong Toey Community Lantern*. Available from: <http://www.tyinarchitects.com/works/klong-toey-community-lantern/> [Accessed 7th August 2016].

Ulrich, R. S. (1983) Aesthetic and affective response to natural environment. In: I. Altman and J. F. Wohlwill (Eds.) *Behaviour and the natural environment*. New York, Plenum Press. pp.85-125.

Ulrich, R.S., Simons, R.F., Losito, B.D., Fiorito, E., Miles, M.A., and Zelson, M. (1991) Stress recovery during exposure to natural and urban environments. *Journal of Environmental Psychology*, 11(3), pp.201-230. Available from: http://ac.els-cdn.com/S0272494405801847/1-s2.0-S0272494405801847-main.pdf?_tid=d923a754-5367-11e6-abf8-00000aacb360&acdnat=1469561797_7d9a21c4080712c19eb974b4e83c3de6 [Accessed 8th August 2016].

United Nations Millennium Declaration. (2000) *Resolution adopted by the General Assembly*. Available from: <http://www.un.org/millennium/declaration/ares552e.htm> [Accessed 24rd August 2016].

United Nations. (2014) *World urbanisation prospects. The 2014 revision*. Available from: <https://esa.un.org/unpd/wup/Publications/Files/WUP2014-Highlights.pdf> [Accessed 24rd August 2016].

United Nations. (2015) *The Millennium Development Goals Report 2015*. Available from: [http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20\(July%201\).pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf) [Accessed 24rd August 2016].

United Nations University. (1996) *The urbanization of Bangkok: Its prominence, problems, and prospect*. Available from: <http://archive.unu.edu/unupress/unupbooks/uu11ee/uu11ee0c.jpg> [Accessed 24rd August 2016].

UN Habitat. (2003) *The challenge of slums. Global report on human settlements 2003*. Kenya, United Nations Human Settlement Program.

UN Habitat. (2006) *State of the world's cities 2006/ 2007*. London, Earthscan.

UN Habitat. (2009) *Slum upgrading facility: exchange visit to the Community Organisations Development Institute in Thailand*. Kenya, UN-Habitat. Available from: <http://mirror.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2678>. [Accessed 9th August 2016].

UN Habitat. (2010) *The Challenge of Slums: Global Report on Human Settlements 2003*. Revised and updated version (April 2010). Available from: http://unhabitat.org/wp-content/uploads/2003/07/GRHS_2003_Chapter_01_Revised_2010.pdf [Accessed 9th August 2016].

UN Habitat. (2012) *Streets as tools for urban transformation in slums: A street led approach to city wide slum upgrading*. Kenya, UN-Habitat. Available from: unhabitat.org/books/streets-as-tools-for-urban-transformation-in-slums/ [Accessed 9th August 2016].

UN Habitat. (2012a) *United Nations adopts SDGs, cities in greater focus*. Available from: <http://unhabitat.org/united-nations-adopts-sdgs-cities-in-greater-focus/> [Accessed 18th July 2016].

UN Habitat. (2013) *Streets as public spaces and drivers of urban prosperity*. Kenya, UN-Habitat. Available from:

<http://mirror.unhabitat.org/pmss/getElectronicVersion.aspx?nr=3513&alt=1> [Accessed 9th August 2016].

UN Habitat. (2015a) *UN-Habitat global activities report: 2015 – Increasing Synergy for Greater National Ownership*. Kenya, UN-Habitat. Available from: <http://unhabitat.org/books/un-habitat-global-country-activities-report-2015-increasing-synergy-for-greater-national-ownership/> [Accessed 9th August 2016].

UN Habitat. (2015b) *Global public space toolkit: from global principles to local policies and practice*. Kenya, UN-Habitat. Available from: <http://unhabitat.org/wp-content/uploads/2015/10/Global%20Public%20Space%20Toolkit.pdf> [Accessed 9th August 2016].

UN Habitat and ESCAP. (2008) *Housing the poor in Asian cities. Housing finance: ways to help the poor pay for housing*. Bangkok, UNESCAP. Available from: <file:///Users/tomosevans/Downloads/Quick%20Guides%20for%20Policy%20Makers%201%20URBANIZATION%20The%20Role%20the%20poor%20play%20in%20urban%20development.pdf> [Accessed 20th March 2017].

