Temporality in Designed Landscapes: the theory and its practice in works of some major landscape designers 1945-2005



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by

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ABSTRACT

This study analyses temporality in designed landscapes. The meaning of temporality is explored, taking us beyond common conceptualisations of time. Temporality, invariably poorly understood in a landscape context, and previously acknowledged as being important, but with only limited explicit discourse, is examined through the lens of a fresh theoretical articulation of temporality pertaining to designed landscapes. A phenomenological approach becomes imperative; and is employed in probing the work, through writing, of several eminent landscape designers between 1945 and 2005.

These designers' works are analysed through the texts, and with support from images of the works, for characteristics of temporality. Textual material offered a broad range of verbal articulation of these characteristics. Some designed landscapes are described with explicit verbalisation of their temporal qualities: others require analysis to discover their temporal qualities from text that is only mildly suggestive.

The heterochronous characteristics of temporality expressed in these designers' works are named and ordered within five themes: tempo, process, duration, imagination and layers. Theoretical understanding of temporality builds with identification of its applications in designed landscapes.

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CHAPTER 1. INTRODUCTION

DEFINITION OF TEMPORALITY

The Oxford English Dictionary (OED) gives a definition of temporality as, "something existing in a condition relating to time". For the purposes of this study a closer definition is needed, one less broadly all-encompassing, that can be brought to bear on some important aspects of landscape experience.

Landscape architecture is concerned with design interventions in outdoor areas to make improvements related to environmental, social and aesthetic outcomes. The focus of this study though will turn towards human users (as sentient recipients, differentiated from other living organisms). More precisely human users feature as it is they whom landscape practitioners and theorists think of and empathise with. This then entails a phenomenological approach with the investigation looking at temporality as it is sensed (by people). My working definition of temporality, then, will be: a sense of time. This simple sounding invocation, a sense of time, entails the reader's effort to mentally disengage from measured time and universal time; engaging instead with time, temporality, as we experience it and as it is meaningful to ourselves.

In some respects it is useful to hold on to the OED meaning, since phenomenology and temporality are intertwined to the extent that the question could be asked whether what the sensing person senses is necessarily temporal. How is a person able to sense something that is *not* temporal, since not only does everything in this world have a temporal nature, but a person's act of sensing is in itself a temporal process?

Phenomenology in this work is understood as not having its references restricted to the study of sensations of phenomena; as having the 'much wider range, addressing the meaning things have in our experience' (Smith 2013, p1). The study of phenomenology includes the structure of internal experiences that 'rang(e) from perception, thought, memory, imagination, emotion, desire, and volition to bodily awareness, embodied action, and social activity'; which all

involve Husserl's "intentionality" (ibid p2). Smith (ibid p4) expands on this characteristic in our interaction with the world:

awareness-of-experience is a defining trait of conscious experience, the trait that gives experience a first-person, lived character. It is that lived character of experience that allows a first-person perspective on the object of study, namely, experience, and that perspective is characteristic of the methodology of phenomenology.

Throughout the study there will be references to landscape designers giving clear consideration to *'that lived character of experience'* (ibid) and it is this that is intended when a phenomenological approach is called upon. Following Husserl, phenomenological responses enlisted in the study are a combination of the objective and subjective (logical and psychological) (ibid p7).

CONTEXT TO THE STUDY

In *Modern Park Design: recent trends*, the book from papers of the 1992 Rotterdam landscape symposium, 'The Park', one of the editorial comments states that the 'acknowledgement of time' is the main distinguishing feature between architects and landscape architects; but that 'the exact definition of time and its role in park design has not become clear' (Knuijt et al 1993, p82). This comment followed Norfried Pohl's contributing paper, in which he made considerable mention of time in landscape design, yet found that: 'Time is a difficult idea. And I don't know if I have a concept of time' (Pohl 1993, p82, italics added).

This confusion about time within the profession of landscape architecture, a kind of sense of its importance accompanied by a poverty of understanding of what it is and where it manifests, is born out through much other literature on landscape architecture, as will become apparent in the next chapter's literature review. Broad generalist statements from other disciplines such as cultural geography can excite the topic, though without specifically diagnosing it (see Chapter 2). In contrast to this uncertainty are incisive contributions from

Bakhtin's literary thinking and his perceptions of our experience of the world as heterochronous, as multiple overlaying senses of time at any juncture (Morson 1993, p477): and from the field of the philosophy of phenomenology come clear conceptualisations of temporality as infused in and necessary to understanding our lived experience (see Chapter 2).

In order to begin to distinguish what temporality and its characteristics are in designed landscapes, I have found it helpful to follow Barbara Adam (1998, p196), and to move away from thinking of 'time' (that) is de-temporalised --- (with) the reductionist-linear vision --- (its) laboratory nature abstracted from context' and lived experience. The study will search beyond the invisibility of an omnipresent, taken-for-granted time, so well articulated by Grosz below, in order to uncover something more about temporality in designed landscapes. Such temporality is the time Norfried Pohl had trouble defining, and it is perhaps this difficulty that has led to neglect and misunderstandings.

Elizabeth Grosz expresses well how time:

disappears into events, processes, movements, things, as the mode of their becoming. And it disappears into our representations --- where it is tied to, bound up in, and represented by means of space and spatiality. It suffers a double displacement: from becoming to being, and from temporal to spatial --- Time is understood as the neutral "medium" in which matter and life are framed rather than as a dynamic force in their framing (Grosz 1999, p1-3).

Grosz's (1999 p15-28) observations in her edited book *Becomings: explorations* in time, memory and futures, highlight a general condition of time being hard to see, being a 'neutral' backdrop, habituated and unremarked; and being expressed in the spatial materiality of things. Yet while Grosz calls attention to the problem of the lack of understanding of time, she continues by demonstrating more of that same problem. Her exploration of time is limited by two things. First, it is fixated on 'futurity'; and this is characterised predominantly as unpredictability, chance, instability and eruption. Secondly, after declaring an anti-determinist approach, in which the word *temporality*, although used, is

neither defined nor expanded on, the discussion remains limited to *time as duration*. Clarity becomes more elusive.

This study, by exploring temporality rather than universal time, will be mining to discover what the qualities of temporality are. Beyond extracting a conceptual understanding of temporality in relation to designed landscapes, its morphology will be devised. This will structure, as Berrizbeitia (2014, p43) wanted, a scheme of 'reference for describing time in spatial and material ways'. The study aims to establish the importance of these temporal qualities. The corollary is that landscape designs without articulated temporal qualities are impoverished, predisposed to suffer diminished significance. This exposition aims to engage readers in an understanding of temporality, which, when its full conceptual meaning and its significance in application is grasped, will contribute important design theory to the profession of landscape architecture.

TEMPORALITY IN LANDSCAPE - THE GAPS

We know that space and time are omnipresent in each other's existence (Jameson 2003, p697 & 706: Massey 1999, p262: Helsinger 2008, p326: Condon 1988, p3-4). This combined omnipresence of spatiality and temporality was expressed by Bakhtin as 'chronotope'. His expansive illustration with Goethe's non-fictional writing leads towards understanding chronotope as more than its root meaning of time and place, towards comprehending the time element (chronos) as unbound from its associations with quantifiable units-to-be measured, instead realising chronotope as temporal overlays in every place, on every object, with its holistic relational nature to specific occurrence of events (Bakhtin 1986, p42). With knowledge that in designing a landscape, our spatial configurations are necessarily also bringing about temporal configurations, patently, temporality is not an optional add-on.

The integral nature of temporality and spatiality in landscape is at the core of this thesis. Temporality is an omnipresent fact of any design to which a fully rounded designer will be giving consideration. Yet there is an inadequate theoretical understanding of temporality in landscape architecture, a disregard for chronotope. Consequently temporality is often not given the acclaim it deserves, as Grosz explained, its presence going unrecognised, or translated into a spatial understanding. Such poor understanding of temporality makes it susceptible to ad hoc treatments and reinforces it being undervalued. This all has the potential to be adjusted once a clearer understanding is established. Grosz (1999, p2) makes a strong argument for a need to address this gap, as she compares the amount of discourse and attention from relevant disciplines (architecture, urban studies, geography and others) related to the spatial in contrast to the temporal. She regrets the paucity of 'studies of time and duration and (that) there is no corresponding discipline or specifically focused and self-contained study of time and its unique characteristics' (ibid).

Jameson (2003) directs us to a need to understand time for our proper understanding of space. He investigates time as part of our condition of interiority. He agrees with a Kantian view of the inseparability of space and time as for him time is *in* and *of* everything so that 'we are able to make an approach to spatiality only by way of what it does to time' (ibid p706).

An overarching understanding and ordering system for temporality in landscape is called for by Berrizbeitia (2014). In her investigation into the 'deep and ephemeral time' present in Charles Eliot's nineteenth century work in Boston, Berrizbeitia (2014 p43) articulates both the intrinsic phenomenological nature of temporality ('the perception of time') and the need for a language or system in order to understand temporality's manifestation in landscape:

If the perception of time entails the perception of change, then systems of reference for describing time in spatial and material ways (as opposed to the abstraction of clocks and calendars) need to be established. Geological change is rarely perceived during one's lifetime, with the exception of earthquakes and other cataclysmic events. --- yet the smaller cycles of temporal change, the seasons, temperature, harvest, and urbanization play an equally important part in this registration of time.

Edward Relph (2004) conveys the need for conceptual understanding of time in our place-making. He highlights the de-valuing of spatial approaches to heritage landscapes effected by widely held attitudes in which 'time seems to be regarded as a commodity' (ibid p11).

For Massey, the burning issue is less, 'the spatialization of the temporal (the dominant view of what representation is all about) but the representation of space-time' (1999¹, p269). Massey links the fallacy of a linear conceptualisation of time with its spatial counterpart. Massey highlights that the recognised model for places and countries in terms of their development has been a (fallacious) linear trajectory between backward and advanced, our particular western developed-world, trajectory of values. In doing this, she argues, exist 'enormous implications --- that places are not genuinely different --- but simply 'behind' or 'advanced' within the same story' (ibid 271). Massey concludes by making a case for thinking differently: to think instead of 'multiple trajectories' which would accompany an open temporality capable of becoming (ibid p271-2). In this way, space, with time, 'inextricably intermixed', 'is not static --- it is disrupted, active and generative. It is not a closed system; it is constantly, as space-time, being made' (ibid p274).

The gaps highlighted above concerning recognition and knowledge of temporality, give a strong directive for a study of temporality in landscape design. What has been voiced is the logical need for a discipline-appropriate conceptualisation of temporality, articulation of its morphology; and an expression of its values that goes beyond commodification and measure.

EFFECTS OF OVER-VALUING THE VISUAL

Dissemination of visual imaging, as demonstrated below, has become a dominant criterion for evaluating landscape, one in which selected visual images are taken as representative of the actual landscape and implied experience of it. Images as static, captured moments in time, militate against a greater acceptance and recognition of temporality in landscape design. The

issue is important for this study as an adjustment is needed to entertain other, sometimes non-visual, parts of a landscape. Image-making therefore needs to be reviewed.

Meyer (1997, p23) traces the changed meanings associated with ideas of the Picturesque. She finds that by the twentieth century its meaning is 'solely concerned with the visual'; that its meaning has transgressed 'from a category rich in tactile, temporal, and emotive associations'. Meyer continues to encourage that

we shall recover the vital, spatial, material and temporal medium of landscape architecture --- Landscape as a visual image will be replaced by site as a spatial and temporal terrain (ibid p51).

Thompson (1998, p181) also ponders on the insidiousness of visual aesthetics, perhaps 'so deeply ingrained (like Christian morals even if you're atheist) that we don't notice we're making those judgements?'

In addition to inflicting an overbearing photogenic aesthetic, is the effect of framing. The framed effect of photographic images has been criticised as being responsible for misrepresenting reality in the sense that selected portions of landscape become appreciated at the expense of the whole landscape (Treib 2001, p120). Additionally, Treib (2001, p124) notes that oftentimes the photographed promise fails to carry through across the site. He analyses landscape photographs as imposing a frame around

a fragment that is forced to represent the whole, like the synecdoche of literature. But landscape is not a fragment: it is a whole, and at times these designs maintain our interest only at small scale for short periods of time (ibid).

He finds fault with this photographic focus for the damaging effect that results in designs with 'form-as-content' (ibid p123).

Supporting these criticisms, there has been a frequent refrain from landscape designers and writers for designed landscape works to be appreciated for more than their photographic images (Berger 2006, p197: Clement in Rocca 2008,

p36: Desvigne 2009, p11: Howett 1993, p66: Ingold 1993, p153: Lassus in Jacobs 1998, p8: Latz in Weilacher 2008, p169-170: Ruff 1982, p10-11).

In this regard, Lefebvre's (1974) words on over-rating the visualisation of space sound equally pertinent today:

It is rather, the time needed for living, time as an irreducible good, which eludes the logic of visualization and spatialization (if indeed one can speak of logic in this context.) --- One wonders just how many errors, or worse, how many lies, have their roots in the modernist trio, triad or trinity of readability --- visibility --- intelligibility (ibid p96)

The fixation on permanence which undermines the uptake of conceptual approaches around change, as a consequence of the prioritising of pictorialising landscapes, has been castigated by several writers and designers of landscape (Girot 2006, p91: Berrizbeitia 2007, p176: Hoyer 1999: Reed 2005: Pallasmaa 1998, p8). Pallasmaa (1999, p8) and Girot make additional, and similar, observations about the weakness of a visualised dominance. Girot (2006, p91) weighs the effective power of the main forces 'degeneration, permanence, and transformation' that 'both physically and ideologically act on the city', noting the weakest is permanence; and attributing the bond between landscape design and permanence as being an

idiosyncrasy (that) can be explained in great part by the still prevalent fascination for the picturesque heritage, but it is also due to a patent absence of alternative modes of thinking and designing.

Here, Girot articulates an aspect of theoretical poverty and its effect on landscape design, which this study aims to address.

Pallasmaa (1999, p8) argues that our admiration for a 'strong image' as representative of a landscape that is perfect and final has the corollary of landscape lacking resilience for change, with an inherent 'aesthetic vulnerability'. He characterises the above as having 'a hermetic and arrogant sense of isolation' in contrast to one that 'allows additions and alterations', which welcomes with its 'openendedness and ---aesthetic relaxation' (ibid).

Berrizbeitia (2007) also, similar to Pallasmaa, identifies the antithesis of visual fixedness as process and a layered approach. She makes a comparative analysis of layers, or palimpsests, in contemporary parks by Tschumi, Corner and Allen, and Corner/ Field Operations. She notes that,

An inclusive attitude toward history, ecology, recreation, and perception has transformed place from inert visual scene into a historically contingent process always in a state of formation. This is expressed in design strategies that layer multiple modes of organization and establish a range of dynamic processes on the site, from open to closed, that leave the possibility for unexpected events to unfold (ibid p179).

The layers in and of design to which she refers are introduced as interwoven with process.

Pallasmaa (1999, p7) demonstrates the qualitative and phenomenological benefits of a different design approach that recognises and celebrates several important characteristics of temporality: multiple layers, openendedness, multiple perspectives and simultaneity:

the quest to liberate the eye from its perspectival fixation has enabled the conception of multi-perspectival and simultaneous space. Perspectival space leaves us as outside observers, whereas simultaneous space encloses and enfolds us in its embrace.

The issue of distancing as opposed to involving the viewer is well argued by Bann (2003). In his analysis of instrumental landscape principles adopted from landscape painting, he examines treatments in perspective painting taken by the early seventeenth century painter Godfredo Wals in comparison to that of his (alleged) pupil, Claude Lorrain. Bann (ibid p59) describes the effect of Wals' paintings:

The idiosnycratic format and cunning manipulation of perspective in his paintings brings home the distinctive status of the spectator implied in them. It is as if the pictorial prospect were not to be thought of as an extensive space dominated by the eye but as a threshold inviting purposive movement.

Bann contrasts Wals' portrayal of a 'sense of the walk' by means of this 'material resistance of the image' to that of Claude Lorrain's 'extensive vistas with architectural features and sculptural "eyecatchers" lending support to their whole composition' (ibid 59). Bann argues that Claude's influential 'pictorial metaphors', inherently distanced and distancing, were instrumental in eliminating the 'sensory investment' of paintings such as Wals's (ibid p59 and p54).

This sacrifice of sensory investment to the dominanace of strong visual features like vistas and viewpoints from where a landscape can be surveyed and admired rather than engaged with and immersed in has been a topic of interest for Berleant. Berleant (1997, p85-86) traces a conceptual shift reaching forward from the end of the eighteenth century under the impact of Kant's philosophy on aesthetics in which the principle of an objective disinterest became a prerequisite for aesthetic judgement. Berleant (ibid) proposes that this may be the basis even now for the tenacious hierarchical privileging of visual qualities over other experienced qualities. He argues that, despite the persistence of this visualising culture, there is a growing realisation that 'the conscious body' participates actively with the environment, rather than observing contemplatively (ibid p12).

There is considerable agreement to this from landscape writers who criticise the distancing effect wrought by image-making and its nullifying effect to what could be involved relationships of a person with landscape (Conan 2004, p19: Ward Thompson 2005, p117-118: Saito 1998).

Cosgove's (1984) study of perspective and its influence on landscape similarly notes the developing objectification of landscape. Characteristically, approaches to viewing landscapes adopted perspectival organisation, which offered 'a controlled, axial entry into the picture plane' (ibid p54). Cosgrove (ibid p55) evaluates this (using a Kantian 'aesthetic') as 'an aesthetic entrance not an active engagement with a nature or space that has its own life.'

This study proceeds as for Berleant's perceptive being (1997, p111) that,

Aesthetic appreciation, like all experience, is an engagement of the body, a body aesthetic that strives to extend and realize the possibilities of perception and meaning.

This study's foundation for temporality is from Husserl, bonded with phenomenology, which will be discussed in Chapter 2. Berleant's comment above, positions his approach to aesthetics as a central ally to the phenomenological approach that this study adopts; and thus to temporality.

AIMS OF THE RESEARCH

This study aims to form an overarching understanding of temporality in designed landscapes. In doing so it endeavours to bring recognition to the value of temporality and its characteristics. A delineation of the qualities of temporality as they pertain to designed landscapes needs to be made. An ordered way of thinking, of grasping the main characteristics, will be undertaken. From this, a system of reference will be developed that characterises temporality, its physical materiality, in designed landscapes.

This necessitates theoretical development around understanding temporality, as it relates to designed landscapes. How have designers included expressions of temporality? What characteristics of temporality have designers invoked?

In addition to bringing recognition to temporality, this work will assemble terms for expressing its characteristics which will aid in its professional discourse. The study aims to reveal where designed landscapes convey temporality. It is hoped that increased awareness of temporality will generate debate and discourse to deepen resonance and visceral connection to our designed landscapes.

There will be an attempt to push boundaries of our general assumptions about temporality, and to assign to temporality practices that share temporality's defining characteristics, even if generally not considered as relating to time. The extent of ground to be covered in this endeavour precludes topics such as historic landscapes on the grounds of their complexity and specificity. Designs for historic landscape restoration produce combinations of both

phenomenologically sensed time and objective, intellectual, knowledge based features of time. The latter relate to a historic interpretation that requires an overtly conscious engagement with factual knowledge of that historic time. The mix of intellectual and of phenomenological engagement, of time and of temporality in historic landscapes would demand a study devoted to that focus: a remit that is outwith this study's aims.

RESEARCH METHODS

The form of investigation: choice of data: advantages and disadvantages and limitations

In considering different approaches to this research, it was recognised that interview style qualitative research into user experiences of designed landscape-induced temporality would suffer from the lack of contextual overview and theory of temporality in practice.

My strategic approach to discovering this theory, after initially searching in the landscape architecture literature and that of associated disciplines, has developed from relevant philosophical literatures. From this understanding of concepts and principles of temporality, in tandem with investigations into descriptions of built landscape designs, I have articulated a theoretical basis to temporality in relation to a landscape context.

To develop those principles into recognised characteristics of temporality as used in designs; that is, landscape designers' intentions for, and landscape theorists/ landscape architectural critics' identification of those characteristics; literature was the chosen method to search for what had been said and written on the subject; and as being indicative of design thinking and practice. In addition, as the study's focus became the thinking, aspirations and values on temporality that landscape designers and landscape theorists/ landscape architectural critics held, parameters were drawn that exclude empirical site evidence from the study. Despite this demarcation of the research aims to not include evidence of their own responses, site users feature *in absentia*. It is

clear that many texts reference what a landscape designer, theorist or critic surmises about site users' responses. Moreover, much of what I have written invites readers to suppose, to empathetically project their own potential response into the scrutiny of a site's temporal characteristics that are described in this text. Implied in this is an understanding that these accounts are their author's views of users' perceptions and responses. I have not extended this work to probing the accuracy of their statements, other than taking my own view where material is sufficient to do so. (There is potential regarding claims about users' responses for future researchers.)

Literature became the means for discovering knowledge based on the aims of the research. It should be emphasised that this research does not purport to evaluate the presence of these reported temporal characteristics on their sites. The aim was focused towards how designers developed their design thinking, and how they thought their designs were expressive of qualities of temporality. A disadvantage of this methodological approach in literature is the narrow base of opinions from which it is taken. The opinions of few (as many as could be found, but still, only a small number of people) landscape designers and landscape theorists or landscape architectural critics have been assessed for any site. Had there been a greater amount of design analysis writing, the evaluation of opinions would have been greater.

The choice of period and designers

The period from 1945 to 2005 has been selected as a fifty year period beginning after the upheaval of World War Two and ending at the beginning of this research. Prior to1945 the young profession of landscape architecture generated few journals, exceptions being the Landscape Architecture journal from the USA and Garten und Landschaft from Germany, both founded in the early 1900s. The implication of this for a literature review searching for several viewpoints of each designer's work is that the later years of the twentieth century promise improved and increased sources.

The period encompasses a number of developmental stages of the profession, approaches to design and type of commissions for landscape architects and designers. Looking for correlations between these developments and expressive use of temporality is outwith this research, though potentially of interest for future research.

The working thesis of temporality's coexistence with spatiality would find material on temporality during every period and with every designer. This advocated for an open-handed, impartial approach as to selection. Conversely, sourcing a sufficient quantity of written material on any designer inevitably led towards the more written about, and thus more esteemed, landscape designers. Concurrent with this was an expectation that designers will have accomplished work with a similar integrity and expressiveness in terms of temporal effect as of spatial effect.

A major constraining factor was sufficient quantity of literature in the English language: this favoured those esteemed landscape designers who, inevitably, have more published material about their work and working approaches for English speaking readers. My intention for a balanced geographical selection of designers has been weakened by limited publications in English of non-English speaking landscape designers. Conversely an attempt at geographical balance has led to omission of some North American landscape designers.

Designers were selected not on the grounds of any pre-conceived notion about their approaches to temporality in their designs. I was interested in how they, or a critic writing on their work, felt that aspects of temporality had been manifested: not on forcing my own criteria of temporality on their work. My work has been iterative in this regard, a discovery of qualities, or extensions of qualities, some of which I had not initially envisaged. At times I found nothing relating to any temporal qualities that I expected: but then after a short period of cooled distance came fresh insight.

Method of data analysis

In my reading, as emphasised by Rabinowitz (1994), I am aware that my interpretations have been guided by prior notions: in this instance, by the premise of the necessary co-existence of temporality with spatiality. My readings were undertaken with alertness to any quality of temporality. Words that contained an implicit temporality in their meaning became trigger words. The scaffolding for the terms and vocabulary of key characteristics was built in stages. I become sensitised to the temporal implications behind a great number of words that were not clichéd descriptions, nor measures, of time; that is, words that revolved around a sense of time. The meanings of these words, of actions and perceptions, suggested some common organising themes. Some themes were already anticipated (tempo, process and duration). Among words that implied process were: many words with the suffix "ing" (for example passing, continuing), also flowing, fluid, indeterminacy, making, open-ended, transform. Words implying tempo were: dynamic, frozen (in the sense of stillness), motion, release, restless, tight and loose (where tight implies taughtened muscles for faster movement, and loose implies relaxed muscles for slower movement). Words implying duration were: attention (that tempo of being-in-the-moment or attentive phenomenological engagement), continue, infinity, permanence.

Other themes, of layers and imagination, were demanded by words that were not largely associated with tempo, process or duration. These were words that involved temporality but whose temporality I could not, for a while, organise into a common grouping. Collectively, however, these were clearly about a layered temporality. Ambiguity is about the layering of different possibilities; anticipation involves layers of guessing yet unknowing; threshold and arriving are similar to this; to juxtapose demands a comparative evaluation of two or more things, which in the physical world of landscape also involves moving towards one and leaving the other; relatedness, relationships and sequences are similar in this regard; a mystery is something that may be disclosed in the future; as are also revealing and unfolding. Words implying imagination were fewer, as often texts expressly called on imagination as their modus operandi. The following are some additional words: playfulness, fantasy, illusion.

Unsurprisingly, with temporality as the focus, my researcher antennae had become sensitised, as Bakhtin exhorted (Bakhtin 1985, p25), to noticing temporality.

Some texts have been contentious, with disagreement among writers; in which case I have made evaluative judgements. Contrarily, some cases have arisen in which texts on a particular designer or scheme have been overly consensual: this has alerted me to their source (the designer Adriaan Geuze in that instance), which has inclined my evaluation towards looking for more material, to either verify or discredit their claims.

Again, some writers are invariably more expressive than others, lending material for finding further areas of significance around temporality. Other designers may, feasibly, have designed equally or more significant temporal characteristics, although without the written expression of it, this research is not able to reach that evaluation.

In reading, my approach was to find the intended meaning of the author. This deliberately avoided 'cherry picking'; that is, I read each author with an analytical thoroughness so as to fairly represent their position and not to present fallacious or incomplete evidence as support for my arguments.

When passages were found with trigger words which encapsulate aspects of temporality, more analysis was applied. What exactly had the author intended? Were trigger words scattered with no illuminating significance on the designer and their work? Or was there more significance than was realised at first? Rigour and intellectual integrity were guiding principles.

Images of the works themselves were important; and, in a couple of cases (Schouwburgplein and Parc André Citroën), experiences of my own visits have unavoidably added some insight. Descriptive texts are often sparing of other immaterial effects, possibly assuming just such a (landscape designer's professional?) transference of information from the images. Often, textual writing is not fully descriptive as, say, it would be in poetry or literature. Landscape architecture although not exclusively a visual medium, provides

images of the works as supporting information. 'Reading' these images, empathising with being-in-place, was an important part of attributing qualities.

The searches for sources and how selections have been made

Reading has been extensive and intensive. I have followed a strategy of comprehensive searching via search engines on subject searches such as temporality, designing with ecological processes, phenomenology; also for each selected landscape designer. Additionally I have pursued references that promise some thoughtful deliberation on any aspect of temporality in landscape that showed relevance to my aims. The latter has covered a breadth of titles, selected not as a discourse but on some specific criteria of illumination from a particular author of an aspect of temporality. Interesting, though not promising clear articulation and application to designed landscapes, were papers on the experience of motion; place and experiential aesthetics; place memories; ecological design and process; environmental perception, and more.

Theoretical approach

Gestational thoughts leading up to this research might well be described as belonging to *instrumental theory*, described by Swaffield (2002, p1) as being derived from empirical observation. My own early responses to what I thought might be expressions of temporality, motivated this research into finding where and how temporality is expressed in designed landscapes.

The study's theoretical approach is more appropriately categorised as *interpretive theory* in which characteristics of temporality emerged during the research; that is, the themes and theoretical basis were not pre-existing to the research study.

The goal has been to understand how designers have attributed importance and meaning to characteristics of temporality and such understanding is usually grouped with *interpretive theory* (Vannini 2009). Unlike positivist approaches, causal relations from characteristics of temporality are not claimed. Readers are invited to assess their own potential responses, and/ or what they believe would

be site users' responses. Variables and contingencies around human responses are accepted. Notwithstanding, appreciation and understanding given to the arts for instance, indicates a degree of consensual thinking and feeling; and it is expected that that would be extended here.

With the interpretive position taken against the efficacy of proving causal relations, findings are made *inductively* in this work, in making observations of landscape works and 'discovering' temporal characteristics that previously I had not considered. However, following Swaffield's (2002, p1-3) depiction, and by working on the premise of the co-existence of temporality with spatiality, the work appears to have elements of the *deductive* in so far as there is probing, revealing and argument around what and where characteristics of temporality are found in specific designed works.

THE STRUCTURE OF THE THESIS

The thesis follows this introductory section with the theoretical framework, incorporating a literature review, on the philosophical base of temporality; and viewpoints on qualities of temporality from writers on landscape architecture and in adjacent disciplines of landscape urbanism, ecology and cultural geography.

Subsequent to that, Chapter 3 gives a contextualising view of Modernism's influences on landscape design prior to the start of the study period of 1945. The following chapters are ordered chronologically in decades, with each decade beginning with contextual information situating designers among potential design influences of their time.

The arrangement by decade (1945-1955, 1955-1965 etc) holds no significance regarding findings on thematic differences between the decades. It does however, indicate (extending the premise of the co-existence of temporality and spatiality) that temporality is a perennial (sic) concern. And it precludes a false negative that designing with temporality is only a fashion or trend.

Each chapter progresses by focusing on works from between three and five landscape designers from the decade in question in terms of characteristics of

temporality in their design work and design thinking. Evidently many designers have flourishing careers considerably longer than a single decade. Their allocation to a particular decade reflects a piece of their work that was a turning point for their career, or a cluster of a number of significant commissions that happened during that decade. This review of designers' work is focused on their particular expression of temporality and does not attempt to be a review of their oeuvre.

Following the chapters covering the six decades 1945 to 2005, Chapter 10 assembles the heterochronous characteristics from those chapters, giving each temporal theme a more intensive focus. The range and collective impact of each temporal theme is more easily gauged by this collation.

The final chapter draws the work to its conclusions.

CHAPTER 2.

LITERATURE REVIEW

Hints and limited references to temporality

'Time is a difficult idea. And I don't know if I have a concept of time'

A number of landscape architects (in this section) have queried the role of time in landscapes. Norfried Pohl's (1993, p82) plaintive statement encapsulated much else that I read. There was an attraction to time, to thinking about it and about designing with it. However, an understanding of the full potentialities of temporality has suffered from a limited conceptual grasp by landscape professionals. In their writings sometimes there appear to be allusions to something not fully expressed, some reference to, but not full exploration or explication of, what might potentially be temporal characteristics.

Michel Lafaille (2008, p32-33) notes of landscape design that one of three elements of 'reading' a place concerns space and time. He applauds the vision that brings depth and 'a sense of movement in space and time'. But, with implications of narrowness, he continues,

Obviously attention needs to be paid to all aspects of time, such as climate and the seasons, and their effects on things, living and dead.

Lafaille's list of climate, seasons, life and death falls infuriatingly short of any kind of comprehensive appreciation. Similarly limited is Lodewijk Baljon's (1993, p186) metanarrative of an objective time in landscape design that includes only process, seasonality and historical styles.

Ephemera and the interrelationships that could be made by this between people and the natural environment, 'connecting the sensual with intellectual experiences', became an enthusiastic design focus for the American landscape designer, M. Paul Friedberg (1996, p95) in 'Probing the Fourth Dimension'. He found that ephemera such as 'light, wind, sun, shadow, reflection, temperature, seasons and time' were rarely harnessed by landscape designers but that he

himself was invigorated by the 'opportunities and possibilities of this palette' (ibid). In his project for 'the lost soul of the Arizona Canal' his work focused on emphasising the sun and the sky, the time of day and season, currents, reflections, and moods of the water.

Temporality suffers from under-characterisation in Elizabeth Meyer's writing (2000, p242) on the effects achieved by Post-Earth day since 1970. She writes, 'Bodily experience, movement in space, fluctuating characters, and temporal considerations defined this type of landscape architectural practice.' But it would appear that the 'temporal considerations' refer to ecological processes, possibly social processes and possibly geological processes. There is no further detail or elucidation; and this is part of the problem of temporality being under-expressed and not well articulated.

Conversely Thaisa Way (2013, p38) writes on Gas Works Park of increased understanding using a 'thick section' approach of 'how the complex layers and narratives relate to one another'; yet while writing of a heterochronous characteristic of temporality, these more redolent terms are not employed.

The passage of time and time's measures as pertaining to the history of designed landscapes are the focus for Duemplemann and Herrington. In 'Plotting Time in Landscape Architecture', they write on design approaches taken by landscape architects 'to exploit, express and represent time as well as produce designs that are subjected to the perceptual confines of time' (2014, p13). However, Duemplemann and Herrington's interest remains singlemindedly on designers' 'representing time' (ibid p3). Their interest in representations of time in designed landscapes diverges from this study's focus of temporality in designed landscapes. Their named part are: 'objective and subjective time', 'astronomical time', 'deep geological time', 'landscapes as time', 'seasonal time' and 'cyclical and continuous time' (ibid p1-8 original italics). These sound interesting, yet remain unconvincing. For example, their references to Apollo at Versailles that illustrate their category of 'astronomical time' are without any content on historical myth. Neither is there mention of imagination which would be needed (as Ricoeur's 'productive imagination' illustrates, see below) to be entrained to receive it. Also omitted is any

connection with actual astronomy (ibid p4). Any elements that would facilitate visitors' perceptual reception, to which they allude (above), are straight-jacketed throughout the piece. The promise of 'subjective time' disappoints. It appears to be demonstrated by a presumed perception of the fact that landscapes 'are made of materials that develop over time': and seeing illustrations of befores and afters of landscape improvements (ibid p1). Suggested glimpses of something important are frustrated by unsubstantiated claims, limited concepts and *non sequitur*. Without exploration of what exactly the 'time and changes' are, or of how we access them, is the statement: 'Gardens and designed landscapes are literally the time and the changes they express. --- they are markers and makers of time' (ibid p8)!

Christophe Girot (2007, p27) found for his design of Invalidenpark that the importance of multiple memories of experiences and feelings effectively 'outweigh(ed) the importance of historic remains' on the site. He considered the focus of his design process to be about those invisible temporalities; 'the things that were neither to be seen nor said mattered much more --- than its ultimate appearance'. The intangible qualities of temporality were felt though not articulated.

Phenomenological time in designed landscape

In What Time Is This Place? Kevin Lynch (urbanist planner and theorist) gave serious consideration to elements of time in our built landscapes as far back as 1972.

It is evident that we should think of an environmental image that is both spatial and temporal, a time-place, just as we must design settings in which the distribution of qualities in both time and space are considered (ibid p242).

After an intervening forty years his ideas and 'intuition of time' (ibid p173) still sound fresh, as if his admonitions have not quite entered mainstream practice. He wrote of designing for 'temporal collage', accretions of changes wrought by progressive development and historical changes; of moments in the landscape with 'a sense of vital stillness'; of transitions between qualities of dawn and sunset (ibid p173-177).

Relph (cultural geographer on the phenomenologies of place) writes that a proper understanding of temporality would be to move towards

intricacies of everyday 'temporality' --- the lived-experience of time --- the dense association of memory, present awareness and expectation that, among other things integrates us into landscapes (Relph 2004, p111).

He invokes us to tackle 'the unfamiliar and difficult ways of thinking associated with phenomenology, though it can draw on precedents in poetry and philosophy', in order to 'grasp' temporality as a prerequisite for sustainability (ibid, p120). And, while temporality can be a slippery concept, he advises starting to comprehend its importance by 'becoming attuned to the resonance, temporal rhythms, and modulations of life and landscape' (ibid).

Berrizbeitia (2014) (landscape architect theorist and educator) finds something of this integrated perception which she applauds in Charles Eliot's physical and historical geographic description of the Boston basin. He invoked

vision (an active and thinking eye that perceives and identifies difference), memory, and association as the instruments of the reception of time. The objective *reality* of time, made manifest through the ongoing formation and transformation of the landscape and its geology, is offered alongside the subjective *experience* of time (ibid p43, original italics).

Stephenson (2010, p308) (cultural geographer on heritage landscapes) berates faulty conceptions of temporality that form it as 'a rational, measurable trajectory --- (since this) closes out other conceptions of the temporal'. Her paper makes a comparative study of spatial temporality in phenomenological, lived-in landscape experiences, between Maori views and those from professionals undertaking landscape assessments. She critiques the lack of methods for identifying less tangible 'place-time-subjective qualities' (ibid p301). Stephenson formulates a spatial-temporal model. She makes five categories: the 'static-spatial' with its 'emphasis on the physical landscape': the 'dynamic-spatial' with its 'emphasis on interactions between forms, relationships and practices, at a point in time': the 'static-temporal' with its 'emphasis on interactions of the landscape': the 'dynamic-temporal' with its 'emphasis on interactions between forms, relationships and practices, over time': and lastly, the 'dynamic-temporal' with its 'emphasis on interactions

spatial-temporal' with its 'emphasis on interactions between forms, relationships and practices, over space and time' (ibid p312). She emphasises that her model is not a bounded typology 'as in practice any single method may incorporate aspects of several of these' types. She found, when she applied her model, that most western landscape assessments were categorised as 'static-spatial' with none being 'dynamic-spatial-temporal' (ibid p313). Stephenson draws confidence from Wylie's articulation of landscape as "the totality of relations between people and land" to infer that landscape is understood as quantifiable and embodied: and that shortcomings (as regards spatial-temporal understanding) reside in a disjunction between theory and practice (ibid p314-315 quoting Wylie).

The landscape architecture academic and theorist on ecological aesthetics Jusuck Koh's lecture in 2004 to his students at Wageningen University in the Netherlands became a short book and e-book, titled *Ecological Reasoning and Architectural Imagination*. In this he embarks on a far-ranging discussion of modernist and ecological influences and approaches to contemporary landscape design, listing desirable qualities for designing with the 'ceaselessly changing' (ibid p15) nature of people and place. Koh finds validation for his 'fundamental principles (of) Inclusive Unity, Creative Balance, and Complementarity' from the ordering principles of physics, specifically the first and second laws of thermodynamics (ibid p13). I shall refrain from speculating about his reason for this, other than suggesting he found reassurance by discovering his principles evidenced in science. However, adopting a supporting argument or rationale from one discipline into another, risks using analogous findings *as if* they were true and could be simply transposed from one to the other; and without searching deeper within the discipline itself.

Koh clarifies his meaning of 'ecology' to refer to 'phenomenology, as well as to depth psychology of human perception, cognition and creativity' (ibid p11-12). Further on, his section headed 'Inclusive Unity with People and Place' focuses his thoughts on designing for a phenomenological engagement with landscape. Temporality is one of the listed qualities, which appears to be focused on passing time, as he expands on it as being the 'diurnal, seasonal rhythm; tidal 'cycle'; processes of change, aging development; process; expression of

ephemerality, transience, lightness, impermanence' (ibid p16). 'Threshold', 'transition' and 'open-endedness' are, interestingly, also listed, though not as qualities of temporality (ibid p16-17).

The following chapter headed 'Creative Balance' (although he is citing aesthetics and static mechanics) echoes ecological paradigm shifts from steady state to dynamic process in his shift from 'Balance' to 'Creative Balance'. Koh's synchronicity, as one of his 'aesthetic language and design strategies' listed here (ibid p21) is remarkably close to Bakhtin's thinking on the heterochronous (discussed below); multiple kinds of temporality and multiply layered. Other strategies listed in this section, 'juxtaposition', 'disjunction' 'flow' and 'fuidity' have marked characteristics of temporality. Koh's design principles accept and articulate several characteristics of temporality, though emphasis is given to his three ordering principles of inclusive unity, creative balance, and complementarity rather than finding an overarching ordering in temporality itself.

An embodied view is invited from the social anthropologist Tim Ingold (1993) in which *looking at* a landscape merges with *being in* it. The 'dichotomy between taskscape and landscape' would be overcome 'by recognizing the fundamental temporality of the landscape itself' (p164): in which his meaning of landscape as our 'domain' reveals that the fundamental temporality is ours. Ingold's temporality is essentially phenomenological, 'dwelling' in the 'taskscape' – 'social time is rhythmic, not chronological' – as are his explorations of the taskscape (p160).

The cultural geographer, Crang's (2001) view in 'Rhythms of the City' is about acting and doing, his view towards an urban taskscape.

I work with a sense of space-time as Becoming, a sense of temporality in action, as performance and practice, of difference as well as repetition; the possibility as Grosz (1999) argues, for not merely the novel, but the unforeseen (p187).

His 'becoming' is more acting than being, as he sets out to understand 'an activity creating time-space' (p187). Crang approaches this through four 'circuits': the 'chrono-politics and regulation of daily life'; a 'sense of human action and motility (in) the experience of time'; the 'differences between lived

and represented times'; and a 'share(d) --- idea of the self-presence of everyday experience' (ibid p187-188). Bakhtin's chronotopic concept is borrowed, which Crang 'adapt(s) --- as the sense of temporalised place' (ibid p190). Crang concludes with an appeal to 'think through a pluralised and eventful sense of lived time-space' (ibid p206). While he has found that time is intrinsic, 'not an external measure' (ibid); Crang's application of temporality is meant as generic to place: people in place are seen as (relatively) generic actors, in which place takes the focus.

Crang's developing thoughts are demonstrated In an earlier contribution in which Crang and Thrift (2000) view a wider regional scale noting that the Kantian 'absolute category' of space is losing ground in current thinking to one of 'space as process and in process (that is space and time in becoming)' (ibid p3).

Temporality as process

Conceptions of process in landscape design altered, taking their cue from changing conceptions about process in ecological science. In this, the earlier 'equilibrium paradigm', whereby nature was seen as a self-regulating, balanced system, and in which ecological processes could be predicted to restore that system to its original condition, had changed by the 1980s (Cook 2000 p119-120). The ecological scientist Cook emphasised 'the dynamic and changing nature of communities and ecosystems' in which disturbance was not infrequent (ibid p120). Disturbance from humans, which had previously been treated as external to the natural world, began to be factored in; and the new understanding 'challenge(d) any clean distinction between culture and nature' (ibid). What emerged was a general concept of 'the flux of nature rather than the balance of nature' (ibid p126).

Landscape design practices adopted this new position. In recent years, in practice and in reflection on practice, recognition of process in designed landscapes, social processes, physical processes, and 'natural' processes has been voiced by many. Landscape architects Brands & Loeff (2002, p69)

describe their role more as directors than designers for Hoge Weide Park, a former waste tip at Leidsche Rijn, in which they worked 'not to bring about a chosen aesthetics but to carefully accompany the emergence of a new and often unexpected process that influences the shape of the public space'.

Landscape architect and environmental ecologist Alan Ruff (2002, p245) notes a transference of dynamic qualities from ecology into people's dynamic relationship with nature in urban living. He had advocated that landscape should be understood as process, responding to changing needs, 'not retained (as) a specific situation' (Ruff 1982, p10).

Koh (2004, p41) endorses the holistic thinking of ecology in designing landscape, arguing for prioritising 'interactions' and 'interrelationships' over form.

Interestingly, a reciprocity between process and phenomenological engagement is noted by both landscape manager Koningen and by Berrizbeitia (landscape architecture academic and theorist). Berrizbeitia (2007, p177) finds that the action of noticing processes in landscape 'introduce(s) a subjective dimension of landscape that had been repressed by the overly positivistic designs of the previous two decades.' She welcomes designing in a processual way rather than in finalised compositions (ibid).

To Koningen (2004, p257), the process development of the Heemparks gave users 'the natural and creative breathing space (their) psyche needs'. He writes of the different approach to management of the ecological processes of the Heemparks, one which benefits from 'a lasting involvement of designer and park manager' (ibid). Koningen enthuses about the nurturing qualities of a Heempark to 'both nature and man' which evidently comes from temporality not being ignored. He applauds the Heemparks for providing the 'time and space that both nature and man require to develop their talents and qualities' (ibid p258).

Process was espoused by Owen Manning (landscape architect and ecologist) as an essential approach to designing with ecological planting in contrast to,

and in conflict with, designing for permanence (1979 p28). He wrote about design attitudes changing, process as a paradigm for the designer, who

becomes more sensitive to natural factors, --- his design may accordingly take on the form of a flexible structure within which details may change with the fluidity of natural processes - a form responsive to ecological demands - rather than the fixed form of traditional design (ibid p6-7).