UN Habitat., OHCHR., and UNOPS. (2015) *Habitat III Issue Papers 22- Informal Settlements*. In: United Nations Task Team, *United Nations Conference on Housing and Sustainable Urban Development*. New York, 26 - 29 May 2015. New York, UN-Habitat.

United Nations Children's Fund (Unicef). (2015) *Unequal at birth. Disparities in birth registration in East Asia and the Pacific*. UNICEF EAPRO, Bangkok. Available from: http://www.unicef.org/eapro/Unequal_at_Birth_UNICEF_EAP.pdf [Accessed 7th August 2016].

Usavagovitwong, N. (2012) *Successful approaches to national slum upgrading and prevention, Thailand*. Working Paper Series, Center for Integrated Socio-Spatial Research. Available from: http://www.spu.ac.th/architecture/files/2012/10/Working-paper-series-No_71.pdf [Accessed 9th August 2016].

Usavagovitwong, N. and Posriprasert, P. (2006) Urban poor housing development on Bangkok's waterfront: securing tenure, supporting community processes. *Environment and Urbanization*, 18(2), pp523-536. Available from: <http://journals.sagepub.com/doi/pdf/10.1177/0956247806069629> [Accessed 20th March 2017].

Van den Berg, A (2012) *Health Benefits of Nature* [Filmed Presentation at STEEP Summer School]. [online]. Available from:

http://www.spu.ac.th/architecture/files/2012/10/Working-paper-series-No_71.pdf <http://vimeo.com/45793862> [Accessed 14th March 2013].

Van Maanen, J. (1995) An End to Innocence: The Ethnography of Ethnography. In: J. Van Maanen (Ed.) *Representation in Ethnography*. London, SAGE publications Ltd. pp.1-35.

Varley, A. (2002) Private or public: debating the meaning of tenure legalization. *International Journal of Urban and Regional Research*, 26(3), pp.449-461. doi: 10.1111/1468-2427.00392

Varley, A. (2010) *Postcolonising informality?* Available from: http://naerus.net/web/sat/workshops/2010/pdf/PAPER_varley_a.pdf [Accessed 9th August 2016].

Viratkapan, V. and Perera, R. (2006) Slum relocation projects in Bangkok: what has contributed to their success or failure? *Habitat International*, 30(1), pp.157-174. Available from: <http://chs.ubc.ca/archives/files/Slum%20relocation%20projects%20in%20bangkoki.pdf> [Accessed 9th August 2016].

von Braemer, T. (2016) Blurred Lines. *Garten + Landschaft*, [online]. Available from: <https://www.garten-landschaft.de/forum-connective-spaces-metropolitan-solutions-conference-berlin/> [Accessed 11th August 2016].

von Meiss, P. (1990) *Elements of architecture: from form to place*. New York, Van Nostrand Reinhold (International) Co.Ltd.

Waldheim, C. (2006) Landscape as urbanism. In: C. Waldheim. (Ed.) *The Landscape Urbanism Reader*. New York, Princeton Architectural Press. pp.35-53.

Ward Thompson, C. (2012) Places to be wild in nature. In: A. Jorgensen and R. Keenan (Eds.) *Urban Wildscapes*. London, Routledge. pp.49-64.

Waterman, T. (2009) *The Fundamentals of Landscape Architecture*. London, AVA Publishing SA.

Watson, S. (2006) *City Publics: The (dis)enchantments of urban encounters*. Oxon, Routledge.

Watson, V. (2009) Seeing from the south: refocusing urban planning on the global south urban issues. *Urban Studies*, 46(11), pp.2259-2275. Available from: <http://usj.sagepub.com.eresources.shef.ac.uk/content/46/11/2259> [Accessed 9th August 2016].

Watson, V. and Odendaal, N. (2012) Changing planning education in Africa: the role of the Association of African Planning Schools. *Journal of Planning Education and Research*, 33(1). pp.96-107. Available from: <http://www.africancentreforcities.net/changing-planning-education-in-africa-the-role-of-the-association-of-african-planning-schools/> [Accessed 9th August 2016].