Landcape architecture writer Peter Reed (2005, p16) sees process as one of the necessary 'complexities' of all landscape designs:

The sense of time and process that sees landscape in an ever present state of becoming is relevant to all projects and may affect the way a designer visualizes a site's spatial and temporal qualities.

Refreshingly, Julian Raxworthy (2006) (landscape aacrhitecture academic and practitioner) takes a close look at change, 'the most obvious manifestation of time'. He finds, in current architectural and landscape architectural discourse, expressions of 'process, dynamism, unpredictability, self-organisation, flexibility' (p102). However, he finds that the professed 'process' frequently results in 'a frozen moment of change' (p103); and he develops his argument in favour of a return to valuing landscape's asset of change, and of plant material, being used with, rather than against, its changeability.

The oft-cited 'material' difference between landscape architecture and architecture, of dynamic materials (such as plants, soil, water) versus static materials (such as bricks and mortar) fails to recognise that the key difference is one of time, which is clearly not a material. --- landscape architecture has an opportunity to explore time in a way that is unique to the discipline (Raxworthy 2004, p197)

Raxworthy is unusual in his attention to this subject which is a recurring theme in his writing and practice. He is one of a few examples.

Landscape architectureacademic and ecologist Anne Whiston Spirn, writing of the interlinking of urban culture and nature in 'The Poetics of Nature: towards a new aesthetic for urban design' (1988), intimates that process as a design aesthetic, has greater depths:

This is an aesthetic that celebrates motion and change, that encompasses dynamic processes, rather than static objects, and that embraces multiple, rather than singular, visions (p108).

Frustratingly not explicit, there is a hint in 'multiple visions' of an understanding of the profound effects from layers of meaning. She continues,

This is not a timeless aesthetic, but one that recognizes both the flow of passing time and the singularity of the moment in time, that demands both continuity and revolution. This aesthetic engages all the senses, not just sight, but sound, smell, touch and taste as well. This aesthetic includes both the making of things and places and the sensing, using and contemplating of them (ibid).

Spirn indicates a sensitivity to modulations of the passing of time. More importantly, despite her emphasis on sensory reception, she gives recognition to the phenomenological component ('using and contemplating') and its role in making places (ibid p109-10).

The study of John-Alder (2014) (landscape architecture academic and practitioner), 'Processing Natural Time: Lawrence Halprin and The Sea Ranch ecoscore' distinguishes temporality from a measure of passing time. She shows a sensitive recognition of qualities of temporality in response to a passage Halprin wrote in *The Gardens of the High Sierra*, on his observations and learning from 'natural order':

My own sense of order derives from it. --- not (to) imply the picturesque ---. This order is deeper – it has to do with natural rhythms, with relationships between objects, with lightness and heaviness, gravity and the hardness of rock---. Second is processes. --- Process and product become almost synonymous and the sequence of events is absolutely clear. Here art is evolved, not only by accident but also by inevitability (ibid p52).

John-Alder comments that the passage, crucially describing his principles and 'reference points for aesthetic action' is 'infuse(d) --- with the notion of time' (ibid p52). The passage also reveals how Halprin took this understanding of formative processes as essential to understanding the formed and made. This became his 'own sense of order'. He had, as Relph (2004, p111) invoked, 'becom(e) attuned' to process and its formative force.

Process is a predominant theme pertaining to temporality from literature on ecology (Higgs 2003: Cook 2000: Spirn 1988: Mozingo 1997: Nassaeur and Opdam 2008, p633). Kristina Hill (2005, p145-146) (academic of urban ecological dynamics) expands on dynamic process as being a condition that she terms 'shape-shifters', fundamental change in which process activities are unrestrained by boundaries. Hill states that conceptualising working with process clearly involves adopting a temporal awareness while simultaneously demoting the importance of the spatial constraints of site boundaries (ibid). She indicates that a full, widespread professional understanding of the 'dynamic mosaic' is yet to happen:

designers must come to treat these edge zones as dynamic, like weather patterns, and not as artifacts that deserve permanent memorialization simply because they once existed. In cultural terms sites are best understood as shape-shifters, and boundaries as tricksters that teach us what we see in a moment of time is not necessarily what matters most to the river of time (ibid).

The landscape designer and artist Bernard Lassus's views were sympathetic (1998¹ p75). He looked on design as joining forces with process, 'reanimat(ing) the movement of certain fixed factors and --- joining in the process of what is already in place'. His determination to avoid describing his work as 'composition', a word to which he attributed an underlying implication of 'a reversible temporality', led him to name designing the 'inflection of the landscape process' (ibid); and later, 'inflexus' (2002, p224). He expanded,

process designates the interactive movements of the place. It indicates how it is necessary not to stop the place, not to fix it. One could almost say that it is required to catch the place "on the move" (1998¹ p75).

Conceptually, though not practically, akin to Lassus's concept of inflexus, is the idea of *loose space*. It is a term applied to left-over places where the processes of its inhabiting flora and fauna, and of the flexible and transgressive activities of its users, appropriate the place beyond a managing authority. Rivlin (2007, p52) (environmental psychologist) finds that places taken over by unplanned processes (social, vegetal), with their characteristic 'spontaneity and casualness

of use', are not necessarily able to be translated to designed spaces. However, landscape architecture academic Ward Thompson (2005, p117-118), citing Dovey, recognises transferable qualities of

the process of 'becoming', with a liminal, edge condition, one that shifts in quality and in space --- where we're continually inventing new rules.

In urban ruins such as derelict factory premises, cultural geographer Tim Edensor (2005) brings an appreciation of the potentials in unregulated sites for ruderal plant species, and non-standard human activities and behaviours. He vividly describes the potential and range of activities offered by an open temporality of unregulated ruins in which 'the illusion of permanence dissolves' (ibid p44).

Landscape architecture academic and practitioner Christophe Girot (2006, p91) is intrigued at the general inclination to privilege permanence. He analysed, as mentioned earlier in Chapter 1, three main forces acting on a city fabric, 'degeneration, permanence and transformation' of which transformation and degeneration were more prevalent. In his estimation, permanence, as the 'weaker force' made it 'ironic that present landscape thinking has chosen to cling exclusively to the notion of permanence' (ibid).

Potential to express change and process in design is inherent in planting schemes. Site users' awareness of process at the human scale (rather than geological, or slow ecological changes) will be tuned to measure the time of year with seasonal and climatic changes, and it is plants that exhibit this abundantly well. Landscape architect James Rose (1938, p72), while urging greater knowledge of plants within the profession, noted plants as temporally expressive but inconstant organisms, with the potential to be anarchic disrupters of the designed form.

The landscape architect Thorbjorn Andersson (1997 p56) vividly expresses the importance of plants, linking their seasonality to our perception of time, our sensing of temporality:

A sense of time. Being able to relate to time is the most natural and at the same time the most coveted characteristic of all living creatures. Time includes

memory. Memory is the only lingering remnant of our experience and consequently of our lives. Vegetation, the most important component of landscape design, is capable of reflecting time. A tree germinates, flourishes and dies. During its lifetime it also experiences shorter rhythmic cycles in that it unceasingly describes the course of the seasons. Thus landscape architecture is able to capture the concepts of both time and life - in all their vitality and fragility.

Andersson makes his point deliberately, an answer perhaps to plants' processes and their importance for humans being too often overlooked.

Importance is more readily taken by ecological science, for instance by (landscape ecologist) demonstrating that ecology brings a paradigm of process to landscape design 'as a guiding principle at the deepest level of understanding' (1986, p76). She writes of the influence on ecological science from 'the systems view of modern physics' which introduced an approach to processes of 'dynamic relationships and patterns' (1986, p75). Berrizbeitia (2007 p177) is in agreement in writing,

process engages the dynamic condition of landscape --- Ecology is fundamental here, as a set of contingent and not fully predictable relationships between organisms.

She adds to this, 'More recently, process has expanded beyond the ecological --- to the programmatic and the social' (ibid). Importantly, Berrizbeitia points to the extension for process as an underlying concept of social behaviours.

Temporality in motion and tempo

The tempo that a person experiences as they move through a landscape is effected by variations in landscape configuration. Pace or tempo changes, according to the rhythm, or dynamic continuation, the pause or gradual unfolding. The effect is registered physiologically as a sense of one's own tempo being-in-place in that the somatic experience of tempo may be emotionally affecting.

The art historian and landscape architecture academic Anette Freytag (2003, p233) has noted that train travel, which, at its inception, was an innovation in travelling speedily, influenced people's perceptual tempo in their general living. This contributed towards landscapes being designed with shorter and faster interludes between features, as well as the introduction of more frequent incidental stimulations of varied landscape details along a route (ibid). Rebecca Solnit (2001, p257) (essayist in the politics of landscape) found that the speed of train travel, too fast for passengers to perceptually engage with the terrain, produced dullness, invoking other sources of entertainment apart from the landscape, to make journeying tolerable.

This prompts the thought that our contemporary speed of living is, similarly, making an impact on how landscape designers consider means to arrange our tempo. An energetic language of tempo and temporality by landscape urbanists has been used to express their design values. Some of their concepts have been adopted from ecological paradigms (Donadieu 2006; Weller 2006; Pollack 2006; Corner 2006). Landscape architecture practitioner and theorist James Corner (2006, p28) emphasises a systems approach to designing the urban form, which involves 'shifting attention away from the object qualities of space'. He positions landscape urbanism almost as if it were subject to, or was itself, ecological process:

Unlike architecture, which consumes the potential of a site in order to project, urban infrastructure sows the seeds of future possibility, staging the ground for both uncertainty and promise (ibid p31).

Landscape urbanist Richard Weller (2006, p74) indicates an embrace of 'scientific metaphors' of movements and relationships, such as 'flows, complexity, instability, indeterminacy and self-organization'. He cites the landscape urbanist theorist Alex Wall,

network flows, nonhierarchical ambiguous spaces, spreading rhizomelike, dispersals and diffusions, strategically staged surfaces, connective tissue, grounds as matrix and accelerant, unforeseen programs and other polymorphic conditions (ibid, p75).

This series of movements has seemingly impatient tempos that we understand to be unconstrained by space, ruled by the command of 'unforeseen' processes. The outcome meant, in an urban context, 'a shift from seeing cities in formal spatial terms to reading them as four-dimensional dynamic systems of flux' (Weller 2006, p77, citing Wall).

Approaching design for its temporality in motion and tempo, a physiological, connection, has been urged by several. Thwaites and Simkins (2007) (landscape architecture academics and practitioners in restorative urbanism and experiential design) formulated a design method focused on experiences of movement.

Landscape architecture academic Catherine Dee (2004) notes 'a need to develop studies which extend understanding of movement and experience of time in landscapes'. Dee (2012) devotes attention to temporality, particularly in one chapter in her book *To Design Landscape: Art, Nature & Utility* entitled 'Sculpting Time'. Her focus is the characterisation of designed form, for which she limits temporal dimensions to processes of change, flow, and a person's experiencing in movement. Further on in the text serendipity and contingency are featured, which although not flagged as being temporal, are very much related to anticipation and surprise, themselves aspects of process and of duration.

Michel Conan's (2001, p19) introduction in the book *Landscape Design and the Experience of Motion* emphasises the instrumental role played by movement in the landscape in the important changes toward a phenomenological landscape aesthetic. He returns to this theme (2003, p303-304) in his description that argues how synaesthetic experiences of moving through the *sacri monti* are more meaningful to participants than visual experiences.

Ingold (1993 p160) appeals to our respect for the 'taskscape' and its 'network of interrelationships between the multiple rhythms of which the taskscape is itself constituted.' Wylie (2005 p242) (cultural geographer), interrogating his experience of walking on the English south west coastal path, evaluates visual

drama as having an externalising effect, in contrast to the internal effects from walking. 'If corporeal rhythms immerse, then visual events, however dramatic and unforeseen, distance.'

Rhythm and tempo are thus variously treasured for their embodiment and phenomenological temporality.

Landscape historian John Dixon Hunt (2003) made a study of different modes of experiences of unfolding in gardens. He delineates three (all relatively unhurried) types of tempo: procession, stroll, and ramble, the effect of these unhurried steady rhythms and unplanned discoveries (ibid p188-189). The first example is ritual process in which 'the route - that is both the movement itself and its reasons and objectives - is encoded', with 'socially constructed and endorsed purposes'; for which he gives as illustrative examples, Versailles and Stowe (ibid p188). The second example is a stroll which 'implies an ultimate purpose, --- a sense of destination'; 'a defined route between whatever incidents punctuate and give rhythm to the movement': illustrated by Stourhead and Isamu Noguchi's 'California Scenario' at Costa Mesa (ibid p189-191) The third, a ramble, an unprompted leisurely wander implying 'impulse, spontaneity, a disconnected wandering'; and illustrated by Central Park and the Long Meadow in Prospect Park (ibid). What is being revealed by Hunt's analysis is the symbiotic relationship between the purpose of moving in the chosen landscape and the rhythm with which the person chooses to move; a changed rhythm that alters the purpose of the visit and its meaning. Additionally, Hunt indicates that some landscape configurations support certain types of rhythm more readily than others.

Paul Gobster (2008) (academic researcher in planning, landscape architecture and environmental studies) makes a descriptive study of the effects of a changed tempo on his perception of the Yellowstone Park landscape. Lengthy sitting time on the porch, anticipated as being dull, led instead to his discovering how

the landscape itself moves. --- each movement fractures the static scene, breaking the picturesque from its frame. The passage of time increases perceptual information. Sounds enter your awarenesss, emanating from the

landscape or from people admiring it. A cloud moves away from the sun and a wave of light sweeps across the canyon walls like a floodlight in a theater performance, producing an enjoyable ephemeral effect. These and other qualities increase the dimensionality beyond the landscape-as-picture (ibid p297).

Gobster emphasises that his slowed tempo increased his perceptual sensitivity.

Cultural geographer Tim Edensor (2005, p87) evidences unfolding and liberated tempos in contemporary industrial ruins:

In the same way there are no social barriers to movement across space, there are no temporal restrictions that determine how long one should stay in any location, no curbs on loitering and lingering, and no conventions that prevent slow movement or stillness, fostering a freedom over spatial temporalities that can contrast with the fast world outside with its purposive directedness.

The sense of freedom that Edensor describes is largely embodied in those unrestrained tempos.

A tempo of significant pause is offered at thresholds. Thresholds that can make a coherent intermediary between two layers, of the one just experienced and that about to be experienced, is boosted by landscape architect Martha Schwartz in her voicing that every garden should have a threshold 'real or implied': that the 'threshold creates the ability to leave one world and enter another' (Meyer 1997, p110, quoting Schwartz). She maintains that the garden fundamentally is a space that allows 'a person the psychological space to dream, think, rest, or disengage from the world' and that it is the threshold that opens the door (sic) to this switch.

Girot too found threshold an imperative in the making of Invalidenpark in Berlin. He designed a tilted plaza as a visually open perimeter to which he gave a deliberated stepping threshold treatment that he found to be 'psychologically and physiologically --- significant' (Girot 2007, p41).

Imagination in heritage and living

The philosopher Paul Ricoeur (1985, p180-184) demonstrates that historical landscapes and landscape narratives of historical or social history foundations,

rely on imaginations to flesh out, to re-enliven, the skeletal facts. It is significant that Ricoeur (1983, p53), in his seminal study of time and narrative, writes of 'the metaphorical process that conjoins cognition, imagination and feeling.' Further on in the same volume, Ricoeur (ibid p68) uses the term 'productive imagination' from Kant's categories of understanding: here he esteems imagination as the connector between 'understanding and intuition by engendering syntheses that are intellectual and intuitive at the same time.' He predicates imagining as a necessary component of the 'intended having-been' nature of history (ibid p181).

With this renewed recognition of imagination as a potent and vital part of our minds' engagement, a sympathetic ear may be given to the architect and theorist Juhani Pallasmaa (2005, p143) in his critique of our city refurbishments:

we need secrecy and shadow as urgently as we desire to see and to know; the visible and invisible, the known and what is beyond knowledge, have to obtain a balance. Opacity and secrecy feed the imagination --- The obsessively functionalized city has turned too legible, too evident, leaving no opportunity for mystery and dreaming.

Edensor (2005, p133) inveighs against the treatment given to many heritage attractions, a circumscribing with a well packaged story that 'banishes ambiguity and the innumerable ways of interpreting the past --- (with its) associative imperative to arrest decay, hence to freeze time'. Edensor had previously vindicated imagination in its responsiveness to ruins that interacts with 'indeterminacy, immanent and ineffable feelings and countless conjectures and potentialities' (ibid p93).

Huyssen (2000, p27-28) (academic in comparative literature and society) also warns of re-packaged heritage ousting other memories. He suggests that society's concern with forgetting may be a reaction to 'a world characterized by an increasing instability of time and the fracturing of lived space.' He expresses 'the growing need for spatial and temporal anchoring in a world of increasing flux' (ibid p36); inferring that imagination, as one of the ways we interact with landscape, is part of the missing temporal nutrition in our contemporary landscapes and lifestyles.

Ashworth and Graham (2005 p8-9) (academics on heritage and urban tourism) also note the anchoring effect of heritage landscapes, citing Lowenthal's characteristics of heritage, in which 'antiquity conveys the respect and status of antecedence, --- (and) emblematic landscapes --- connect the present to the past'.

In her focus on contemporary designs of post industrial parks, Herrington (2006, p26) makes a rediscovery of picturesque aesthetics. One major part, she finds, of picturesque aesthetics is the 'primacy (is) given to the role of the imaginative spectator'. Imagination is invoked to draw on 'emotive response(s), 'perceptual experience' and associations, which, for contemporary society, has replaced decipherment of signs, a cultural shift since Renaissance times (ibid).

Ingold, in the introduction to *Imagining Landscapes: Past, Present and Future* (2012), writes of the integral role of imagination as we correspond with landscape:

To imagine, we suggest, is not so much to conjure up images of a reality 'out there', whether virtual or actual, true or false, as to participate from within, through perception and action, in the very becoming of things (ibid p3).

This imagined 'becoming' landscape is, for Ingold, one that is occurring; and to minds engaged 'freely with the world along multiple lines of sensory participation' (ibid p16). Ingold's thinking of 'perception as imaginative --- generative of a world that is continually coming into being with and around the perceiver' (ibid p7): resonates with Conan's 'interwold' (2003, p316).

Girot addressed himself also to imagination's role in working out the missing, untraceable parts of historic remnants in the landscape. He developed a design strategy on four elements of trace, 'landing', 'grounding' and 'finding', which once synthesised into 'founding', were to attract people towards a synchronous appreciation of a site's past and potential future (Girot 2006).

Conan (2003, p316) describes the metaphorical garden as 'an interworld rather than a text'; one that relies on being culturally understood, which in historic (and socially historic) landscapes becomes lost over time as social mores change.

Metaphors in landscape have, it seems, two temporal characteristics, since they rely on imaginative engagement with landscape which are then subject to processes of changing cultural understandings.

Higgs's ideas (2003, p285) (academic in environmental studies and ecology) are sympathetic to the idea of an interworld, antithetical to instructive 'text' in matters of 'restoration (which) is about restorying place.' We can understand by this that this approach would involve restoring a place to its placeness, rather than giving it a proscriptive treatment, quashing imaginative interpretations.

Outside the context of restoration, designs calling for imagination are promoted by several landscape commentators. In his monograph, *Designing Parks*, landscape architecture academic Lodewijk Baljon (1992, p10-11) declares that parks must be more than utilitarian. He finds that when reduced to function, a park

loses its expression and meaning ---. It is precisely the imagination - a certain mysterious, fantastical or poetical quality - from which the park derives the rationale of its existence

Baljon envisions a landscape's appeal to imagination as 'an interplay between man and nature. --- (in which) through arrangement and design, an illusion of something else can be created: a metaphor' (ibid).

Imagination is invoked by Hoddinott (2007) (researcher in landscape heritage) which, she finds, where designs combine 'the physical and the sensual, the real and imaginary' is an effective tool for connecting people in a meaningful way with heritage landscapes.

Temporality in narrative and memories

Narrative pertaining to landscape is closely allied to memory: it is essentially about experience situated in time and place. The time may be specific in the memory, while defiant of clock time, as in 'when I was young' (Casey 1987, p73) (philosopher of aesthetics, space and time, ethics, perception and psychoanalytic theory). Casey notes memory's 'quasi-narrative structure' (p37-47), its intricacy and 'temporal synthesis',

diverse moments of time: not only the remote past with the present moment (as in secondary memory) but also the immediate past with the given "now" (as in primary memory) (p202).

Casey's overlaying and interweaving compares to Conan's view of interactive engagement of visitors with landscape. Conan (2003) explores narrative landscapes and their meaning, noting that the design demands an 'intersubjectivity between designer and visitors' in which the garden is an 'interworld rather than a text' (p302-305). Narrative in landscape has been the subject of interest for several writers on landscape: Hayden White (1981): Shonfield (2000); Smith (1992); and Santos (2001) to name a few. Potteiger and Purinton (1998) (theroists of landscape narrative) make a full and devoted study to narrative in landscape, setting out narrative as 'fundamental', a conductor of meaning:

Stories link the sense of time, event, experience, memory and other intangibles to the more tangible aspects of place. Because stories sequence and configure experience of place into meaningful relationships, narrative offers ways of knowing and shaping landscapes (p ix)

The authors move on to focus on narratives as manifest *in* landscape as they 'accumulate with layers of history, organize sequences, and inhere in the materials and processes of the landscape. In various ways stories "take place"' (ibid p5). It is interesting to note another connection with imagination as Potteiger and Purinton (ibid p19) criticise the ineffectiveness of heavy-handed landscape narrative *telling*. Instead they favoured a light touch, related *implicitly* in the materials, experiences and processes of landscape. They develop this theme, defining distinct characteristics of landscape narrative, clarifying with examples. Of Tschumi's Parc de la Villette, the authors show how the temporal and filmic qualities of 'plotting, foreshadowing, fading and jump cutting all have their spatial equivalents --- use(d) to disrupt conventional notions of narrative closure and control of meaning' (ibid p12). These non-sequential, non-linear techniques, reflecting narrative techniques of the human mind, illustrate how layers of information may be perceived in a non-sequential configuration.

This subject of layers is expressed by Lassus (1998¹ p75) on his design thinking for the restoration of the Tuileries garden: making the 'multiplicity of the site --- poetically tangible'. Not wanting to select the elimination of the previous designs, he

preferred to perpetuate through fractions the interventions of the different landscapers --- it was about, at the same time, respecting their contributions and remaking them in another form --- what I have called interlacing (ibid, original italics).

Perceptions of contrasting layers of landscape can be modulated (emphasised, underplayed etc) by a threshold inserted between the previous and the forthcoming layer, marking a shift in chronotope. Thresholds, places of hiatus before the transition to the next chapter, are characterised by Stevens (2007, p74) (urban design academic) as liminal places, points of convergence; 'sites of significant shifts in --- perceptions (and) sudden exposure to new stimuli and new possibilities'. A threshold's fascination lies in the sudden transition between different places/ different times: the travel distance is negligible but the experience of time in place is radically altered.

The literature and the research areas of the thesis

Literature on narrative in landscape and its link to our fundamentally narrative model of memory, has drawn my interest towards recognising the important role of individuals' transactions with landscape. That time in memory has such slippage on its measure (Casey 1987) gives further reinforcement to abandoning time as measure in discourse on temporality. Narrative engagement as intersubjective between designer and visitor (Conan 2003) and as inviting rather than commanding (Potteiger and Purinton 1998) gives support to a directing principle of this research of articulating temporality's characteristics as phenomenological.

The literature reviewed above contains several texts showing an under characterisation of temporality. Among considerable interest about temporality there are allusions to it and naming of it though without sufficient analytical description (Meyer 200; Way 2013; Duemplemann & Herrington 2014). The

dynamism of temporality and time have been applied to place by Crang (2001), yet the inferred people-in-places, and the places themselves, remain generic, remote from enunciating significantly phenomenological qualities that landscape designers might articulate in their designs. Expressions of a systems approach to dynamic tempo from landscape urbanists (Corner 2006: Weller 2006), while using language rich in temporality, has a similar distancing from meaning at a human level. These texts indicate a keen interest in the topic of temporality while their shortcomings in expanding further on the topic indicate the need for a study at greater depth.

There is a related problem to conceptualising temporality indicated from other parts of the literature. Writings on the ephemeral convey substantial enthusiasm and analysis for those aspects of temporality, (M. Paul Friedberg 1996). Yet Friedberg offers the ephemeral as unattached to the larger topic of temporality as if it might be an additional, optional design feature. Koh (2004), in giving considerable interest to fleeting ephemeral qualities, although he groups these in his category of temporality, does not then give temporality as an important topic: this is reserved for his three categories of inclusive unity, creative balance and complementarity.

Three authors evidence their developed theories for a specific temporal aspect. Stephenson (2010) describes her static/ dynamic trajectory for evaluative assessment: Raxworthy (2006) takes a design approach through planting process and change: while Koningen (2004) is committed to immersive nurturing of the process approach in the Heemparks. While this emphasis reinforces interest in these topics, simultaneously, and similar to Friedberg and Koh, their particular temporal interests have no overarching temporal framework.

Literature on ecology has brought continued insights into process (Higgs 2003: Cook 2000: Manning 1979: Spirn 1988: Mozingo 1997: Nassaeur and Opdam 2008). Yet although the landscape profession had been shifting its view towards dynamic process to include humans' interactions with landscapes (Cook 2000, p120: Berrizbeitia 2007, p177); it has been criticised for not prioritising

temporality above spatiality within a conceptual understanding of process (Hill 2005).

Within a landscape context, ecological science gives to process a systems perspective about interacting agents (flora, fauna, human, geophysical) that effect, and continue to effect, a series of changes. These 'dynamic relationships and patterns' (Rosenberg 1986, p75), are understood as not having a finite end or end product (Reed 2005, p27).

Spirn (1988) links the concept of dynamic process with an aesthetic that is received mindfully and sensually: not dissimilar to Ruff's perception of the dynamics of environmental process being extended to people's relationship with the environment. This links also to loose space (Rivlin 2007; Edensor 2005) which emphasises that loose spaces enable open-ended, unplanned processes that bring positive aspects into the apparently chaotic. These assessments accept the phenomenological relationship between people and landscape; but again, fall short of situating this within a larger argument for temporality.

The use of designed planting to be expressive of temporality and process is underlined by Rose (1938), Andersson (1997), Koningen (2004) and Raxworthy (2006). These are views that indicate an under use and under appreciation of the profundity that plants' processes contain. Positioning process as one of the characteristics in the design vocabulary of temporality will aim to support a fuller understanding of it. Lassus (1998) has already found his own approach to this phenomenological responsiveness, re-naming his design process 'inflexus'.

A different kind of conceptualisation of process is given by Halprin. Halprin's, vital connection to nature's formative processes is detailed on a profoundly personal level (quoted by John-Alder 2014). His evocative description explains these processes as the inspiration behind his design concepts, process as instrumental to his designs. Such a committed passion to a quality of temporality as guiding design principle indicates the potential to find individual characteristics of temporality espoused as core design principles in other designers' work.

The physiological impact from tempo as noted by Conan (2001) affecting a person's aesthetic experience, is expanded on by Hunt (2003), Gobster (2008) and Edensor (2005): to which Girot (2007) contributes a perception of the psychological added to the physiological at a place of threshold. Wylie (2005) adds his evaluation of the manner in which he finds himself immersed by his tempo in landscape, but distanced by his visual experiences. These writers, endorsing a phenomenological approach, highlight the importance of tempo, a characteristic of temporality: an invitation to discover more about temporality.

Appreciation of imagination in our transactions with landscape has been outlined by Baljon (1992), Conan (2003), Higgs (2003), Hoddinott (2007), Edensor (2005), Huyssen (2000), Herrington (2006) and Pallasmaa (2005). Ingold (2012) and Ricoeur (1985) focus their studies on imagination as a major interlocutor between ourselves and our landscape experience; with descriptions that are unmistakeably temporal: imagination as 'generative' (Ingold 2012): and capable of vertiginous 'regressive movement' (Ricoeur 1925, p183). Imagination as a powerful means of our personal phenomenological engagement, and with its lightening speed of mental travel, is most surely a characteristic of temporality. The texts above on imagination in landscape, and additionally the work of the landscape designer Bernard Lassus, persuaded me to add imagination to my initial criteria, determining imagination as a major theme of temporality.

Literature around phenomenological experiences of temporality, and embodied landscape experiences connect to the subject of this research with a close adjacency (Lynch 1972; Relph 2004; Berrizbeitia 2014; Koh 2004; Ingold 1993). My own process during this work has sensitized me to Relphs's (2004, p120) invocation to become 'attuned to the resonance, temporal rhythms, and modulations of life and landscape'.

In order to gain a clear articulation of this resonance, it is important to understand a conceptual and philosophical framework for temporality, time in relation to being, that is applicable to designed landscapes. Thus, to establish the theoretical approach of my study I have reviewed work from thinkers on temporality; and employed the work of Husserl, Bakhtin, Bergson and Ricoeur.

Philosophical grounding

Edmund Husserl 'launched' phenomenology into twentieth century philosophy in his two volume book *Logical Investigation*1901 and 1902 (Smith 2013, p7). Twentieth century developments in phenomenology – such as the view that Heidegger's Nazi sympathies influenced his suppression of many of Husserl's ideas, only recently re-discovered (Zahavi 2003¹, p141) - have complexities and nuances requiring in-depth investigation that this study resists in order to retain its focus on landscape design.

Phenomenology for Husserl 'integrate(d) a kind of psychology with a kind of logic', the objective with the subjective, in which intentionality was vital (Smith 2013, p7 -p8). His investigations into phenomenology, closely connected with his thinking on temporality, became the basis for Continental philosophers' thinking on time, referred to as 'the phenomenology of time' (Dostal 1993, p142).

Husserl's interest in time, like that of this study, was not around measured, clock time: it was in 'the immanent flow of consciousness' (Muldoon 2006, p146). The act of sensing experiences of the world is best illustrated by following Husserl's investigation into experienced, lived time, with his example of listening to a melody (Ricoeur 1985, p26; Zahavi ², p6, 2003). He demonstrates that if our sense of time were, as had been suggested, a multiple number of points of nowness, that the melody would not be sensed as a melody but rather of single, unrelated notes. Instead, Husserl unfolds his understanding as one in which the sensing person has a primal impression that passes into being a retention of the impression; and that from the immanent now of the primal impression, there is a protention towards what might be coming (Zahavi¹, 2003, p82). Husserl differentiates retention from remembering; the latter being a conscious act. Similarly protention is not to be confused with expectation; it belongs on the 'horizon of anticipation' which is a constant state: both are 'dependent moments of an occurrent experience'. That is, neither retention nor protention are 'independent intentional acts'. Protention is similar to intuition (sensed but not conscious) and retention 'is a passive process which takes place without our active contribution' (ibid p83).

For Husserl, temporality 'consititut(ed) the bedrock of phenomenology': his work was not confined to the temporal qualities inherent in objects but rather concerned 'the temporal *self-givenness* of consciousness itself' (Zahavi ¹ 2003, p81, original italics).

Henri Bergson, writing towards the end of the nineteenth century, similarly concluded that he could account for meaningful time 'solely on the phenomenological level' (Muldoon 2006, p82). Muldoon (2006) traces Bergson's argument. Bergson, as did Husserl, uses the example of listening to music, and finds the scientific measure of time wholly inadequate to describe 'human time' (ibid p73). His developing ideas use the words 'duration' where this thesis uses 'temporality'; and 'intuition' where this thesis uses 'a sense of'. Muldoon (ibid p73-74) clarified that *intuition* for Bergson signified 'immediate consciousness', in 'contact with becoming'; not any altered state: and that his 'distilled formulation' for human time was expressed in the words 'pure duration'. Thus his key theme was 'intuition of duration' (ibid).

Bergson adds to our understanding from Husserl of the phenomenology of temporality. He shows how our inner life is limited by certain intellectual habits, such as quantifying time as a multiplicity of homogenous units (ibid p79). This engenders a state that does not differentiate the 'multiplicity within the states of consciousness' from the multiplicity of material objects: and substitutes symbolic spatial representation (ibid). Many of these spatial analogies have become common in our language and conceptions, like the river analogy in *the flow of time*. Bergson reasons against linear thinking for intuition (and a sense of time), 'our interior life cannot be strung out in a line as if psychic states could be side by side' (ibid). He makes a distinction between the relatively externalised experiential life, associated with doing and having; and intuition's awareness of life, linked with the state of being of each person, their perceptions and associations of their being in the world. The latter state, and its "uninterrupted humming of life's depths", inhabited real duration (ibid p80, quoting Bergson).

For Bergson, real duration is the indivisible continuity of change. It is the felt experience of change --- It is an experience of quality - a richness and depth that

becomes confused when mathematical time, or quantity, is projected onto that experience. Real duration is not a measure of life, it is life in its unmeasured movement of ceaseless qualitative change and constant invention. Since it is the élan of inner life, any attempt at imagining it tends to spatialize its flow; any attempt to logically categorize it tends to hypostatize its fluid quality; any attempt to substantialize it renders it inert (ibid p81)

Duration's continual change, in which, "the same moment does not occur twice" (ibid p81), was graphically illustrated by Bergson pricking his hand with a pin. Interrogating the sensation, he found that the usual scaled description of a greater or lesser quantity of pain was utterly inadequate to describe his actual experienced sensations: which led him to reason that 'real duration is --- life in its unmeasured movement of ceaseless qualitative change and constant invention' (ibid p81). Bergson alerts us to internalised qualities of time, and releases us from limited, quantitative assessments.

Mikhail Bakhtin's ideas on time were articulated in Forms of Time and the Chronotope of the Novel: Notes Towards a Historical Perspective in 1937-1938; and further developed in a 1973 revision (Burton 1996, p44). His illuminating use of the concept of heterochronicity gives further direction to the thinking in this study about temporality. Bakhtin was elucidating profound human experiential thinking from within the field of literary criticism (Morson 1993, p477: Burton 1996, p44 & p47). His writing about literature focused on its depiction of truthful representations of life and the world, the human condition, in which he found an overlaying of multiple temporalities:

The world is heterochronous. By this Bakhtin intends a number of related ideas. First, at every given moment different social activities are governed by different senses of time and by multiple fields of possible actions. Second, there are always multiple senses of time that can be applied to the same situation; thinking and experience therefore often involve a dialogue of chronotopes. Third, *the present is only one of many possible presents*' (Morson 1991, p1085, original italics).

The ultimate sentence refers to Bakhtin's distinction between the literary forms of the epic and the novel; the former being closed, offering no future; the latter having an open-ended future, being a "genre of becoming" (Danow 1991, p50 quoting Bakhtin). More specifically, at the scale of a novel (Dosteovsky's work was a particular study) Bakhtin described polyphony, multiple voices, styles, references, and heteroglossia (Morson 1993). Multiple layers of time, of expression, of interpretation were at play in this 'genre of becoming' (Danow 1991, p50, quoting Bakhtin). This is thick temporality, which in Bakhtin's considerable analysis of Dosteovsky and Goethe, clarified the qualitative difference between their work and their predecessors. The individual is freed from predetermined actions and consequences, and freed from living in a world portrayed as 'an immobile background' (Bakhtin 1986, p23). This protagonist, unlike his predecessors, is delineated as an emerging character in an emerging world (ibid).

Bakhtin gave high praise for 'the ability to read in everything *signs that show time in its course*, beginning with nature and ending with human customs and ideas' (ibid p25, original italics). He further explained this:

The ability to see time, to read time, in the spatial whole of the world and, on the other hand, to perceive the filling of space not as an immobile background, a given that is completed once and for all, but as an emerging whole, an event (ibid p25, original italics).

It is a non-determinist view: a view of 'open time', of diverse possibilities, 'contingencies, chances, choices' (Morson 1993, p477-479).

Bakhtin used the term heterochronous to express his thinking of the world as 'fundamentally multitemporal', involving interrelationships between chronotopes (Burton 1996, p46-47). The word 'chronotope', a term from mathematics, was appropriated by him for literary analysis, an expression of the inseparability of space and time, a 'time-space matrix' (Emerson 1989, p151). These terms are important extensions to a conceptual vocabulary for temporality. Their extrapolation of ideas from literature '"profound forms of thinking" about human experience' (Burton 1996, p44, quoting Bakhtin) is validated by this common currency of human experience. Implications from including layers, multiple

chronotopes, as an aspect of temporality gives recognition that landscape designers are able to shape, to pare down, emphasise and direct, effecting either a flattening or a greater prominence to a multi perspectival view with its attendant temporalities.

Bakhtin's use of the term chronotope, characterised by multiple temporalities in which every word has a retained past and an anticipated future, expressed 'the intrinsic connectedness of temporal and spatial relationships' (Danow 1991, p37-40). Chronotope becomes a presumed thread through this work. In highlighting characteristics of temporality (as the subject of this thesis) a presumed understanding of their coexistence with spatial qualities should be retained throughout this study.

While Husserl directed his thinking away from resolving the whole of world time (objective or universal time), a direction which he saw as a necessary discipline to focus insight towards perceptions of time in life's experiences, an 'internal consciousness' and 'a time-consciousness' (Muldoon 2006, p40); this work will follow suit. My interest for this study also is directed not towards the whole philosophical understanding of universal time, but of time as sensed in a landscape context by users (more precisely, sensed by landscape practitioners and theorists – and their sensing of what users might sense). Thus this study makes no claims to be interpreting 'the structure of time', about which so much has been written, and which Ricoeur has noted is beyond the capacity of a pure phenomenology of time to explain (Ricoeur 1983, p83). I will, then, refrain from involvement with much of Merleau-Ponty's work, which essentially was trying to reunite the time of the consciousness (phenomenologically sensed time) with the universal time of the world (Muldoon 2006 p121).

Temporality, Meaning & Aesthetics, & positioning image-making

Muldoon (ibid p118), having navigated through developing philosophical thinking on temporality from Augustine, Husserl, Bergson and Heidegger, proposes ('precociously concludes') that in the quest around time and the self,

there is an equivalence with 'a creation of meaning for that self'. This 'confrontation with meaning' (ibid) is a contingent part of a person's temporal experiencing, which Muldoon (ibid p232) summarises as, 'a notion of time begets a notion of self which begets a notion of meaning that authenticates the self.' Additionally, phenomenology is described as 'featur(ing) a study of meaning --- that includes more than what is expressed in language': which itself comes from the object of its study, a person's manner of understanding which 'defines the meaning of that object in (their) experience' (Smith 2013, p10).

In short, a fully developed definition of temporality as *a sense of time* needs to incorporate the meaning that a person finds, phenomenologically, for themselves, in which they *make sense of* what they are experiencing.

There is an important link here with Berleant's (1997) phenomenological perspective on environmental aesthetics. This encompasses a 'fundamental reciprocity of perceiver and environment', an intense synesthetic involvement, and the 'intrinsic value of (the) perceptual and cognitive dimensions' of a person's environmental experiencing (ibid p32). Additionally, what we aesthetically appreciate becomes part of those 'values and meanings embedded in that complex functioning we call human experience' (ibid p75).

Crossley (1995) picks up this point in writing about Merleau-Ponty, who similarly characterises human perception as whole and mindful. Merleau-Ponty

reject(ed) the notion that mind (qua perceptual consciousness) is a separate substance from the body. Perception -- is both (and inseparably) sensational and meaningful for Merleau-Ponty. It consists in a meaningful configuration of sensations. And these sensations belong to the body as a sentient being (ibid p46).

What has been collected and connected is, firstly, temporality as the 'bedrock of phenomenology' (Zahavi ¹ 2003, p81). Secondly, taking a 'qualitative orientation', a phenomenological approach to aesthetics (Berleant1997, p32), links together the three entities. There is thus an intimate connectedness of temporality to aesthetics; with the implication of aesthetic values in landscape design work that is temporally expressive.

In this whole and mindful manner of perceiving, there is a need to be wary of the domination of other claims on landscape aesthetics. Pictorialisation and the overly privileged status of images has been critiqued by many (see Chapter 1 and below). Saito (1998) undertook a critical analysis of the invidious tendency to pictorialise designed landscapes into fixed images in professional and mainstream literature: pictorial consumption that reinforces a habit of addiction to visual imagery. She (ibid p101) challenges us on this and on our shallow two dimensional visual judgements. Such habits of visual addiction would coarsen our aesthetic judgements as over-reliance on the visual would distort and restrict perceptual experience (Berleant 1997, p75). Berleant shows how 'aesthetic harm thus demeans the values and meanings embedded in that complex functioning we call human experience' (ibid). To counteract this it is necessary to cultivate our 'aesthetic of reception' (Muldoon 2006, p206 quoting Ricoeur).

CHAPTER 3.

THEORETICAL FRAMEWORK

The theoretical framework for this research study takes as its starting point temporality as omnipresent with spatiality: following this, its foundation has been laid on the above philosophical grounding.

A heterochronous recognition from Bakhtin, engenders acknowledgement of places encompassing relationships between multiple temporalities. This uncovering of multiple chronotopes, disclosures of perceptions of multiple meanings from a single entity, indicates depths and resonances occuring in such instances. Temporality is heterochronous, layered, with diverse expressions and possibilities.

The constant presence of temporality in place is understood as being definitively phenomenological: not a quantifiable entity outside our perceptive experiencing. The 'reciprocity of perceiver and environment' (Berleant 1997, p32) indissolubly connects the phenomenological nature of temporality to aesthetics, values (of principle) and meaning. It is the whole person who engages with temporality, the person's 'body as a sentient being' (Crossley 1995, p46, citing Merleau-Ponty). This understanding of phenomenology is echoed by Seamon (2010, p1) as 'the invisible web of bodily intention expressed through action that smoothly conjoins human actions and behaviours with the everyday world at hand'. Temporality resists giving hierarchy to sight, visual reception, a hierarchy which undermines aesthetic value and meaning.

Temporality is characteristically about relatedness; an idea helped by remembering the perceiving of temporality through the relatedness of musical notes, which, if treated individually fail to describe the music. It is important to resist the seductive habit of making spatial mental representations of temporality; resisting this will also resist quantifying temporality and distributing it mentally into a string of homogenous units, which belies the actuality of our felt experiences, such as Bergson's pin-pricked hand.

Experiencing temporality is qualitative, necessarily so, since it is phenomenological: which extends into meaning that we make for ourselves. Characteristics of temporality need to be accepted as having no absolute definition since our individual phenomenological perception for them is individual and various, while change and movement are part of temporality's nature. Notwithstanding, just as reception of the Arts tends to find a few consensual views rather than a thousand non-consensual views, there is likely to be a cultural consensus.

RESEARCH QUESTIONS

The review of the literature shows a clear and present professional interest in the topic of temporality and connections to important subject areas in landscape design. A number of perceptive and forceful comments have focused my enquiry towards the following research questions.

- How have landscape designers and landscape theorists/ landscape architectural critics conceptualised temporality in landscape design during the period 1945 to 2005? That is:
 - a) What are the temporal qualities of these designed landscapes? And how do the designers/theorists/critics claim these landscapes transmit those qualities where do they reside?
 - b) What values (valued principles) have they attached to those temporal qualities?
- What different characteristics of temporality can be identified in these landscapes?
- In the absence of any comments on values from designers/theorists/critics, what values can be attributed to those temporal characteristics?
- What overarching theory about temporality is there that is applicable to designed landscapes?
- What language of terms can be developed to convey temporality in landscape as a basis for a more comprehensive understanding of the subject?

Five ordering themes

This research investigated the heterochronous characteristics of a number of landscape designs. Understanding of temporality developed as the study progressed, during which a grouping emerged of heterochronous characteristics into five temporal themes of their respective temporal attributes: *tempo, process, duration, imagination* and *layers.* Tempo involves the somatic effects from rhythm, movement, dynamic continuation, unfolding, pause, hiatus, and an equilibrium of being in the moment. The theme of process includes characteristics of open-endedness and indeterminacy, planting processes and seasonality, remediation processes, process as sequence or stages, and processes of involving. The theme of duration relates to brevity, longevity and permanence, to ephemera, and to continuation. Imagination includes imagining historical traces, imagined relationships, metaphors and allusions. Lastly, layers may be layered like collage, and layered perceptions may be generated by juxtapositions and contrast, in transitions and at thresholds.

In the ensuing comparison of temporal characteristics within their temporal themes it is clear that there are several instances of overlapping between the themes of tempo, process, duration, imagination and layers. Thus on occasions, process of involvement overlaps with people's imaginative involvement. The process of change and continuity in its relation to permanence overlaps with tempo and of movement in its relation to stasis. The process of stages or series overlaps with *layers*. Effects of light and shade are both ephemera of the theme duration and a seasonal process. A pause at a threshold is both about tempo in its pausing and about layers in its overlaying of places and experiences. Also, metaphor calls on both imagination and on layered thinking. These temporal phenomena are both of themselves and of (an)other temporal characteristic, a trait that adds to what they bring into a design. This strengthens the importance for an overarching understanding, recognition and appreciation of the subject of temporality, so as not to be constrained by, nor apply a reductive outlook, to single themes. Additionally, it is apposite to remember Bergson on duration (for which read temporality): 'any attempt to logically categorize it tends to

hypostatize its fluid quality; any attempt to substantialize it renders it inert' (Muldoon 2006, p81 quoting Bergson).

Narrative, discussed in the literature review, does not feature as one of the organising temporal themes of this work. It is, however, neither prominent nor absent. Imagination is a necessary part of picturing and fleshing out a narrative; and narrative adds layer(s) to how a landscape is understood. Narrative, then, is largely subsumed within those two other themes. Narratives are present in the work of lan Hamilton Finlay; of Richard Haag's work at Bloedel Reserve and at Gas Works Park; of Peter Latz at Landschaftspark Duisburg-Nord; of Geoffrey Jellicoe at Shute House and Sutton Place: of Sven Ingvar Andersson at Marnas; and of Bernard Lassus at the Garden of Returns and at Crazannes. Importantly for this work, are shared characteristics between narrative and temporality in landscape. Conan articulates this as landscapes that demand *'intersubjectivity between designer and visitors'* in which the garden is an 'interworld rather than a text' (Conan 2003, p302-305, italics added).

TEMPO

Tempo is 'the rate of motion or activity' (Oxford English Dictionary (OED)) that is sensed by a person. As a person moves through a landscape, its configurations will be affecting their pace and mode of movement. Tempos and rhythms affect somatic responses, differing levels of an emotional heightened awareness within our physical beings. This 'conscious body' is an active participant in 'a body aesthetic that strives to extend and realize the possibilities of perception and meaning' (Berleant 1997, p111).

Landscape tempo has potential to permeate site users' experiences and perceptions. Some designers use tempo as a means to bring the landscape and the visitor into direct communication: with the rhythm of the landscape affecting the visitor and the visitor sensing their relationship with the landscape. While a rapid dynamic is a common association with tempo, the pace may be mellow, slow, still or halted.

Grids repeat their elements at identical intervals. Their mathematical predictability makes for a steady rhythm. Yet the multiplying reinforcement of

the grid's elements also creates an insistent urgency. Grids have the potential to convey both rhythms simultaneously, though much depends on the treatments given to the elements of the grid, as will be demonstrated in the penultimate chapter.

Tempo may be modulated, that is, may change from being a single continuum of the same tempo, by including intervals separating different tempos. Or a tempo may be suddenly broken or stopped, as might happen at a threshold which triggers a pause for making sense of what is about to come, after what has just been.

PROCESS

Change is one part of process. The Oxford English Dictionary (OED) definition of process that is most relevant here is change as 'alteration in the state or quality of anything; variation, mutation'. Indeterminacy and open-endedness are also aspects of process in which the end state is 'not limited to a fixed value or number of values'; and in which there is the prospect of 'several possible outcomes, conclusions, interpretations; allowing for future changes or additions' (OED).

Process pervades landscape (Berleant 1997, p161). Designed landscape has the capability of increasing or curtailing it, of making it apparent or concealing it. Designers might make process a design strategy; or, or also, make the process itself a focus for understanding.

Planting design offers expressive potential to designers. Plants' signals of their processes (growth and competitiveness for instance) oblige landscape designers to decide about degrees of management. Garden and landscape design, unlike architecture, have their completion dates, so far as the designer and contractor are involved, non-concurrent with their completed states at implementation (Hunt 2000, p122). Plants are a location for seasonal changes in and of themselves as well as habitat for wildlife with its own seasonality. Plants, as conveyors of process, may be used in a way that conspicuously controls their processes and temporal expression. Clipped hedges, for instance, may disallow flowering and, if evergreen, minimise seasonal changes; if clipped

very low, will reduce shadows and their telling of the day's weather from strong or weak shadows telling of sun or cloud; or of the day's time by the orientation of shadows.

Process in landscape, as made explicit by latter C20 ecologists, involves interacting factors of living organisms, including human impacts. Similarly, processes in which people are involved may be impacting back on them, instigating processes of internal perceptual or other change within them. Berrizbeitia (2007, p177) notes how ecological design, realising the need to promulgate ecological principles in order to gain people's support and to factor into a design people's use of a site, expanded the concept of designing with ecological processes. This expansion included an understanding of designing for social processes: the processes of the site, 'natural' and human-made were being made conspicuous, so as to activate further processes of people's understanding and acceptance.

Process may intentionally be entrained by a designer so as to effect some more personal connection between people and landscape. So that, in addition to landscape changing through its processes, its site users are changing their perceptions and relationships with the landscape. 'Relationships' between two or more elements of a landscape is a not infrequent expression as part of design language. While this may be casually accepted, it is actually not the *landscape* itself, but *people's* views of it that are recognising such relationships. Since a relationship's nature is often one of development, it may be grouped within the theme of process. Notwithstanding, multiple relationships reflect also the theme of layers.

Experiencing a landscape in stages is likely to involve processes of change. Other potent opportunities for an internal process of changed perception are points of arrival. Process will be shown in the thesis as having been accepted by some designers not as exclusive to natural process; rather as extending out from it, to be an agent for site users' involvement, a process towards their understandings.

Process is more readily understood as network integrated changes happening slowly, continuously or periodically repeated. Its durational scale is broader

when relating to ephemera, the incidents, or 'events' that happen such as cropping and leaf fall. These may be brief events, but they are also annually repeating, not singular, and essentially, are one part of a process. In this study the brevity of ephemera will be placed, for the most part, within the theme of duration.

DURATION

A duration of time is readily understood as a lasting period, a 'continuance in time' (OED); continuation of the same. Evidently this differs from Bergson's "indivisible continuity of change", in which change, constant 'qualitative change' characterises duration (Muldoon 2006, p81, quoting Bergson). Remembering Bergson's broader meaning of duration as temporality, the moot point here regarding this more generally accepted understanding of duration as pertaining to continuation, is the proximity of Bergson's meaning to other durational qualities such as the ephemeral and the temporary.

Scales of duration include things of a temporary nature and things with longevity; those that are brief and those that are ephemeral. A temporary presence of something differs from an ephemeral presence which is characterised by its fleeting manifestation that only repeats under certain conditions. Recognition and appreciation of ephemeral events as being ephemeral, relies on knowledge of their rarity and brevity, which otherwise will be assumed to be regular and continuing happenings. An example is a landscape design that creates opportunities for effects of light, and highlighted shadows.

By contrast, designed landscapes can recall our attention to elements that have been long enduring, making associations with previous eras, socially, historically or geologically.

IMAGINATION

It is the first Oxford English Dictionary (OED) definition of imagination that is intended in this thesis.

The capacity to form internal images or ideas --- not actually present, including remembered objects and situations, and those constructed by mentally combining or projecting images of (those) previously experienced ---: and the power of the mind to integrate sensory data in the process of perception (OED).

Imagination involves the mind envisioning what is not actually present or represented, lifting off from real time-place to one of its own. Imaginative engagement in landscape is, then, inherently temporal; and is a deeply embedded, phenomenological agent in our encounters with landscape. As articulated by both Ricoeur and by Edensor, imagination is an essential tool for our engagement with historic landscapes. A historic remnant in landscape might stir 'countless conjectures and potentialities' (Edensor 2005, p133). Indeed without imagination's infill, the skeleton of remnant information would fail a fuller understanding (Ricoeur 1985).

The final phrase of the OED definition, above, regarding imagination and perception recalls Ingold (2012, p14). He argues that imagination is not (only) 'hypothetical representations of a reality 'out there"; but that 'perception and imagination are one'. Both are aspects of people's 'self-making of the world', participating not in the world's singular existence, but in its occurring nature, 'its own trajectory of becoming' (ibid).

This understanding of imagination, larger and more profound than the dictionary definition, accords with aspects of Ricoeur's in which imagination is elevated to being an essential link between intellectual understanding and intuition.

Characteristics of imagination as one of the main groups of attributes of temporality in this thesis, and as illustrated in examples of work to follow, include a number of different and related aspects. There is the 'as if' stepping into historical feet: metaphorical allusion: traces that allow the discoverer to engage imaginatively in what might once have been: imagination guided by references or overlays of references: imagination evoked by an active participatory approach; free imagining encouraged and prompted: fantasy and free associations: and also embrace of poetry and emotion. The following works

will illustrate examples of all of these and in which imagination appears as a core principle of the design.

LAYERS

Temporality is inherent in the principle of layered or heterochronous representation. Morson (1991, p1085) explains Bakhtin's understanding of the heterochronous nature of our lived world as, 'multiple senses of time that can be applied to the same situation; thinking and experience therefore often involve a dialogue of chronotopes.' This theme of layers, less acknowledged in our everyday language than is tempo, process, duration or imagination, is based on the multiplicity of temporal relationships combined with 'attention to consciousness and experience' (Burton 1996, p43). A layered recognition and understanding of a situation or place is one that has a simultaneity of significant meanings. If the reader would recall the personal significance found in layered memories, the meaning these hold for the memory's owner, it becomes a more familiar task to acknowledge the significance of layers of associations. Examples of landscape work in the thesis which illustrate the presence of layers consistently indicate their potential, and/or their designer's intention, to carry meaning.

Juxtaposing is a form of layering in which attention is drawn to qualities by their unlikely proximity and contrast, cutting through inattentive complacency and alerting to both features. Impact from juxtapositions is strengthened through the close simultaneity by which their components are experienced. The focus might be on sensations and feelings. A landscape design might offer two opposing aspects and engender a feeling of being both enwrapped and exposed; or exuberant and relaxed. Transitions are a kind of juxtaposition, but involve passing from one aspect to another. Threshold is where transitions are likely to feature in designed landscapes. Thresholds mark an alteration from one chronotope to another. Like a caesura in poetry, the accentuation of leaving behind that which has just been experienced and of that which is about to happen is an acknowledgement of both layers, capable of holding emotional charge.

Similar to juxtaposing layers, but qualitatively different, are contrasting features that create a kind of dramatic tension. This is where the layers of unlikely associations are presented as choices; unwilling choices that lead to escalating emotion. A design might, alternatively, be juxtaposing facets that provoke ideas.

Different kinds of layers in landscapes might be deliberately posited interpretative layers. Layers may be materials, the physical geological layers, or historical layers that can be exposed through landscape workings. Of a shorter timeframe, materials both old and new might be laid down together, a collage of all, both juxtaposing their different heritage, and, literally, layering one onto the other.

Thinking and writing of landscapes with tempo, process, duration, imagination and layers are about practical applications of our sensing of temporality. These groups of characteristics, or themes, describe rather than define temporality.

CHAPTER 4. PREAMBLE TO 1945

The context of Modernism in landscape design pre-1945

The avante-garde and Modernism are both distinct from the processes of social and technological development that are implied by *modern and modernization* (Singhal 1987, p7). The avante-garde has been characterised as 'a movement --- actively avoiding any affiliation to tradition and convention --- (finding) creative adrenaline in risk, novelty and polemic experiment' Corner (1991, p121). Modernism by contrast, is described by Singhal (1987, p7) as 'a constellation of related ideas, beliefs, values and modes of perception' that

usually connotes radical experimentation in artistic style, a deliberate cultivation of the perverse and decadent, and the flaunting of outrageous behavior designed to shock the bourgeoisie (ibid p8).

While Singhal acknowledges the slipperiness of this definition by negatives, he outlines its ordering of values, different from both those of the Victorians and from being 'the plaything of the avant-garde' (ibid).

Some contextual background relating to Modernism and landscape architecture before the start of the period of this study, 1945-2005, is important not only as a context for the first decade of this study, but also, owing to the strength of Modernism's influence, a necessary base point to understand subsequent design approaches and reactions that resounded for some time afterwards.

The decades from 1920-45 preceding World War II presented a few opportunities for landscape design to engage with Modernism. Condon (1988, p4) notes how landscape Modernism was characterised without a reductionist *programme*. 'The modernist paradigm --- marked by a tendency to radical reductionism' failed to become embedded in mainstream or pre-eminent landscape designs of this era (ibid). Guevrekian's radical Modernist garden at the 1925 Paris exposition, which was realised at Hyeres, was not to become the blueprint for other garden landscapes over the next few decades.

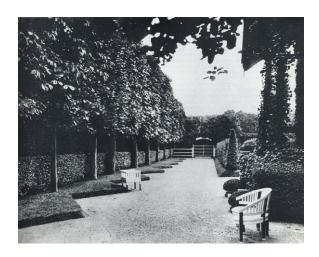
The 1925 Paris 'Exposition des Arts Décoratifs et Industriel Modernes' showed three particularly strident modern entries from the Vera brothers, Guevrekian and Pierre Legrain. These

would substantially expand the limits of French garden design --- exploiting new materials such as concrete, new horticultural varieties, electricity, and with a renewed formal vocabulary their authors challenged gravity, the relation of time and motion, and the preconceived notion of nature and garden as a symbiotic system (Imbert 1993, p93).



Fig. 4.1 Guevrekian 's garden for Villa Noailles (Treib, ed. 1993, p38)

Notwithstanding, the gardens of the Vera brothers and of Guevrekian were, Imbert points out, symmetrical, and in this sense, not radical. She includes Legrain's Tachard garden in her critique that, 'these gardens - the work of architects - were barely three dimensional entities' (ibid p101). But despite this, the Tachard garden became an iconic garden image, from which the zigzag was reproduced as a modern gesture. Its fame was spread by Tunnard's teaching, and his writing of it as achieving 'a form of balance --- that depends "on the interplay of background and foreground, height and depth, motion and rest" (ibid, quoting Tunnard, p98).



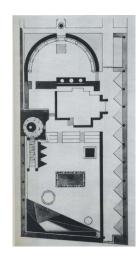


Fig. 4.2 Legrain's Tachard Garden photograph Fig. 4.3 Plan of Tachard garden (Treib ed. 1993, p97 & 99)

In Europe a further number of Expositions, with garden landscapes included in the exhibitions, took place before World War II. At the 1935 Brussels Exposition the Association Belge des Architectes de Jardins (ABAJ) demonstrated, with some exceptions such as that of Jean Caneel-Claes, largely backward looking designs (Imbert 2007¹, p7-8). A strident modernism was invited at the 1937 Paris Exposition, at which Christopher Tunnard and Jean Caneel-Claes launched the international affiliation of landscape architects, the Association Internationale des Architectes de Jardins Modernistes (AIAJM). Its manifesto, shorter than a single page, was contained in a brief pamphlet, titled Association Internationale des Architectes de Jardins Modernistes (Imbert 2007¹ p222). The organisation, which failed to gain many supporters, articulated espousal of some modernist tenets:

We believe in the probity of the creative act --- the reliance of the designer on his own knowledge and experience and not on the academic symbolism of the styles or the outworn systems of aesthetics, to create by experiment and invention new forms which are significant of the age from which they spring (Imbert 2007¹, p14).

The AIAJM was unsuccessful in its attempt to create an international organisation for the 'new profession' of landscape architects with emphatic Modernist principles (Imbert 2007¹ p7). It had aimed to situate the profession distinct from, but associated with, architecture and urbanism (ibid). But it failed to sustain a representative membership after its inauguration in 1937 (ibid p14).

However, the influence of its manifesto was not negligible; Komara (1990, p77-78) notes its impact on AE Bye in the development of his design principles.

While the AIAJM was short-lived, Christopher Tunnard's influence on this prewar period was significant in both Europe and the USA. A Canadian landscape designer working in Britain, attuned to modern art and architecture, he developed a Modernist approach in his designs that were "functional, empathic, and artistic" (Neckar 1993, p145, quoting Tunnard). One of the AIAJM principles of inventing new significant forms was that of a whole site design response (Imbert 2007², p224). Tunnard may have been echoing in 1937 the embeddedness he had found earlier in Mies van de Rohe's *Barcelona Pavilion* (1928) and in Frank Lloyd Wright's *Fallingwater* (1934).

From these works he also took the idea of the inter-relationship of architecture and landscape expressed in overlapping planes. In the garden which he designed for the house by Chermayeff at *Bentley Wood* (1928), he placed a frame at the end of the terrace, a distance from the house, as if it were a window frame and part of the house: here was building that literally embraced its landscape. Besides the building taking on some of its landscape as an outdoor room – an idea that somehow still seemed contemporary at the end of the twentieth century - the overlapping plane of the frame created an echo of the house extruded outwards: here was an overlapping where functions were fluid, interchangeable and which, in that sense, had a certain dynamism.





Fig. 4.4 Tunnard garden design for Bentley Wood. Fig. 4.5 View towards and out from house, across Terrace. (Treib ed. 1993. p147)

Tunnard's book Gardens in the Modern Landscape (1938), the only English language text on Modernism in the landscape until Garrett Eckbo's 1949 Landscape For Living, was widely influential (Jacques & Woudstra 2009, p3). Invited by Walter Gropius to Harvard Graduate School in 1939, he moved to the USA to teach a group of students, among whom were Dan Kiley, James Rose and Garrett Eckbo. Tunnard's teaching contradicted the established Beaux Arts programme at Harvard with its reliance on symmetrical axial compositions. He espoused the international style of Modernism, defining this as spatial, functionally responsive to contemporary lifestyles, a non-stylised Modernism with a greater purpose than producing visually aesthetic compositions (Neckar 1993, p145; Treib 2002² pix; Tunnard 1948, p75). Tunnard's teachings about 'the functional garden --- (which) embodies rather a spirit of rationalism --through an aesthetic and practical ordering of its units' was influential to young designers in the USA, in the UK and the Netherlands in particular (Vroom 1995, p41). His concern was the garden's fitness for modern living. The design was to be:

an attempt --- to let space flow by breaking down divisions between usable areas, and incidentally increasing their usage. It is a three dimensional composition planned in model form or on the site, rather than as a pattern on paper (Tunnard 1942, p162).

Tunnard's influence is apparent in articles written by Garrett Eckbo, Dan Kiley and James Rose for the Architectural Record in 1939, in which they articulated ideas about spatial designs for use and 'animated living' rather than viewing (Rose 1939 cited in ed. Treib 1993, p68-75). Their future professional life would become known with its place in 'the Californian school', and as such it is interesting to note that avant-garde design for them did not mean wholesale rejection of traditions, but rather 'its aim might be to infuse them with new life' (Eckbo, Kiley & Rose 1993 from 1939, p79). The attention given in their writing to style, the avant-garde and the traditional, indicate the currency of this topic. Their plea for landscape designs to respond to social agendas may be seen as

a widespread Modernist principle. Its application was responsive to intensified indoor work lives in 'congested cities (which) have a crying need for organized space: flexible, adaptable outdoor space in which to stretch, breath, expand, and grow' (ibid p79). For the domestic scene, Thomas Church touched on a change to the amount of maintenance that could be comfortably tolerated, presumably as labour costs had risen simultaneous with a raft of other changes: homeowners' aspirations; modernising gender roles, a

"change from tea in the parlour to drinks in the garden giv(ing) us the terrace or outdoor room, which increases in importance as the house gets smaller" (Treib 2005, p40 quoting Church).

However, whereas the Californian school found the *function* of Modernist gardens held a reciprocal relationship with changing outdoor lifestyles of modern families, in the UK Peter Shepheard could not envisage any social changes in garden use, and no function, attaching only decorative qualities to gardens (Shepheard 1953, p17-18). Jacques (2000, p92) reinforces this conservative interpretation, attributing Jellicoe's embrace of art into the garden as a diversion from landscape's void of sufficient Modernist credentials.

In Europe, outstanding examples of early modern landscapes are G.N. Brandt's Mariebjerg Cemetery (1925-1936); the Swedish architects'- Gunnar Asplund and Sigurd Lewerentz- Woodland Cemetery, Enskede (design competition 1915); and Tunnard's Bentley Wood (1925). These were responsive rather than reductionist designs sensitive to the experience of the person in the landscape. The development of these ideas has been noted by Stephensen (2007, p20) as fundamentally changing landscape design by 1930, quoting G.N. Brandt that the shift was one 'from the aesthetic to the social'.

Eckbo (1991, p9) voiced a different inflection about the avant-garde: that as nature is to ecological process, so the avant-garde is to social process; a necessary, repeating renewal. Fundamentally the avant-garde was a movement taking effect throughout the arts (Lassus 2002, p222). While some might wish to fix certain stylised shapes as being characteristic of modernist landscape design, Treib (2004, p77) asks,

Need they employ the spare clarity of modernist architecture or the shape of surrealist painting? Should modernism be better defined by social agenda rather than by shape? What was the role of spatial production and use in formulating modernist ideas?

The modernist exposure at the 1925 Paris Exposition set a baseline to create something different from conventional gardens with their "outworn systems of aesthetics and formulas of design", tableau-like vistas, focal points and fully formed compartmented compositions (Tunnard 1948, p106). At the forefront of avant-garde development in the US were Kiley, Rose, Eckbo and Church; in Denmark and Sweden, Asplund and Sorensen; in Brazil, Burle Marx; in Mexico, Barragan. Their shared principles rejected traditional beaux arts, and arts and crafts design principles, turning instead to modernist principles of inventiveness, responsiveness to contemporary lifestyles and a new spatial aesthetic. In tandem with designing for social responsiveness, was the realisation of forming landscapes for participation, 'volumes of organized space in which people live and play, rather than stand and look' (Eckbo, Kiley & Rose 1993 (from 1939) p82).

It would be misleading however to imagine that it was anything other than traditionally inspired garden layouts that were the general practice. Howett (2002) writes of tradition in North American gardens of the post war period, while in the UK arts and craft style gardens continued to be admired and created as if new throughout the twentieth century (Sissinghurst 1930's, The Garden House, Buckland Monachorum 1940's – 60's, East Ruston 1990's).

Here, at the conclusion of this brief overview of influences prior to 1945, certain threads show temporal potential. Eckbo's (1949) concept of design for social living and Tunnard's (1942) concept of 'let(ting) space flow' could be seen as leading the way to designs with a *tempo* of dynamic movement. The idea of being inventive as appropriate to each site may be leading toward design responses that are emphatic about *process*. What had been an AIAJM principle of taking a whole site design response would possibly lend itself equally to a tabula rasa approach, as to one that worked with the existing by acknowledging

layers of social history. And positions regarding novelty and not repeating	
tradition lend themselves to stirring perceptions around duration.	
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CHAPTER 5. DECADE 1945-1955

Contextual background for the decade1945-1955

Post World War II landscape practice was significantly different from that which went before. Increasingly the important strategic role that landscape architecture should play beyond private gardens was realised. The 1948 inaugural IFLA conference in London focused on landscape practice and its relationship with the economy, housing, industry, leisure and education (ibid p17). Relph (1987, p138) notes that growing urban development accelerated planning from its fringe importance into a central role post World War II.

Later in the twentieth century planning and environmental work far outweigh the work of landscape architects in designing gardens (Hildebrand 1999, p68). In this decade however, much of the landscape design work in the USA and in Europe was still in private individual gardens as well as large housing schemes both public and private. Notwithstanding, by the end of the decade, the unrelenting spread of development brought an awareness that mass housing, both low rise and high rise (Levittown, completed in '55 and Pruitt-Igoe first occupied in '55), was producing, that it was possible to design, *sterile* places, cloned homes designed for standard behaviours and 'collectivized man' (Condon 1988, p6); 'a novel environmental democracy --- an 'equalizing' of times and places' (Helphand 1999, p150 citing Boorstin).

Modernization, it seemed, could be austere in its allocation of function to space, clearing away unnecessary activities and clutter in a way that was responsible for overlooking and designing out myriad details of messy human living. In 1961 Jane Jacobs published her landmark book *The Death and Life of Great American Cities*, which began a clamour against such sterile new development plans.

In this context it is particularly interesting to note how the avant-garde approaches by some of the foremost designers of their time indicate a thoughtful and sensitive response to people's experiences of modern living with a rebuttal of Beaux Arts conventions. Garrett Eckbo published *Landscape For Living* in 1949, five years before Thomas Church's *Gardens Are For People*:

both books emphasising the central role of people's usage by which landscapes will be enlivened and made dynamic for contemporary living. An emphatic anti-pictorial stance is voiced by Eckbo's peer, James Rose:

We cannot live in pictures, and therefore a landscape designed as a series of pictures robs us of an opportunity to use that area for animated living (Rose 1938 excerpt in Treib ed. 1993, p72).

The new home landscapes accommodated domestic duties, children's play, home-based recreation and entertaining, all happening within the house and garden in such a way that functions and spaces and experiences overlap and interrelate. Some examples are Dan Kiley's ninety one gardens at Hollin Hills development (Donovan 1999, p38); and Church's work at the Valencia public housing project. In Europe (Denmark), Sorensen worked on several social housing projects, Højstrup being one, and additionally he was innovative in his creation of 'junk playgrounds' with loose parts, places for a child's engagement in non prescribed activities of their choosing and imagination (Andersson & Hoyer 2001).

In this chapter I will be focusing on the work of landscape designers Thomas Church, Carl Theodor Sorensen, Luis Barragan and Roberto Burle Marx. Their work shows their individual responses to contemporary modern living: a different, often more individual, and sometimes freer, use of form. Also apparent is their embrace of new thinking around people's use and reception of garden and public green spaces: and their practice of a Modernist approach for landscapes to be designed as "functional, empathic, and artistic" (Neckar 1993, p145, quoting Tunnard).

Values for designing landscape had moved away from re-working traditional, relatively static designs, towards movement, and a person's interaction, receptivity and functioning within the landscape. These design values indicate propensity for a designer to be considering tempo, process, duration, imagination and layers.

Thomas Church

Thomas Church had been designing private gardens in a traditional manner through the 1930s (Treib 2000, p131). Influenced by the Tachard garden at the 1925 Paris exposition and by younger designers such as Robert Royston, June Meehan and Lawrence Halprin, who were working in his office, he explored and incorporated into his work, 'new forms: curvilinear pools, zigzags and piano curves, trompe l'oeil and false perspective; but always with respect for context' (Laurie 1993, p172). His belief in and talent for designing for the needs of his clients and the specifics of the site remained constant (Treib 2000, p130; Imbert 2000, p96). What was new was his grasp of the potential for movement and rhythm to garden design once 'the stasis of (the) more symmetrical compositions' was relinquished (Treib 2000, p133).

Treib (ibid p133) quotes Church from his 1955 book *Gardens are for People*:

Rhythm and movement are essential. You expect them in the picture you hang on your wall, in the music you listen to, in the poetry you read. It's the line of the terrace and the richly textured foliage. The eye is a restless organ.

Treib follows this quotation expanding on two things; the variety of activities that happen in a garden; and on the other non-visual senses. But this misses Church's emphasis. Church had continued his writing on rhythm:

Symmetry can have motion. It's uninformative formality that can become static. The eye prefers to move around a garden on lines that are provocative, never lose their interest, never end in dead corners, (and) occasionally provide excitement or surprise (Church 1995, p33).

In his expression of visual rhythm, Church also touches on other qualities of temporality: occasional responses (of surprise) involve changes of perception or of happenings: while surprise involves the layered juxtaposition of the unanticipated with the anticipated.

Church's designs became known as having a new 'spatial manner' (Treib 2000, p135). William Wurster, the architect with whom Church made several collaborative works, commented that features and 'details (were) subordinate to the spatial qualities' (Imbert 2000, p112). This was a design

language that considered temporal relationships between the shapes and spaces in the design, their reception phenomenologically, movement and rhythm. Several of Church's most prominent design relationships relied strongly on aspects of temporality, for instance, juxtapositions posing dramatic tensions. The juxtaposition of the zigzag bench and the curving plant border in the Martin garden are illustrative of this: similarly the orthogonal deck and the biomorphic pool in the Donnell garden, shown together in the construction image (below). Juxtapositions can create an emotional tempo between rest and exuberance, constraint and letting go, in the rub of unlikely associations. Emphasis on movement and rhythm can affect a person's tempo, a psychosomatic temporal calibration of their experience. Moving between shade and full sun, between sheltered to open space is likely to have such an effect.

Illustrative of Church's fascination with the engagement of the moving observer is indicated by the pruning treatment he gave to trees and shrubs. Church found it "pleasant and very exciting to look up into a tree and through a tree, as well as at it." (Imbert 2000 p15, quoting Church). The trees and branches that Thomas Church pruned, were made more architectonic, more emphatic as mobile framing elements. In the action of looking *through* and *up into* these closer branches (foreground or middleground), the visitor need move only a little for the branches to alter their aspect considerably; so that in moving about the garden, the views of the branches *and* the views beyond the branches are changing relatively rapidly, but showing differing related distances, creating multiple views and sensations. For Church this was less about creating composed visual picture planes than about creating engagement between his clients and their gardens:

real beauty is neither in garden nor landscape, but *in the relation of both to the individual* ... seeking not only a scenic setting for pool and fountain and parterre, but background for life (Imbert 2000 p15, quoting Church; Treib 2005, p57: italics added).

Noticing these changes of framing within and between tree branches by a person moving through the garden would involve a relationship building, a

process of relationship building, between the person engaged in noticing, and their landscape.

The Martin garden (1948) was for a beach house that bounded three sides of the plot, the fourth open to the sea. Church's design added a decked yard set obliquely to the orthogonal lines of the house, the paving of which, organised in offset square sections, comfortably created a zigzag edge; this was emphasised by being blocked up as solid timber seat. Sand stretched across to the opposite side where a planting border related its biomorphic shape to the angularity of the zigzag. The deck narrowed to a sinuous, non-parallel path leading to the beach a short distance away. Church (1995, p202) comments in his book *Gardens Are For People,* 'Privacy is achieved on both sides, and the garden is protected. The lines are restless and flowing, like the sea.' Laurie's (1993, p172) description, the 'powerful zigzag - - - seating challenging the flowing wavelike curves of the other edges' gives a different interpretation of its energetic temporality. While Church repeated this juxtaposition in subsequent designs, it was particularly intriguing at this beach in Aptos.

These contemporary shapes that Church employed were redolent of contemporary lifestyle rhythms (tempo). The zigzag can be 'read' optically by joining a line from each of its most external points; and in this way it hurries, in the Martin garden, from their house to the sea. It can simultaneously be 'read' by an optical trace of its perimeter which alters and slows the directionality by ninety degrees at each zig of the zag of its orthogonal indentations. Layered onto this fast-plus-slow feature, and facing it, is the sinuous plant border, shaped with captivating curves, in its unhurried yet steady progress towards the beach. It is a design of multiple, layered rhythms and juxtapositions.



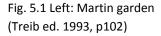




Fig. 5.2 Right: Author's sketch of Plan of Martin garden

The Donnell garden was built in 1948, some years before the house itself. It should be noted that Halprin was instrumental in the design (Treib 2005, p47). The garden's biomorphic swimming pool reflected freely curving forms in modern art, such as work by Alvar Aalto, whom Church had visited, and who had designed an amoeboid swimming pool in 1938 at Villa Mairea in Noormarkuu, Finland; and in Burle Marx's 1938 MES roof garden. This form was innovative to the USA and was supremely suited to and mimetic of the wider landscape overlooking the estuarine bay (Treib 2005, p73). Like the sinuosity in the Martin garden which fitted as imaginative waves, here, the curvaceous pool hints at an imagined rising water curling into the contours of the estuarine marshland.

The Donnell garden exemplifies the range and responsiveness of Church's design principles:

careful *siting* and orientation of the house with regard to sun, views, exposure, existing trees and topography; a distinct *sequence* of arrival including entrance drive, parking area, and front door; a *direct connection* between house and garden, including provision for outdoor living; a *defined edge* for the garden, separating and at the same time joining it to the surrounding landscape; *provision for functional spaces ---*; a *selection of plants* that would reinforce the structure of the garden and the objectives of the plan (Laurie 1993, p172, original italics).

The flowing sequence of the design was noted by Treib (2005, p47) from the point of arrival in the parking area. In addition to this relaxed flowing tempo, the sequence offered a layered experience of moving through the garden, amid the process of receiving those sequences and the process of a person's involvement and relationship with the garden. From the parking area, a visual link was made through the clerestorey of the lanai to the pool beyond. From the point of arrival a linking series of spaces with overlapping functions flowed through the site. In the lanai the wide bench that ran against the stone wall, continued to do so through the other side of the glass wall as if without interruption. Continuation was a motif through the site; the wide bench, ease of movement from one part to another, visual flow from the garden over the estuary.





Donnell Garden: Fig. 5.3 (left) Lanai from parking area Fig. 5.4 (right) Lanai with inside/ outside bench. (Treib 2005, p47 & 49)

The garden quickly became known as a seminal modern garden. In addition to images taken of the pool with views out across the estuary, a frequently reproduced image is of the deck built around mature live oaks where timber seating solidifies the rail edge to the deck and provides seating for numbers of people. Rarely are the two photographed together however. The deck out of which protruded live oaks, immature at the time of building, is a seminal and intriguing multiplicity of juxtapositions. Out from the suspended surface tension of the timber deck come the leaning trunks of the live oaks as if they invite you to play while the seating suggests shady relaxation: an inverse of dramatic tension. Or, dramatically, out from the taut timber deck burst the live oaks, freeing themselves from the constraints of the planks. Or, the rounded irregular trunk shapes rebel against the organised geometry of the deck.







The Donnell Garden: Fig. 5.5 Live oak trees in deck: Fig. 5.6 Deck & pool in construction showing the proximity of their contrasting shapes (author's sketch): Fig. 5.7 Swimming pool overlooking marshland (Treib 2005, p75, p61: sketch from Treib p74)

The pool's contrast with the orthogonal deck would highlight both their characters. Just as the deck plays with allowing trees through its very fabric, the

pool plays with the watery nature of the outer marshy landscape. The landscape invites: but for swimming the pool invites more. While swimming in the confines of a moderately sized pool, the swimmer might gaze beyond the pool's margin across expansive marshy stretches.

Church designed his movement and rhythm for relationships above compositions. At the Donnell garden his masterful continuation and flow through the whole design are characteristics of tempo, process and layers

His juxtapositions of zigzag and amorphous shapes, a twist on the modern Tachard garden of zigzag contrasting with straight perimeter edgings, implied a drama with tempos. Those juxtapositions also created intriguing oppositions between tense and relaxed layered relationships: and the process of that relationship.

Carl Theodore Sorensen

Carl Theodore Sorensen practised as a landscape architect from the 1920s with a career spanning five decades during the 'rise and evolution of landscape Modernism'. He created places that were 'profoundly humane', characterised by aesthetic designs that delivered function and were responsive to tradition (Spirn 2001, p9-10). He worked with many of the leading Modernist Danish architects (ibid), sharing an aesthetic of geometric forms (Stephensen 1997, p303). Sorensen is described as a futurist park designer (Woudstra 1995, p233), designing with an architectural organisation of space 'using earth and vegetation in both geometric and free form' (Andersson 1995, p105). His designs were also sympathetic to the aesthetics of temporality.

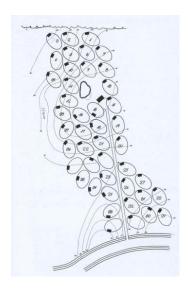
One little known aspect of Sorensen's work is that he was the originator of adventure playgrounds. In 1931 in the book *Park Policy* he had included the idea for 'junk playgrounds', in which loose construction materials were the means for children's play (Bosselmann 1998, p65). However, it was not until 1940 when he was first able to realise this idea at Emdrup (ibid). Although the innovative junk playground at Emdrup was all too soon subjected to the stultifying hand of regular tidying, his work was instrumentally influential. The

temporality of the *process* of play and discovery was one of the core elements of Sorensen's idea, of this 'loosely-formulated concept' for play provision (ibid p18, quoting Sorensen). This was play about children making what they could, in which the outcome was open-ended, determined by the children rather than the designer.

Sorensen's convictions concerning the importance of play directed his arrangements for play provision in several social housing designs. His philosophy for its indeterminacy is articulated in the value he placed not on specific play items, which offer limited play opportunities, but instead on three essential play *environments* that would offer sensory scenarios for construction and make-believe: forest (trees), beach (sand) and meadow (grass) (Bosselmann 1998, p66-67). These three elements feature at the Klokkergarden housing development (1938-1939) along with an oval paved area, flanked on two thirds of its southward-facing circumference by arbour covered seating for adults to socialise and watch their children (Andersson & Hoyer 2001, p78-79).

Sorensen's affinity with children's play guided his realisation of the value of unsupervised left over space, which is how the space between the fifty hedged oval allotment gardens at Naerum (1948-1952) would have been regarded (Bosselmann 1998, p65). Yet it was the convex curves outside the hedged areas that he envisaged for children's play, designing exactly the kind of shapes, between the variously oriented ovals that encourage speed, running, hiding and finding (Woudstra 1995, p235: Andersson & Hoyer 2001, p141). This invititation to various individual tempos, was also an invitiation to playful imaginations. What was happening round the curve? What was living on the other side of the hedge?





Naerum allotments: Fig. 5.8 Photograph: Fig. 5.9 Plan (Andersson & Hoyer 2001, p139 & p141)

Sorensen's spatial compositions, which used straight lines only rarely (and then often to great effect), were precisely calculated and articulated constructions of 'ovals, circles, sinuous lines and spirals' (Andersson and Hoyer 2001, p41, p52). His distinctive use of the oval has continued to attract interest. Weilacher describes something of the effect:

Sorensen --- achieved greater tension through the use of the oval, which was deployed with particular mastery in the Naerum allotments ---. This composition used a large number of oval hedges of the same size - precisely trimmed hedges to enclose the allotments - to create a spatial structure of breath-taking elegance. --- man-high hedges in a dynamic space that was perfectly choreographed by the garden architect (Weilacher 2001 p176).

Weilacher's observation that the oval hedges created 'greater tension --- in a dynamic space', had 'breath-taking elegance' and were 'perfectly choreographed' references the tempo and rhythms which were stimulated by his configuration. Temporally the oval, like the circle, has no beginning or end, its duration equivocal: although unlike the circle, its combination of tighter and more expansive arcs convey faster and slower demands.

Sorensen's design for the Vitus Berings Park materialised in two identities. The original design in 1945 for a park at Horsens was replaced with his second

design, in which a ground of trees and rhododendron planting is interrupted with clear spaces formed by an 'S' shaped path, an oval and three straight routes across the small park. Choices are offered between a fast, direct route, or a slower meander. The curving approach foreshortens the aimed for destination, unmeasurable visually from either end. This plays with our human propensity to conflate duration with distance, teasing the traveller onward.

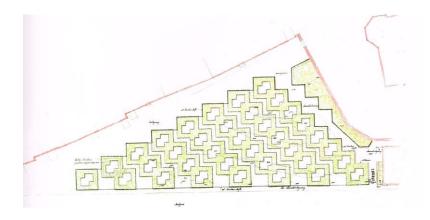






Vitus Bering Park, Herning: Fig. 5.10left) Isometric plan: Fig. 5.11 (top right) Between the hedges: Fig. 5.12 (bottom right) Entrance from the straight hedge (Andersson & Hoyer 2001, p63, p67, p66)

The original design for Vitus Bering park was built later in a reduced form (due to site restrictions) at Aage Damgaard's factory in Herning; subsequently it has been reconstructed at full size at the art museum in Birk, near Herning (Andersson & Hoyer 2001, p63-66). The park has the alternative title of the *Musical Gardens* which might be interpreted as a reference to the precise orchestration of the relationships between the geometric shapes. The composition of the nine shapes from triangle to octagon, include one straight edge and two circles. All have side lengths of ten metres, and in the case of the circles, their diameter and radius times one and a half (ibid p62). Bosselmann's (1998, p67) interpretation is that 'the entire composition could be experienced as movement through shapes and rooms – that is, musical – variations of curve and line'. One can sympathise with this view by situating oneself as if between the hedges in the images above.







Church Plaza at Kalundborg: Fig. 5.13 (top) Plan: Fig. 5.14 (left)

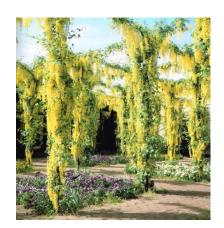
Towards church: Fig. 5.15 (right) From church (Andersson & Hoyer 2001, p89 &91)

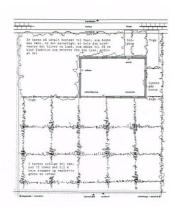
Sorensen's design for The Church Plaza in Kalundborg in 1952 has a rhythmic mathematical structure. There are eight rows of squares of low hedging, each with the same number of squares as its row number (the eighth having eight; the fifth having five etc). The squares overlap, 'knot'. Each is four and a half metres long on all four sides. The relationships of the shapes echo the church's 'crystalline forms' (Andersson & Hoyer 2001, p88). 'Reading' them, watching the hedge pattern from different positions as would happen naturally by regular uses of the plaza, specific aspects of this configuration change their prominence. Dominance of one aspect above another is likely to settle on a selected feature. This might be the staggered zigzag of perlimeter lines; or diagonal lines through the knots; or the straight lines may take visual priority, and in this case you see the staggered overlap of the hedge lines; or vision may

be oriented into the indent line along the Vs. Like the zigzag in the side of the Martin garden which simultaneously holds a 'reading' of three very different tempos, here at Kalundborg, the knotted hedging holds a layered reading of multiple tempos. The whole design has a poised balance between fixed stillness and dynamic, dizzying changingness.

There is a certain irony to the dynamic changes within the pattern of the hedges in combination to their negligible seasonal change. Process here is instead focused toward people's process of perceiving and realising the multiple dynamics of the knotted hedging.

In contrast to this, at Middelfart, Sorensen gave pre-eminence to seasonal responsiveness. In the courtyard of a modernist building that featured full picture windows; and recognising that the offices within would need shade in summer, yet full light in winter, he combined this with a magnificent seasonal impact of a grid of multiple rows of a pendulous laburnum, Laburnum x wateri 'Vossii' (Andersson & Hoyer 2001, p126).





Middelfart courtyard garden: Fig. 5.16 Photograph: Fig. 5.17 Plan of garden (Andersson & Hoyer 2001, p127 & p128)

At the start of their monograph on Sorensen, Andersson and Hoyer (2001 p23) address the 'Dear reader' in which they explain the order, or rather the non-order of the chapters:

From one point of view, the rich man's garden and the [adventure] playground resemble one another. They are each the fruit of a particular ability to comprehend the world as it

is: to see the expression of time, to understand the needs of the time, and to realize these observations in innovative action (italics added).

I hope I may be forgiven for extending Andersson and Hoyer's probable meaning of this phrase 'to see the expression of time' to include not just the maturation and seasonal impact of Sorensen's planting and of children's maturation through play; but also their insight that Sorensen wanted people to feel the temporality in the (musical) layered relationships of his geometry; in the rhythms implicit - fast and slow, tight and loose - in the movements of site users; and in his lightness of touch around contingent uses of his sites.

Luis Barragan

Luis Barragan was an engineer, architect, landscape designer and urban planner, mostly working in his native Mexico, whose career began in the late1920s (Eggener 1999, p122). He had travelled in Europe before this, and again in the early thirties where he met Le Corbusier briefly in Paris (Rispa 1996, p79). He espoused modernism and was sympathetic to de Stijl and Bauhaus principles; which he invested with his personal concept that 'serenity, silence, intimacy and amazement' were the most important qualities for a person's home environment in the modern world (Barragan 1980, p204). His work towards this end has been described as creating places in which there is,

the serenity of enclosure and setting; the poetic accommodation of ritual and cultural situation; the sensual control of body placement and motion so as to arouse expectation and intrigue (Corner 1991, p130).

He was the only architect to be awarded the Pritzker Prize for his work's achievements and contributions 'as a sublime act of poetic imagination' (San Martin 1996, p100).