Watson, V. (2014a) The case for a southern perspective in planning theory. *International Journal of E-Planning Research (IJEPR)*, 3(1), pp.23-37.

Watson, V. (2014b) African urban fantasies: dreams or nightmares? *Environment and Urbanisation*, 26(1), pp.215-231. Available from: <http://eau.sagepub.com/content/early/2013/12/06/0956247813513705.full> [Accessed 9th August 2016].

Weller, R. (2006) An art of instrumentality: thinking through landscape urbanism. In: Waldheim, C. (Ed) *The Landscape Urbanism Reader*. New York, Princeton Architectural Press. pp.69-85.

Westman, M. (2009) *Women of Thailand*. Social Anthropology, Level 3, University of Linköping. Available from: <http://www.diva-portal.org/smash/get/diva2:305244/FULLTEXT01.pdf> [Accessed 23rd July 2016].

Whyte, W. (1980) *The social life of small urban spaces*. New York, Project for Public Spaces.

Wiley, D. (2008) *A walk about the city: stalker, the transurbance and the city map*. Available from: <http://www.yorku.ca/etopia/docs/Intersections2008/Wiley.pdf> [Accessed 7th August 2016].

Wilson, K. (1993) Thinking about the ethics of fieldwork. In: S. Devereux and J. Hoddinott (Eds.) *Fieldwork in Developing Countries*. Colorado, Lynne Rienner Publishers, Inc. pp. 179-199.

Williams, D.R. (2014) "Beyond the commodity metaphor," revisited: some methodological reflections on place attachment research. In: L. C. Manzo and P. Devine-Wright (Eds.) *Place attachment: advances in theory, methods and applications*. Oxon, Routledge. pp.89-99.

Willis, K. (2006) Interviewing. In: V. Desai and R. B. Potter (Eds.) *Doing Development Research*. London, SAGE Publications Ltd. pp.144-152.

World Health Organisation (WHO). (1999) *Environmental health indicators: framework and methodologies*. Available from: <http://www.who.int/docstore/peh/archives/EHIndicators.pdf> [Accessed 7th August 2016].

World Health Organisation. (WHO) and United Nations Settlement Programme. (UN-Habitat) (2010) *Hidden Cities: Unmasking and Overcoming Health Inequities in Urban Settings*. Switzerland, World Health Organisation and United Nations Human Settlements Programme. Available from: http://www.who.int/kobe_centre/publications/hiddencities_media/who_un_habitat_hidden_cities_web.pdf [Accessed 14th March 2013].

Yap, K. S. and De Wandeler, K. (2010) Self-help housing in Bangkok. *Habitat International*, 34(3), pp.332-341. Available from: http://ac.els-cdn.com/sheffield.idm.oclc.org/S0197397509000940/1-s2.0-S0197397509000940-main.pdf?_tid=fcf20176-0e79-11e7-8aa0-00000aab0f27&acdnat=1490130455_029492d7e6cf964f6482b8afb4197767 [Accessed 20th March 2017].

Young, J. E. (1955) *Village life in modern Thailand*. Berkeley, University of California Press.

Yu, Z. (2006/2007) Tacit knowledge: a Wittgensteinian approach. *Tradition and Society: The Polanyi Society Periodical*, 33(3), pp.9-25. Available from: <http://polanyisociety.org/TAD%20WEB%20ARCHIVE/TAD33-3/TAD33-3-fnl-pg9-25-pdf.pdf> [Accessed 7th August 2016].

Yunos, M. Y. M. Isa, N. K. M., Hillier, J. and Ismail, N.A. (2015) Landscape architects' perspective on public participation technique in landscape planning and design: A case study of Kuala Lumpur. *Applied Mechanics and Materials*, 747, pp.184-187. doi: 10.4028/www.scientific.net/AMM.747.184

Zachariadis, M. Scott, S. and Barrett, M. (2010) *Exploring critical realism as the theoretical foundation of mixed-method research: evidence from the economics of IS innovations*. Available from: https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/workingpapers/wp1003.pdf [Accessed 8th February 2016].