From the mid 1940's Barragan's major project for residences in the Pedregal to the south of Mexico City (Eggener 1999, p126), articulated gardens of meditative privacy as his response to the speed of modern life. This ran counter to Le Corbusier's (and other modernists) open landscapes of 'artificial, pastoral

naturalness (which, for Barragan) held far less appeal than the rough-hewn' (ibid p131). Barragan's work at El Pedregal featured much of the original landscape's rugged volcanic rocks which thus made a 'bold and iconographic link' with the distant view of volcanoes (ibid p76). Eggener (ibid) continues by highlighting Barragan's distinctive emphasis created by opposing material qualities: the entrance to El Pedregal having stone and cast iron wall and gates, in front of which played the light impermanence of a water fountain with its evaporating mist. Rocks erupted from paving or walls, or as part of enclosing walls.





Fig. 5.18 (left) Show garden at El Pedrega: Fig. 5.19 (right) Avda de las Fuentes at El Pedregal (Rispa, ed. 1996, p103 & p134)

The layered juxtaposition was striking. Rocks, which had existed through millennia, the result of volcanic processes, now, making each more emphatic not only of their lines, but also of their processes, set against level lawns or butting up against smooth building walls:

to avoid detracting from or spoiling the [rocky] beauty of the landscape --- we would have to opt for extreme simplicity: an abstract quality, preferably straight lines, flat surfaces and primary geometric shapes (Barragan 1951, p34).

There is a kind of dramatic tension here: two strong elements which threaten to overcome each other; meanwhile, the rocks and walls, or rocks and lawn, are poised, a temporal equipoise. Rispa (1996, p171) uses the phrase 'curiously charged' to describe Barragan's work at Las Arboledas, though this could be

used to describe much of his work, of the strength of his relationships and juxtapositions.

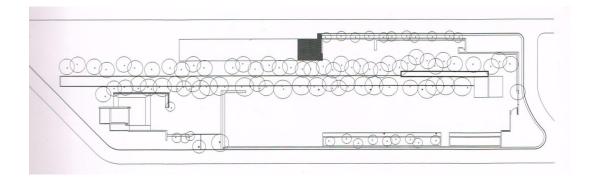


Fig. 5.20 Plan of Las Arboledas: Bell Plaza with fountain (on left of plan), Drinking Trough Plaza with fountain (on right of plan), and Red Wall (Rispa, ed. 1996, p168)

Las Arboledas (1958-1962) was one of Barragan's designs for a residential development, at the heart of which was a long, rectangular public space. This consisted of the Bell Plaza with fountain, the Drinking Trough Plaza and the Red Wall; offset with each other and the trees running through to make 'a dialogue between natural and human' in a way that 'established a relationship between reason and sentiment' (Rispa 1996, p168). The layered relationship that one gathers from this last statement is of a powerful effect felt by Rispa: some potent meaning residing in 'sentiment' unable to be expressed by 'reason'.

The mirroring effects in the drinking trough reinforce juxtaposing: the real trees against their reflections, the white or blue of the sky against the white and blue reflections of the adjacent walls.

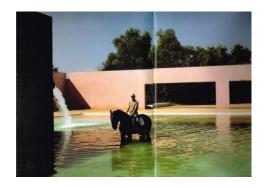




Fig. 5.21 (left) Las Arboledas Drinking Trough Plaza: Fig. 5.22 (right) Red Wall (Rispa, ed. 1996 p172 & p169)

Walls are a resonant motif through Barragan's work (Rispa 1996, p169). His walls enclose (San Cristobal); flank (the tall white wall at the base of the drinking trough); divide (the Red Wall); interrupt (San Cristobal): they feature like tempo keepers; of tempos including the contemplative pictures planes of colour in which the moving person going through and around is occupied in their company.

A long wall such as Red Wall at Las Arboledas has a run, whilst simultaneously its essence is to halt: movement stops at a wall. Barragan's walls have relationships with each other, with the beyond (trees), with the space. In his building, one wall might overshoot its corner, meeting with the perpendicular in a Miesian fashion as at San Cristobal (Pauly 2002, p206). Barragan used them in multiples, different heights and planes, their shadows giving several variants at any one time. He broke into them, they frame (but this is just one of their properties); their colours bring them forward and make them more prominent (ibid). Positioning of the walls and their colours were matters of great importance to Barragan. He was known to have worked colours over several times until he thought them right (Eggener 2001, p31): and to introduce an extra wall, as for instance in the Franciso Gilardi house, where he placed an additional wall, so as to introduce another plane of colour, in the centre of an indoor swimming pool (Rispa 1996, p198).





San Cristobal: Fig. 5.23 (left) The horse pool & fountain: Fig. 5.24 (right) View from stables towards house. (Rispa, ed. 1996 p188-189 & p192)

Pauly (2002, p206) attributes significant tempo to Barragan's Miesian spatial treatments of the San Cristobal thoroughbred horse ranch: 'the positioning of the walls *tautens* perspective views and creates a sequence of cut-out shapes, with the horses as protagonists' (italics added). She elaborates,

He too played on the dynamics of spatial flows obtained by creating wide passageways, as well as the tense pull engendered by slotting narrow slits between solid surfaces (ibid p204).

At San Cristobal the walls that frame introduce their shadows and expression of temporality's duration. They frame, and sometimes obscure, one part from another; in this sense they set also the rhythm of movement, proscribe views, present evident thresholds and hidden transitions, and build a dramatic tension, countering the relaxed open expanse against the taut precision of the relationships of the walls.

To return to the Pritzker Prize given to Barragan in 1980 with the reference to his works' appeal to poetic imagination: in his address on receiving the prize he regretted the profession's silence towards, among other qualities, 'serenity, silence, intimacy and amazement' (Burri 2000, p2). The reference to poetic imagination rescues three of those listed qualities from sounding placid. Barragan's application of poetic imagination may account for his work being assessed as 'curiously charged' (Rispa 1996, p171); and applauded in Rene

Burri's book of photographs (with quoted excerpts from the Pritzker Prize address) for their resonance and calm vibrancy.

Roberto Burle Marx

Roberto Burle Marx, artist, ecologist and landscape architect, was regarded as the foremost practitioner of modern landscape design in Brazil (Vaccarino 2002, p207). Burle Marx's education and interests in European and Brazilian culture and the fine arts gave him a lifelong accord with 'multiple cultural movements' such as the Brazilian modern art movement, in which art combined with traditional Brazilian culture. This is evidenced in his application of black and white marble tiling of the *pedra portuguesa* (ibid p207, and p216). His professional work spanned over sixty years from the early 1930s: Brazil's economy was flourishing, construction was immense, and modern nation building included cultural ambitions (ibid). This nation building thrust enabled Burle Marx to work towards 'a new synthesis that brought garden design to the same level of artistic ambition as the modernist movement in the arts and architecture' (ibid p207-210).

A defining commission for him in 1938 was for the gardens of one of the first modern high rise buildings in Rio de Janeiro, the Ministry of Health and Education (MES) building (Fraser 2000, p187). The architectural team of Lucio Costa and Oscar Niemeyer had been working with Le Corbusier on the design (ibid). Costa had recognised that the design aspiration for accompanying gardens required more than Le Corbusier's sketch of a single row of palm trees in a paved terrace: and he knew Burle Marx as 'a painter who understood design and a gardener who understood plants', capable of creating garden designs that were modern, Brazilian and original (ibid p188). Burle Marx designed gardens for three areas: the street level plaza, the roof garden for the sixteenth floor, and the well known roof garden for the exhibition wing (ibid). His forms were curvilinear, more emphatic amoeboid shapes than he had previously used, with radical blocks of native tropical planting: radical, as imported plants were the norm and native plants shunned (ibid p189). Culturally, the design carried a message of sympathy for South American

riverine meandering forms; robustly contradicting Le Corbusier's well known derision for illogical curves, which Le Corbusier had made explicit as to its application to South America, and about which he had published in 1930 (ibid p186). The corollary that suggests itself here is that Burle Marx was answering Corb's criticism by making serpentine forms modern; opposing speed and logical straightness as a solution (Le Corbusier's preference) with this celebration of slower meandering tempos, colours and layered plant borders. The curves could act as imaginative and symbolic prompts to a cultural rootedness.



Fig. 5.25 The MES roof garden (Fraser 2000, p183)





Burle Marx's developing paintings of the MES roof garden: Fig. 5.26 (top right) colour image (Montero 1997, p39): Fig. 5.27 (bottom right) black & white image (Fraser 2000, p185)

Of this garden he wrote:

seen from above (it) is as defined as an abstract painting on my drawing board; yet when you actually walk in it, the raised foliage beds and the groups of bird-of-paradise flowers are volumes in movement (Kassler 1984 p48 quoting Burle Marx).

The experience of moving through these layered borders allowed Burle Marx to accentuate relationships and juxtapositions. Berrizbeitia (2005, p60) defines Burle Marx's forms,

the deliberate imposition of non-naturalistic, abstract, nonrepresentational, arbitrary forms on the land, composed according to *a priori* logic that, while inflected slightly by site conditions, remains distinct from its context.

She contrasts this with his 'impulse toward process' and duration, such that 'form and process, the permanent and the contingent, the solid and the ephemeral', make an underlying framework for his work (ibid).

Berrizbeitia (ibid p63-64) has made a study of Burle Marx's work at Parque del Este in Caracas, Venezuela, in which 'relational thinking', 'layering and juxtaposition' are highlighted as key qualities. Caracas, a city cultured in the arts generally, already had a significant body of modern architecture dating from the 1940s (ibid p13). Burle Marx worked on many projects there, individually and collaboratively, the Parque del Este design between 1956-1961 being a major park commission.

This commission came a few years after his first plant foray into rain forest with Henrique Barreto, who became his planting mentor (Vaccarino 2002, p222). With Barreto, Burle Marx could study native plants in their native habitat before using them in a design. This approach became one of his design principles; to travel, often with the multidisciplinary design team, sometimes for up to two weeks, on botanical field surveys (ibid p226). For parks that he designed, Burle Marx established nurseries for propagating plants that were unavailable to buy (ibid). In some cases a period of years was needed to build sufficient stocks which, together with his 'capacity to wait and imagine the landscapes changing in time', incorporated into his projects 'temporality and change (by which) he generated landscapes with the character of a living organism' (ibid, p228). It was this knowledge and understanding of plants that has been attributed to stimulating Burle Marx to take a non-static approach to his designed works (Adams 1991, p36, citing Michael Lancaster). This innovative approach to plants has been lauded as one of his 'most significant contributions to landscape architecture' (Berrizbeitia 2005, p20: Montero 1997, p9).

Berrizbeitia (2005 p23-9) analysed the structure of his design for the eastern part of Parque del Este, in which Burle Marx liberates the design from the picture plane of vistas, instead arranging interrupted views with changing landforms and enclosing vegetation, foregrounding into the present. Here she estimates that the intimacy of the series of courtyard gardens gives an

experience (that) is a constant and direct confrontation with the vivid colours, exuberance, extraordinary shapes, and scale of the tropical flora. The relationship of the visitor is not one of distanced contemplation, but one that focuses on the material and tactile experience (ibid).

Each garden was to give out its own distinctive atmosphere; for this to be effective, between the busy entrance plaza and the garden itself, a threshold space intervened to enable the adjustment (ibid p27). The threshold's temporal significance was in creating a hiatus, a pause, an openness to change; in this case to Burle Marx's upending of the usual configuration, with his centralised circulation area and peripheral display areas (ibid p29). In a similar way, Burle Marx's 1948 design for the Monteiro garden turned its focus away from the house to unite with the surrounding landscape (Adams 1991, p28).

In contrast to the Monteiro garden's languid embrace of open expansiveness, at Parque del Este the curving paths that create the constantly changing views are noted by Berrizbeitia (2005, p63) for a tempo that is 'dizzying and kinaesthetic', the viewer's movement being prone to 'constantly shifting --- spatial effects --- (that) unfold in quick succession'.



Fig. 5.28 Monteiro garden (Montero 1997, p46)

In addition to juxtaposition and hiatus, process and tempo are Burle Marx's signature characteristics of temporality in his landscapes:

Less the static reflection of a fleeting present and more the assertion of an ongoing process, his landscapes are immanent with continuity, invention, reassurance, promise, lightness, joy, and expectation (Berrizbeitia 2005, p97).

Burle Marx brought a rhythm and swirling movement to his orchestration of foreground, middle-ground and distance. His design for a threshold experience at Parc del Este, impelled park users to become involved in those multiple layers. Process was taken into the heart of his designs, the literal growing process of the native plants that he sourced, as well as the duration of cultural process of finding acceptance for and celebration of his planting.

CHAPTER 6. DECADE 1955-1965

Contextual background for the decade 1955-1965

The ten years from 1955-1965 evidenced extensive urban development to which landscape architects responded in several ways. Professional landscape commissions became directed to a much larger extent on work in the public realm rather than private gardens of the wealthy. This was the case in most of Europe where there were commissions for schools, universities, health and cultural institutions, cemeteries and other local government developments (Lund 1997, p23: Vroom 1995, p39: Andersson 2001, p2-3).

Still prior to the ecological fervour that would follow the publication of lan McHarg's *Design With Nature* in 1969, this period saw an emerging ecological awareness in the profession. In 1949 Aldo Leopold's *A Sand County Almanac* was published, a collection of essays illustrating the principle of understanding, and being responsible for, the land that one inhabits. Although it later became a very influential and widely read book, Walker saw how it took time 'to percolate through the discipline' (Thompson 1998, p184).

Kassler's book *Modern Gardens and the Landscape*, first published in 1964, gave an overview of many eminent modern landscape projects, presented pictorially with succinct descriptive texts. Kassler (1984, p14) contextualises the work, noting that lifestyle pressures, 'mechanized, regimented living', were prompting a move towards landscape forms with 'freer, less presumptuous' designs than 'axial symmetry': one in which 'man himself enters the composition more actively'.

In contrast to the USA, at the same time as the 'Urban Design Criticism' conference at the University of Pennsylvania rallied against modernist rationalist design, and possibly as a response to being perceived as less

'advanced' (in terms of highway construction and urban expansion), Switzerland hosted the G|59 garden festival. G|59 was aimed at promoting new concepts of landscape design (Bucher 2007, p236). Besides promoting the horticultural industry, the festival generated positive excitement for new approaches to landscape design. The festival offered an opportunity to Ernst Cramer to display his uncompromising Modernist design.

Ernst Cramer

Ernst Cramer was already well known by the time of the G|59 garden exhibition. Two years earlier in 1957 he had taken part in Interbau Berlin and previously his striking modernist triangular design for the Riwisa factory in 1956 had attracted attention and been written about in *Garten und Landschaft* (Weilacher 2001). G|59 has been described, in relation to its remit to showcase new landscape concepts, as showing 'an artistic rationalization of a profession bound by tradition, in which nature was typically seen as the opposite of modern culture and art' (Bucher 2007 p236). Cramer's contribution to G|59 was the Poet's Garden.

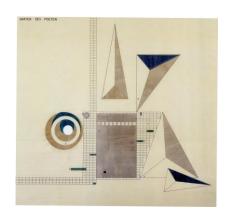


Fig. 6.1 Plan of Poet's Garden (Weilacher 2001, p109)



Fig.6.2 View across Poet's Garden (Kassler 1984, p57)

The 'geometrical purity', of four earth pyramids and a spiral mound, each anchored by a base-line to the rectangular pool was controversially slated by many and lauded by some (Weilacher 2001, p117). Its legacy, as Weilacher assesses it (ibid p254), was that it,

became a signifier of the present through the unprejudiced use of modern building materials. Above all --- it sharpened our awareness of the garden as an independent, topical cultural product, stimulated discussion and aroused viewer's senses.

The last clause of that statement, arousing viewer's senses, is a somewhat subjective statement. One can interpret a cooler view from Kassler (1984, p56) who gives a succinct description of the Poet's Garden in her seminal book on modern gardens:

Triangular earth mounds and a stepped cone were precisely edged, grass sheathed, and doubled [reflected] by a still pool. The garden was not so much a garden as sculpture to walk through - abstract earth shapes independent of place, with sharp arises foreign to the nature of their material (italics added).

Her phrase 'independence of place' implies the garden had no strong associations for her, independent from familiarity: a 'foreign --- nature' reinforces the distancing: while abstract geometry is not known for 'arousing senses'. Familiarity and sensuousness were not registered by Kassler. In contrast, the refreshing qualities that Fischler praises, 'a completely new landscape --- a sense of space that I have never felt before in the open air' (Weilacher 2001, p256), are likely a fellow artist's enthusiastic response at seeing an exciting idea realised.

The thread of temporality needs to be teased from the Poet's Garden. The precisely formed, grass-covered geometric earth shapes position themselves as static objects. This stasis contrasted with the person moving through the garden, as with views outwards, since the tapering shape of the pyramid shapes meant that, unlike a vertical visual barrier, views emerged from the ground plane in the process of becoming wholly apparent: thus creating an interesting tension and anticipation between seeing a little, then a part, then most and finally the whole of the view.

The pool, the sole horizontal object (disregarding the paving) in the garden, is not so much enclosed as flanked by the earth pyramids and spiral. It is the sole feature with reflective qualities, reflecting the sky and trees, bringing distant (in time and space) objects into the nearness of the show garden. Additionally, the water metaphorically reflects the water of the lake beyond. All paths in this garden come to the pool, one crossing it, so that the pool draws visitors to it, its stillness and centrality attracting.

I might conjecture, though I have not met any supporting comments, that the central anchoring effect of the pool in the garden affected visitors to make a pause, some possibly fascinated, transfixed by such audacious modernism; others finding its still water restful, with Lake Zurich in the background, and its nod to the distant mountains.

The proposition of the importance of the anchoring of the pool at G|59 is strengthened by Cramer's description of his Theatre Garden at the 1963 IGA in Hamburg in which the dominant rectangular platform may serve a similar purpose:

"As in lucid modern architecture, people feel here that they are absolutely central in this garden space. To grasp this effect people should sit down on one of the concrete elements; by doing this they will gain the impression that a work of this kind is a fixed and striking component of a landscape" (Cramer quoted in Weilacher 2001, p156).

Cramer shows here how his thinking inclines towards the involvement of site visitors and users (although it seems confined to an involvement in admiration for his work), and something of his passion in wanting others also to experience the power of formal expression. Weilacher (ibid, p157) dismisses any seriousness to the functional legitimisation of the Poet's Garden or the Theatre Garden being about theatre or poetry, despite Cramer's description of its suitability for performances and celebration (ibid p156), on the grounds that Cramer was a connoisseur of the concept of pure form in modern architecture. However, in addition to the spatial and formal

purpose of these designs, Cramer's clear articulation of people's roles implies that he aspired to awaken poetic and theatrical feelings in their aesthetic response. Weilacher lends some support to this suggestion in noting that Franz Vogel's garden at the IGA placed the visitor as spectator, whereas Cramer's Theatre Garden was an 'open work of art' in which people 'could become the actual protagonists of the scene', responding to 'interpretative possibilities' (ibid, p161). In these theatrical and poetic possibilities is an implicit temporality of imagining other future states or happenings.



Fig. 6.3 Theatre Garden at the IGA (Weilacher 2001, p155)

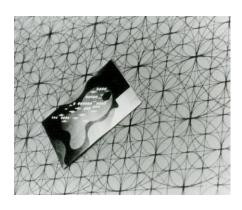


Fig. 6.4 Cramer's 'Trame' (Weilacher 2001, p206)

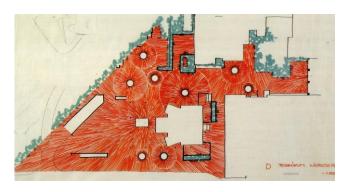
In 1972 Cramer began teaching in Lausanne. He had previously articulated four design principles: planning on a human scale - order in diversity – return to simplicity – keeping up with modern architecture (ibid, p194). Cramer formulated a design aid for his students which he called the *Trame* that could be used as a template for any length of line, shape and area to be drawn on a plan, ensuring that all would relate to a pure geometrical form. Cramer expressed the outcome of this as,

"learning to design on the basis of clear principles, (so that) we escape from the danger of sterile formalism, opening up the route to humane solutions, and making our creations human again" (Weilacher 2001, p206, quoting Cramer).

Weilacher (ibid p206) suggests the importance of the context of the period to understand the discourse about humane architecture; he doubts the efficacy of the *Trame* to achieve humaneness, conjecturing that Cramer may have been

trying to relate to the popular, free language of the 1970's, moving away from orthogonal designs without selling out on modernist principles. Weilacher (ibid, p125) had noted that, following his travels to Brazil in the late 1960's, Cramer, heavily influenced by Niemeyer, began to make more expressive, less abstract, designs.

At Winterthur Technical College (1970-1974) a volcano concept emanates from one giant and several smaller 'satellite' circular areas of radial 'explosive' paving, centred on 'volcanic' cones one and a half metres high. Planted on the cones were multi-stemmed hornbeams. The small square concrete setts curved upwardly for the walls of the cones at a gradient sufficiently shallow for people to use them as leaning seats in addition to the seating cubes. The design was credited with providing an area of permeable movement (ibid p220). The concept ventured to create a dynamic landscape.



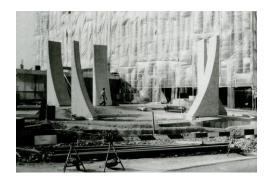
Winterthur Technical College: Fig. 6.5 Plan: Figs. 6.6 & 6.7 Photographs of 'volcanoes' planted with hornbeam (Weilacher 2001, p220-222)

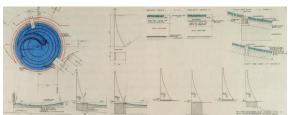




The dominant temporal quality of Cramer's work was his emphasis on tempo. His concept of dynamism was developed at Postplatz in Vaduz (1975) where the white, concrete, elegant upwardly sweeping, sail-like structures (inspired by Niemeyer's 'formal dynamic') 'sought a new link between formal abstraction and aesthetic eloquence' (ibid p227). The design offered contrasting experiences with a front view of 'just static rectangular bodies', but a side view that presented 'a sense of movement, which seemed to

continue to infinity.' Weilacher (ibid p227) comments that the positioning 'made it possible to perceive the different views at the same time' so that this design is layering qualities of non-movement and movement, induced in multiple strands, and able to create an enhanced dynamism by way of its repeated oscillation between those two states.





Postplatz in Vaduz: Fig. 6.8 During construction: Fig. 6.9 Plan (Weilacher 2001, p226)

Process features little in these works of Cramer's other than the slight role that the works invite from people for their process of participating, and the process of imagining. Aspects of duration, whether ephemeral effects or the long enduring, also are limited.

Dan Kiley

In1936 Dan Kiley was enrolled at Harvard for a year where he met Garrett Eckbo and James Rose (Bleam 2009, p81). Later, while working at the US Housing Authority in Washington DC as Associate Town Planning Architect, he met and forged an enduring working relationship with Eero Saarinen (Hilderbrand 1999, p71).

Kiley's office opened in 1940, although it was while serving in the Army Corps of Engineers between 1942 and 1944 that he worked with Saarinen on the new parliament building in Quito, Ecuador (Bleam 2009). After Saarinen's departure, Kiley succeeded him, working as architect on the Nuremburg Trials Courtroom in Germany (ibid). That role involved visiting

Europe; and here his 'exposure to Le Notre's work - its simplicity, clarity of geometric order, and restraint' were instrumental in his design development (ibid p83). During his mature work as a landscape architect, Kiley worked with several major architects: Louis Kahn, I M Pei, Kevin Roche, Edward Larabee Barnes, Richard Meier, Harry Wolf and Eero Saarinen on many significant projects: Jefferson National Expansion Memorial, Dulles Airport, Dallas Art Museum, Rockefeller University, East Wing of the National Gallery, Fountain Place, Dallas, and Miller Garden among many more (Rainey & Treib 2009 p ix).

Kiley's post World War II work in Europe included travel opportunities to visit European landscapes (Kiley & Amidon 1999, p18). Here he discovered tools to 'reveal nature's power and create spaces of structural integrity' in the 'lines, allées and orchards/ bosques of trees, tapis verts and clipped hedges, canals, pools and fountains': and was inspired to employ them to be 'not about style of decoration but about articulation of space' (Kiley & Amidon 1999 p13). Beardsley (2009) offers greater insight by grouping formative influences. Kiley had referenced philosophical influences from Goethe and Jung: and from Emerson and Thoreau his thinking developed around 'nature as "man's ecological source"; and man's dependence on it (ibid p102, quoting Kiley). Its organisation then, such as he saw at Villandry in France was seen by Kiley as portraying a productive landscape (ibid). A further influence was Japanese housing design, in particular "its ordering of continuous interpenetrating spaces into a serviceable and unified whole" (ibid, quoting Kiley). These ordering forms were to become his design signature.

Prior to his time in Europe, Kiley had collaborated with James Rose and Garett Eckbo writing a series of essays for the Architectural Record in 1939 and 1940. The series was mostly written by Eckbo and Rose; Kiley's contributing essays have been contrasted to his colleagues' focus on expounding the modernist characteristics for landscape, as being comparatively 'intuitive' (Beardsley 2009, p100). Kiley's writing included 'commentary about the emotional and spiritual

dimensions of contact with nature', an 'expression of values', 'the poetic and the mysterious' (ibid p102 & p111).

The series of articles trail-blazed with modernist ideas, for instance, planting shifted its role from decorative to structural elements for dividing and organising spatial masses (Meyer 2009, p126). And arising from this spatial articulation, planting was attributed an experiential rather than a romantic role (ibid). Kiley's use of planting in this manner in the Miller garden is described in detail by Meyer (ibid p130). Similarly, Kiley avoided the customary naming of garden parts for their visual attributes such as 'overlook lawn' and 'vista', instead naming parts for their functions, and in this, Berrizbeitia surmises, is 'his rejection of a passive, visual engagement of the viewer with the landscape' (1999, p29-30).

"Functionalism is everything. It is how you live. It is need. The more visibly a need is expressed in design, the more poetic, because it is real" (ibid p31, quoting Kiley).

Kiley's authoritative focus and emphasis on spatial design is intimately involved with other key elements. He verbalised 'the articulation of space' as: 'The thing that is modern is space. You can't touch it, it is elusive but felt' (Kiley & Amidon 1999, p13, italics added). Here Kiley revealed that the effects of (his) spatial designs were not obvious, by which, I surmise, he meant not visually obvious: but that the effects were felt, elusively. As our senses of touch, smell, hearing would also be patent rather than illusive, perhaps he was referring to qualities 'reveal(ing) nature's power', being emotionally moving, 'poetic' and 'mysterious': and qualities that his contemporary designs aspired to convey in their kinaesthetic rhythms, prompted by the deliberate articulation of his tree planting. Beardsley (2009, p102 & p111) confirms these principles of Kiley's.

It is in reading the often referenced text of Kiley's 'walk in nature' that the three elements of 'elusive' space, rhythm and a spiritual contact with nature are all presented as existing in each other:

"The walk in nature is exciting and original, a fresh experience where you are going through a deep wood, maybe a grove of beech trees, then you come into

an open meadow and you walk up the hill and then you come into the sugar maples ----. You squeeze in between trunks, and it's always moving and changing spatially. It's dynamic. This is the thing that intrigued and excited me from the beginning" (Meyer 2009, p123, quoting Kiley).

Kiley (1982 p43) expanded on this in a panel discussion at a symposium of his work at the University of Virginia's School of Architecture:

What --- excites me now is the poetry of space, where space is continuous; where two-dimensional space gets broken down into a movement-dynamic movement that never ends, but extends to infinity. Movement that is ever continuous and elusive, like a maze. --- It's a mystic quality of space developed by the structural means that you have such as trees and other things.

Rhythm, mystic qualities, poetic qualities, a resonating movement through material components of landscape that never ends, many of which (grids, allées and so on, as outlined above) were formed by trees: these were the means by which his designs were, actually, about more than 'articulation of space' (Kiley quoted in Meyer 2009, p124): or to repeat above, a 'poetry of space'.

Grids were one of his favoured tree formations, which, in formalising a repeated rhythm in both orientations of ahead and sideways, is able to create a dynamic tempo. The visitor grasps the grid and expects all to be the same, same specie trees (for instance) at measured spaces; whereas, much more than in an avenue, every moment the frame changes, the grid 'dances'. For his design on the Third Block of Independence Mall, Kiley explains:

"My whole idea in the Third Block of Independence Mall was to set up a dynamism of this architectural grove so every step you take the trees' faces change and they keep moving, like a Vaserely painting. And the painters are trying to do that too. You're trying to get a vibration." (Treib 2009, p44 quoting Kiley from the First Annual Symposium on Landscape Architecture at the University of Virginia in 1982)

Kiley paid detailed attention to the sensations that he wanted his grids and allées of trees to give. Layered on to the flow of space, Kiley liked to arrange for

tension and release (ibid p44 & 59). That particular characteristic of contrasting tempo was not limited to grids. At the Henry Moore Sculpture Garden, Walker and Simo (1994, p170) note, 'the open space (was) more dynamic, first compressed by the ginkgos and then released and expanded below.'

Kiley's frequent mention of flow and rhythm was illustrated by many of his designs being 'more about a *flow* of articulated spaces' (Kiley and Amidon 1999, p22: italics added). The Chicago Art Institute South Garden is an example of several layers of different rhythms. The garden was designed by Kiley with a central grid of *Crataegus crusgalli* trees, parted in its middle to create space for a rectangular pool, and flanked on three sides by three differently arranged groups of *Gleditsia triacanthos*. A series of five steps leads to the garden from street level creating a series of thresholds, a preliminary to the contrast within. Kiley has verbalised his intention

to create a *drama*: to substantiate the *act of passing* by a grove of trees within the city, to *suddenly* find oneself before a long vista over a pool, to have one's eyes *arrested* (Kiley & Amidon 1999, p53: italics added)

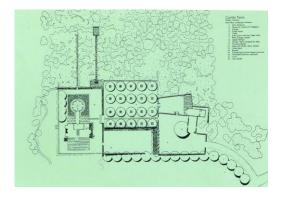
Kiley's description, above, has articulated (italicised text) the role of temporality in crafting his drama. He has choreographed some key rhythms. The 'act of passing' sounds habitual, performance at a regular pace; 'suddenly' changes the tempo; being 'arrested' has halted the habitual and transferred attention to being in the garden. Once in the garden, the six metre wide raised tree boxes offer seating on the marble coping (ibid p52). The central grid of hawthorns creates a rhythmic tempo. Treib (2009, p63) comments that while the garden is 'classical in tone', it has 'aberrant articulations'; from which he thinks Kiley has applied 'a dynamic sensibility that consciously avoided static equilibrium.'





The Chicago Institute South Garden - tension and release: Fig. 6.10 Axonometric view into garden: Fig. 6.11 Emphatic laterals, water plane & tree branching (Kiley & Amidon 1999, p48 & p53)

Kiley (1999, p54) has written about the integral importance of connectivity and transitions: 'without the revelation of transition, in a way the work is invisible.' The inference of this is that Kiley considered transition, and the impact of transition, to be crucially important. The suggestion here is that Kiley understood the invisible temporal nature of thresholds: that the spatial/ temporal proximity marking the change of passing from one area to another gives a frisson of heterochronicity. Transitions (presumably with well designed and crafted expression) are powerful places.





Currier Farm: Fig. 6.12 Plan: Fig. 6.13 Orchard approach (Kiley & Amidon 1999, p44, & p45)

At the Currier Farm in Vermont (1959), Kiley's design maintained continuity by foregrounding the apple orchard, its role making a transition from the entrance to the house (Kiley and Amidon 1999, p44). The path through the orchard is of marble slabs, set with grass joints, from an abandoned nearby marble quarry. The material connection of the property with its locality is reinforced again

through the design. Stepping from the orchard edge down to the house involves stepping over a channel of water. The water has collected from a mountain brook into a basin before being slowly moved to the channel and then released beyond the site.

For a short distance, a portion of the mountain's essence – the flowing water that springs from its veins and traces its topography – has been civilized, tamed and then let go as a feral agent on the weathering hillside (ibid p45).

The description from Kiley and Amidon's book (above) which expresses so well the connectivity of the water, also traces the stages of the water's process and its changing nature during that time.





Currier Farm 'hovering' and 'releasing': Fig. 6.14 Threshold steps showing water basin: Fig. 6.15 Threshold steps crossing mountain water (Kiley & Amidon 1999, p46 & p47)

These steps over the water channel from house to orchard negotiate a change in level corresponding to the height of the retaining dry stone wall. They are not built of the same material. Instead they juxtapose their white marble contemporary fashioning against traditional crafted stone walling. The structure is supported with a single hidden spine. Risers are absent, air showing between the treads. This threshold intentionally accentuates transition as

the marble pieces appear to hover in the air, releasing visitors for just a moment from the solid earth as they pass from one terrain to another (ibid p45).

The Miller House in Columbus, Indiana, was designed by modernist architect Eero Saarinen. Of steel and glass construction, the house was arranged with family bedrooms in separate quarters centred on an open living space (Dietsch 2000, p69). A terrace surrounded the house, on to which glass walls opened and the single storey projecting roof gave shade (ibid). The house and garden were integrated here. Kiley's design for the garden was undertaken and implemented between 1955 and 1957 (Meyer 2009, p118).





Miller Garden: Figs. 6.16 & 6.17 Views to garden from terrace (Kiley & Amidon 1999, p26 & p27)

The Miller Garden may be broadly divided into three parts of approximately equal size. On the western side is a woodland with a river running through it; between this and the house garden is a meadow. Meyer (2009, p136) describes the garden as having a perimeter hedge on three sides that wraps:

a house, a courtyard, three bosques, and a pool enclosure. Each figure is orthogonal and fits within an irregularly dimensioned grid. But none of the planted figures is centered on the center of the house or any of its columns. Each garden space is slightly shifted

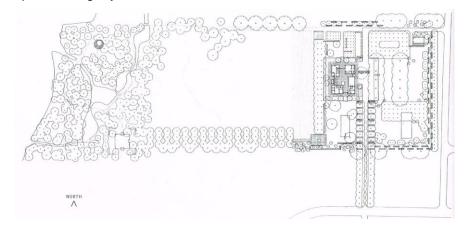


Fig. 6.18 Plan of Miller Garden including meadow and woodland (Rainey & Treib 2009, p80)

The clarity of the garden layout belied certain complexities. Walker & Simo (1994, p191) applaud that 'the spaces one moves through are clearly defined yet fluid, ever expanding outward from the house to the street and the river'. Hilderbrand's (1999, p74 & 71) analysis of the Miller Garden as 'a modern space imbued with transparency and complexity, and delicately balanced between tension and freedom', follows his estimation that the garden gave 'transparency - the phenomenon of seeing and experiencing fluidly across the boundaries between architecture and landscape'. He refers here to the internal structure of the demarcating trees; and to the perimeter hedge, which was planted in hit and miss sections. In addition to adding another layer of depth, the spaces between the front row of hedge sections invite exploration. They contain also the temporal characteristic of contrast or juxtaposition in making both a complete visual boundary *and* a permeable boundary.

Treib (2009, p66) takes up the theme of juxtaposition, noting that the main structural elements of 'the bosques, groves, allées - of apple orchard, redbuds, honey locust & horse chestnuts', each an emphatic part of the garden, are interwoven in such a way as to create a strong coherent whole:

Seemingly paradoxically, the knitted landscapes that result are dynamic rather than stagnant. Each of the elements seem to aspire to the classical ideal of cool stasis, yet adjustments to the position and the overlapping layer of soft vegetation animate the landscape's design (ibid).

Treib evaluates Kiley's design palette: his manner of masterfully arranging elements of overlaying, juxtaposing and 'transgressing', creating what he termed 'sites of slippage'. He esteems the above qualities as being those that raise Kiley's designs into 'landscape(s) of continuing engagement and elegance' (ibid p75). This confluence of overlaying and juxtaposing layers, qualities of temporality, is the significant design feature with which Treib demonstrates Kiley's exceptional exquisite work.

Meyer (2009, p138) has made a focused study of the canopy layers in the Miller Garden. She notes the 'staccato rhythm of spaces' in which the contrasting

adjacencies of light and dark canopies take their effect on densities of spatial enclosure. Kiley's articulation of the garden as 'formal, geometrically precise, volumetric' through his use of planting - trees in allées, rows, bosque and grove - were 'simultaneously embodied, experienced, perceptual and kinaesthetic' (ibid p137). Among Meyer's descriptive evocation of experiencing the distinctive qualities of each tree species in the garden is her comment on the emphasis of threshold. The horse chestnut allée of the entrance drive and the parking court throw especially dark shade, which, in contrast to arriving at the end of the allée, and the nearness of the light honey locusts, act as 'reinforcing the threshold by exaggerating the shade' (ibid, p138).



Fig. 6.19 Miller Garden: Boundary hedge sections, in distance (Rainey & Treib 2009, p95)



Fig. 6.20 Miller Garden: Light and shade effects (Kilev & Amidon 1999, p21)

Effects of light and shade (and consequent temperature) are aspects that are temporary in their brief though repeated durations. Meyer (ibid p138) notes the 'texturally interesting', ephemeral, light and shade effects from Kiley's species selection: the dark shade of the horse chestnuts contrasting with the lighter/yellower shade of honey locusts. The planting near the children's play court breaks loose from being of a series of trees with four distinct species, planted singly, or else in a small group: *Oxydendrum arboreum, Diospyros lotus, Syringa reticulata* and *Koelreuteria paniculata* (ibid p135). Each of these species gives something special; summer flowers, fragrance, autumn colour, fruit or long seed pods: aimed to appeal to how children might relate to

something out of the ordinary, and to the heightened seasonality that would become part of this garden.

Kiley (1999, p92) recognised some of these temporal characteristics that had become important in his designs:

by the late 1970's designs emerging from our office were crafted landscape encounters, constructed with layers of pattern, volume and time woven together. The result: the essence of infinity, the perpetration of nature's mystery.

Ernst Cramer's use of emphatic geometric shapes rendered emphatic tempos also. From the immobile fixedness of the Poet's Garden pyramids and the orthogonal slabs and column of the Theatre Garden to the dynamic curves, arcs or suggested volcanoes at Winterthur and Postplatz, each has a particular tempo throughout the design.

Dan Kiley made creative use of a design vocabulary of strongly geometric landscape features, trees organised into lines, allees, orchards and bosques, hedges, expansive pools, fountains and canals; culturally not disconnected from the organising vocabulary of productive landscapes. His tree grids forged variable tempos, tension and release; which his threshold places reinforced and re-articulated. Kiley's landscapes invited people to have illusive, or mystic and imaginative encounters. His goal of 'layers of pattern, volume and time woven together' (Kiley 1999, p92) was about more than a landscape's physical form.

CHAPTER 7. DECADE 1965-1975

Contextual background for the decade 1965-1975

Urban development continued to accelerate in the 1960s and 1970s with extensive motorway developments driving rationalisation and demolition in city centres (Hirsch 2006, p2). The new buildings replacing the old, 'homogenous high-rises', were developments that came to be thought of as 'evils of urban renewal' (ibid): and the landscapes 'an affront' (Tregay 1984, p59). This displacing of urban life was exacerbated by 'systematic gentrification', effecting a 'political, economic, cultural and geographical' polarisation in cities (Smith 1996 p6-7). These urban upheavals offered opportunities for landscape architects to make improvements to cities' liveability and civic pleasure (Gragg 2009, p6).

Social uses and expectations of green spaces were beginning to change. In the USA from 1965 onwards, park typologies were broadening from being simply recreation and sport facilities to also providing adventure playgrounds and urban respite.

Paley Park, built from 1965-1968, was the first vest pocket park the size of a single building footprint, on a busy street in New York: its success gave recognition to the importance for cities to have more, and more varied, public spaces and green spaces (Cranz 1991, p121).

In Europe and the USA, the 1970's marked a shift away from public provision with a rise of private investment for individual interest (Worpole 2000, p129-131: Kern1979, p106). Particularly marked in the USA, this withdrawal of tax dollars from city centres and their public life was a focus of G.K. Galbraith's *The Affluent Society* (1958), and *The New Industrial State* (1967); and prompted his axiom 'private wealth, public squalor'. Charles Jencks termed this trend as 'instant blight' (Worpole 2000, p129-131).

Concepts and priorities around ecology were changing. From the early 1970s there was 'a quiet revolution' in several European countries, instigated by some landscape architects and 'practically-minded ecologists and conservationists'

who, in response to the demoralising housing landscapes and a general upsurge in interest in conservation and wildlife issues, took different, ecologically sustainable approaches (Tregay 1984, p59).

The first United Nations Conference on the Environment in Europe (Stockholm 1972) passed the Environment Action Programme (EAP). The EAP established the argument of the mutual interdependence of economic development, prosperity and the protection of the environment (Hey, undated). The Ramsar Convention, an international agreement signed in Ramsar, Iran, in 1971 and ratified in the UK in 1975, enacted intergovernmental legislation to preserve wetland habitats. In the USA a National Environment Policy Act, passed in 1969, established procedural requirements for development projects to ensure environmental protection. Stewardship of the environment was reaching policy and legislation.

However, despite a growing awareness of and interest in the environment and the ecological science, the discipline was still a peripheral novelty to mainstream landscape work (Woudstra 2004, p36). In the field of ecological science, a new concept of ecology was emerging; one that also improved the workability of ecological projects in urban environments. 'Nature', perennially realised for its cyclical patterns returning to a steady state, was becoming understood for its dynamic changes, in which disturbance effected changes that did not return the landscape to its previous state (Hill 2005, p142). By the 1980's ecosystem was the new concept: nature understood as evolving, dynamic, and unpredictable. Disturbance was becoming accepted as unexceptional and the consequences of human behaviour were seen as part of this, a part that had necessarily to be factored to the design approach (Meyer 2008, p20: Cook 2000, p121: Wu 2002, p362: Lister 2007, p41).

Lawrence Halprin, Geoffrey Jellicoe and Sven Ingvar Andersson each worked with their individual design philosophies. Their responses around 'nature' in their designed landscapes are reflective of ideas of this time. A possible mutual element is a democratic outlook in the social use of public space, landscape for a contemporary civic life. And this opens out, in considering people and individuals, into designing for phenomenological responses.

Lawrence Halprin

Before joining Thomas Church's practice in California, Lawrence Halprin had studied landscape architecture at Harvard during the time of Walter Gropius and Christopher Tunnard. Hirsch (2007) conjectures that Halprin's claim to have been very influenced by Tunnard's book, *Gardens in the Modern Landscape*, reissued in 1948, would have impressed on Halprin that beauty, derived from utility, was 'functional, empathic, artistic': and that 'artistic form "should arouse our curiosity, should emphasize some aspect of Nature which will set spinning the wheels of conjecture or fancy" (p261-262) quoting Tunnard).

While at Church's office, Halprin was a leading contributor to the design of the iconic Donnell garden (Olin 2012, p140). In 1949 he set up his own office, with a focus at that time on private gardens; three hundred private gardens were designed over the next twelve years (ibid). His great public realm works followed. Preliminary design work began on The Sea Ranch, California in 1963 (John-Alder 2012, p53). The late 1960s saw work completed on Heritage Park, Fort Worth, Texas, and on the fountain square sequence in Portland, Oregon (begun in 1965 and completed in 1971) which comprised three linked spaces: Forecourt Fountain (now called Lovejoy Plaza), Pettigrove Park and Auditorium Forecourt (now called Ira's Fountain after Ira Keller) (Olin 2012, p140). Skyline Park in Denver followed in the early 1970s and also Freeway Park in Seattle (Hirsch 2006). The range of public works included commercial and institutional projects, residences and national parks, highways and urban civic spaces and parks (Olin 2012, p140).

Much of Halprin's work was innovative, ranging from pioneering re-use of industrial buildings in the Ghiardelli project, San Francisco; making bespoke designs of street furniture such as bollards, gratings, furniture, lights, kiosks; and envisioning a plaza-as-fountain/ fountain-as-plaza in Portland (Olin 2012, p142-150: Treib 2012, p22). The Portland sequence – Lovejoy Plaza, Pettygrove Park, Forecourt Fountain (later Ira's Fountain) and the Source Fountain – introduced new and radical ideas for public space in the USA (Gragg 2009, p6). Halprin's design adhered to its brief for scale, permanence,

loveliness and artistic excellence by producing iconic and playful landscapes which attracted huge numbers of people (ibid p7-10). Such innovation was not produced from a goal for innovation itself but from a set of principles searching for their means of expression. Beardsley (2009, p28-29) quotes Halprin's reaction to modern development, a "nightmare community", a place of "faceless, nameless, surrealist horror". We can remind ourselves of the massive 'post-war orgy of highway construction' that was tearing through so many American cities (Tate 2001, p19).

The background to Halprin's principles of engagement and interaction developed in the context of, and as a reaction against, massive urban development and changing urban lifestyles removed from nature. His thinking and sensibilities responded, driving his interest in an ecology of movement and process, one that 'encompassed humans in addition to the rest of the biotic community' (Beardsley 2009, p28).

Process was a fundamental part of the holistic, ecological system approach to which Halprin subscribed. John-Alder (2012, p53) describes his allencompassing view of ecology as 'the relationship of an organism to its environment, including all other organisms in that environment.' Howett (1998, p89) outlines what Halprin called his '"ecological attitude" as that which included 'natural, cultural and aesthetic forces': and which he understood, in the new currency of that time, to be 'open to unpredictable, nonlinear, fundamental change.' This developed into working not with a set of formal spatial principles but with an ecology of form that generated dynamism and process (John-Alder 2014, p61). Condon (1988, p8-9) links this feature of movement and process in Halprin's work with a Cubist 'space/ time' design canon; in this instance of 'the free-flowing interpenetration of space, and the environmental change of experience and space over time.'

Process featured in Halprin's design concepts (such as the process of water moving down canyons) (Halprin 1989, p65: Spirn 1988, p120); of the future, ongoing process of alterations to the designed space, socially and ecologically (Howett 1998, p89: Hirsch 2006, p49); and the experiential processes of site users (Beardsley 2009, p32-33). Movement was instrumental to Halprin's design and was bound up in process and time. Olin (2012, p162) relates a

conference in 1991 at which Halprin was talking about Jungian notions of people's common experiences, 'sex, food, love and sequences of bodily movement - of entry, processional and arrival'. Yet Halprin went on to negate the inference that a design should therefore be of a generic 'image', instead attributing the greatest role to process: "It is about time, not space --- if one moves differently through space in time it is very different" (ibid, Olin quoting Halprin). Halprin's principle of a multi-faceted, multi-sensory and holistic ecological design (Halprin 1989, p62) led to his foregrounding humanist qualities over spatial principles: 'the real issue in design is in no way linked to either volumetric or cubist spaces' (Halprin 1988, p151).

A major stimulus towards the design principle of movement and process was his wife Anna's professional practice of dance choreography (Beardsley 2009 p32). Halprin's kinaesthetic theories of a spontaneous, free-spirited performance were inspired by Anna's choreography (Howett 1998, p89: Halprin 1989, p62). Hirsch (2007, p262-263) quotes Halprin from an article published in 1949 'The Choreography of Gardens' in which he wrote about the crucial role of rhythmic coherence in a garden design (articulating again his focus away from purely spatial concerns):

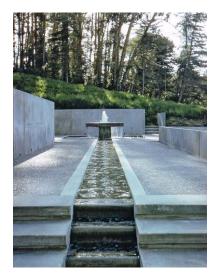
movement activities (in) the garden can influence our lives tremendously. If it flows easily in interesting patterns of terraces and paths, varying its texture of paving underfoot, and its foliage backgrounds, and fences, all rhythmically united, then it can influence people's movement patterns through its spaces taking on the fine sense of a dance (ibid p262).

Elaborating, Hirsch (2007, p266) attributes to his knowledge of dance Halprin's sensitivity to flooring textures underfoot, physical sensations, light and shade, atmosphere and mood: his particular sensitivity

to transitions and sequence, often creating processional schemes to be experienced as an unfolding of changing opportunities. He was constantly concerned with how his sites would invite environmental engagement and awareness. --- Steps and other features would entice movement up or down and open up new prospects.

This was a recognition of the temporal, somatic, impact to a visitor of, firstly, their movement, and secondly, of a visitor's empathetic understanding of that effect. These were important parts of Halprin's design principles by which, incorporating humans into nature, and understanding natural processes as spontaneous, the act of designing became a process that was anticipated to continue evolving.

Lawrence and Anna Halprin made collective explorations (of workshops, of Gestalt) around the mutual characteristics of their respective arts. Landscape project 'Take Part' workshops were guided explorations: the process was intended to bring public endorsement to Halprin & Associates' design aims as well as to add participants' local information into the design (Hirsch 2012, p131). It seems that these two or three day sessions functioned something like a semi-improvised dance rehearsal session, optimising the creative energy of the group by interacting with the site in a way that went beyond routine behaviours (ibid, p119-121: Hester 2012, p137). A consensus plan was the desired outcome (ibid). Hirsch argues that Halprin remained convinced of the veracity of the universality of the human condition and was not willing to acknowledge the pluralism of 'multiple publics and endless pluralities of experience' (ibid, p132).



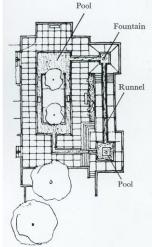




Fig. 7.1 McIntyre Garden: Fountain & runnel (Halprin 2011, p107)

McIntyre Garden: Fig. 7.2 Plan: Fig. 7.3 Central island terrace (Kassler 1984, p25 & p25)

The McIntyre Garden, a private garden in Hillsborough, California was completed in 1961, for clients who had expressed their penchant for Spanish

gardens (Halprin 2011, p106). Halprin aimed to evoke rather than imitate the look of a Spanish garden (Olin 2012, p140). Olin assesses it as a 'meditation upon the Mediterranean Islamic garden tradition with its runnels, cascades, basins, and formal sequences of terraces, plants and walls' (ibid). The role of imagination is being invoked in this understanding of the garden's effect. This approach presages what Halprin would develop into his concept of 'experiential equivalency' (which only developed fully after his transformational trip to the High Sierras (Ross 2009, p16)): that the experience of moving through the spaces of the garden, of containment and openness, sounds of variously moving water, and of trees (and so on) would be prompts to remembering, or imagining, a Spanish garden.

The terraces in the McIntyre garden were backed with a seven foot high wall retaining the surrounding woodland belt. Inside the perimeter walls, an internal wall was placed sufficiently high to obscure one of the water channels, so that the water would be heard prior to being seen (Halprin 2011, p106). Beyond the terrace boundary walls were plantings of seventy to eighty foot high eucalyptus trees. The design elegantly dispensed with extraneous features. The articulated process of steps, which, combined with the water flow, placed an emphasis on water for its human use and simultaneously on water in its course of journey, expresses something about humankind's historical use of water and of the concept of journey flows. Sound would come to the experiential foreground: of the water splashing from a fountain, running through stone setts, cascading down steps; and of the eucalyptus leaves taking up any breeze; of insect and birdlife in the trees. There is the balanced tension between the main 'characters' of the central island within the pool and of the peripheral belt of tree planting; the intervening hard paving holding horizontal lines of the walls, their several orthogonal angled paths expressing a sympathy with the verticality of the trees.

Some similarity may be found with Richard Haag's Bloedel Reserve Reflection Garden, though the McIntyre Garden predates it by some years. It had received attention in Elizabeth Kassler's 1964 book *Modern Gardens in the Landscape* as well as in the Jellicoe's 1968 book *Modern Private Gardens in England and the USA* (Olin 2012, p140). Halprin (2011, p106) himself expressed his sentiment that this garden marked 'new directions' for him.



Fig. 7.4 Freeway Park crossing Interstate 5 (Tate 2001, p17)



Fig. 7.5 Freeway Park, cantilevered boxed garden across Interstate 5 (Hirsch 2006, p68)

Freeway Park in Seattle came about through the determined action of the Forward Thrust Program lobbying to corral funding. The objective was to mitigate the extensive incision that the newly built Interstate 5 had made through Seattle city. Halprin had gained a reputation from his design of the fountain square sequence in Portland. Ada Huxtable's article in the New York Times on the opening of Auditorium Forecourt Fountain cited it as radical renascent work 'designed solely to foster civic joy' (Gragg 2009, p6). Halprin's commission for Freeway Park produced a park built in three phases in the 1970s and 1980s (Tate 2001 p17-19). The park was extended northwards and eastwards as additional developments were made, so that, by its final phase, the park spanned four hundred and sixty metres of the freeway's length (ibid).

Freeway Park consisted of several plazas, with planted walkway links. The most dramatic was Central Plaza, which featured the cascade fountain and the canyon fountain, both designed as interactive water installations drowning the sound of traffic. The latter was reminiscent of a canyon dropping ten metres to the floor below. Angela Danadjieva was lead designer from Halprin & Associates: the later extensions to the park, the Pigott Corridor and the Convention Center were designed by her after she left the firm and had set up her own company, Danadjieva and Koenig (Hirsch 2006).

Tate (2001, p19) considered that Freeway Park marked the beginning of the urban revival in the USA, in terms of addressing some of the damage done by devastating highway developments. The importance of the commission was

acknowledged with Halprin & Associates forming ambitions that the park would be an 'energizing element' in Seattle's cityscape and that it would presage further landscape linkages (Hirsch 2006, p81-82).

A description of moving through Freeway Park by Angela Danadjieva, quoted in Robertson (2012, p82), shows the intended conceptual link of movement and emotion, as recorded by an office memo:

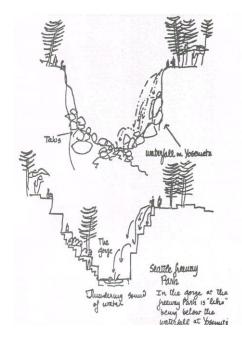
The existing environment of the proposed park is most dynamic: motion is its characteristic. This setting gives us the opportunity to create different emotional perceptions for the park. --- A different emotional effect can be obtained if we work with similar elements to set against the surrounding dynamism a new dynamic, and in particular, to set against the noisy freeway traffic a dramatic splashing water cascade. Both of these approaches could form an appealing effect that can be the emotional accent of certain areas --- The strength of appeal of these various emotional experiences to the visitor will depend on the successful arrangement of the different elements throughout the plaza. The variation in the distance between viewer and object of interest also can help achieve these many experiences. Tight areas with close-up views can be used in attaining a dramatic feeling (for example, standing in a narrow canyon with water splashing around the viewer).

The design thus aims to calibrate rhythm and responses with alternating sequences; to modulate views in terms of movement – which is understood as affecting mood and emotion. There is awareness expressed by Danadjieva of physiological design and its affective power. Primarily, as 'motion is (the park's) characteristic' in which there is 'surrounding dynamism', tempo and its somatic impact is a major feature of the temporality that is working here.

The articulation of spaces for movement was seen as belonging to the hardscape. Plants were to be subsidiary as 'muted backdrop': they took a supporting role for the 'stage settings' and were not supposed to be pretty or, one surmises, attract too much attention (Robertson 2012, p97).







Figs. 7.6 & 7.7 Central Plaza Canyon Fountain: Two views. (Hirsch 2006, p71)

Fig. 7.8 Halprin's comparative sketch of the gorge in Freeway Park, and a waterfall at Yosemite. The text reads, 'In the gorge at Freeway Park is "like" being below the waterfall at Yosemite' (Halprin 1989, p63)

The Canyon Fountain gorge of Freeway Park is illustrative of what Halprin articulates in *The Sketchbooks*, his concept of "experiential equivalency"; designing environments to provide experiences which go beyond visual design and search for basic human needs" (Hirsch 2007, p262, quoting Halprin). The concrete fabrication of the 'canyon' makes no pretence to be rock, neither in form nor texture; but it aims, as Danadjieva expressed, to offer the sense and emotional effect of being in a gorge. This illustrates an opening out, on behalf of the designer and the design, to the movements within and between visitors in their perceptions and experiences. Whether, or by how much, site users felt these designs prompting their imaginative associations of, for example, a Yosemite waterfall can only be surmised. I suggest that almost certainly imaginations would have some role.

The Sea Ranch: Fig. 6.9 (below) Halprin's sketch of aerodynamic houses: Fig. 6.10 (right) part of the built site (John-Alder 2012, p62 & p63)





The Sea Ranch had no need to find experiential equivalency, it could offer landscape itself. A five thousand acre private development in Sonoma County, California (Olin 2012, p145), on which preliminary design work was undertaken from 1963, The Sea Ranch became known for its integrity with the landscape (Douglas 2008, p316). The work here illustrates Halprin's comprehensive understanding of ecology. His approach included working with the naturalist Richard Reynolds who produced detailed ecological information on the flora and fauna, hydrology, topography and wind for the design team (Treib 2012, p25: John-Alder 2012, p56-57). Combining this with cultural and aesthetic considerations, a plan developed to not build on the sweeping pastures; to cluster houses by hedges and around courtyards; to constrain any ornamental gardens and car parking away from sightlines; to screen an athletic club behind an earth berm; and to plant with native meadows and Bishop pines (Treib 2012, p25).

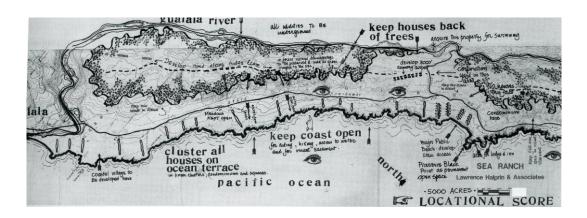


Fig. 6.11 The Sea Ranch Halprin & Associates Plan response to the Ecoscore (John-Alder 2012, p63)

Halprin had created 'Ecoscore' as a conceptual tool for design development, which graphically and succinctly collated survey information on the aspects of flora and fauna, climate, site culture and human social history including information from community engagement (John-Alder 2012, p70). Ecoscore made a diagram for the development to be open growth without linear hierarchy. Halprin found this a useful alternative to traditional, explicit and prescriptive design, as ecoscores allowed him to conceptualise a site's processes of environmental 'uncertainty, creativity, and spatio-temporal complexity' (Lystra 2014, p78).

The 'eco-score' for The Sea Ranch provided a design whose 'key' became responsiveness to wind and views, both of the landscape and for the experience of them (Olin 2012, p146). The wind-sculpting of the landscape had led to a pragmatic and aesthetically fitted form for the landscape vision (John-Alder 2012, p68). Hunkered down buildings would be populated by people, who it was hoped, understood the rigours and harshness of the landscape, and whom Halprin trusted would become 'a unique community immersed in nature' (Douglas 2008, p316). This immersion suggests a period of time in, a duration in, nature. It references Halprin's thoughts on the transformational potential of environments; a process of transformation by experiencing. Halprin (1989 p64) described the spiritual effect to which his designs aspired:

remarkably transformational environments --- release in people something that is inherent inside them, something that is already there --- These environments speak to us at a basic, human, archetypical level, revealing to us our latent human and spiritual values.

'Immersion', transforming, releasing, revealing, latency – all these have meanings that describe a state of being in a stage of its process: ongoing, active experiencing, for which he aspired that his landscapes would create 'experiential equivalency'.

Halprin's design approach has taken temporality in to the heart of the design: design-as-process, spontaneity, unfolding, movement and rhythmic coherence,

rhythm, dynamism and change. He brought these principles to bear in expressive designs that emphasised 'movement, non-static viewpoints, choreographing experiences, and fluidity' (Halprin 1988, p151).

Halprin expressed an expectation that landscape should be the interface of 'transformational' design with its human participants, to unlock in them the potential to reach a higher level. Olin (2012 p156) names movement as his tool for this unlocking. But this surely fails to fully characterise Halprin's toolbox. Temporality (notably characteristics within tempo, process, duration and imagination), which encompasses many of Halprin's central design values including movement, is a closer nominee as his central 'tool'.

Geoffrey Jellicoe

Geoffrey Jellicoe's career spanned more than six decades from the late 1920's working as architect, town planner and landscape architect (Spens 1994). His selection here for the decade 1965 -1975 is at a mid point in his career; moreover ideas current at this time continued to be the strongest influences through his later projects.

Jellicoe's first book (followed by many others) was published in 1925 with Jock Shepherd of their study, *Italian Gardens of the Renaissance*. This subject was indicative of his knowledge and interest in classical design; such that he has been called 'a Classicist-Modernist' (Spens 1994, p206).

He had a deep and committed interest in Modern art. On meeting his client, Stanley Seeger, during initial discussion for his future commission (1980-1986) at the classical Tudor manor house Sutton Place, and being surrounded by Seeger's art which included pieces by Henry Moore, Ben Nicholson, Monet and Graham Sutherland, Jellicoe described the situation in which he

"realised within a few minutes that Stanley Seeger and I were on the same wavelength in thinking that landscape art should be a continuum of the past, present and future, and should contain within it the seeds of abstract ideas as well as having figurative meaning" (Spens 1994, quoting Jellicoe, p161).

The sentiments expressed here are a hallmark of Jellicoe's work: a historical perspective on time carrying forward to the future: a search for meaning in ways not immediately visible and comprehensible, though not forsaking classic figurative conventions. Thompson (1994, p2) quotes Jellicoe setting an imperative to "make landscape as meaningful as painting": which Thompson (ibid, p2) understands as being 'inextricably bound up with his Modernism'. This was not a minimal functionalist approach, but one that explored the modern (at that time) Jungian notions of the sub-conscious in which, "the eye was subdued and even eliminated in order that the instincts should predominate. This is the basis of abstract art" (ibid, quoting Jellicoe, p2).

Jellicoe's landscape commissions were frequently large and prestigious. These included the landscape for the Cheddar Gorge visitor centre, the Kennedy memorial at Runnymede, Ditchley Park, the Royal Lodge Windsor Great Park, Mottisfont Abbey, St Paul's Walden, Shute House, Sutton Place, the Moody Gardens Texas, to name only a few. The breadth of commissions included town plans for Guildford, and for Hemel Hempstead New Town, many local authority projects, and a number of industrial landscapes, Hope Cement Works, and colliery and glass works projects (Spens 1994).

Jellicoe's work at Shute House extended from 1973 to 1993, the major works being completed between 1975 and 1980, with an additional commission from the new owners in 1993 (Spens1994, p105). Jellicoe (1991, p127) described the Shute commission as 'the laboratory of ideas' in which his clients Michael and Anne Tree 'pioneer(ed)' with him 'in an instinctive search for what (he) now recognize(d) to be a fundamental Jungian archetype'. He worked to include symbolic elements that were designed to stir suggestions and associations in a visitor's subconscious, and which then 'allowed the unconscious to inform the conscious of universal truths' (Jacques 2000, p96).

At Shute House, water was Jellicoe's major feature for historical presences spanning two millennia:

"There was never any doubt that it was the thought, presence, action, and sound of water that was holding together the competing ideas that had been introduced into the woodlands – ideas remotely associated with Islam, Greece, the Middle

Ages, the primeval, and other times and cultures" (Spens 1994, p106 quoting Jellicoe)

It is at Shute that Jellicoe's historic perspective elides with his Jungian beliefs of humankind's developmental layers from primeval *rock and water* to progressed *voyager*. He had spoken about the hierarchical layers of the psyche, in relation to his landscape design, in the introduction to his Guelph lectures (Thompson 1994, p4). In the Shute House plan text (below), Jellicoe has named the spring that starts the 'evolution of the waterscape' as 'primaeval, perpetual': after setting historical dates against the intervening water features, his culminating additional pool 'H', paired with the fish pond across a track, is named as 'pool to complete water frame of view across valley to ancient Ridgeway'. He hints that this might achieve the 'Voyager' layer of 'uppermost transparency', an inner journey of realisation, in his description of this part of the garden as 'a unity of earth and sky' (Spens 1994, p106). For Jellicoe, his fascination with the colocation of the several historic presences, and with enduring qualities, at Shute gained potency for him by conjoining Jungian layers of significance.

The text in the plan of Shute House garden reads:

Evolution of the Waterscape: A – Primaeval, perpetual spring at highest point/ $B-19^{th}$ century pool cum canal where waters divide east to twin grottoes north and south, west to/ $C-19^{th}$ century with cascades (rustic) before and after/ D-1971 rill with cascades and bubble fountains/ E origin unknown water garden 1971/F-1986 connecting pool/ G- mediaeval, probably fishponds/ reservoirs linked by ancient public rights of way/ H- pool to complete water frame of view across valley to ancient Ridgeway

Jellicoe's design worked to make the watery elements legible. He proceeded to describe a route through the garden, the process of journey, starting from the spring at the highest level from which two routes transpired: one (via canal and rill) that he described as classical; the other (via the lower pool and temple) romantic (Spens 1994, p121). He proceeded to the apple porch; the rill with its harmonic chord of treble, alto, tenor, bass; to canal; to temple, glimpsing 'the garden across water. You emerge beside a lower lake and plunge immediately into a green tunnel' (ibid, p116). Finally arriving at the stone-bog garden where

'the long journey in time ends' (ibid p118). Jellicoe's description, too long to quote in full here, tends towards the experiential effects of the garden. His intention would seem to be for these experiences to have an immersive physiological effect, which, by backgrounding the intellect, would release subconscious realisations from symbolic elements that the design nurtured.

Thompson (1994, p5) quotes Jellicoe from his fourth Guelph lecture, in which he said that "the highest objective in the creation of landscape as art" is "to project into the environment the whole and not merely part of the mind of man" (italics added). While Thompson is investigating Jellicoe's thinking as regards the relationship between art, landscape design and the subconscious, I would like to suggest a different supposition. Another designer may have engaged their visitors' minds in a similar way as regards the individual's freedom to make their own interpretations and associations and for these to shift and grow. Bernard Lassus for instance, invokes imagination with its transportation away into perceptually different temporal realities. The moot point regarding Jellicoe's work is that we are left in great uncertainty about any real effectiveness from his application of symbols to awaken realisations from our subconscious. Jacques (2000, p97), quoting Jellicoe's assertion that a person would be struck some days after visiting into realising the significance of something that had been locked in their subconscious, broods on this unknowable effect. Thompson (1994, p15) similarly wonders about any real effect, in the context of deficiency of evidence.

Jellicoe felt it imperative to find a way to design more than physical "seemliness"; to design meaningfully; and to reach out to a universal humankind (Thompson 1994, p4 quoting Jellicoe). Good looks were not enough, not for art, nor for landscape designs. In my investigation into whether and/ or how Jellicoe used temporality in his designs, we can look to his method of working. He invoked our (guided) minds, accepting of change and movement in them; and that quality of change, being intrinsically temporal, illustrates a deliberate temporality as part of Jellicoe's designs. Moreover, Jellicoe's conviction of a universal understanding (even if completely unknowably 'subconscious') of Jungian symbols, invites reinterpretation. In the circumstance of nil Jungian response to these symbols, and with recognition that these

'symbols' lack widespread, cultural understanding, there may be a suggestion that imaginative responses, nonetheless, found the design appealing.

Among Jellicoe's writings, in volume three of his Studies in Landscape Design (1970) is a chapter entitled *The 'Movement' Movement in Art and Landscape*. In this chapter he explores the kinetic aspects of constructivist art, noting that 'one of the most important' precepts of the constructivist movement is that 'space and time constitute the backbone of the constructivist arts' (p107). His quote (ibid, p105) of George Rickey's definition of kinetic work as one that 'moves itself, changing the space relations of the parts --- a dominant theme' is clearly transferable to, for instance, his Magritte Walk at Sutton Place in which the outsized urns along the tapering avenue would be sufficient to cause a perceptual wobble in the visitor and change the space/ time relations of the avenue experience. Jellicoe proceeds to draw a similarity between kinetic art and the imaginary. The imaginary movement, he writes 'is as old as architecture itself' (ibid p109). Jellicoe's use of the word imaginary here should be retained since it links with his thinking on the subconscious. It appears however that he may have meant phenomenological or understood movement, as he goes on to write that two causes for this 'imaginary movement' are, 'repetition or rhythm, the basis of all geometric form; and flow, the energy-giving power of curve upon counter-curve' (ibid p109-110). Jellicoe has rightly connected the physical sensations that a person feels with having some effect on the person's experience; and in this sense, his understanding of movement is part of the several aspects of temporality that this work discusses.

Both Sutton Place and Shute House had designs for water features as a series of small pools, fountains and cascades. At Sutton Place the avenue of fountains was never built although the plan for it had reached a finished stage. It is possible to imagine not the sound of a single fountain, but the sound from the whole line, subdued distant water sounds underlying closer and louder cascading waters; their notes creating an auditory multi-dimensional ensemble: an auditory/ visual experience of unfolding.

Sutton Place was among Jellicoe's later commissions. The sixteenth century house showed parts of its original landscape in remnants of the hunting park, a

walled kitchen garden and the line of the axial entrance (Jellicoe 1991, p126). Early twentieth century gardens had been added. Jellicoe was commissioned in 1980, by 'sympathetic clients' to his Jungian design approach of aiming to engage equally with visitors' conscious and subconscious (Jellicoe 1991, p126).

The 1980 plan of the garden showed a Paradise Garden, a Moss Garden, a water cascade, a Music Room or theatre, a formal pool reflecting the Ben Nicholson Wall, the Magritte Walk, the walled kitchen garden and its balancing east walled garden, and the swimming pool or 'Miro Mirror' (Spens 1994, p164). Jellicoe worked with and extended the existing orthogonal axes to achieve the settling of the house in its landscape (ibid p158).

Jellicoe's description of the Sutton Place garden (Spens 1994) draws heavily on his Jungian design aims. After giving one example in his description of the lake design, I will muse further on connections with temporality. Jellicoe's description of the lake addition, apparently a decision of Seeger's, opened the Jungian substance of the design for Jellicoe so that it could become a "grand allegory of creation, life and aspiration" (ibid quoting Jellicoe, p161; original italics). Jellicoe states that this 'grand allegory' was 'unsuspected at the time', inferring that the subconscious was at work in the garden creators themselves (himself and Seeger in this instance), in prompting a fortuitous design resolution. This combined invoking of both conscious/ subconscious was reinforced by the lake, designed to be reminiscent of a fish and, he thought, fairly readily understood. Around the lake were three mounds, representative of man, woman and child, which only few people would recognise, and similarly few would understand as the 'analogy of the emergence of civilisation' (ibid, quoting Jellicoe, p162). Jellicoe's symbols are utilised to deliberately bypass the conscious mind, as he saw it, in order to stir not a single fixed response to a factual or accepted interpretation, but to stir internal movement in 'the whole --- of the mind of man' (Thompson 1994, p5 quoting Jellicoe).

From his consistent and repeated Jungian interpretation of his designs, one understands that this was, for Jellicoe, an enduring philosophy that underpinned his design rationale. In this there is a strong seam of temporality. The Jungian archetypes are understood to be an eternal human condition: and yet, one that

is open to change as each human being develops his/ her psyche. Responses to symbols in the landscape are expected to happen as a process over a number of days until understanding emerges to become integrated within the person. One could speculate that Jellicoe saw his landscape designs as enabling people's own internal process of development.

Sven-Ingvar Andersson

Sven-Ingvar Andersson was a practitioner and academic of landscape architecture. His teaching appointment at the Royal Danish Academy in Copenhagen in 1963 followed after that of Carl Theodore Sorensen whose work continued to influence him (Weilacher 1996, p158).

Fig. 7.12 Project for the Expo 1967 in Montreal: a labyrinthine garden sculpture of two metre high ellipses, grassed on top.
(Weilacher 1996, p167)



Andersson's completed projects increased significantly after his design for the 1967 Expo in Montreal (ibid p172). The Expo design was indicative of his attraction to using precise, yet non-standard oval shapes: they allow for a choreography of elegant dynamism; and for dramatic tension between the tense disciplined precision and the free-flowing arcing movements between the ovals (ibid p166). This concept of a background of fixedness that yet 'permit(ted) brilliant freedom' was taken through into his design at Marnas (Raxworthy 2011, quoting Andersson, p8).

In 1965 Andersson began his garden at his small weekend property, Marnas, by planting six hundred small hawthorns (Lund 1991, p42). The structure of the garden, the 'essential framework' (Spirn 1996, p193), was considered both

spatially and temporally. Temporally, processes of growth and change are a major feature of this garden in which 'form production' is given to 'the gardener rather than the designer' (Raxworthy 2011, p7). He had found that much of his professional work was "so static, but in my garden I have to react to growth and change" (Kingsbury 2014, p3, quoting Andersson).

I have to accept change and things I don't always like. --- to go against change is often difficult, so I struggle to turn it into something positive. My own garden is a study of time. --- This was the idea from the very beginning --- it will develop into a grove, after a hundred years it could be a sacred grove (ibid).

Imaginative involvement is another major aspect of the temporality here. Andersson has spoken about the importance of an integrated 'physical and mental sensitivity' in order to 'convey experiences that are authentic' (Weilacher 1996, p170). He has also spoken about 'the vitality of vegetation' and 'the dialogue between plants and space' (ibid p162). In the garden at Marnas, Andersson applied these principles, as the hawthorn plants demonstrated 'the autonomy of non-human actors and the impulse to create their stories' (Spirn 1996, p39). These relationships that Andersson structured for the vegetation are an invitation to listen to their 'dialogue' and engage one's imagination.



Elaborated framework: Marnas. (1976) (Sven-Ingvar Andersson)

Legend: (1) bonfires and sitting, (2) kitchen garden, (3) compost, (4) Beata's garden, (5) sun garden, (6) flower garden, (7) henyard, (8) tunnel arbor, (9) country road, (10) parking, (11) field, (12) outhouse and guest house, (13) old orchard with privet hedges, (14) patio, (15) house,

(16) meadow.

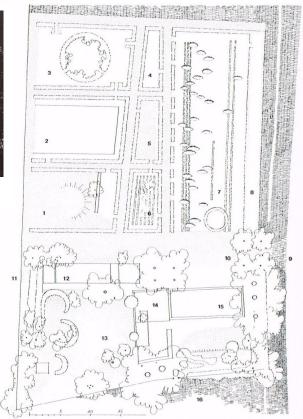


Fig. 7.13 (top left) Marnas Henyard with hedge hen among disobedient Allium running inside and outside of low clipped rounds Fig. 7.14 (right) Plan of Marnas (Spirn 1996, p190 & p194)

Hedging offered itself as a material malleable to a range of different treatments, resulting in very different hedge types and each making its own type of significant contribution. The 'hens' grew from eggs, that is, initially clipped as balls, then allowed to grow and stretch to suggest hens. More recently horns seem to be appearing, which, associated with Andersson's description of the pathways as labyrinthine, prompted Kingsbury to imagine the legendary minotaur (Kingsbury 2014, p3). The process of the hawthorn growth offered up a narrative whose temporality is central to the story of the garden. And in Andersson's long-sighted intentions there is a story of duration.

The hedging that was used to delineate the parts of the garden (see plan above) play with a person's expectation of time taken to cover a distance. Walking up between the bonfire/ sitting area and the flower garden (1 & 6 on plan), glancing to left at the length of the tunnel between the first area and the kitchen garden (1 & 2); and continuing up: the experience would be registered as orthogonal/parallel; but then confused by glancing to left down the next hedge tunnel (2 & 3) to find it seems slightly longer, wondering if it is actually different. And so the visitor is unbalanced and alerted to imagine more possibilities. Raxworthy (2011) compares the garden as depicted in earlier photographs and writings with that of his own visit in 2010. The differentiated hedge treatments create spaces of different characters rather than merely direct routes. Hedges are topped out on a single plane, resulting with heights varying from one to four metres down the sloping site (Lund 1991, p42: Weilacher 1996, p158). Some hedges are clipped close down their whole sides for full coverage, some cleared up the stems, some shaped as hens, some left unclipped on the outer side from the garden (Raxworthy 2011). The playful qualities of the garden were considered by Andersson (ibid p8). Marnas seems almost like a children's story, when the giant/ human is away the hedges can grow out and be their own wild character; while the visible hedges are tame and well behaved. The hens might come alive and do some growing; while the varying articulations of the hedge passages suggest habitations by visiting wildlife.

Marnas, for all its beginnings as six hundred small hawthorn plants and its modest size, demonstrates its intriguing complexity. One further layer of this complexity is Andersson's enjoyment of the idea for inverting the hierarchy between paths and enclosed spaces.

In the in-between spaces between the rectangles lie many other possibilities. One immediately experiences them as the garden's negative parts, --- as passages from the house out to the attractions and activities. But it could also be just the opposite: all the in-between spaces could be made into enclosed leafy passages. From the rectangles one could peek in at these wonders through openings in the hedges (ibid p8-9, quoting Andersson).

Andersson verbalises here his attraction to the idea of ambiguous spaces, or at least sufficiently ambiguous to be able to exchange their role of privileged place. Ambiguity, with its connection to uncertainty and openendedness, is a further temporal quality of this garden, even if Andersson only imagined its future manifestation by the process of growth.

Andersson emphasises the importance of the range of movements that a design suggests, energetic and still. His thinking on movement is not limited to external characteristics: in addressing the inseparability of people's physical and mental responses (Weilacher 1996, p170), he is acknowledging deeper kinaesthetic effects. His design for La Defense in Paris included a strip of white marble paving 'solely for the purpose of providing pedestrians with an aesthetic experience' (ibid p163). Andersson delighted in the way it had become appropriated by site users (ibid p163). With no destination, essentially extraneous, its anomalous nature roused people to move differently. Spirn (1996, p120-121) noticed walkers altering their route as they approached its line: children cycled up and down and up and down for an hour: two boy skaters set down cones for their slalom skating - all on the white marble.

Andersson focused his designs on layers of understanding: an understanding which included, but was not exclusive to, aesthetic experience; for which temporality was a vital component.

I do my best to work like Shakespeare. I try to bring out different levels in my projects. I want to make them easy to read, and I want to offer people something they can understand directly, something which perhaps even inspires them. These qualities go beyond artistic and aesthetic considerations. A garden should be such that it can be experienced over and over again --- and discover new aspects each time (Weilacher 1996 p163, quoting Andersson).

CHAPTER 8. DECADE 1975-1985

Contextual background for the decade 1975-1985

The condition of the urban environment provoked significant and fundamental reappraisals of place. The impact of Jane Jacobs' book *The Death and Life of Great American Cities*, published in 1961, continued to reverberate. The destruction of the Pruitt-Igoe housing project in 1972 was a vivid and conspicuous admission of failure to provide, and to know how to provide, mass housing in cities. Importantly, this signalled new approaches. Yi-fu Tuan's *Topophilia: a study of environmental perception, attitudes, and values* was published in 1974. William H. Whyte's *The Social Life of Small Urban Spaces* was published in1980. Both books influenced thinking about place and its social uses.

An influential theory about landscape preferences was developed by Jay Appleton, sympathetic to ideas around the role of the subconscious. His book *The Experience of Landscape*, which was published in 1975, expounded ideas regarding people's instinctive landscape preferences. What became known as biological aesthetics was given theoretical justification based on human's innate responses to landscape features that offered advantageous survival.

And in 1976 Edward Relph's book *Place and Placelessness* was published and was due to become another classic with influence across professions. Relph probed the proliferation of placelessness, the heterogeneity of spaces catering to mass cultures of many kinds: and offered a guide to better place-making. There was a burgeoning awareness of the social significance of place, and of place as a significant discourse.

The economic crisis of 1973 was attributed by Harvey as the catalyst, in which "the relationship between art and society was sufficiently shaken to allow postmodernism to become both accepted and institutionalized" (Knox 1991, p183-184). With this 'new postmodern sensibility' there came an increased importance of design in the material culture of the middle classes'; an aestheticization of consumption with a host of urban corollaries (ibid).

Environmental concerns both in the UK and USA, directed landscape design commissions increasingly towards environmental issues (Spirn 2000, p104: Healey & Shaw 1993). Ian McHarg's seminal book *Design With Nature* had been published in 1969. Despite his influence in landscape education in the States, his systems approach to design, in which he used an 'ecological inventory' for a full site understanding of its climate, geology, hydrology, soils, vegetation and wildlife, invited commissions that remained mainly within the sphere of planning rather than design (Spirn 200, p107).

In the UK ecological planting had found considerable support with the work of landscape academics such as Alan Ruff. He had aligned ecological planting with responsiveness from landscape users, improved appeal and changed aesthetics (Thompson 1998, p187). He had made the case for acceptance of landscape's ecological processes and changes, thereby demonstrating an effective low investment, high return landscape typology (ibid). Environmental awareness continued to grow: realisation of global warming broadened landscape responses in the profession, changing the emphasis from environmental ecology toward sustainable development; a term first coined in 1980 (Thompson 1998, p189). However, as Worpole (2000, p140) notes, the increasingly specialised profession of ecology became distanced from landscape architecture. Sustainability begins to assume the primary focus for environmental consciences.

I would suggest three main currents of this period are: the importance of place, healing the landscape, and meaning. Each of these has a number of temporal implications.

Some projects demonstrated a convergence of place specificity and sustainability. Wilson (1992, p103) comments on a revival in the 1980s of work in 'a North American landscape tradition that is honest about the specific cultural, ecological, and historical circumstances of locale': he gives AE Bye and Cornelia Oberlander as illustrative examples. These same principles can be found also in the work of the other two designers featured in this decade: of Richard Haag and of lan Hamilton Finlay, although the description of 'tradition' would need to be disregarded.

Richard Haag

Richard Haag studied landscape architecture at the University of California, Berkeley, and at Harvard after World War II: student experiences that brought him close to his professor Stanley White's ecological outlook (Olin 2010). This was followed by a Fullbright scholarship to study in Kyoto for two years, which was instrumental in its influence of Zen Buddhist and Taoist philosophy and aesthetics (ibid). After short periods of working for Hideo Sasaki, Dan Kiley and Lawrence Halprin, Haag set up his own office in 1958 in Seattle: to which, later in the 1980's, having been brought up on a nursery and maintained an extensive knowledge of plants, he set up his own, enabling him to use and supply the plants he wanted for his projects (ibid).

Among over five hundred built works, Haag's two major works – he is unique in being the only landscape architect to have been awarded an ASLA President's Award of Excellence twice – are Gas Works Park and Bloedel Reserve (Olin 2010; Way 2012 p6). Haag's philosophy of design aesthetics is constructed on his influences from Zen Buddhism (Condon 1998); from Jay Appleton's theories of biological preferences (Condon 1998, p50; Rainey 2012, p18; Way 2012, p8); and has some Jungian undertones regarding primitive responses to archetype (Condon 1998, p52). His designs were essentially concerned with the relationship of nature and humankind (Way 2012, p8). Olin (1988, p166) places Haag, together with Bye and Halprin, in a select group of 'most original and powerful landscape designers' who drew deep to produce abstractions from 'the fundamental source --- the world of nature, natural processes and the cultural landscapes'. Haag adopted a design approach that placed equal emphasis on biophysical processes, cultural history and emotional responses (Meyer 1998, p8).

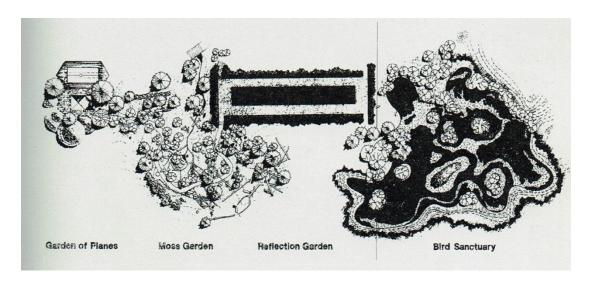


Fig. 8.1 Plan of Bloedel Reserve showing the sequence of gardens (Saunders ed. 1998, p53)

The Bloedel Reserve garden totals an area of one hundred and forty acres that include parts of the Bloedel family's original areas of timber felling, on which their wealth was based (Way 2012, p7). Haag's commission from Prentice Bloedel in 1969 to advise on the reflecting pool, developed during the following fifteen years into a landscape sequence of four distinct spaces (ibid). The main implementation of the garden was undertaken during the five years from 1979 to 1984 (Haag Associates 1988, p14). Haag devised a series of four garden spaces: moving out from the house, first the Garden of Planes, secondly the Moss Garden or antechamber, thirdly the Reflection Garden and last the Bird Sanctuary (Haag Associates 1988, p14).





Figs. 8.2 & 8.3 Bloedel Garden of Planes – strident angularity and gentle curves: two views. (Saunders, ed. 1998, p43)

The Garden of Planes, as Haag designed it and as it was originally implemented, had a planar sculptural work at the centre, which was surrounded by mounded hills with rounded boulders and trees. The unexpectedness of the sharply shaped, modernist stone sculpture is particularly challenging set in the more familiar rolling landscape. It was intended to get the visitor's attention with a 'slap to the intellect' (Condon 1998, p48, p55). In this discourse on temporality, it would be fair to name this effect as having one's attention brought to being-in-the-moment. Haag has aimed to capture the visitor's attention for the time that they are in this particular garden. The garden acts like a kind of open threshold where preceding perceptions and thoughts are invited to halt, yet might nonetheless overlay or collide, with those that are about to come. Condon (ibid) explains this 'slap' as a part of the Zen Buddhist and Taoist practice in which a person is brought to full attention in order to imbibe the forthcoming knowledge. Haag was aiming for visitors to connect with the garden, for it to make an impact at a different level than the intellect. In addition to Buddhist principles, he applied Appleton's prospect/ refuge principles, which Haag emphasised in his explanation of the garden to Prentice Bloedel (ibid p50). He has called this garden "the ultimate distillation of (Appleton's) prospect refuge theory" (Way 2012, p8).



Fig. 8.4 Bloedel Moss Garden – explicit chaos of life and death among serene mossy flooring (Thompson 1989, p84)

The Moss Garden intentionally retains evidence and remnants from the felling of the original six hundred year old trees. Haag 'selectively edited' from the

undergrowth, adding and encouraging moss growth, low growing ferns and bilberry, and aralia (Meyer 1998, p9). Meyer (ibid) finds that these elements

reinforced the scalar juxtaposition between old and new, and contributed to the sense of deep, primordial time running concurrent with the present processes of growth and decay.

The Moss Garden makes a durational pull by the venerating presence of remnant signs (large moss covered stumps) of its magnificent ancient trees and its present condition of secondary tree growth; a durational tension between trees that would be honoured now but which were instead felled for mundane constructions; so that reverence for the primeval is re-awakened. Condon (1998, p52) notes Haag's pleasure in the primitive aspect this garden conveyed, his delight in thinking it "stimulate(d) very primitive and universal human responses --- reflexive rather than conscious". This aspect of Haag's sympathy with Jungian archetypes, and proximity to Appleton's biological aesthetics, reinforces the emphasis of his design intentions to connect the garden with the enduringness of nature.

In this garden there is a fascination and focus with the elements; the grand stumps, second growth trees, mosses. Haag's careful editing has emphasised the sensuousness of the remaining, and main, features, inviting a person's involvement with the Moss Garden. This immersed, non-strident approach avoided the pitfalls of aesthetic objectivity (Condon 1998 p46). Way's comment (2012, p7), that 'Haag does not aggressively confront the viewer but rather entices and draws them through a series of experiences', supports the immersive effect of which Condon speaks. Haag himself attributed the immersive effect here to the reduction of spatial emphasis, to 'the absence of anything that is demanding, the absence of flowers or form. It's just a kind of non-space' (Condon 1998, p52, quoting Haag). Condon (ibid, p53) describes the Moss Garden's deep darkness whose 'shadows are impenetrable'. Haag enjoyed relating the anecdote of a friend's visit there, when, after entering alone, she turned and called to ask where the dinosaurs were (ibid p52). The garden's unusual elements, made more striking in contrast to the Garden of the

Planes, its darkness, and invoking of previous eras, its invitiation to experience immersively; all work to generate imaginative reponses.



Fig. 8.5 Bloedel Reflection Garden (the Cultural Landscape Foundation 2013)

Adjacent to the Moss Garden, and as complete a contrast to it as the Garden of Planes is to the Moss Garden, is the Reflection Garden. Its earlier incarnation as designed by Thomas Church in the late 1960s was the rectangular pool surrounded by brick paving set in the forest (Meyer 1998, p9-10). Haag's alterations removed the distracting and busy brick; added the hedge (three metres high at maturity); to create an expanse of water whose surface tension is echoed by the tight precision of the hedges. And just as the pool's straight edges articulate the boundary to the forest trees' reflections; so also the hedge delineates the boundary to the actual trees. The pool is flanked by soft grass with contrasting hard edged lines by hedge and pool; reflecting shapes and colours of the enduring forest trees. The trees' reflections in the water encase the reflection of the sky and give a downward vertical accent. No routes or detailed arrangements distract the visitor. Horizontal surfaces (lawn and water) are smooth and calm. The visitor, having arrived in this garden, is inclined, given the prompt of the name Reflection Garden and the intriguing yet restrained contents of the garden, to become absorbed, meditatively, reflectively; and to awake to being.

The Garden of Planes, the Reflection Garden and the Moss Garden, have pronounced contrasts (Condon 1998, p56). Each has its own very different grouping of, and level of complexity in, surface shapes and materials. Haag was clarifying the levels of information, ridding an overload of visual information and obfuscation in order to open channels for realisations/ awakenings. Condon (ibid p56) illustrates Haag's aims and expectation for visitors when arriving at the Reflection Garden by quoting him: "You've got to be dead if you don't get a rush when you go in there!". The aesthetic experience of walking through the preceding Garden of Planes and the Moss Garden was critical. To follow the Reflection Garden is the Bird Sanctuary where human presence is given more limits than access.

The series of distinct gardens each give an experience of their own, and also contribute to the experience of the whole series. There is a process in the mounting impact and resonance that visitors encounter from each of the four gardens. Part of this impact is from tempo. Each garden's tempo could be surmised as regular, slow, contemplative. Yet each has its own tone beyond that. Finally the series of the four might leave the visitor with more questions than answers, such as, what is the meaning of experiencing four different kinds of calm and contemplation? Perhaps it is a means, in 'their exploration of the relation of gardens to nature' (Olin 1988, p166); to feel the rhythm of the pulse of nature.



Fig. 8.6 Bloedel Bird Sanctuary, the fourth in the series, a place where wildlife can be, without striving against human transgressions. (Saunders ed. 1998, p42)

Haag's three-pronged design approach of biophysical processes, cultural history and emotional responses is brought to bear by making abstractions of

nature. In the abstraction are multiple layers of meaning, of history, of self and culture and in this is a simultaneity of temporal overlays (Way 2013, p13). Both Condon (1998, p57) and Meyer (1998, p11) write of their own emotional responses to Bloedel Reserve. Emotional and attentive connection with a landscape was important for Haag. Meyer (1998, p15), writes of both Bloedel Reserve and Gas Works Park, of her awareness of their processes, (and she echoes Haag's comment on 'non-space'):

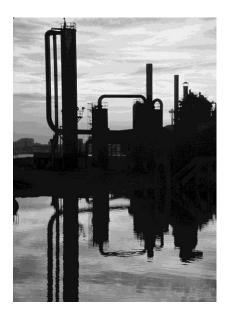
I believe their power to move lies in their ability to challenge a sense of spatial boundaries through temporal means, to suggest the open-endedness of processes, the longue durée, not simply the fleeting moment. Furthermore, these two landscapes record the discordant temporal scales by which, and through which, natural processes and human actions effect change and disturbance.

Meyer communicates her awareness of a certain temporal significance. Her focus is cast mainly towards the processes that both sites demonstrate. But her phrase 'the longue durée, not simply the fleeting moment' seems to refer not to those processes but instead to an effect within the visitor: that the visitor will have felt something with temporal depth – layers of meaning perhaps – and will have been moved more than would have happened at a site that had an immediate 'fleeting' impact.

Gas Works Park is situated on a promontory into Lake Union, central to Seattle. The park's implementation was completed in stages between 1973 and 1976, following Haag's commission in 1969 (Way, 2013, p30). Haag had absorbed himself in the site, a process which effected a profound change in his design approach away from wanting 'to do something to the place' towards wanting 'to do something with it' (Meyer 1998, p9, italics added). As such, his formative design thinking had altered from removing the industrial ruins towards retaining them as interesting cultural and industrial heritage. Haag set up an office on the site, in an old blacksmith's workshop, for better proximity and for outreach to the community, taking people on a discussion tour round the project area (Way 2013, p32-34). He then embarked on an informal programme of persuasion, eliciting support for the idea of retaining some of the redundant industrial buildings against a background of a general expectation for a traditional park design (ibid p30-31). To effect the formative process needed to change

attitudes towards abandoned industrial buildings, Haag showed a presentation of site photographs interspersed with images of modern sculpture suggestive of aesthetic reappraisal, and in this way, in 1971, achieved sufficient support for his radical proposal of featuring some retained industrial buildings (Campbell 1973, p342).

Haag had also learned, through a colleague, Richard Brooks, and his contact, William Lebo, of the possibility of, and innovative methodology for, bioremediation of several of the pollutants on the site (Way 2013, p34-35). Demonstration plots on the site showed improvements after only a few months, thus indicating bio-remediation as a workable strategy (ibid). Other pollutants not responsive to bioremediation would be brought together, capped with 450mm of clay, formed into a cone-shaped mound to ensure water run-off, and made safe from leaching (ibid)¹. Gas Works Park became the first post industrial site to be transformed to public space without removing its pollutants off site (Way 2013, p30).







Industrial buildings at Gas Works Park: Fig. 8.7 (left) reflection in water (Haag Associates website) Figs. 8.8 & 8.9 buildings with people (Saunders, ed. 1998, p67)

 $^{\rm FN~1}$ Subsequent development in remedial methods and in legislation led to a series of further interventions in the late 1980s and 1990s: most areas of the industrial ruins that had been played in previously are now fenced off (Erdem and Nassauer 2013, p285).

Haag committed to make the changes that were necessary to achieve the brief, without disrupting his principles of designing with the site's biophysical processes, and integrating its cultural history and user group's responses. The park's cultural history was clearly articulated by Haag as being an industrial memorial to the great gas works, the last example of that type in the USA, that had been responsible for much of Seattle's growth (Way 2013, p33-34). Going forward, its memorial status signified Seattle's more modern technology. Way (ibid, p35-36) links this memorialisation with the landforms that Haag made in the park. At least one of the mounds had a functional purpose for remediation purposes; in addition to which, Way argues, the park's new land sculpting connected with local memories of how Seattle's natural topology had been before its difficult terrain was rationalised and largely levelled (ibid).

Gas Works Park is largely a story of process: of remediation to pollution; of a process of changing people's attitudes; and a process of letting the site develop from its open-ended design, one which Haag described as "an open space to encompass and allow for continual change and adaptations" (Hester 1983, p23).

Haag used layers to effect an immersive quality for his landscapes. Layers of social and industrial history were made apparent, cultural layers, and layers of personal reflection. Experiences and reflections were layered along the journey through the series of spaces at Bloedel: dramatic tension was invoked. Process was similarly a powerful design tool for Haag. Haag's designs initiated governing principles which gave impetus to sites' open-ended processes, ecological, cultural and personal.

Ed Bye





Figs. 8.10 & 8.11 Tree shadows streaking across landscape (Bye 1999, p36 & p37)

Ed Bye graduated in landscape architecture in 1942, following which he worked for some years in government agencies and in private practice before opening his own office in 1951 in Connecticut (Pennypacker 2009, p42). A Dutch American, Bye's childhood on an eight hundred acre estate in Connecticut, interspersed with summers in Holland, nurtured his keen perceptive interest, which he carried into his photography, of natural landscapes (ibid). Bye's landscape designs have been described as abstractions of the natural landscape (Olin 1988, p166: Rainey 1992, p96) Descriptions such as 'merg(ing) gradually with the surrounding landscape' (Rainey 1992, p96), however, create misunderstanding by being incomplete. Bye was an advocate for landscape designs that fitted into, did not become foreign to their region and ecotype (Bye 1999, p29); and it has been noted that he delighted in his work being mistaken for the natural landscape (Pennypacker 2009, p42). This is indicative of his not wanting the designer's role to intrude on what he hoped would become that person's own landscape relationship; and of wanting a landscape to have integrity (ibid p42-43). His landscapes are enrolled as the primary subject, their processes given centre stage; inviting people to engage in the process of their relationship, with implicit duration and imaginative engagement.

Olin (1988, p167) states that Bye emphatically rejected the concept of imitating nature. He considers Bye's abstracted landscapes,

neither like a painting, nor a garden, nor a natural landscape. It is pared down and yet deeply sensual. Its subject matter is the earth and its surface is delineated by light, the texture of plants and water in all its forms - mist, water and snow (ibid, p166).

Sean Scully (1988, p ix), in his introduction to *Art into Landscape, Landscape into Art* analyses the qualities of Bye's 'conscious and deliberate' work which 'can be attributed to the syncopation of witness-discovering, and designing-making'. Bye's abstracted and intensified designs are, as Pennypacker (2009, p42-43) noted, facilitating an aesthetic experience of uninhibited phenomenological engagement with the landscape; that is, without the designer's intervening presence. Rainey (1985 p117) describes the landscape's effect on the visitor as a cumulative process of understanding, finding that, 'most of his sites are processional - they unfold as one moves from scene to scene': a view endorsed by Komara (1990 p81).

Komara (ibid p83-84) understands Bye's landscape 'moods' to be his design technique 'to create or suggest similar associative expressions.' She continues by outlining the intended empathic effect: 'The visitor is intended to cross sensuously and mentally to other places, times and images' (ibid). Bye was not eliciting passive admiration of his landscapes. He enlarged on his design aims in his book *Moods in the Landscape* (1999). Moods, I believe, is not the operative word here. Bye himself struggles to articulate the book's rationale:

This book is a photographic essay on *illusion and allusion* in the landscape or, in brief, moods. I have *tried to capture and identify moods* in landscape by studying color, light, shadow, texture, movement by wind, weather conditions, and seasons, and the individual characteristics of a particular environment (Bye 1999, p26, italics added).

Two pages later, he adds, 'We should look to the native condition for inspiration to design our own landscapes and gardens with more *poetry and emotion*' (ibid, p28). From these statements, I would understand 'mood' to be as he said, shorthand ('in brief'). More precisely, he is interested in illusion, allusion, poetry

and emotion: illusions of the non-definable, changing, yet arresting and unforgettable: allusions to something resonant, some cherished associations: poetry of meaning and beauty: emotion in recognising something movingly significant. His text through this book is spare as he delves to elucidate those key qualities for our attentive interest. These he details lightly, without any kind of crushingly definitive, authoritative finality. They are what he called a landscape's 'strong central condition' that gives potential for the design concept to be the unifying 'mood' or key quality, 'evoked by that condition' (ibid, p26). Unsurprisingly many of those qualities are not what are generally thought of as moods: they are however qualities that Bye has found in landscapes, in plants (most often trees), rock, soil and weather that we might find arresting, that have the capacity to wake us up: 'acoustic - assertive - brittle - cold - contorted - dazzling - delicate - elegant - friendly - grand - grotesque - humorous - lively - luminous - malevolent - melancholic - mysterious - serene - sheltering - suspended – tenacious' (ibid p39).

Bye has written about his layered use of contrasting elements to heighten intensity, his 'statements of contrast': hard rock against soft plants; vertical pines with horizontal junipers; massed plants and specimen plants; plants contrasted with architecture, delineated by a gravel 'moat' of precision (1988, p39). Miller (1990 p56) identifies this approach of Bye's as working 'in the spirit of pure modern art'. He describes the treatment given to limestone discovered just below the soil at the Hering residence, to which Bye exposed the rock and planted junipers in between to create the simple juxtaposition of rock and juniper. Bye's description is quoted here: "A study of contrasts: ounces against tons, white against gray-green, animate opposing inanimate, the temporary opposing the permanent" (ibid quoting Bye).





Residence on Connecticut coast:
Fig. 8.12 (left) Contrasting textures (Komara 1990, p64)
Fig. 8.13 (right) Juxtaposing materials (Bye 1988 p92)

Bye's work for a residence on the Connecticut coast mainly entailed opening up aesthetic involvement in the marshes by 'thinning and cleanup' (Korostoff 1990, p107). Bye immersed himself in the project, staying two days a week for two years (Bye 1988 p90). The resulting landscape he created near the house is an example of his use of contrasts. The effect of the juxtaposition of these elements – juniper and rocks, rocks and house walls – is to surprise; and in comparitive associations between the three elements, to add layers to the concepts of permanence and longevity, and of hardness and softness. Almost as an act of recognition of the natural order of these juxtapositions (and disorder), Bye placed the stones himself. He 'personally tossed each stone and pushed each boulder in as carefree manner as possible. (He) tossed the smaller stones over (his) back letting them fall' (ibid).

Bye's interest in change and ephemera is indicated by his, study of 'color, light, shadow, texture, movement by wind, weather conditions, and seasons' that have been instrumental in his designs (Bye 1999, p26). The attention he gives to these ephemeral happenings are clear in any of his designs, not least the Soros residence.





Figs. 8.14 & 8.154 Undulations of snowmelt at the Soros Residence (Bye 1988, p 9& 11)

Patterns of snow melt in each snowfall, similar yet different, were created at the Soros Residence. The ground was worked to improve the drainage during which undulations were created and planted with swathes of bayberries and grasses. These sinuous ground undulations provoked variant depths of snow, variant sun-facing slopes; and thus at snow melt the whole landscape became like an abstract painting of sinuous dark ground and vegetation and white snow (Bye 1988 p1). The ground patterns continue to change with a marked and steady tempo: 'Each thaw brings new abstractions. And as we design for this, couldn't we call this a timeless aspect of our art?' (ibid).

Shadows are a mainstay of Bye's work. Ground sculpting for optimum shadow play at the Cowles garden, and many others, involved tree shadows, but also shadows thrown by higher ground onto lower slopes. Bye gave studied consideration to shadows; of trees' bare branches on clear ground; of angled branches crossing over limestone wall, also fissured by the shadows of its stone coursing, as at the Gaines Farm (Bye 1988). Shadow relationships were important: the shadow of the 'lee side' of the ha-ha at Gaines Farm making its dark vertical line between two undulating fields, was adjusted by altering the soil profiles until the 'tension lines' of the wall's shadow created a satisfactory relationship with the field slopes and the key tree shadows nearby (ibid). The wall makes a subtle, non-parallel profile with the sculpted ground contours both in front and behind it. It calls up its relationship with the ground. The shapes are fixed in permanence. The mesmerising, intense relationship is durational: as the durational changingness of its shadows and colours through the day and seasons is a strong attractor to concentrate on the wider landscape.





Fig. 8.16 (left) The Cowles' garden, ground sculpting and shadows
Fig. 8.17 (right) Gainesway Farm, ground sculpting and tension line of ha-ha wall
(Bye 1988, p98 & p107)

By naming his conceptual aims 'moods', Bye unequivocally divulged his intention for landscape users to become immersed in his landscapes. His work gives fine examples of an approach that is both phenomenological and temporal, with experience of ephemera as a peak expression of both.

Ian Hamilton Finlay

lan Hamilton Finlay was 'an artist, sculptor, poet, philosopher and landscape gardener' whose 'starting point' was 'the word' (Eyres 2000, p152). His works' realisation involved collaboration with artists and crafts people (ibid), and ranged from individual pieces and larger installations for cities, galleries and private commissions; sculpture parks including the Kroller-Muller in the Netherlands; and gardens at Little Sparta, near Edinburgh; the Schlospark, Dusseldorf; the Serpentine Gallery, London; Stockwood Park, Luton; Fleure de L'Air, Provence; and the Max Planck Institute, Stuttgart (Hunt 2008).

Finlay began his artistic career as a poet. In the early 1960s he was an internationally important poet, and instrumental in the concrete poetry movement (Bann 1993, p105). Poems of concrete poetry were given a physical shape (flat on the page/ folded card/ book) that lends to the poem's meaning. By the end of the 1960s, disillusioned with how he felt concrete poetry had become too reductive, he cross-fertilised making poetry with making landscape (ibid). This coincided with his family's move to Stonypath (before it was renamed Little Sparta in 1980). Finlay began making the garden in which he explored and developed garden as context and content for poetic meaning (Eyres 2000, p152: Hunt 2008, p23).

The garden of Little Sparta, Stonypath, as it was then named, was begun in the autumn of 1966, round the semi-derelict house and outbuildings on the edge of fields and surrounding moorland (Sheeler 2003, p12). The garden developed in stages as resources of time, energy and little money allowed. The ponds and lochan were dug and made by Finlay: the farm buildings were transformed and the beginnings were made to what would become ten garden areas: the front garden; the Roman garden, Julie's garden, the allotment, the Temple Pool garden, the woodland garden, the wild garden, the Lochan Eck garden, the English parkland and the memorial to the First Battle of Little Sparta (ibid p9).

In the garden, Finlay gave words a third dimension, making sculptured inscriptions. His poetry and use of brevity with words had a clear affinity to classical inscriptions, which, with the addition of borrowing classical sculptural motifs, attracted an additional layer of classical allusions to the words: a form that offered potential 'through the poetics of metaphor' (Eyres 2000, p157). A crucial part of the inscribed words was their garden context, each area being a symbiotic part of the textual work. Finlay emphasised that "the work is the whole composition" (Weilacher 1996, p93, quoting Finlay).



Fig. 8.18 Beside the Temple Pool at Little Sparta; *Hic jacet parvulum quoddam ex aqua longiore excerttum* (Sheeler 2003, p50)

By way of demonstrating the garden's real contribution to meaning, rather than mere pleasant setting, Hunt (2008, p43-44) evaluates two identical scripts at Little Sparta and at the Max Planck Institute: *Hic jacet parvulum quoddam ex aqua longiore excerttum* – 'here lies a small excerpt from a larger water'. At the Max Planck Institute the words are 'on a plinth emerging from a pool': at Little Sparta, the words are on a stone reminiscent of a headstone beside the Temple Pool. This grave-style presentation, appropriate in its 'Temple' setting, and, additionally, the words 'here lies', makes an immediate connection with a memorial to, a lament for, the larger water; which the Max Planck misses. Sheeler (2003, p51) adds to this memorial meaning at Little Sparta, drawing on its analogy of the small pool as memorial to the (larger water) ocean, the larger life. The variation in garden context and in presentation has altered its meaning, so we can begin to see that all is carefully considered by Finlay to draw the visitor in to find the layers of permeating meanings.

Finlay was making 'a poetic world that unites cultural and natural forms' (Eyres 2009, p121): and this included the planting and the landscape configuration, equally important dramatis personae, of each part of the garden as it developed (ibid, p119). The garden was not regarded as ornament: instead Finlay's

research into garden history provided him with a cultural model of gardens as manifesting political and philosophical themes (Bann 1993, p107); as 'landscapes of ideas' (Eyres 2009, p122).

Finlay places triggers to ideas as fragments and layers, drawing on a visitor's knowledge, associations and imagination (Hunt 2008, p43-46: Bann 1993, p110). Similarly, there is no prescribed route round Little Sparta, no overall message, no necessary sequence (ibid). The poet's appeal is phenomenological, sometimes emphatically sensory, often calling on historical and/ or classical learning. A particularly sensory work is the bench inscribed with: THE SEA'S WAVES – THE WAVES' SHEAVES – THE SEA'S NAVES. It occurs by a boundary hedge on three parts of a bench articulated round a tree; the tree on which is a plaque reading MARE NOSTRUM. The plaque announces, in its use of the Roman name for the Mediterranean which they dominated, the domain of Little Sparta: a domain ascribing to principles, ideals and the power of those ideals (Sheeler 2003, p43). The bench inscriptions alert the visitor to make use of their faculties in the garden; to hear the sounds, think over associations, and understand something of the resonance that this and other works will draw from the sea.

The temporally layered attributes of Finlay's work are more than the 'relay between past and present' (Bann 1993, 106), between contemporary times and times of historical figures or political situations. There are the accumulating resonances to be reflected on as the meaning of Finlay's work gathers momentum across works on a number of series or themes, for instance, water and streams; the sea; classical stories; woodland invocations; war and conflict; the French Revolution; homage to poets and artists. Humour often accompanies the 'serious' works; and there are works whose seriousness is apparent only through the humour. 'HUFF LANE' has two straight parallel hedges, between which is path-width grass, with five benches alternating unsociably down the length of the 'lane'. There are, of course, inscriptions on the benches: something to think of when you retreat there in a huff. Any good joke will be remembered long after. There are the 'redefinitions' which have so many levels to be dissected (Hunt 2008, p87). On one of the stepping stones crossing water is written: RIPPLE, n. A FOLD, A FLUTING OF THE LIQUID

ELEMENT; which brings a visitor's attention to looking for ripples and thinking of whatever associations happen along with flutes and liquid and elements.



Fig. 8.19 Huff Lane with lane sign and five benches to cool off on (Hunt 2008, p35)



Fig. 8.20 Arched bridge with inscription: ARCH, n. A MATERIAL CURVE SUSTAINED BY GRAVITY AS RAPTURE BY GRIEF (Sheeler 2003, p32)

One of Finlay's poetic principles is after Heraclitus, the concept that opposites define each other and therefore exist within each other: thus the concept of darkness exists only in relation to light; an 'essential conflict' (Sheeler 2003, p81). The arched stone bridge at Little Sparta is inscribed with a redefinition, ARCH, n. A MATERIAL CURVE SUSTAINED BY GRAVITY AS RAPTURE BY GRIEF. The conflicting states of rapture and grief are propositioned as essentially including the other, as is the physics of the gravitational pull acting on the stones surrounding the keystone that holds up the arch...The visitor can ponder on associations of other essential opposites, and on the relationship of rapture with grief: and in doing so is making inward journeys across layers of memories, experiences, things read or knowledge gained.

Finlay's layers of meaning and prompted associations are, in effect, juxtaposing two or more 'readings' of his work. The temporality of his juxtapositions works beyond emotional states of being. Visitors are invited to hold as many associated thoughts as they can in conjunction with other opposing emotional demands from anticipation and release; restraint and exuberance. His encouragement to do so lies in works with almost Dadaist metaphorical contrasts. The first piece of his work on the approaching track up to Little Sparta is a bronze plaque embossed with a machine-gun-hybrid-flute. It has the flute's finger stops along the barrel of the gun with a date commemorating the first battle with the Strathclyde authorities over the status of the Temple. The

inscription reads FLUTE, BEGIN WITH ME ARCADIAN NOTES – VIRGIL, ECLOGUE VIII - FEBRUARY 4 1983. This combining of whole spheres of interest, the pastoral, the classical and the contemporary political polemic, may provoke vertiginous mental juxtapositions; and with the additional process of coming to understand its commentary on 'the interdependence of art and its defence' (Sheeler 2003, p17).

The effect of the garden lies in its reception by visitors. This is a garden in which it is hard to suppose that any part has been received as intended, relying as it does on a breadth and depth of classical, cultural and historical knowledge. While to a degree this could be the same for any landscape, perhaps part of the problem is in our assumption that visitors will make one single visit and arrive relatively uninformed. Finlay though, had no problem with this: he found that most 'ordinary people' would leave what wasn't understood without being vexed; and that 'only intellectuals' had problems (Weilacher 1996, p100). Yet it seems there would be an amount of frustration at not 'getting' the references which, prompted by enough curiosity and delight, would necessitate a further visit. The garden of Little Sparta with its many reflections inviting the visitor to play across their meanings, would still be working its process on that visitor; who may 'find subsequently that the way they see the world is changed and made more wonderful' (Sheeler 2003, p135). In many ways the layered conceptual meanings of the garden are about process; cultural process; and people's own individual process in being part of it.

CHAPTER 9. DECADE 1985-1995

Contextual background for the decade1975-1985

By the mid 1980's western cities were orientating further toward service industries while the era of post industrialisation gathered momentum. The effect of these developments was twofold. Cities now had a need to become attractors of people and service industries, which entailed re-evaluating their landscapes as 'marketable entities' (Shannon 2006, p148: Waldheim 2006, p15). Concurrent with this, industrial restructuring brought about the re-location of many production plants. The resulting derelict city sites offered challenging development opportunities to which some regional and city authorities responded with ambitious post-industrial agendas and programmes.

In 1981 Parisian planning authorities, Atelier Parisien d'Urbanisme (APUR), conducted a strategic review of public open space provision in Paris (Tate 2001, p35). It was this strategy and political competing that led to a number of design competitions for new parks on post-industrial sites in Paris, the four larger sites becoming Parc de La Villette, Parc André Citroen, Parc de Bercy and Parc d'Atlantique. The 1982 competition for the Parc de La Villette called for entries from architectural teams with a brief to design a park for the future. The La Villette competition became a catalyst for interest in park design, attracting large numbers of professional talent to the competition with its forward looking brief (Baljon 1992, p15). This study, with its focus on the work of landscape designers rather than architects, will pass over the architect-led work at La Villette, and instead will focus on the work of Gilles Clement at Parc d'Andre Citroen.

Two books reflecting changing attitudes to the environment were Michael Hough's 1984 *City Form and Natural Process*; and Anne Whiston Spirn's *The Granite Garden*, published in the same year. Healey and Shaw (1993, p770) cite Whatmore's (1993) assessment of the 1980s as the time that the paradigm of 'nature as a commodity' was replaced with 'an ecological narrative which focused on systemic ecological relations.'

Thompson's 1998 article on environmental ethics, 'Post-1980 - the era of sustainability', diagnosed an ensuing 'innovatory aesthetics', and, 'new visions of the landscape informed by the emerging discipline of landscape ecology' (Thompson 1998, p190-192).

The influence of postmodernism is broadly evident in landscape design practice in this period. Postmodernism is largely characterised by its opposition to reputed characteristics of modernism, such as austere functionalism. Views on these vary and are wide ranging.

Harvey (1990, p115) maintains that postmodernists saw themselves 'too simply': that there was a facile grasp of modernism that failed to appreciate nuances or understand much of what had been achieved. Harvey (ibid p116-117) emphasises the continuities between modernism and postmodernism, seeing postmodernism as almost like 'a particular kind of crisis' within modernism. He finds that postmodernism has jettisoned meta-theory replacing it with 'fetishism of locality, place or social grouping': and yet failing to follow through on empowering the 'other voices'. Its values, he finds, display ethical weakness, giving priority to 'aesthetics over ethics' (which I interpret as *image over ethics*, since aesthetics in its deep nature *is* ethical) and 'entrepreneurial culture'. Harvey (ibid p66) finds that postmodernists took an accommodating approach to 'vernacular traditions, local histories, particular wants, needs and fancies', which generated quantities of 'highly customized architectural forms --- a remarkable eclecticism of architectural styles'. Harvey (ibid) maintained that postmodernism

cultivates, instead, a conception of the urban fabric as necessarily fragmented, a 'palimpsest' of past forms superimposed upon each other, and a 'collage' of current uses, many of which may be ephemeral.

Thompson (2002, p83-84) characterises postmodernism as avoiding modernism's confident and rationalist design approach. What followed was an approach that was more 'self-aware', characterised by 'a richness and complexity'; 'pluralistic'; with 'diverse sources of values and meanings'; often ironic, playfully deconstructing historic references (Thompson 1993, p125).

The engaging nature of landscape designs in this period invited both designer and users to each have their 'take' on the design, a pluralistic ethic associated with deconstructionism, in which it is recognised that meaning is a transaction, lying not in the text itself but in people's interactions with it. Taylor links this transactional nature with aesthetics, using Terry Eagleton's definition:

"Aesthetics is a discourse of the body --- the term refers --- to the whole region of human perception and sensation, in contrast to the more rarefied domain of conceptual thought." Aesthetics therefore, concerns cultural context, associations and ways of seeing. --- The influence of twentieth century modernism has been to try to objectify aesthetics and *locate it in the designed object* removing it from the province of interpretation and intention (Taylor 1997, p17 italics added).

That isolation of the aesthetic object or feature was, in Taylor's developing argument, an inevitable misconstruing of landscape, as landscape would always involve an 'interaction between place and experience' (ibid p18). His argument traces a generally held view that postmodernists concerned themselves with re-balancing interactive interpretation.

The context in which postmodernism placed designers, and particularly in those instances of post industrial commissions, validated a restoration of place-making with such principles as multiplicity, diversity, and significance. The characteristics of the context of this decade are noticeable in the designers of this period.

Design as palimpsest could describe aspects of several of Lassus's works. The range of Walker's work could be used to illustrate its ecelecticism. Clement's work could be characterised as eclectic, to a degree, in its varied types of planting and visitor interactions; and also sensitive to environmental responsiveness. This latter point is pertinent for Kienast also; for whom the inclusion of historic texts and of traditional earth building for instance, could be seen as part of this period's interest in revealing histories.

PETER WALKER

Peter Walker has a long established career as a landscape architect stretching from the late 1950's at Sasaki Walker Associates to his current role as principle at Peter Walker and Partners. The considerable number of projects implemented by Peter Walker and Partners are largely concerned with the public realm, campuses and corporate headquarters.

Walker criticised the undemanding landscapes produced by well-composed spatial designs, in which functional aspects were prioritised, developing his approach to landscape design 'not as mere setting or background but as a work of art in its own right' (Howett 1994, p71: Brown 1991, p140). Meyer's (2000 p189-190) critique acknowledges the disparity between the analytical approach and the artistic approach to design 'based on separate value systems and vocabularies'. She finds, although successful in "making the landscape visible" (quoting Walker), that Walker's 'vocabulary', in treating landscape as gallery or canvas produced,

minimalist landscapes (that) perpetuated modern art values and ideals, objecthood and detachment, at the very time such value were being challenged by environmental and conceptual artists (ibid).



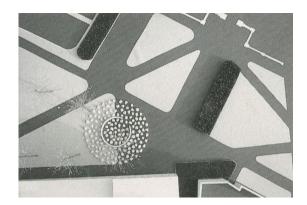
Fig. 9.1 One North Wacker, Chicago: A series of planters reminiscent of tubby land, no graceful shapes, minimal seasonal change: no interesting relationships: unsocial overly large convex seating. But it is smart, clean and durable. (PWPLA website)



Fig. 9.2 Children's Playground, Keyaki Plaza, the grid of trees and seating – no planting inside seats – is lacking in rhythm and dynamism. (Peter Walker & Partners 2006, p139)

There is reference to the firm's well detailed, robust landscapes that will withstand heavy usage; and little reference to the often complex user interface.

Alan Berger (2001, p196) noted that, juxtaposed against the scaled models which the firm have a practice of making for their clients, their built landscapes 'rarely ever change over time (and need meticulous maintenance to keep their form) --- very often appear as living replicas of the models'. This state of permanence may be reassuring to a client who is concerned about the longevity of the landscape (despite the apparent maintenance costs), but it is manifested in what some may find disturbingly anodyne projects such as One North Wacker in Chicago and at the Children's playground in Keyaki Plaza playground. It is a permanence that has become the default, without awareness being heightened by an accompanying contrast of impermanence. Curiously, both of these are examples of seriality (a line of repeated planter/ seat elements and a grid of trees and planters) about which an unremarkable comment should be possible about their rhythm. And yet the treatment in both has, in my opinion, succeeded in being unrhythmic, stolid, and dulled by an inexorable lacklustre permanence. In my analysis, at North Wacker, the solidity of the circular planter seating lacks a foil of graceful planting whose poise would communicate some delicious combination of delicacy and strength, ephemeral beauty and permanent usefulness: which would have added some dramatic tension (with its inherent qualities of temporality, layered choices of diametrically opposing conditions). The grid at the Children's playground in Keyaki Plaza features upwardly sweeping trees which weakens the relationship between the horizontal seating and the canopy layer; whereas the mono-direction of the striped paving militates against the grid.





Tanner Fountain, the site and its immediate contex: Fig. 9.3 Plan: Fig. 9.4 photograph (Allen 1990, p16 & p15)

At a confluence of many intersecting paths on the Harvard campus, the Tanner Fountain, installed in 1984, which Walker designed in collaboration with sculptor Joan Brigham, transformed this part of the path network. The group of one hundred and fifty nine boulders amongst which mist rises from the fountain for nine months of the year, steam for the winter months, is approximately twenty metres across. The arrangement of the stones underwent stages of adjustments in the implementation phase until an apparent random nongeometric configuration was achieved that would be read as a 'field' and, in the nature of being bound within one circumference, as an 'object' (Allen 1990, p17).

Allen (ibid) contributes a section about the Tanner Fountain in the book *Peter Walker: Experiments in Gesture, Seriality and Flatness*. His writing about the work, after an introductory paragraph describing people's interactions with the fountain, which could be categorised as *happenings* (with temporality implicit in that), is emphatically focused on spatial aspects. Allen underpins his understanding of the work in terms of its object-field relationship and of Walker's apparent intention of 'blurring these distinctions' (1990, p16). Walker's solution was to use a circle as a whole shape that would embrace all the disparate elements.

a figural gesture --- that was independent of everything around it, yet participated directly with all of the disparate materials and patterns of movement found on the ground (ibid p16).

Tanner Fountain offers sympathy with its context and it is in this relationship that, in my view, its strengths are most evident. At a multiple of intersecting routes, it multiplies choices of movement, offering hundreds more playful routes through the stones. At a place of rushing-past, it appears that the stones have been rushed out onto the tarmac. They are, as stones, utterly still: so that a dramatic tension is set up between urgency and inevitability, between incautious haste and immobile finality. And while the location at the confluence of paths might be about hurrying in one of several directions, the circular grouping of stones creates a locus, a centre, a source which draws people to stop and stay. Mist, happening from the centre, reinforces the character of the stones as a source.

By deriving an interpretation from characteristics of temporality I find a fuller critical appreciation of this work than by noting isolated spatial aspects. Even the seasonal responsiveness of this work, in which the fountain 'explores the ethereal nature of steam whose form changes constantly, providing visual effects' (Jacobs 2000, p326); and the different behaviours of the mist and the steam under different wind and weather conditions, the striking form the piece takes when covered in snow, and how this snow, reportedly (Allen 1990, p18), melts at different rates on different stones according to its situation under trees: even these seasonal wardrobe changes are not fully able to suggest the reason for the fountain being such an attractor.

Olin (1988 p152-154), exploring the transmission of meaning in different forms and approaches to landscape design focuses his review of the Tanner Fountain on the representational nature of the stones, on the spatial solid and void of the piece, and on its overall character of embracing oppositions. His perspective is reliant on associative and spatial thinking. Olin's spatial comments relate to wondering why it is that (ruminating over) making alterations to the arrangement of the stones would, he thought, alter their meaning: and that in regarding the regularity of the stone (solid) placements with their relationship to the tarmac

(void) leads him to an association of the mechanical and artificial, 'even to the point of abhorrence'. He continues by saying that the association of natural elements, stones and water, are 'almost universally enjoyed' and that this results in a 'juxtaposition of the abhorrent and the delightful (which) creates a challenge to our expectations' (ibid p153). Olin's analysis is interesting; yet its reduction to 'delight' and 'abhorrence', or like and dislike, fails to enlighten so much as his comment that the fountain is a 'challenge to our expectations'.

Olin (ibid, p154) concludes his review by categorising Tanner Fountain, among other works of 'so-called site sculptors', as being 'not about, nor capable of creating an environment beyond that of an extended object'. This comment infers that a work of landscape design should be not about creating objects but about creating meaningful places. As such, Olin regards this work as its own entity, whereas in my view it is precisely not primarily its own entity, being instead a locus for others' convergences (paths, people) and agent of their interactions.

Brown's (1991) review of Tanner Fountain is similarly limited by valuing the work as an object in and of itself, in this case comparing it with art objects and installations. She admits that such comparisons may mislead into obscuring appreciation for this work.

Brown's (1991) assessment found the work lacking, despite her own admitted liking for it. Her interpretative approach was as to a work of sculpture, (apparently following Walker's description of the work as sculpture) in which 'the visual --- is linked to something greater'; but found that it failed to offer her 'the layers of meaning' that she expected from sculpture (ibid p146-147). This again returns us to the limited perspective that misses the temporality of the work and its identity precisely as something that interacts with its site context of tarmac footpaths, set within a tree planted campus. Its locus offers a hiatus, a pause in the directional speed and purpose of the pathways. Its formation offers play, experiences and sporadic aesthetic highlights.

Walker became attracted to the idea of hardening and flattening the surface as a design strategy (Walker 1990, p120). This involved reducing the three dimensional spatiality espoused by Eckbo et al. to a flattened two dimensional

carpet, or surface design. The fascination with surface pattern is commented on by Treib (2001, p124-125) in reviewing designed landscape forms. Walker's design for Burnett Park (first phase 1983), with its striking design of oblique lines, is an example which, in Treib's estimation, fails to follow through into any experiential dynamism. However he notes the spatially patterned design for Solana IBM campus in Texas as successful (1986-1989, by Walker and Schwartz), in which geometric patterns structure a three dimensional spatiality (ibid). The landscape designs for the courtyard spaces formed by the indentations of the building architecture, make 'transition spaces' that 'pivot' attention to and from the landscape and the built forms, so that the relationship between the two elements is one of dramatic tension which 'enfold(s) within a charged equilibrium' (ibid p125).

Contrary to Treib's estimation of Burnett Park, Walker believes that flattened designs can define even the third dimension:

the space above and around in the most minimal way' into 'spaces (that) become important because of the richness of the surface treatment. They are not defined by walls; they are rugs (Walker 1990 p124).

This surface design concept, which runs counter to so much design thinking and practice, disposes of many attributes and possibilities afforded by fully utilising materials, both live plant materials and hard landscape materials, in the third dimension. For instance, the experience of tempo, in a landscape that is shaped as articulations of tree branches, hedges, or ground contours; the rhythm of its unfolding, is sacrificed to an instant survey of its rug-like flatness. Walker appears to have an additional related concern about enclosed gardens: 'many gardens today seem ready to break out of their very literally defined and walled spaces' (Walker 1990 p128). His statement shows a position on an aspect of design with a significant characteristic of temporality. The dramatic tension alluded to in a garden *being ready to break out* which he refers to only as a negative quality, may be the opposite of the stasis that I glean from images of his amphitheatre design at the Pixar Animation Studios, California

The building elements of the tiers seem to take no joy in their repetition, only identical replication: there is no indication of any possibility of breaking out from

the pattern, no wriggling, no change in musical key or rhythm in the composition.





Figs. 9.5 & 9.6 Pixar Animation Studios -The utter uniformity of the tiers of the amphitheatre, smart, clean and durable (PWPLA website)

Walker refers to himself as a minimalist rather than a postmodernist (Weilacher 1996, 226). In his collaborative work with the sculptor Joan Brigham for the Tanner Fountain the apparently simple articulation of rocks around a mist/ steam fountain effectively made its own tempo into an emphatic interruption of its local path network. The fountain became the locus for spontaneous behaviours as the forward thrust of the paths became an interlude. However, in other regards, while Walker has given great weight to his realisation of the importance to his minimalist designs, of 'light, weather and the seasons and how they can be read against an artifact' (ibid p226): yet this appears like hyperbole against his work that flattens, that reduces shadows, juxtapositions, rhythms and processes.

GILLES CLÉMENT

Parc André Citroën began its life when, in 1977, the site of the former Citroën car factory and its surrounding area in the south west of the city became a Zone d'Aménagement Concerté (ZAC - comprehensive development area). The ZAC designated the area for residential apartments, offices, a hospital and a park. There was to be a European competition for a park of the twenty first century. The competition was launched by Jacques Chirac in 1985 after total site clearance, so removing all industrial remains. The joint competition winners for

Parc André Citroen were the two design teams, Alain Provost with architects Jean-Paul Viguier and Jean-Francois Jodry; and Gilles Clément with architect Patrick Berger. The judges decided to take the design forward with a combination of both teams, different areas of the park being attributed to each team. For Clément and Berger these areas became the White Garden, the Serial gardens including greenhouses and water chutes, the Garden in Movement, the northern part including the conservatories at the head of the central lawn, the play area to the east of Rue Balard, lighting and site furniture (Tate 2001, p40-41).

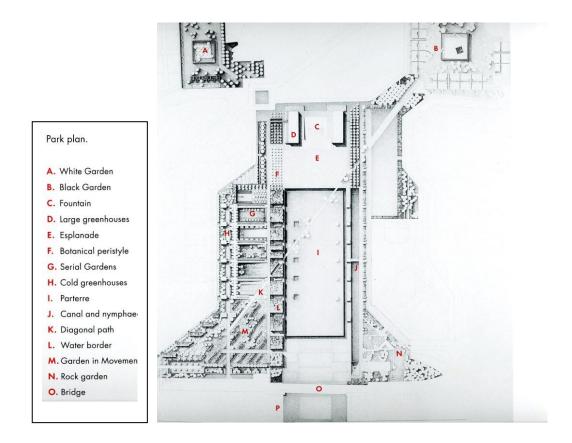


Fig. 9.7 Plan of Parc André Citroën (Rocca 2008 p170)

Provost reflected in1991, one year before the park opened, three years after construction had begun, that the design choice was 'to create a park with a maximum of natural elements, but sufficiently equipped for innovative use'; that the 'design embodied four main principles - nature; movement; architecture and artifice'; and that it should be

strong, wise, generous, poetic ... based on the strong and indispensable presence of water, the controlled dynamism of the earth and the rhythm of vegetation (Tate 2001, p43).

Here is a clear statement about aspirations for making a park with some key temporal elements: layered juxtaposition of nature with architecture and artifice; of movement, of qualities of water with its integral various movements or emphatic stillness, of landform and vegetation with noticeable, dynamic change and tempos.

Clément designs to let go of a designer's almighty control: he designs to allow plants, 'nature' and people to be treated as equal contenders; all are respected participants in his designs, 'where man is a visitor amongst other living visitors, plants and animals' (Rocca 2008, p42). His work provokes people's involvement and interpretations in the sophisticated orchestration of his designs, and their temporal characteristics.

At Parc André Citroën Clément has created layered juxtapositions with the serial gardens and the water chutes; with the serial gardens and the Garden in Movement; and, on the north-eastern side with combinations of the planted spaces of the serial gardens and the Garden in Movement juxtaposed with the large open lawn at the centre. These juxtapositions of contrasting character areas are placed not to blur their differences, but to accentuate the 'tension and dynamic interaction between organic and geometric form' (Diamond 2011 p31). One aspect of this is the rhythms that are set up. As a park user, whether walking past all the serial gardens and water chutes on the raised walkway or on the level path, there will be a repetition of arrangement - garden/ water chute/ garden – at the same time as the individuality of each garden revokes that reiteration. Whether entering or envisioning entering, as opposed to walking past, one of the serial gardens: and then entering the incline beside a water chute, the tempo would change differentially between the rush of the water and the more contemplative gardens.

The juxtapositions have more significance than rhythmicity. The dramatic tension created has been a deliberate and remarked upon feature. In terms of

temporality, dramatic tension involves diametrically opposing choices: anticipation and release; constraint and celebration. Rocca (2008, p61) in conversation with Clément, writes of the Serial gardens as

a counterpoint to the Garden in Movement --- "a work of excellence, a stylistic exercise --- of the garden full of a controlled, tamed diversity. --- one option does not destroy the other".

For Clément these forms carry meanings, "the truly important question" (ibid), which are encompassed in how he designs for phenomenological involvement of visitors (Bedarida 1995, p15).

The open-ended character and change of the Garden in Movement at Parc André Citroën, the unfinished, unpredictable nature of the 'dynamic management of spontaneous vegetation' causes Bedarida (1995 p14) to note the leap from a fixed maintenance regime to one of 'contingency' so that 'appearance (is) determined by chance, to a strict temporality'. Behaviour cues in that garden would be expected to follow the spontaneity of the vegetation, a place where the unexpected is well accepted. Bamboos, which Clément referred to as giving the garden a 'fairly fluid' structure (Dagenais 2004, p329), have been treated to a maintenance regime similar to the path network undertaking differential shaping according to people's usage. The author observed this movement in the bamboos on a visit in 2003, a sunny summer Sunday, when large groups of family and friends were picnicking in among the bamboos that had been pruned out to create clearings. This responsiveness and change is a key aspect of the Garden in Movement, both a spatial and temporal movement, as the garden changes its configuration from one year to the next.

Dagenais critically assesses the claims of 'Clément's 'revamped discourse (which) sometimes draws on old practices' (referring to the use of annuals and biennials) about the planting as expressive of movement (2004, p326). Part of her critique concerns what she interprets to be Clément's dependence for the concept of movement on biennial plants such as giant hogweed, verbascum, onopordons and foxgloves whose locations differ from year to year as their

seedlings mature and the parent plants die. This movement, Dagenais states, is hardly perceptible for people on the ground (ibid). Yet, while visitors will not be witnessing plants actually moving, I would argue that the garden's appearance is a strikingly different park typology, giving cues, from its non-trimmed planting and softer path surfaces, to its dynamism.





Parc Henri Matisse, the Derborence island: Fig. 9.8 Sketch: Fig. 9.9 Photograph (Rocca 2008, p118)

At Parc Henri Matisse, the raised form of the Derborence Island, to which no one has access, except the gardener on an annual visit, juxtaposes the dominion of mankind and nature, prioritising nature, staging it seven metres above the park level to which people have access. The staging is performed so as to give nature a concentrated accentuation (Rocca 2008, p59). The emphatic inaccessibility of Derborence Island with its combination of nearness and remoteness, plays to visitors' imaginations (with all intrinsic temporality). Keravel (2010, p67) interprets this

as an appeal to visitors to project themselves, to imagine and to complete the project. --- Clément --- creates a space to be completed where the visitor is invited to conclude instead of the designer.

The quality of wildness, or some of the processes of wild nature, was Clément's design intention for the Garden in Movement at Parc André Citroën and for the Derborence at Parc Henri Matisse. Rocca (2008, p36) quotes Clément,

"The idea is not to create the illusion of nature, as in the Romantic garden, but to take part in a vital flux that is already present and active in that place".

Clément, it appears, is aiming his designs towards working with the living elements for a life that nourishes, animates and transforms the garden. He aims to have the design or parts of the design not being finished, not bounded, not proscriptive, allowing the mess of childhood memories to re-surface so that it "can accept an inquisitive and wandering spirit" (Dagenais 2004, p321, quoting Clement). Bedarida (1995, p15) reinforces this view in assessing that visitors experience 'a delicate unfolding'.

The involvement of visitors and Clément's designs' 'manner of provoking feeling and thinking' is understood by Leenhardt (2004 p232) as having 'its roots in an anthropology of man in nature' and being a way that people are able to forge their own associations, memories and meanings of a place. Gandy (2009, p113) similarly, thinks of Clément's work as being 'left open to the observer, so that the meaning of these dynamic assemblages remains in a state of flux'. Openendedness allows for a person's process of reinterpretation; each visit may involve different associations, memories and meanings. Since the link has been noted previously between memories, narrative and time (Casey 1987); it is evident that, through the lens of personal narratives, 'feeling and thinking --- (a) reflexive sensibility' (Leenhardt 2004, p232), that temporality is a considered part of the design.

Clément's own garden at La Vallée developed his design thinking toward placing Nature first: 'to do the most for, the minimum against' the garden landscape (Clément 2003). In his observation of self sown plants and their origins, Clément developed his concept of planetary gardening.

Planetary stirring is the result of the incessant movement around the planet of winds, maritime currents, and animal/ human transhumance, all of which mix and redistribute these travelling species. --- plants and animals redistribute themselves according to their capacity to survive ---. The garden, necessarily enhanced by species from all corners of the globe --- Each gardener can be considered an intermediary for encounters among species not necessarily --- destined to meet (Clément 2003).

His concept of tapping into 'planetary stirring' in practicing as a planetary gardener is a concept rich in references to temporality. It is as if seeds are swirling in the stratosphere, as if a myriad of moving animals of all sizes, including humans, have unwittingly and purposefully carried seeds and moved them to new places; as if all this movement, happening over different timescales, historical, recent and still continuing is a vortex of vertiginous temporality. As if, when expressed in a design, this movement of plants would communicate symbolically to people and affect them: "A garden is a piece of writing --- (which) expresses itself in symbols" (Bedarida 1995, p15, quoting Clement). In the Garden in Movement at Parc André Citroën the designer's intentions in his use of ornamental and non-native plants is representative of his idea of this global stirring of time and place. Their characteristics are a part of what he expresses about his inspiration for this garden from the friche, fallow land, and its 'growth, struggle, shifting, exchange' (Clément 2003). Reaching back into cultural practice and to a global scale, this 'planetary strirring' carries aspirations for being long enduring.

Clément, it has been shown, considers many aspects of temporality in his designs. He makes use of seriality, juxtaposition, dramatic tension, tempo, open-endedness, change, process, 'planetary stirring' and the changing dynamic responses that will spring from spontaneous park users, particularly in the fountains and the Garden in Movement.

BERNARD LASSUS

Bernard Lassus began working in landscape design in the late1960's after first studying and practicing art and being involved in research studies and artistic interventions on landscape projects. His landscape work in the 1960's and 1970's included a project at a seaside resort near Toulon, la Coudoulière (1967-'71) and his winning entry (1975) for the new town of L'Isle d'Abeau, the Garden of the Anterior, which was not implemented.

Much of his work has been for landscapes impacted by major auto routes. This included pedestrian crossings such as *The Snake and the Butterflies Footbridge* at Istres to encourage children not to risk crossing the road, and *The Path to the Fountain* (1982); and motorway rest areas such as at Nîmes-Caissargues (1989-1990). Many others followed, owing in some measure to his 'inventions of poetical rest areas for turnpikes in France'.





Figs. 9.10 & 9.11The Serpent & The Butterflies footbridge – an invitation to enter (Lassus 1998, plate 5)

Lassus's work in this decade of 1985-1995 included the start of his commission for the Garden of Returns; the implementation of a number of his motorway projects, leading to the Crazannes project towards the end of this decade; and towards the Colas gardens which followed in 2001. Additionally, Lassus's work fits into this decade in which postmodernism is under discussion, as a practitioner deeply engaged with art, yet expressing in his art a philosophy that has developed in a way distinct from modernism. Conan (2004, p88) proposes that Lassus, similar to modernists, wanted 'to anchor artistic creation in the transformation of society' not because it would be able to solve society's problems, rather 'to open realms of new experience allowing the most diverse members of society to explore new forms of action'.

Lassus designed to join 'visual and tactile properties' as preferable to the dematerializing effect of a solely visual approach (ibid p19). His 'tactile' properties were thought of as extending toward absorbing the visitor, possibly

triggering their imaginative immersion. The visual+tactile would become materials for shaping the meaning of a place, though for Lassus it was vital that 'meaning should emerge on site from the free imaginations of those who use it and visit it' (ibid p15). Conan (ibid) places Lassus's emphasis on meaning as post-modernist: whilst also attributing to his modernist principles his delivering 'simple, precise and general' functional environments.

Conan (ibid) thus introduces Lassus's work on the Crazannes Quarries motorway rest stop, tailored to practical needs for long haul motorists, but also for their imaginative wanderings. Crazannes, between Saintes and Rochefortsur-Mer, was Lassus's selected site, close to 'some ancient abandoned quarries overrun with vegetation' (Lassus 2002, p229). The rockwork evidenced the duration of historical and geological eras. But it was not until construction was underway that the extent of the quarries was discovered and their potential assimilated into Lassus's radically revised design (Conan 2004, p83). In a process of careful excavation and discovery, parts of the old quarries were opened sufficiently for a walking circuit, restricted in places for safety of pedestrians, in places for protection of the ferns growing there (ibid). Both the viewing only (a belvedere was added) and fully accessible areas were subject to Lassus's philosophy of combining visual and tactile experiences for site users, to avoid distancing by an exclusively visual experience, which he believed 'dematerializes the world' (ibid p19). Parts of the quarries were exposed on the motorway approach to the rest stop and were preparatory to it, teasing an 'expectation of discovering the larger landscape' (Conan 2003, p357). This simple statement acknowledges the first stage in layering of a person's place experience: a preliminary stage leading to anticipation, giving way to discovering, and then overlaid with memory of the experiences. Arrival at the main section of quarry continues teasing:

The gaze is led toward black holes that seem to invite an underground trip into the rock, or toward very dark places under a dense cover of trees, or toward a line above eye-level profiled against the sky that seems to herald the existence of a landscape beyond and leaving the imagination to fill it out (ibid).

The ambiguity is intentional, as 'Lassus has created a series of ambiguous experiences that encourage the travellers to imagine the regional landscape for themselves' (ibid p358). Lassus's design intention was to allow a visitor 'to plunge into a poetic world receptive to his fantasy' (Conan 2004, p18).

Lassus's design aims had included, besides offering essential rest to motorists and tourists and provoking their interest in the local area, adding some connection with and for local people's interest (Lassus 2002, p232). This feature of his work in the public realm is what he has termed proper space, the combined occurrence of 'ambiance' (and by this he means a mindful balance of all senses, a sensory balance), and 'prompts for the imagination' that are located in a real space of daily activities (ibid p232). Conan (2004, p21), writing specifically of the Crazannes Quarries project and generally of Lassus's design approach, interprets this ambience of mindful balance by Lassus as 'structuring the sensory experience (so) that the imaginative thought-stream of the visitor will take on the value of an artistic experience for him'. By artistic experience, my understanding is that Conan is describing a kind of art-induced realisation on a visitor, imprinting further lingering ideas to ponder and scrutinise. It should be noted that Conan writes 'take on the value of an artistic experience': that he interprets Lassus aiming for this effect in site visitors, not claiming that his work is art.

An implication for change as an aspect of temporality is that Lassus, as well as working on changes to the external landscape, is working deliberately to effect a process for changing perception in the site's visitors.





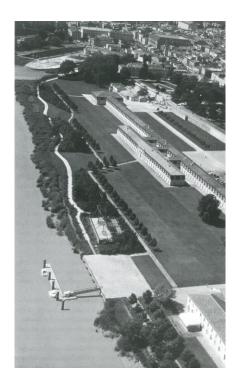
Figs. 9.12 & 9.13 Colas Gardens, lower terrace: juxtaposed inert & living materials (Conan 2007, p111 & p113)

In one of the gardens at the Colas Corporation in Boulogne-Billancourt, Lassus created a space of ambiguity, inviting multiple layers of possible interpretations (Conan 2007, p117). The terrace garden outside the CEO's office was named, following Lassus's design, as the Garden of the Game of Seasons (ibid p116). The garden itself is layered with trees at its boundary to the municipal park, making up one of the layers within which a flat blue metal sheet, perforated with abstracted leaf shapes, formed an inert hedge (ibid 109). A short way in front of this 'hedge', were six similarly perforated metallic trees, differentiated according to their 'species' (ibid). In front of these was a live buxus hedge, itself being set within a low metallic 'hedge', which wrapped round one corner of the garden to meet with the cascading water feature (ibid). Decking swept up to the office door - the space functioned for entertaining - interrupted only with the abstracted parterre; three boxes 'planted' with enamelled spheres, three to each 'stalk' (ibid p108). The garden's name, The Game of Seasons, signified that the CEO was able to replace the parterre boxes with a version covered in 'snow'; or with one covered in 'grass': while there were four seasonal versions of each of the 'trees'. At the perimeter, layers were built from low to high, and from inside to outside. And layers were juxtaposed between Lassus's 'terms of the contrasts --- inert/ living materials, geometric/ organic forms' (ibid p110). This perimeter is an active agent of the garden, for which Lassus aimed to create a forceful identity in order that it would function as liminal interface, metaphorical threshold, between office and residential park (ibid p109). Blending, merging, or buffering were clearly not the design aims. Instead, the inert hedges and trees echo their sympathy with the real trees just beyond, while simultaneously being 'open to imaginary penetration', their perforations invite gazing through: 'but only the imagination can make sense of the darkness and link it with the trees that hover above the blue metallic hedge' (ibid p109).

A major preoccupation for Lassus is with a site's layers of history. Riley (1998, p9) notes his 'other overriding obsession, *time*', its 'vertical sedimentation'. For Lassus, landscape played a key role in creating a place to which people felt a connection, with its past, and into its future; 'built upon the need to sustain the potential of the site: to affirm its present potential and to invent its future'

(Jacobs 1998, p8). Bann (1995, p69) notes that this 'recuperation and reinvention of the historic past' characterises 'virtually all' his designs for the years between 1983 and 1993. Bann maintains that Lassus's position on designing with a site's history differed from those designers intent on conservation and heritage (ibid). For Lassus, historical authenticity relies on how it is communicated, how people come to realise it in a knowing way, phenomenologically, 'accessible to the senses --- within a continuum of sensory impressions for which the designer assumes responsibility' (ibid). Change and process, with historical changes being part of this, were seen by Lassus as 'required to catch the place "on the move" (Lassus 1998¹ p75).

One of Lassus's significant designs was for the defunct grounds of the Garden of Returns at the Corderie Royale, Rochefort-sur-Mer in the Phitou Charente region, midway down the west coast of France. Design implementation began in 1982 and was still continuing in 2001 as a phased construction project. The military marine arsenal of eighteenth century ship building had been the site at which ships, loaded with emigrants and provisions, sailed for the Americas (Lassus 2002, p224-228). After a period of returning with hulls empty except for stones as ballast, botanical collections of plants instead filled the hull: the plants were then installed at the Corderie gardens for acclimatisation before being distributed (ibid). Ships embarking from here also carried troops and later, convicts en route to Cayenne. The site was closed in 1926 and suffered subsequent dereliction. The building of the Corderie Royale was rescued and restored from 1950-1987, but the site had become overgrown, so that the Corderie building was obscured and its connection to the town visually severed. Lassus's implemented design re-focused the main entry of the Corderie from the sea and created a curving route from the town such that glimpses of the Corderie are staged through clearings in the twentieth century tree growth. The docks were cleared and replicas of ships installed; a rigging area with sails, ropes and masts for children's play was constructed; and a meadow area with references to previous uses and gardens with historic botanical content for the Corderie was made (Lassus 1998, p133-137).









Figs. 9.14-9.17 Clockwise: Garden of Returns - Whole site showing relationship to town and water: planters: sails & rigging: curving path leading from Corderie to town. (Lassus 1998, p134 & Plates 10 & 111)

Despite his designs engaging with the history of the site, Lassus's approach was not one of recreating a historical authenticity (Conan 2004, p90). For him conservation bears an association with 'fixity', while rehabilitation is associated with a process of evolution' (Lassus 1998¹, p75). For the Corderie project, Lassus's design approach was to take the three 'heterogenous presences' of the prominent periods of the site:

the present, a time of leisure; then the time of abandonment ---; and finally the time of the origins, conveyed by the Corderie itself, with its pennants and its shipyards (Lassus 1998¹, p134).

Lassus worked 'to restitch' the three eras, and for this he judged the most effective 'thread' was to be in the 'province of the imagination' (ibid). Lassus writes of his design development, once imagination had been chosen as the vehicle to carry visitors' engagement with the site and its history, and his realisation of the need to galvanise imaginations in their 'stitching'. The concept then developed of 'return as a form of *dynamic* nostalgia' (ibid, p136)

original italics). And from this also arose the name of the garden, le Jardin des Retours.

Weilacher (1996, p106) observes that in this work of revealing histories, Lassus's interventions were minimal. This suggests that Lassus took care to nurture, and not to crush imagination (with its inherent temporality), valuing its vitality above the transmission of information.

At the Garden of Returns a subtle, though very deliberate, detail, gives an example of this, where, at the meadow edge the paving is made to appear like lumpy soil (the concrete edging having been dyed brown and cast in crumpled paper), as though, if the grass were to be rolled up, the historic paving would be revealed underneath (Keravel 2010, p63). While Lassus (1998¹, p135) intended this design detail to be suggestive of past uses, Keravel, exploring different modes of transmitting meaning, classes Lassus's work generally as 'explicit transmission'. She illustrates the 'allusions and evocations' which work 'to build a meaning in the visitor's imagination' (ibid p64), the turf edging being an example of this.



Fig. 9.18 Paving with 'rolled back' turf edge (Keravel 2010, p63)

Keravel (2010 p64) writes of Lassus's work at the Garden of Returns, praising its ability to 'transmit a complexity and build a poetic deployment of the site beyond its outer form': and noting the dynamic interaction where a visitor is engaged in 'reconstructing, symbolizing, associating, substituting'. Keravel's paper is focused on ways in which designers transmit meaning. She illustrates three categories with three designers: Bernard Lassus with explicit

transmission, Gilles Clement with implicit transmission and Georges

Descombes with ambiguous transmission. It is surprising therefore, following
the above assessment, that Keravel names Lassus's work 'explicit', given that a
common understanding of 'explicit' is something that is precise, fully expressed
and leaving nothing uncertain or implied. Keravel's (ibid p62) foundational
definition of explicit is 'what is deliberately expressed and formulated --- using
precise signs referring to a code in order to transmit a message'. As such, she
criticises (ibid p64) Lassus's shortcomings in treating landscape as a
representation and not as an interaction despite her earlier observation of the
'dynamic interaction' [noted above]. A further confusion occurs with Keravel's
refined definition of 'explicit transmission' in terms of Lassus's work, which
includes the designer playing with visitors' imaginations:

the strategy of explicit transmission depends on different techniques of allusion and evocations, and on mechanisms for putting things in relation to one another which makes it possible to build a meaning in a visitor's imagination (ibid, p64).

The question arises how something can be at one and the same time explicit, leaving nothing uncertain, while at the same time it relies on people's imaginations. My suggestion is that Keravel is perhaps forcing distinctions between her categories. The lumpy lawn edge, outlined above, is, in my view, less of a signpost to that part of the site's history, than it is a prompt or suggestion, implicit rather than explicit. The lumpy edge, might likely remind a knowledgeable visitor about how the paving would have extended historically. For a visitor naive to the history of the site, the 'rolled back' edge, possibly lingering in their thoughts as unusual, might only suggest something further about its derivation.

The notion of making a landscape historically explicit is contradictory to Lassus's explication of his aims. He has written that he aims for his designs to provoke people to respond with different and fresh interpretations of objects for which they might normally make quick categorised judgements, by using an aesthetic treatment that appeals to people's imaginative interaction (2002, p222). In designing with regard to how people feel about the landscape, how

they engage with it, how it functions for them, and what it awakens in them, Lassus's approach is not prescriptive, preferring to place details that are intended to suggest an aspect of the site's significance, and to allow imaginations to flourish, welcoming a 'multiplicity of interpretations' (Conan 2007, p105). Similarly, Lassus's sites seem to encourage no particular tempo, to allow that to emerge entirely from a person's choice, while seemingly his sites are without urgent tempos. He privileges ambiguity of meaning with a freedom of interpretation (Conan 2004, p90: Jacobs 1998, p2-5). Lassus worked to reveal a site's former history, temporally, its 'vertical sedimentation' (Riley 1998, p9). His designs were executed with open-endedness: his phrase, catching "the place on the move" (Lassus 1998¹ p75), demonstrates that he was using design to 'catch', but wanted this caught quality to have an ongoing, continuing nature.

DIETER KIENAST

Dieter Kienast was a Swiss landscape designer who practised from the late 1970's on a range of projects that included private gardens, parks, cemeteries and office landscapes, until his untimely death in 1998.

Weilacher (2007 p87) interprets the primary thrust of Kienast's work as being about users' phenomenological responses and understandings. Reviving garden culture, sympathy for and involvement in gardens, was of intense interest for Kienast, who has been quoted saying:

The garden is the last remaining luxury of our time as it demands something which has become rare and precious in our society: time, attention and space (Kienast 2004, p89).

In this Kienast demonstrated his sympathy with the current condition of timestress. Supportive of this, Weilacher (2007 p88) infers that Kienast was aware of and included in his design aims and philosophy, Hartmut Bohme's sentiment that Perception of nature requires a different relationship to time --- Perception of nature reveals entirely different time forms, rhythms, time figures in which natural processes are organized.

This appreciation of what a temporal focus can bring to a landscape was expressed in two key elements: his outlooks: and the privileging he gave to, by way of exhibiting them, specific natural processes.

Outlooks occur as a special feature in more than one of his designs, often with an inscription, a means of giving the opportunity to have reflective time. Kienast's outlooks act as pause points, pauses from habitual busyness, where, if there is an inscription, it is likely to be one with layered meanings gathered from its different permutations over time.





Private garden in Uetliberg: Fig. 9.19 Approach: Fig. 9.20 Lookout (Kienast 2004, p39 & p42-43)

In the garden of Mr and Mrs E. at Uetliberg the development of their sizeable garden with woods and a field was a retirement project. Kienast's work was undertaken in two phases in 1989 and 1994. At a juncture between the cultivated garden and the steep slope of the forested hill, a lookout, which Kienast described as 'the most important place in the garden' was built (Kienast 2004, p36). Its balustrade bore the inscription *Et in Arcadia Ego.* Kienast clearly savours the different readings and depictions of *Et in Arcadia Ego,* writing of the first painting by Guercino and of the two paintings of this subject by Poussin. The earlier two paintings included a skull, thus leading to the interpretation that here too even in Arcadia is Death: whereas Poussin's second version omitted

the skull, leading to the subsequent, and still largely current, interpretation of an idyllic, pastoral, care-free Arcadia (ibid p36-38).





Private garden in south Germany: Fig. 9.21 Approach: Fig. 9.22 Lookout (Kienast 2004, p60 & p61)

That Kienast delighted in the prospect of his clients and other visitors relishing the history and the overlaid meanings, is reinforced by his comment on an inscription in a garden for a client in South Germany. 'In our garden the error becomes an intention --- the inscription protects us from the abyss and allows our thoughts to soar' (ibid, p56). It was these soaring thoughts, an individual's imaginative responses to historical precursors, that he envisaged happening at these pause points: the honest acknowledgement and celebration of cultural overlays in a garden setting. For the garden in south Germany, there is a pavilion, approached by a simple path through the shrubbery that opens at the pavilion site to a view of the city with its alpine backdrop. The balustrade of the pavilion is made from letters that read Ogni Pensiero Vola. The text is from Bomarzo, Orsini's Sacred Wood of fantastic monsters, where, beside the Ogre is the inscription Ogni Pensiero Vola, translated as "every thought flows /flies" or "let go of all concerns". Kienast notes the alteration in the wording at Bomarzo (and thus at his client's) which evokes but also counters Dante's wording: "who enters let go of hope". The meaning is significantly altered from entering hell's gorge and relinguishing all hope, to that of entering a place for careless pleasures (ibid).

Features such as these, quiet and unassuming, yet emphatic, give contemplative and stimulating content for a visitor at these places in the garden. These garden outlooks are a focus of the 'time, attention and space' that Kienast so treasured as 'the last remaining luxury of our time (Kienast 2004, p89).

Further outlook pauses were implemented at the Bad Munder Spa gardens, with the balustrade reading *poca differenze*; at Furstenwald cemetery, where the lookout platform follows a long approach, guided by a white wall; and in the Wuhlpark in Berlin in which Kienast placed a number of vantage points in the wilder parts of the park, interventions of timber: 'precisely designed wooden furniture --- in contrast to the wild part' whose minimalist contrasting constructions interjected opportunities for reflection (Kienast 2001 p153).

For one of his private clients, their garden, which had been a farm, adjoining an agricultural orchard, Kienast (2004, p46) described how his design transformed an 'unimportant vista onto the landscape' into a 'meaningfully produced outlook'. In doing this, he focused the view outwards through the space between the flanking medium height perimeter hedge. Into this space, aligned with the hedge, he placed five tall grey painted concrete columns (approximately two metres tall) with vertical wires on which clematis would grow up, a different variety on each. Thus the view to the vertical orchard trees was seen through and past the sympathetic productive growing columns in a way that, by its fabricated concrete material, emphatically commented on the view, rather than presenting it as idealised countryside. This outlook juxtaposed the layers of the two cultures to elicit from the viewer a 'new interpretation of the location, which searches for less harmony and more contrast' (ibid).



Fig. 9.23 Garden of private clients: outlook to orchard. (Kienast 2004, p50-51)

Treib (2003, p82) finds Kienast's gardens to be 'in quiet, yet dynamic equilibrium'. At the conceptual core of Kienast's work is his treatment of the juxtaposition of the fabricated and what is generally perceived to be natural: his landscapes' contribution to "the dialectic on artificiality and naturalness" (Treib 2003, p80 quoting Kienast). His design response was to foreground natural processes by treating them like an exhibit, something to be contemplated and appreciated. In Zurich his terrace design for the offices of Swiss Re shows clean cut paving with narrow separations housing gravel 'swales' and a mass of irises as if they had colonised the strips. A more explicit demonstration happens in the small office courtyard design for Basler & Partner in Zurich in which the damp wall with its wet biotope is colonised by mosses and ferns, slowly changing, showing in picture plane view 'the true dynamics of uncontrolled spontaneous natural growth' (Weilacher 2007, p92).

Kienast's rammed earth walls are further examples, in which he brought this traditional construction into a modernist landscape context. He repeated their design in several gardens, including the Krummenacher garden in Zurich and the Keonig-Urmi garden in Mauer (Treib 2003, p79 and 2001 p132). The rammed earth walls that he had installed were placed as picture planes, reminiscent of a freely spaced planar wall of Mies van der Rohe's German pavilion in Barcelona. Their folk history and art history resound, memorialised through his modernistic statement. More plainly evident is the tempo of stillness: a freestanding wall, placed like a painting for contemplation of its

varying hues that are characteristic of variations in soil used in each layer, and the tonal affects brought on by varying weather conditions and air moisture. Simultaneous with the walls' pictorial nature, is the changing nature of the colours and textures. The walls' staging of their processes of decay are, further, markers of the duration of this decay. What is brought together is an artefact juxtaposing and combining qualities of stillness and qualities of inexorable change, tempo and the duration of process: of sophisticated, man-made design, and qualities of natural earth, crafted by a person in tune with the sustainable life of the earth: of artfulness and naturalness.



Fig. 9.24 Rammed earth wall in the Keonig-Urmi garden, Mauer. (Kienast 2004, p68)

Kienast's use of temporality is expressive in his designs in the several levels of ideas contained in the inscriptions of his balustrades: the adjacency of his use of traditional with contemporary materials: and of fabricated elements in juxtaposition with natural processes. Also characteristic of his work is a tempo of stillness; and pauses designed to happen particularly at the lookouts whose function is to orchestrate an important duration of time in the garden, important as a luxury in contemporary life.

CHAPTER 10. DECADE 1995-2005

Contextual background for the decade 1995-2005

Post industrial sites continued to offer opportunities for landscape regeneration projects. In the Ruhr region in Germany, after attempting with limited success to revive the area's economy, the International Building Exhibition (IBA) was formed, operating from 1989 to 1999. This created the three hundred square kilometre Emscher Park which encompassed seventeen towns and cities. Landscape improvements were a vital part of this programme, 'deemed by the IBA planners to be a prerequisite for economic renewal on the basis that business is becoming increasingly sensitive to environmental considerations' (Shaw 2002, p85).

Influential currents continued from postmodernism, environmentalism and sustainability, and with ripples still continuing from Modernism. Among this, a new discipline emerging was *landscape urbanism*, a term newly coined by Charles Waldheim in 1997 (Donadieu 2006, p37). Corner (1999², p ix) characterised landscape urbanism as including 'urbanism, infrastructure, strategic planning and speculative ideas'. Donadieu, citing Shane (ibid p37), traces its developing meaning from the end of the 1990's, as signifying landscape design that is concerned with ecology in abandoned urban post-industrial sites: to being understood at the beginning of the 2000s by American architect Bunster-Ossa, as 'an ecological and sustainable mode of planning open spaces for public urban use' (ibid p37). Such connections included a demonstrative ecological design aesthetic, no longer visually burying it within a natural aesthetic (Weller 2006, p75). Additionally in designing for social sustainability, an open, contingent approach was taken, in contrast to 'conventions of closure and control' (Pollack 2006, p127).

Contamination and ecological issues were closely linked with ideas of strategies, systems and ecological infrastructure: and the associated post industrial sites continued in this period to offer up such projects for

environmental regeneration (Loures 2009: Ling, Handley & Rodwell 2009, p286): for instance Peter Latz's work at the Landschaftspark Duisburg-Nord.

Ecological sustainability as an imperative was reinforced in this period by two important texts. Lyle's (1994) *Regenerative Design for Sustainable*Development invoked a conceptual re-design of people's use of environmental resources. Thayer's (1994) *Gray World, Green Heart* was a brutally honest depiction of and reflection on our environment and our relationship with it.

Ecology's 'scientific metaphors' such as 'flows, complexity, instability, indeterminacy and self-organization' have been claimed as an inspiration for landscape urbanism to make a 'conceptual shift --- that the world is one of interconnection and co-dependency between organisms and environments' (Weller 2006, p74). Landscape urbanism as a discipline embraces further temporal characteristics of flexibility and change, of ecological processes and change in social usages. It engendered 'a shift from *seeing* cities in formal spatial terms to *reading* them as four-dimensional dynamic systems of flux' (Weller 2006, p77, citing Wall, original italics).

Major regeneration commissions were undertaken by all three of this decade's featured designers, which evidence a systems approach to ecology and social uses. Beyond this macro scale systems perspective; temporality in the detail, the nuance, the personal and the phenomenological is evident in the work particularly of Descombes and Latz.

PETER LATZ

Peter Latz set up his landscape architecture practice with his wife Anneliese in 1968 (Wwweilacher 2008, p198). In the same year he began lecturing at the Limsburgse Akademie in Maastricht, a course in which he included the practical making and closeness to materials that he found so important (ibid). The design partnership explored ecological design from its early work, showing

'entrepreneurial understanding of sustainable ecological design', and developed to have a wide range of projects (ibid).

The former coal harbour, a neglected piece of land on the edge of the river Saar by Saarbrucken, whose functional loss had followed the World War Two destruction of the harbour, was planned to receive the cross-strut for a new autobahn bridge (Weilacher 2008, p81). This development opened up other possibilities for the site of Hafeninsel, or Harbour Island. Latz + Partner put forward three proposals for the planning for the site. Latz's unusual presentation consisted of demolishing the merits of his first two proposals, the first, a conventional landscape park model, the other structured on a conventional geometric design (ibid p84). This then prepared acceptance for the third radical 'syntactical design' idea (ibid). The recent history of the site had cut its connection to Saarbrucken. In Latz's concept, re-connection was one part of his syntactical design to make 'a minimum of interventions, include the existing ruderal vegetation and deliberately work with the information levels on site' (ibid p86-87). Memories were to be retrieved, "crystallize(d) out of the rubble" (ibid quoting Latz). Latz's plan developed around four structuring elements: industrial ruins, municipal access, sightlines, and existing flora. Water, not a structuring element, is subsumed within that of 'ruins'. Thus, surface and drainage water from the park is channelled into a large body of water, first being pumped up to the top of the 'ruined' water gate, before crashing down to oxygenate the lake and to drown out the sound of traffic. The water gate feature dominates by its size and by its intriguing new-build brick 'remnant' structure. It makes sense as industrial ruin not only by its heroic classical scale and remnant state (ibid p93); also by its recall of water's functions, albeit different functions, for the history of the site as harbour.







Hafeninsel: Fig. 10.1 (top left) Planting, path & rubble wall: Fig. 10.2 (bottom left) Rubble wall of found materials: Fig. 10.3 Deck path to 'ruins' of Water Gate (Weilacher 2008 p90, p99 & p93)

The ruined theme continued in rubble 'patchwork' walls using found materials with occasional recognisable pieces, lintels for instance, additional indications of the site's previous workings (ibid p99). Rubble walls of retrieved materials had already become a presence at Latz's home garden in Amperthausen. This signature of collage is present on material and conceptual levels, where old becomes new again, transient life now become enduring, and one in which debris promises a future duration (Iliescu 2007, p149). Iliescu (ibid p152) names this practice of the Latzs' interweaving, '"double-nature", bringing to their designs a capacity to break the linearity of the discourse, and highlight differences, raw edges, and conflicts.' These comments evoke a layered juxtaposition of meanings.

Planting on the site carried through the idea of duration by retaining the preexisting ruderal vegetation, and allowing its unpredictable developing. This was one aspect of the open-ended contingent nature of the site. Kuhn (2006 p51) suggests that including spontaneous vegetation into a designed site has potential to increase people's involvement in the place, with its references to particular aspects of the site's previous life. Hafeninsel is credited by Kuhn (ibid) as being 'one of the first sites to be derived from this concept'. In Weilacher's (2008, p101) assessment, Hafeninsel is 'an open work of art' which was also a 'preliminary step toward (the) much more complex and momentous enterprise in the Ruhr' (referencing Landschaftspark).

Hafeninsel demonstrates how Latz broke away from associations with Arcadian landscapes, and 'ideal notions'; and his application of an alternative approach to implementation of completed concepts, one instead that is worked, dynamic, and 'never reaches a final state of static climax' (ibid p170).

Latz's design philosophy is formed around making a site comprehensible to its users. His probing for and articulation of information systems, or "layers of meaning" is part of his painstaking and iterative process of investigation, analysis and design (ibid p171, quoting Latz). Latz embraced the potential for the experiential and a person's mind engaging with landscape: his appreciation of the visual was tempered:

It is never mere scenery, but there could well be an infinite number of invisible, inextricably linked components that shape the essence, the meaning and ultimately the way the landscape is perceived overall (ibid p169).

Overlayering systems of signification became his design approach at Landschaftspark Duisburg-Nord. This was one of the areas within the Emscherpark for which the German International Building Exhibition (IBA), which operated from 1989 to 1999, opened a design competition. Peter Latz +Partner won the design competition of the two hundred and thirty hectare site in 1991. Implementation work, completed in 2002, was sufficiently progressed for the site to open in 1994.

Rejuvenated ecological frameworks were one of the main objectives of the IBA's evaluations for this heavily contaminated site. The water-recovery system at Landschaftspark Duisburg-Nord diverted the highly polluted Emscher River, which continued to be fed by contaminated groundwater, into underground pipes (Erdem and Nassauer 2013, p286). By this diversion and separation, and by installing reed filtration beds, rain water from roofs has successfully produced clean flowing water that has enabled scuba diving and swimming in the newly safe waters (Latz 2001). Other pollutant remediation will involve a

considerably longer process to effect. Budget restrictions and the large extent of different pollutants with complex remediation requirements has limited the scope for the ecological remediation, with some being removed from site (Latz 2001, p156-158). Hargreaves critiques the limited ecological achievements at Duisburg-Nord, finding that, despite the 'language --- there is very little remediation' as large areas had been treated by capping over the contamination (2007, p162).

The other kind of site 'pollution' that the design was tasked to address, was of negative social and economic attitudes. Its success was transformational with public opinion accepting the site's change from industrial dereliction to being a valued place. At completion the site included a conference space, a museum and visitor centre with restaurant (Nickerson 2004). Cowper Platz became a performance space and a number of industrial buildings became sites for climbing, scuba diving and swimming. The extensive space is used by bike riders and walkers (Weilacher 2008). All of these changes brought about a process of people's changing relationships with the site.

Latz has spoken about his team's design process in attempting to discover the 'rules and system that (would) make it possible to penetrate the chaos' (Weilacher 2008, p115). Not finding a design resolution in the site itself, the design progressed instead as 'an abstract portrayal of the most formative basic elements of the landscape' (ibid, p115). Four elements became the layers of the park's design: were the water park; the rail park; linking promenades; and field and gardens (ibid). These were treated individually as well as being 'linked together visually; functionally; through ideas or symbolically; using the smallest possible interventions' (ibid).

Overlaying Latz's linking and making comprehensible is an emphatic use of layered contrasts and dramatic tension. He states this clearly:

Our new conceptions must design landscape along with both accepted and disturbing elements, both harmonious and interrupting ones. The result is a metamorphosis of landscape without destroying existing features, an archetypal dialogue between the tame and the wild. The image of nature can be made of the 'untouched' and the 'built.' Accepting a fragmented world means doing without

the complete overall picture and leaving room for the coincidence of nature in the web of the layout (Latz 2000, p97).

Juxtapositions and dramatic tensions are emphatic also in the designed work. Among the apparent haphazard organisation of the industrial buildings (Spens 2003, p40), some works buildings with a rational orthogonal arrangement called for additional grids and lines. This included the planting, for which it was important "to develop systems that are both highly artificial and highly ecological", using "an artificial language that is identical with the technical one" (Weilacher 2008 p128, quoting Latz). The ore bunkers, in their geometric formation, were planted in a style evocative of Italianate formalism, species of hydrangea occurring in one of the bunkers at the wider bulges between low clipped box hedging: yet this hedging was non-orthogonal and non-symmetric, each its own 'snake' shape, reaching diagonally across the bunker (see image below, from Weilacher 2008 p125). Weilacher (ibid p124) writes of 'industrial nature', of the mix of over two hundred native and non-native species there; which lends the concept for the planting strategy through the site. Without added topsoil in the bunkers, and with plants growing on a substrate of materials recycled from the site (ibid p122) this opens the possibility of unpredictable plant responses. In the bunker gardens the cultural references to (valued) historic properties layer their ironic comment on their (worthless) setting in industrial wasteland (ibid p122-123).





Landschaftspark Duisburg-Nord: Fig. 10.4 Bunker garden: Fig. 10.5 Aerial view of ore bunkers: (Reed, ed. 2006, p131 & p128)

Again, the juxtaposing of wildness and organisation is evident in a field of sage, a rectangle interrupted by a former factory chimney, one side bounded by a rail line. The geometry is here: the uniformity of the salvias endorses this: and it too is set up for disruption, 'for the coincidence of nature' (Latz 2000, p97), for interloping plants seeding in.

Contrast is almost sublime at Cowper Platz, standing below the Blast furnace 5, which Latz had affectionately named the 'Matterhorn', where planting is a grid of flowering cherry trees (Weilacher 2008 p120).







Landschaftspark Duisburg-Nord: Fig. 10.6 Cherry trees in Cowper Platz: Fig. 10.7 Piazza Metallica: Fig. 10.8 through bunker walls with flowering tree (Reed, ed. 2006, p125 & p128)

Contrasts are articulated with interesting variation, jolting an awareness of newness, new values and new relationships. Some of these planting contrasts adjacent to previously disdained industrial architecture as in Cowper Platz, express and radiate aesthetic care. Perhaps the care and intentionality that is evident from the ordered parts, lends itself, by association, to the wider areas of randomness and pioneer planting.

Clearly there is temporality among memories evoked by the industrial heritage at Landschaftspark, though how much the design is *about* memory is contentious. Reed (2005 p125) states that Latz 'recognized' his design created 'an experience rich in memories, associations and feelings', inferring that this was intentional. However these selective memories omitted any memorial or even reference (the museum would make an appropriate place) to the Jewish

forced labour that had been enlisted during its manufacturing history (Hargreaves 2007, p165). Weilacher (1996, p129) claims less about the site as memorial, or as engaging memories (industrial, cultural); so much as the 'potential' and 'imagination' that capture people as they interact freely and imaginatively (Herrington 2006, p30). Latz's intention was not to make a completed design, its future maturing predictable from the implementation stage. He speaks of the fascination of 'not knowing the outcome' (Weilacher 2008, p114-5) and of the importance of working towards the maximum future flexibility (ibid p124).

Latz has designed changes from a 'vision for a new landscape --- within the existing forms of demolition and exhaustion' (Latz 2001, p158). Largely, it has been transforming people's engagement that has brought 'a metamorphosis of industrial structures' (Tate 2001, p119).

The forms of temporality that Latz designed with are several. Tempos have not been commented on, evidently unfocused and unimposed, accommodating all. Memories are framed afresh in the new uses, new appearances and new additions implemented at both Hafeninsel and at Landschaftspark. Layers are employed in Latz's syntactical approach, and in the juxtaposition of histories, as in the walling detail of new and old materials. Open-ended processes are a design principle for Latz, offering social, ecological and material developments beyond the vision of the design, and allowing for the random and unexpected: a process for changes in the site and its uses. Duration flows though his work: giving new uses to much of the pre-existing materials and installations, and in this process inverting and alerting to that which is short-lived and that which is long-lasting.

Adriaan Geuze

Adriaan Geuze is one of the founders of West 8 urban design and landscape architecture which was set up in 1987, the same year he graduated in landscape architecture from the University of Wageningen. Since then West 8

have accrued an impressive portfolio of work both in the Netherlands and internationally, working at a range of scales, including large scale urban master planning projects.

West 8's designs have a reputation for being radical (Tate 2005, p74). Their design style is consistent with Dutch designers in the 1990's. This has been described by Lenzholzer (2008 p44-46) as a reaction against the stylelessness of Dutch designed landscapes from the 1970's, and imitative of the 'hard' architectural style of landscape architecture from Barcelona in the late 1980s: 'hard materialization, cool, bright colours and furniture'. In their public work a consistent design concept is to create an urban stage, open and empty, inviting and depending for much of its interest on the spontaneous and activating elements people bring to it. Forfeiting what may be expected as the designer's prerogative to create final design compositions, Geuze's designs are indeterminate (Waldheim 2006, p86: Chance 2001, p41: Lootsma 1999, p260); allowing factors of social appropriation or, in a non-urban context, of ecological processes, to shape the outcome (Meyer 2001, p210). Furnished in an unusual and visually striking way: for instance, the strong visual image of the six metre high, four kilometre long pergola 'fauna wall' at the Leidsche Rijn, now Maximapark, near Utrecht: the wavedecks of Waterfront Toronto: the fourteen angular steel features of Visserijplein, Rotterdam: or the proposed High Botanic Bridge, Gwangju, South Korea, these indeterminate designs are made into photogenic stages, designed for activation by their publics.



Fig. 10.9 Leidsche Rijn Park, Pergola 'fauna wall' (West 8 website)

West 8s' designs have been promulgated by Geuze with explanations of their design goals and thinking at his many international presentations which have effectively brought the work of West 8 to a wide academic and professional audience.

Geuze has set out clearly what West 8 are trying not to do. His interest is not in making a place conventionally attractive, nor in eliciting a design's appeal through using plants (Pohl 1993, p87). Geuze (1993, p38) states that the needs of contemporary society have changed from the nineteenth century when the conventions of park design were created: that 'green has become a kind of habit' and the park a 'worn out cliché', lacking the vitality behind the nineteenth century parks. Instead he sees that contemporary aesthetics have 'created a new type of order (that) --- can be based on disconnection and superimposing' (ibid). There are clear inferences for temporality's layers and tempo in disconnecting one type of landscape/ activity/ experience from another; similarly in superimposing: and in disconnection there is an implied rupture between different tempos. Moreover, he states that this age of 'new surrealistic tendencies' enables us 'to attack, not only nature, but also existing architectonic impressions, and we change the space into motion' (ibid, italics added). This outlook leads Geuze towards design principles to upset the expected and provoke actions (ibid p39). His phrase 'change the space into motion' means more than simply people's activities on the site. He seems here to be referring to provoking new aesthetic awareness in site users by disturbing conventional architectural behaviour cues, 'existing architectonic impressions', and in doing this, to have provoked different behaviours, perhaps even different states of being: so that the site becomes an activator, thereby changing the space into motion. A by-product, it seems, is that the use of natural elements are also to be re-written ('attacked').

Geuze here is engaging with qualities of temporality that might be perceived by site users, such as anticipation and improvisation. By dealing in design that confronts predictability, by opening out from what is expected, and by inviting

improvisational behaviours, he is actively working with temporal elements in his designs.

The term 'performative landscapes' has been claimed as one of the characteristic attributes of landscape urbanism (Thompson 2012, p11). It has been applied to those types of open-stage, non-proscriptive landscapes in which a large part of the site's interest comes from the various happenings, large and small, planned and unplanned, for which people make use of the site. Of Geuze's designs, Schouwburgplein, Binnenrotte and Visserijplein each have designs that incline their appropriation as urban stages.

Geuze (1993, p41) has described Schouwburgplein as 'a kind of stage where you can play and express yourself'. It was designed for 'the need to provoke people' into becoming active, into taking the initiative for creating their own activities (ibid p39).





Schouwburgplein: Fig. 10.10 (right) Aerial photograph of Schouwburgplein at night (Reed, ed. 2005, p36 & p35): Figs. 10.11 Night Events at Schouwburgplein. (West 8 website)

Schouwburgplein is a twelve hundred square metre elevated deck over a car park with consequent weight constraints placed on the design. Completed in 1996, West 8's design demarcated different zones with flooring material; rubber, wood decking, epoxy with random maple leaf pattern and perforated metal. Rolling, curving timber seating stretches the length of one long side of the plaza. The activating elements in this large open plaza, those elements that bring in the very important quality of changeability, are water jet fountains (whose water height 'responds' to the temperature) and four steel crane-like

hydraulic lighting masts whose positions alter with apparent randomness. Through the perforated steel plate, night-time lighting is like a 'milky-way grid' changing the day-time scene into a very different night-time one (ibid p41).

The design intent was that the square should be appropriated for happenings: and that these happenings would be released from conventional behaviour, in response to the surreal, anarchic, subversive landscape environment (ibid p39). Design intent here embraces temporality in terms of non-routine, singular and spontaneous events, changeable and unexpected. West 8's website (http://www.west8.nl/projects/all/schouwburgplein/) features images of the square being used in ten very different ways as illustrative of its ending statement that it is an 'interactive public space, flexible in use, chang(ing) throughout the day and from season to season'.

Wall (1999, p233) describes this kind of design 'as active accelerant, staging and setting up new conditions for uncertain futures'. Writing of principles in landscape urbanism, Wall refers to Geuze as being at the forefront of a 'newly synthetic practice of landscape urbanism' (ibid p242). His description of Schouwburgplein as 'extremely simple and spare' is consistent with his example from OMA's Yokohama Design Forum of this urbanist approach where 'space of form is --- replaced by the space of events in time' (ibid p243). That is, urban form as not imposing itself, giving agency to its activating publics, becoming

agents for unfolding new urban realities, designed not so much for appearance and aesthetics as for their instigative and structuring potential --- functioning as social and ecological agents. (ibid p244)

In the understanding of the site as agency, change and indeterminacy become the key concepts in which temporality is expressed. However, while there has been a body of work written about Geuze's work, and of Schouwburgplein in particular, much of which echoes Geuze's own sentiments, there has been little critical or empirical evaluation of the social dimensions of the way the site functions. Rousseau (2003, p21) makes a gently caustic observation on Schouwburgplein:

It is not especially suited for direct physical encounters between people. It is much rather a place of emptiness, of beautiful emptiness, of movement in empty space. People do not meet here; they run past each other, across the square or along it. Of course organised events with big audiences do take place in the square, but the Rotterdammers seldom congregate here spontaneously.

My own personal experience, from two visits, showed no indication of any more interesting behaviours than frequently happen in any major town or city shopping area: people having coffee at a cafe that had set up semi-permanently in the square; children playing on equipment brought in for the purpose. But those were only two moments in the life of an important part of Rotterdam.

Perhaps it is more the *idea* of agency, change and indeterminacy here, rather than reality, by which I propose Geuze was considering temporality. Or perhaps, as argued above, there was a degree of post-rationalisation employed. In either case, characteristics of temporality were highlighted (if not successfully implemented).

The suggestion of the square as a relatively empty and unchanging void – there are no living elements, no plants, none of the seasonal processes that happen around live material – has been defensively laboured by Geuze.

For us it was important to create an environment on Schouwburgplein which changes with the weather conditions, the temperature, time of day, incidence of sunlight, the seasons. That's why we made an intensive study of all conceivable ways of continually changing this technomorphous square (Weilacher 1996, p242-p240, quoting Geuze).

Geuze continues about the design team's choice not to 'use things like apple trees, roses and so on', which, by his choice of naming some of the more inappropriate plants for a public space, inserts a tone of wholesale dismissive disdain for planting. On message, he amplifies the lighting projected through the metal plate flooring as an 'incredible' Milky Way (ibid).

This point is worth pursuing, since Geuze's claims almost sound like locking the stable door after the horse (temporality, in this case) has bolted. In response to being asked about the difference between working with landscape and working with urban spaces, Geuze's response appears to counter, in a confusing way, his claims to temporal responsiveness; replying about their sameness:

At the most, time makes it different. If you work in the landscape you organise a process to a certain extent. If you're working with a project like the Schouwburgplein in Rotterdam, you behave more like an architect and tend to neglect the time aspect (ibid p238 quoting Geuze).

In other respects, of the many manifestations of temporality that a landscape can afford, Schouwburgplein is limited. Of the material content here that might fill a person's perceptual interactions, there are no living elements (the design included a few pine trees in movable planters which were absent at the time of the author's visits in 2001), therefore no observations of growth, no additional insect and bird sounds or movement, no plant relationships of colour, shape, movement with the wind, specific and unique to a moment's sunlight, and so on.

Czerniak though, finds a relationship of the dynamic design with it being 'based on sunlight moving through space --- Like the shifting actions of the park shadowing the path of the sun, the configuration of the lighting masts changes every hour.' (Czerniak 1997, p117). This poses a question, as sunlight is no more (and arguably less) significant in Schouwburgplein than elsewhere, about whether there is hyperbole in this claim. Many other sites' designs contain configurations of features that provide more subtle, or dramatic impactful, shadow play with the sun than the lighting masts at Schouwburgplein. The asymmetric shapes and shadows of the four lighting masts, while clearly dependent on sunlight for their shadows, was not what was meant by Czerniak. She uses the word 'shadowing' as *mirroring* to mean that just as the sun changes through the day, so do people's activities change on the different flooring material (epoxy, wood, metal); and likewise the positions of the lighting masts. A similar sounding statement by Geuze concerning the changing usages throughout the day of the square in relation to the sun indicates that the square's stated significance to the sun may have originated with the designer. Given the somewhat stretched sun/square relationship it may be valid to enquire whether this has been introduced so as to signify the only 'natural system' that can be claimed for Schouwburgplein? If that is not the case, the allencompassing claim is applicable to everywhere, and so must be meaningless when applied, as if it is a defining characteristic, to Schouwburgplein.

Geuze's work includes several examples of non-urban landscapes that have ostensibly ecological designs. Waldheim (2006, p86) attributes an 'environmental determinism' and a distanced authorial control to Geuze's proposal for Buckthorn City, in which sea buckthorn would have been planted in mass to anchor and contribute to soil production on land recently reclaimed from the sea, and to act as pioneer growth before the site was developed. Similar to this is design for undetermined ecological areas, which Geuze terms 'new nature': the purpose of which is to create 'space and bring silence, ecological regeneration and the round of the seasons to the urbanized landscape' (Geuze 2002, p80).

Czerniak suggests that Geuze's design shares a parallel approach for ecological and for human needs in which there is ecosystem interaction and interrelationship with humans; a similar freedom is enlisted for human behaviour as for ecological regeneration; 'community is defined by both social and plant life, and habitat merges ecosystem with development' (Czerniak 1997, p119). It might appear that Geuze's ecological aims have a twofold focus: a concern with a laissez-faire design strategy that allows for, rather than provides for, colonising growth of flora, fauna and habitat; for instance designing for shaping the dunes at Duindoornstad by wind and water (ibid p117); and the enjoyment and responsiveness by humans to the apparent freedoms of the site (signalled by the site's apparent freedom from designed behaviour prompts). Yet Geuze himself contradicts this supposition stating that implementing second nature would be, 'not by laissez-faire but by clever design that dramatises the new nature' (Geuze 2010, p42).

This dramatic characteristic of new nature is supported by his work at the Oosterschelde storm surge barrier, designed to be seen from the adjacent carriageway, with its striking, unnatural looking, black and white striped bands of alternating white cockle shells and black mussel shells: a ground nesting habitat for coastal birds seeking camouflage in their respective colours. The Oosterschelde had a certain visual drama and a certain ecology to its character; singular but narrowly specific for its ecology in attracting birds to its landscape. Schroder (2002 p178) finds potential in the project as a narrative about waste shells and landscape; yet she regrets 'the birds weren't playing.' With the shells

now washed away (Tepper 2011), this design, which was estimated to last just five years, makes a striking example of its transitory temporality, as its strident striped image loosened and washed away (Holden 1996, p93).

Over a decade after Schouwburgplein's implementation, Thompson undertook a critical assessment of landscape urbanism in which he critiques their stated negating of landscape aesthetics, comparing the assertion of this to that of the Modernists' 'replacement of traditional aesthetics with some new ones' (2012, p12) He cites Berger as supporting the idea for landscape urbanists to have '"flexible aesthetic and design strategies" (ibid p12).

Part of West 8's aesthetic is, usually, the inclusion of an original, visually striking, photogenic, furnishing feature. Besides their visual properties, these features often offer opportunities for unusual interactions and behaviours (some images of these are featured on their website) such as the wavedecks of Waterfront Toronto: the fourteen angular steel features of Visserijplein: and the proposed High Botanic Bridge, Gwangju.

Geuze has himself attacked 'existing architectonic impressions' (Geuze 1993, p38). Czerniak, has assessed his work, along with that of James Corner and George Hargreaves, as work that 'challenge(s) the tyranny of the pictorial', by their designs in which 'landscape is a strategy, a network for development' (1997, p117). She argues that frequently landscape design 'mimics a twodimensional image' with techniques such as 'framing, perspectival illusion, chiaroscuro, and spatial composition' (ibid p110). Landscapes that move away from the pictorial concept of primarily functioning for visual purposes also move away from associated ideas of permanence and ordered predictability with implications for the temporal qualities of the site. However, I remain sceptical: it seems that West 8's approach is one that produces a different 'pictorial approach' in landscape design, that is photogenic, that makes primarily promotional material; which is only different from pictorial conventions in its choice of media. Thompson (2012, p12) expressed his view about landscape urbanists in general, and it seems Geuze could be an example, for whom one set of pictorial conventions have merely been exchanged for another.

Geuze's primary intention for temporality is in forming sites as agency, engendering performative landscapes. He aims to successfully invite improvisational behaviours. It may be surmised that 'performative' behaviours will introduce their own tempos and rhythms beyond the norm: and even that there is potential for imaginative interactions as a result of non-routine behaviours; although no particular statement to this effect has been noted. But Geuze's urban stages, while they are laid open for expropriation, are depleted of nuance. Almost nothing is subject to ephemeral happenings, this has been pared away. There are temporary designs, for instance, the black and white shells that were washed away at Oosterschelde, although the durational aspects of the project's short life seem not to have been clearly understood during its existence.

Georges Descombes

In contrast to Geuze's performative, stage-set landscapes accommodating extrovert happenings, Georges Descombes designs to appeal to a visitor's perceptual experience, phenomenologically. He is known for working to reveal the historical layers of a site in a way that is intended to be absorbing for visitors by enlisting individual active discovering (Keravel 2010, p67-70). Treib reflects on a parallel factor: that the designs of Georges Descombes engage with, yet refrain from imposing on, his sites (Treib 2007, p333). Hoddinott (2007, p43) adds that for revealing landscape's 'often overlooked' aspects, that, 'simply taking the time to look at things' has been both a design methodology and design objective for Descombes.

Descombes (1999 p79) expresses his approach as reawakening people. He aims to bring 'attention to that which one would like to be present where no one expects it any more'; to a site's previous eras and imprints; and to do this by creating 'a shift in expectation and point of view', designing for the perceptual and experiential. The temporality in Descombes' statement is additionally forceful as it echoes Husserl's importance attributed to anticipation.

A different view is taken by Weller, who is dubious of the 'mnemonic geomancy' of 'European sensualists' that include Georges Descombes. He challenges the disconcerting intangibility of their claims, which he suggests 'might, in fact, not even exist nor translate as such' (Weller 2001, p12). Weller however seems to have overlooked the perceptual element, in which there can, necessarily, be no assurances such as his positivist view requires.

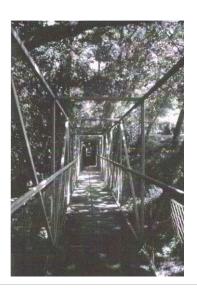
Parc de Lancy was completed in 1990 in an urbanised area on the outskirts of Geneva, former countryside edge to Geneva's suburbia. The site slopes steeply in places down to the Voiret stream. Keravel (2010, p68-69) sensitively portrays a person's experience of the tempo, layers and imagination of this flight of steps descending to the stream in which she attributes 'riddles, interruptions, omissions and alterations' to the configuration and the detailing of the steps and incidents along their way. This, for Keravel, is Descombes

develop(ing) --- a whole rhetoric based on the notion of embarkation, embarking towards the past and towards imaginary destinations. --- invit(ing) the visitor to reinvent the site through his own experience (ibid p69).

Keravel's critique highlights more qualities of temporality than the tempo associated with 'interruptions' and 'alterations'. The embarking into the past and into one's imagination, and the design aspiration (supposing Keravel's assessment to be correct) for people to reinvent the site in their own minds, involves a sensitivity to a malleable temporality, one that the designer offers to the visitor as open for their contribution, and one that the designer does not wish to dominate.



Parc de Lancy, Geneva: Fig. 10.12 (left) Stairs descending towards the stream: Fig. 10.13 (right) Bridge/ Tunnel/ Bridge (Treib 2001, p134 & p137)



The tunnel-bridge at Parc de Lancy was a later installation in response to land being added to the park on the opposite side of a main road. Descombes' work 'translated the tunnel into a site of magic' (Treib 2001, p135). The dark tunnel might be described as spookily rather than terrifyingly dark, since Descombes successfully negotiated a split in the road so as to give space for cutting a light shaft between the two lanes to allow light into the centre of the tunnel. The tunnel is approached and departed by its flanking bridges which function as mediators between full and dim light. They lengthen the run, introducing a stimulating, potentially imaginative, aspect to the road crossing.

Descombes has written about his design decisions here. The differences between the two access points on either side 'created an ambiguous situation'. The embankment crossing 'suggested a tunnel' while the stream crossing 'suggested a bridge' (Descombes 2009, p123). Descombes' design layered both.

This was a conceptually heavy load for such a small passage. The architectural device we proposed was based on this conceptual duality. It preserved both elements - bridge and tunnel - within a complex system that attempts to answer the brief directly, while at the same time revealing the existing site conditions. The design refers to the history of the place and its successive transformations, and in doing so, it witnesses the upheavals experienced by the place (ibid).

Descombes' design makes an identifying trace of the site's development. It also makes further temporal relationships. Descombes states that the choice of steel for the material of the bridge/ tunnel and 'the choice of an elemental geometry', circular section for the bridge and square section for the tunnel, was to bring a tension and attention to the crossing as a contemporary intervention (ibid p124). This juxtaposition of material, shapes, situations (open and enclosed), light and dark; all these layers and their relationships create a sort of dramatic tension. Descombes himself estimated that the bridge/ tunnel 'grants an air of discovery and adventure to what is normally a rather mundane act' (ibid p124).

Treib has commented about Parc de Lancy that 'the invisible, intangible aspects of the design do not capture the eye of the camera, yet are deeply felt on site'

(ibid p134). The bridge may be one part that gives both a strongly visual draw and quickens imaginative pulses.

Keravel draws a comparison between a visitor's experience of a conventionally designed park and Parc de Lancy. She compares experience of the place to one that is dominated by conforming to expectations. In one of Descombes's designs, Keravel asserts, a visitor, by being invited to explore and make her own discoveries, finds herself in anunpredictable temporality. Bowring (2007, p185) describes this unpredictability of Descombes' designs as one that 'jolts its context, scrapes the ordinariness of a situation, and imposes a shift on what seems the most obvious'. Where the exploring visitor is inclined to be involved as an actor in a discovery process of the project (ibid p69), I would suggest the temporality is open to imagining, subverting what one might complacently expect, making spontaneous discoveries by having to give attention to something about which there are no assumptions.

Coignet (2003, p95) reinforces this interpretation in his discussion of revealing; of 'the notion of traces (which) attests to the past and existing practices of a place'. Revealing, in which 'the site becomes both subject and reference --- is also grounded in the phenomenological interaction between the site' and an engaged visitor (ibid). Coignet consequently notes opposing values in designed landscape between symbol or decoration and revealing trace (ibid). He expands on trace as being 'not --- an archeological process', by quoting Descombes about his work on the Swiss Way, bringing an 'understanding of the "shifts and modifications at different periods of time" (ibid).

Descombes is well known for his design of 'The Swiss Way'. It is a two kilometre section of the thirty five kilometre linked walking route around Lake Uri implemented for the 1991 celebration of seven hundred years of the Swiss Confederation. He wrote about his design approach as withholding from grandiose external references, instead allowing perception into the landscape's own 'accumulation of events and stories, a continuously unfolding inheritance' (Descombes 1999, p81). Descombes' writing is largely directed towards his design principles and in this he reveals his consideration of temporality. His approach to revealing traces of a landscape's former existence is by way of

awakening memory, which he designates as 'the legitimate exercise of cultural imagination' (Descombes 2009, p125).

Descombes believes in an overarching principle that 'designed landscapes must not only make the passing of time visible but also make this passage effecting of further potential' (Descombes 1999, p80). He designs to appeal to 'an imaginative sense of place' as well as to the haptic and kinaesthetic which he views as 'essential for any deep form of site appreciation' (ibid p80). In working towards these principles, Descombes pays particular attention to how the design idea can be reinforced:

through the use of changes in position, light, material, density, intensity, and geometry, embracing all of the geological, morphological, vegetal, animal and human-made dimensions of a place (ibid p80).

Descombes' emphasis away from primarily composing for photogenic consumption stimulates Treib's (2001) praise (also some frustration over the difficulty of illustrating his work in print).

There is no way that one can grasp the essence of the Voie Suisse or Lancy landscapes in photographs because it is not concerned with formal structuring. Unfortunately, word may increase our understanding, but not necessarily our experience on site, which is broadly cinematic (ibid p137).

For the Swiss Way his strategy was to remove rather than to impose new structures. Interventions were mostly modest: adjustments were made to paths where needed, in places the levels of descent were modified, and additions were made to an existing belvedere and its railings (Treib 2001, p136). Descombes worked in collaboration with artists Richard Long, Carmen Perrin and Max Neuhaus, to 'draw attention to the magic of the everyday' (Descombes 1999, p83). Carmen Perrin focused on the erratic boulders, glacial depositions, of a strikingly white colouring that had become obscured with moss and weathering. Her team scrubbed these back to their integral whiteness for the rocks to become reminders of the site's enduring glacial past.



Fig. 10.14 At Voie Suisse the artist Carmen Perrin & team scrubbed dirt and moss from erratic boulders, rendering them white sculptural forms.
(Treib 2001, p139)

That Descombes aims at 'restructuring an imaginative sense of place as much as its physical experience' (ibid p80) is already an acknowledgment of the continuing re-making of landscape by people's encounters with it. He encapsulates this sentiment:

Landscape is never finished or completed like a can of preserves; it is an accumulation of events and stories, a continuously unfolding inheritance (ibid p81).

By this open-ended aesthetic, Descombes suggested and invited site users to engage their imaginations. His mechanisms for revealing a site's traces and alterations in tempos accentuate alertness, and attract an individual's inclination for discovering: that is, for individuals to engage in their process for inputting their imaginations, their intellectual and intuitive syntheses. This was as Ricoeur (1985) had diagnosed as necessary to find understanding of historic landscapes (and for Descombes' work geological history should be added to social or political history). Descombes' fascination with processes of engagement and discovering, of duration, tempo and imagination are played out across his landscapes.

CHAPTER 11. HETEROCHRONICITIES ASSEMBLED

This chapter presents a succinct thematically ordered rallying of those temporal characteristics that have been employed in the featured designs. The following pages continue the characterisation of the temporal themes that was explained in Chapter 3, in conjunction with briefly highlighting their application from the featured designers. Attention is drawn to the significance and meaning, the values, which they produce for designers and/ or landscape architectural commentators and critics.

TEMPO

Landscape configurations affect pace or mode of movement, the tempo a person registers. Tempos and rhythms affect somatic responses, differing levels of an emotional heightened awareness within our physical beings. This 'conscious body' is an active participant in 'a body aesthetic that strives to extend and realize the possibilities of perception and meaning' (Berleant 1997, p111).

Somatic immersion

Descombes' indicates somatic immersion as a vital component in his designs (1999 p80). He expresses his value of tempo in the landscape as, 'for me, a haptic, kinesthetic approach to design --- essential for any deep form of site appreciation'.

Jellicoe (1970, p107) situates rhythms evoked through repetition as being a historic tool for the architect, 'as old as architecture itself --- (and) the basis of all geometric form'. This implies that a design with coherence will necessarily also have its rhythm, whether that is one that is commonly understood as such, with pep and vigour; or another much slower, with a relaxed or lassitudinous tempo.

Lawrence Halprin is known for his choreographic landscapes. His understanding of dance and its expression as an art form radiated through his designs as 'places of motion, movement and physical awareness' (Wasserman 2012, p38). He had 'emphasized the way the moving body could become the

fulcrum of perception' (Beardsley 2009, p32); and from this his work developed to prioritise the feel of a place above its look (Hirsch 2007, p262).

Dynamic tempo

Ernst Cramer is something an anomaly in this grouping. His earlier designs had showed an unremitting control of tempo and it seems that it was only later in his career that he embraced a use of dynamic design. Yet, Cramer's work largely evidenced tempo as it might be associated with visual shapes; a conceptually erupting tempo for the 'volcanoes' at Wintherthur Technical College; and sweeping across an ocean hinted at by the upward sail-like structures at Postplatz in Vaduz.

In contrast, the exciting tempo presented by Sorensen's Naerum allotments would have found bodily expression for some, while others would have empathetically run around and through the interconnecting spaces between the oval boundaries. Their choreographic sympathy entices us to their 'breathtaking elegance' (Weilacher 2001, p176).

Sven-Ingvar Andersson was interested in people's physical involvement and responses to his designs. His close work with Sorensen included his own exploration of using ovals and his fascination with the 'importan(ce) --- of typical sequences of human movement --- (of) dynamic and static space' (Weilacher 1996 p166). He enjoyed the kinaesthetic effect of his strip of white marble paving at La Defense in Paris. Its anomalous presence acted like a release from the serious rhythm of the place, becoming a focus for triggering different tempos, for fast moving skaters, cyclists and walkers altering directions (ibid p163: Spirn 1996, p120-121).

Although a wall may be among the last objects to be thought of as expressing tempo, this is what Barragan's walls did. The long Red Wall at Las Arboledas has a dynamic run along by the paving, yet halts movement at its perpendicular orientation. Entrances punch through his walls' obstruction, as at San Cristobal, freeing movement that is otherwise stopped.

Thomas Church's work was characterised less by any urgent dynamism than by a mellow visual rhythm that flowed through the site. The Donnell garden may be read as a continuous flowing sequence (Treib 2005). Additionally, Church's frequent improvement by pruning (he was known to always carry secateurs with him) was his articulation for that dynamic change of views that happens when a person is moving in relation to the framing of foreground, through which middle-ground and distance are in constant changing reltionships.

Grids in their multitudinous repetition, yet different in the orthogonal/ diagonal geometry of identical elements, are able to convey dynamic and rested tempos simultaneously.



Fig. 11.1 Children's playground, Keyaki Plaza, From Peter Walker & Partners 2006, p239



Fig. 11.2 The Chicago Art Institute South Garden diagonal view From Kiley & Amidon 1999, p52

The two gridded tree plazas pictured above, Peter Walker's Keyaki Plaza and Dan Kiley's south garden of the Chicago Art Institute, although similar in that each has trees and raised planters with generous dimensions for seating, suggest a very different rhythm. The relationship of the elements within the two designs significantly affects tempo. Kiley's grid is of tree/ in planter/ plus people with neutral space in between. When people are seated, they group themselves with planter and tree. The low canopy of the *Crataegus crus-galli* reinforces an empathetic relationship, which, in looking across and walking through the grid, would, I suspect, have a kind of resonating tempo. In Walker's grid, the raised elements are spare and without planting: the Zelkova trees thrust upwards and miss the close relationship of Kiley's hawthorn trees. Walker's design is actually two offset grids, a tree grid and a seating grid, two detached elements at

identical intervals. Together do they create a staccato rhythm; or does the flooring with its linear directional paving hurrying through give some energy to what would otherwise be a stolid repetition of two less than interesting elements?

Stillness

Stillness and reflective pausing are signatures of many of Kienast's gardens. He emphasised the quality of gardens as 'the last remaining luxury of our time', able to offer the precious commodities of 'time, attention and space' (Kienast 2004, p89). A recurring motif in his gardens was the outlook. An inscription would often feature in the fabric of the balustrade or other material part of the outlook: an aphorism, classic or otherwise, that held several layers of meaning and so would lead towards reflection on its meaning, and, in doing so, pausing.

Reflective stillness is similarly invited from Hamilton Finlay's works. Some time is needed to look and, hopefully, to discover the suggested references in the texts and images: and to search for hints in the surrounding garden. The inward absorption in search of realising and understanding brings an energetic stillness.

AE Bye's landscapes might appear to be landscapes of calm. Bye himself did not think of them so simply, looking instead to a range of 'mood' qualities. While serenity is one of the moods he selected as being significant, so also is 'assertive' (Bye 1999). More significantly he espoused 'look(ing) to the native condition to design --- with more poetry and emotion' (ibid p28). This hints at his aspiration, not dissimilar to Kienast and Hamilton Finlay, towards tempo as profoundly contemplative energy.

Series – juxtaposing rhythms

Haag's design at Bloedel Reserve created four garden spaces of four different encounters. Added to the experience of each singular encounter, is a layer of encountering them as a serial entity. Individually, each garden's tempo could be described as slow and contemplative. As a series, calm

anticipation, of meeting something similar in the next garden to the previous, is jolted, as other qualities are added to interrupt the expected.

The manner in which Clement's serial gardens in the Parc Andre Citroen alternate with water chutes is assessed by Diamond as 'tension and dynamic interaction (2011, p31). The tempo makes multiple switches between the rush of the water and the more contemplative gardens. Then the Garden in Movement offers an entirely contrasting tempo. The arrangement there is clearly not fixed as so much else is in park typology, its aesthetic is of changeability. It offers an out-breath of release after the ratcheting rhythms of the serial gardens + water chutes.

Unregulated tempo

Lassus, Latz and Geuze are grouped here as offering any and every tempo in their work. Their landscapes do not especially guide a particular tempo so much as allow for all.

Designing tempo into landscape works is intentionally designing for somatic effects on site users. These examples demonstrate the range that these works have brought. Designs have the capacity to capture users into their dynamic effects; immerse into feeling a deep connection with a site; enable emotional responses; bring responses to exquisite elegance; or bring forth an attentive stillness in the landscape, immersed in being fascinated.

PROCESS

Process may be found in *continuing change*, which alludes to alterations in state or quality, and is closely associated with the unlimited and inconclusive nature of *indeterminacy* and *open-endedness*. Designs with planting carry a default setting of expressing processes: though this has the design capacity to range from being imperceptible, or to be a significant part of the design. A landscape's design might strategically aim to involve site visitors in their process of interactions with the site. Sometimes this takes the form of a journey, developing through stages of the site.

Designers' valuing of process has varied widely. Walker appears, from the absence of comment to the contrary, not to have made featured process in his designs. By contrast, both Kiley and Halprin saw process as the driver of form. Halprin's diary from the High Sierras noted the shaping forces of process produced the forms; form and process in a symbiotic relationship (John Alder 2014 p52). Kiley prioritised process over form, since 'form is formed by process' (Beardsley 2009, p102). For Kiley this ranged from the cultural landscapes of French orchards and potagers to the forms created along the course of a mountain stream at the Currier Farm.

Natural processes of changes and process of change within human users

Georges Descombes' (1999, p79) describes his holistic view of process in his work:

I have therefore come to consider my work in provisional terms, as speculative constructions that are produced and transformed through continual reshaping processes: weather, seasons, light, growth, erosion, deposition.

For him this approach to process and change was instrumental to people's landscape experiences, which he saw as essentially 'shifting', not fixed, not object-like (ibid).

At Landschaftspark Duisburg-Nord Peter Latz' design was working with three distinct processes: the remediation processes to recover the site from its polluted state; ecological processes of the ruderal vegetation; and the social process of changing attitudes to the site and its environs. Ecologically, the site's past as a receptor for soils from many places that had come in with the iron and steel during the site's working industrial phase, had included the migration of plants' seeds (Latz 1993, p94). This migratory aesthetic of apparently uncontrolled nature, or nature claiming back its environment, is evoked in the design both by non-interference, allowing plants' natural succession: and by bringing this wilder aesthetic to butt right up against the industrial buildings. In effect, process is showcased here. Registers of differentiated areas of plant processes are clearly apparent; and the lifespan processes of the industrial buildings are similarly highlighted.

Richard Haag's work on the process of changing people's attitudes toward the aesthetic of industrial buildings predated Peter Latz at Landschaftspark Duisburg-Nord. Gas Works Park in the mid 1970s invited play, cultural activities and aesthetic revaluing of the derelict industrial buildings. This was groundbreaking work leading to acceptance, revitalisation and celebration of defunct industrial buildings.

But it was at Bloedel Reserve Moss Garden that Haag's sensitive design-by-subtraction gave prominence to process (Meyer 1998). Here cultural processes and consequences collided with Nature's wave of unremitting growth, stimulating reflection (Condon 1998). Meyer (1998, p15) writes strikingly of the impact she registered, the 'challenge', from the temporality employed by the designs at Bloedel Reserve and Gas Works Park:

I believe their power to move lies in their ability to challenge a sense of spatial boundaries through temporal means, to suggest the open-endedness of processes, the *longue durée*, not simply the fleeting moment. Furthermore, these two landscapes record the discordant temporal scales by which, and through which, natural processes and human actions effect change and disturbance.

Meyer notes here the felt impact of her visit of realising processes and their long-term effects.

Sorensen held in positive esteem the benefits of designing to allow for undetermined processes. He initiated designs for 'junk playgrounds' in which loose parts were appropriated by children in their playful constructions (Bosselmann 1998, p65). In more shared environments, such as the housing development at Klokkergarden, he put in place three essential components of play *environments* which children could similarly use for construction and makebelieve: forest (trees), beach (sand) and meadow (grass) (Bosselmann 1998, p66-67). Similar to the process of Haag's work in changing attitudes to industrial structures, Sorensen influenced changing attitudes to children's play, towards children themselves making their process of play, initiating and modelling their play-world rather than being consumers of apparatus with defined functions (Bosselmann 1998).

Process and planting design

Lifecycles of flora and fauna give a rolling continuation of their seasonal processes through the year. Variations depending on climatic and atmospheric conditions and the process of each season's inevitable change into the next, offer some dramatic highlights. The seasonality of plants can be a powerful connector to a person's awareness of life's stages. Planting design offers expressive potential to designers.

Ernst Cramer is an example of a designer who did not find plants' processes to be a positive factor. Cramer voiced the 'random character of vegetation' as a reason for making little use of planting (Weilacher 2001, p219); his aim was for design finality, delivered and retained for the coming years as near as possible to the completed construction.

Sven Ingvar Andersson, by contrast, made his design material for Marnas entirely from the processes of growth, in its various forms, of the same species of hawthorn. This single element, hawthorn, became the conduit for his expressiveness in his weekend home garden by giving the hawthorn whips different treatments. At Marnas, 'form production' by selected processes, was given to 'the gardener rather than the designer' (Raxworthy 2011, p7). Since in this instance, gardener and designer were the one and same Andersson, Raxworthy makes emphatic the different practices between the two roles, and of husbanding developmental processes over time.

Clement, also, handed over form-making to some extent from himself to plants' own processes, in the Garden in Movement, and more so in the Derborence.

Burle Marx was working consciously with articulating time: 'The garden is always a problem of time. Time completes the idea' (Vaccarino 2000 p43, quoting Burle Marx from a 1992 interview). He brought these qualities of time and process into his design process, taking ten years, with Gomes, to make the Vargem Grande, which Vaccarino (ibid p52) thought 'generated a project with the character of a living organism --- and resulted in a garden that displays a high organization and a deep level of complexity.'

Processes of journeys

The *process of a journey*, or of moving through *stages* in a landscape that has been arranged as such, aims at a person's changing realisation of those stages. A variation of this, below, is the *process of involvement* that a person might feel from their interactions with a landscape. Designers whose work employs these two modes of process are working to invoke landscape to bring (positive) perceptual changes. In this, Halprin, Jellico and Haag are sculpting *how* we participate. It is this 'how' that Berleant found resembled our participation in different art encounters, so that 'bodily engagement with the environment, when integrated in active perception, becomes aesthetic' (Berleant 1997 p110).

Some landscapes are configured as a route, a progress in separate stages: landscapes in which their designers have forged effects of the process into journeying (rather than merely travelling). Lawrence Halprin designed a number of works as sequences, for instance Freeway Park where the visitor is led through several plazas, by planted walkway links, encountering dramatic spaces like Central Plaza with its interactive cascade fountain and canyon fountain. He created

transitions and sequence, often creating processional schemes to be experienced as an unfolding of changing opportunities. He was constantly concerned with how his sites would invite environmental engagement and awareness (Hirsch 2007, p266).

Geoffrey Jellicoe clearly articulated his designs as the process of a journey. His description of Shute House shows the experiential effects he expected the garden to have (Spens 1994). His idea was for freeing the subconscious by back-grounding the intellect; to create immersive experiences, following which, as 'the long journey in time ends' (ibid, quoting Jellicoe p118), the subconscious would have an improved vigour.

Church orchestrated at the Donnell Garden the affective processes of the garden stages. Interrupting forms, such as the Lanai, like a staging post between arrival and destination, were also part of the continuing flow through to

the pool, which itself might be thought of as a stage towards the estuarine marshlands.

Richard Haag designed the Bloedel Reserve gardens as a series of confrontations that might stimulate 'universal human responses --- reflexive rather than conscious' (Condon 1998, p52, quoting Haag). Moving from the provoking Garden of Planes, to the primeval Moss Garden and then to the Reflection Garden, the process of encountering each garden in the series was intended to provoke a personal journeying of immersive aesthetic experiences.

Process of involvement

The concept of designing with ecological processes expanded to include an understanding of designing for social processes (Berrizbeitia 2007, p177). Beardsley (2009, p28) has described Lawrence Halprin's design work in movement and the process he felt it brought about in people, as design that 'encompassed humans in addition to the rest of the biotic community'.

lan Hamilton Finlay's work involves the visitor in their process of discovery, less by physical stages than by imagination and discovering. Finlay used sequences and series not for a physical route around the garden at Little Sparta, but in a series of themes of his artwork. Themes explored in several pieces of work, were, water and streams; the sea; classical stories; woodland invocations; war and conflict; the French Revolution; homage to poets and artists. Each piece in a subject series supports the others and thus also the process of realisations for the visitor. In many ways the conceptual contents of the garden are about process; cultural process; and people's own individual process in being part of it. The process of understanding would continue afterwards, certain images or lines of inscriptions lodging in a person's memory and continuing to develop in the almost unconscious mind.

Both Descombes' and Lassus's work is about bringing the site user to actively engage their understanding of the site. For Lassus this has involved working to make suggestions and prompts so that meaning might emerge through peoples' imaginations (Conan 2004, p15). Conan (2004, p21), writes of Lassus 'structuring the sensory experience (so) that the imaginative thought-stream of

the visitor will take on the value of an artistic experience for him'. More explicitly this experience would be of the sort that resonates in the site user, changing within them and also changing them a little.

At Parc de Lancy, Keravel (2010, p68-9) has described Descombes' embarcation allegory as 'invit(ing) the visitor to reinvent the site through his own experience'. This design strategy offers to the visitor the possibility of contributing their own associations and imagined narratives, to engage in this process that will involve them with the site.

Process has been taken by these designers not as exclusive to natural process; rather as extending out from it to be an agent for people's processes, site users' involvement and journeying, a process towards their understandings. Process has been a coherent design concept for remedying pollution, as well as remedying attitudes, for example in designs by Latz and Haag. And process in and of itself has been a core principle in designs by Descombes. The close association of plants' processes and of implementing the planting (largely a consequence of the process of propagating sufficient quantities) in Burle Marx's work, resulted in the site being like a living organism (Vaccarino 2000, p52). This range of expressions of process, so inclusive of human beings and of natural processes, evidences the phenomenological effectiveness of its temporality.

The processes expressed in the works of Barragan, Bye and Kienast have close affinities, in this organising model of five main themes of temporality, with duration. Barragan enjoyed emphasising the different conditions of new and contemporary adjacent to ancient geological elements that evidenced millennia of process and change. Kienast placed as prime exhibit the slow deterioration and climatic responses of earth walls. Bye brought attention to the processes of brief shadows and the stages of snow melt.

DURATION

The theme of duration, in this landscape context, has a durational scale ranging from the ephemeral and the temporary to the permanent and long enduring. Examples from the work of featured designers in this thesis illustrate that characteristics of duration have much potential to capture attention, refresh perceptions and deepen involvement by their departure from the temporally routine and customary.

Ephemera in light, weather and plants

Ed Bye's landscapes are known for their intentional choreography of landscape elements to emphasise seasonal highlights and ephemera. Moving shadows and snow-melt articulate the ground and ground covering plants beneath. Shadows feature as trees' bare branches on clear ground; of angled branches, their shadows fissured by crossing over limestone walls. Bye's book *Moods in* the Landscape (1999, p26) was his 'photographic essay' of 'illusion and allusion in the landscape': of 'color, light, shadow, texture, movement by wind, weather conditions, and seasons, and the individual characteristics of a particular environment'. In wondering how effectively communicated these subtle nonconfrontational landscapes are, Komara (1990 p84) names it 'poetic, evocative, sensitive to nature': Korostoff (1990 p108) feels that 'Bye leads us to a new appreciation of the aesthetic capabilities of nature, asking us to see the living landscape in a new light.' Bye's designs demonstrate the effectiveness of designing for ephemera. In his landscapes these short events become part of the design. His simplified and abstracted landscapes amplify the effect of these incidents of light and weather.

Peter Walker, despite a reputation for stolidity and reliable unchangingness (Berger 2001, p196), has stated that 'for me Minimalism has to do with light, weather and the seasons and how they can be read against an artifact' (Weilacher 1996, p226). It is uncertain whether this claim can be corroborated for much of Walker's work, but the Tanner Fountain, a collaborative work with Joan Brigham, clearly demonstrates Walker's claim to give special design consideration to seasonal climaxes. As the light changes according to the sun's

height in the sky at the time of year, the sunny/ or sunless weather on any particular day, the effects of light will be frequently changing, coming through the summer mist/ winter steam of the fountain, situated among trees contributing their additional seasonal colours and seasonal variations of shade. The context of trees, their seasonal changes, mist and steam and also students' interactions during semester times, are the repertoire of brief highlighted effects for the fountain.

Plants were the material for Burle Marx to make powerful durational effects with light over distance, in particular the way colour blocks over distance recede or become more prominent as they react to changes of light, producing 'a sequence of shifting foregrounds and backgrounds, focal points and horizon lines' (Vaccarino 2000, p50-51): a moving landscape effect achieved by the chaningness of light with colour.

Dan Kiley's planting was designed for the impact of ephemeral effects. Meyer's (2009 p129-130) analysis of the aesthetics of ephemera in the Miller garden illustrates this: the 'gradient of spaces defined between ceiling and floor with varying shade/ light qualities': such that 'each plant is understood and experienced in relationship to its adjacent condition and solar orientation'; and the ephemeral drama she notes in the contrast between the heavy shade of the horse chestnut allée and the golden impressions of the honey locusts.

By these ways of working ephemeral events, intensely engaging, into their landscapes, these designers have impacted aesthetic appreciation.

Temporary use

The design of landscapes to accommodate temporary use and events has become an increasing feature of public urban spaces: for instance, dance, theatre and music performances in the Piazza Metallica in Landschaftspark Duisburg-Nord. The nature of an occasional temporary event lends it something of exuberant spontaneity.

Adriaan Geuze at West 8 similarly aimed to design such performative landscapes as Schouwburgplein (Wall 1999, p244-246). Schouwbergplein, the

'city's stage', as evidenced by chosen photographs on West 8's website, appears to encourage improvised happenings as well as programmed events and installations. West 8's design for Visserijplein as venue for a twice weekly market also accommodates sports activities and other events. But the differentials between temporary and permanent are blurred. Some of these events are repeated with varying regularity (the sports events), some are permanent fixtures on given days (the market), others may be single occurrences; all are loaned an aura of permanence by being located at a site that has been – permanently – designated for the temporary.

No programme nor partial planning for spontaneity was responsible for the popular appropriation of Lawrence Halprin's Portland sequence (Gragg 2009). His principles of the effect on experience and emotion from a body's movement permeate the design with its consequent invitation to interact with the water features with spontaneous and playful behaviours (ibid). Lovejoy Plaza was one of his spaces that lent itself to performative events in which he welcomed the staged concert and dance events that prompted such participative life (Ross 2009, p19).

In a similar way, Walker's Tanner Fountain became an attractor encouraging spontaneous behaviours. Not programmed for performances, it nonetheless attracts people and their improvisations (Allen 1990, p17).

Despite their common temporariness, the examples above have inherent distinctions between landscapes inviting temporary spontaneity; and those exposed to events management: landscape as an attractor to selling an event, compared to landscape as a behavioural stimulant.

Longevity

Several of these selected landscape designers have reawakened our attention to the long enduring. Richard Haag at Bloedel Reserve Moss Garden recalled the ancient primeval forest. Descombes in the Swiss Way set our own time reckoning in the context of glacial boulders. Jellicoe at Shute House was evoking a historic span from the primeval through to the contemporary. Hamilton Finlay was encouraging us to make the temporal stretch from the

culture of ancient Rome and Greece to contemporary times. Similarly, the scripts that Kienast cast into his lookouts, recalled ideas and attitudes from previous historic times. Bernard Lassus revealed for visitors the enduring quarries of Crazannes as if of a lost era. While Lassus opened access to quarried rock formations, Barragan brought attention to the Pedregal's previous volcanic era by placing buildings in close adjacency to the the rocks. These invocations to historically, biologically and geologically ancient memorialised landscapes are about more than their long endurance. They are each, in their way, awesome, calling up a sublime aesthetic response.

Church's gardens featured in this study appear not to place any particular emphasis on duration other than by placing features against the longer life cycles of the surrounding natural landscapes; fluctuations of water channels in the estuarine marshland, maturing shade of the deck among live oaks, or the Martin beach garden beside the seasonal cycles of the sea.

Cramer's landscape designs show a negative treatment of duration. His show gardens express a durational freeze; while his public realm works at Winterthur Technical College and Postplatz in Vaduz evidence no particular focus on the durational.

Duration's temporal qualities referred to here, of the ephemeral, the spontaneous and the sublimity of longevity, are perceptually phenomenological, and as such, make effective links between people and landscape.

IMAGINATION

Imagination is a deeply embedded, phenomenological agent in our encounters with landscape, and, as articulated by both Ricoeur and by Edensor, is an essential tool for our engagement with historic landscapes. A historic remnant in landscape might stir 'countless conjectures and potentialities' (Edensor 2005, p133). Indeed without imagination's infill, the skeleton of remnant information would fail a fuller understanding (Ricoeur 1985).

Imagined relationships of landscape and user

Traces in landscape, which might commonly be understood as remnants (of some historic artefact), hint to imaginations of what might be there, calling on imaginative insights to work out the missing, untraceable parts.

George Descombes (1999, p80) interpreted trace as a vital way to imagine a site in its pre-existing form, which, connected to a forward propulsion of future 'further potential', energised and restructured 'an imaginative sense of place'. In his landscape intervention for a two kilometre section of the Swiss Way route, aiming to avoid imposing a city aesthetic, drawing instead on the site's inspiration in 'big and little things --- the often overlooked and neglected', and sensitive to social memories of the place, he avoided interpretative signs and instructions (ibid). The design was pursued 'with some kind of imaginary thread, something that is picked up at regular intervals' (ibid p83). In his recognition of landscapes' unfinished, continually evolving nature and identity, its 'accumulation of events and stories' (ibid p81), Descombes was acting to encourage new stories and memories by enabling imaginative interactions.

Bernard Lassus has spoken of

'the landscape imagination impl(ying) a discovery of and a weaving together of both the physical and the sensual, the real and the imaginary, the external and the internal' (Jacobs 1998, p5).

At the Garden of Returns, rigged ships prompt and guide imaginations about the adventures of historic maritime trading vessels that used to leave from and return to the Corderie. Together with the reconstructed planters, one is left to wonder how plants were first thought of as returning ballast, who found the plants, how were they selected; multiple potential narratives of French sailors exchanging with native peoples of the Americas lurk there. Other subtle prompts like the rolled edge to the grass that hints at historic paving beneath reinforce an imagined, previously populated, former landscape.

Lassus evoked imaginations around a site's imagined uses, around imagined roles for the imagining person as well as imagined fantasy. At the Crazannes Quarries, he worked his design so as to allow a visitor 'to plunge into a poetic

world receptive to his fantasy' (Conan 2004, p18). For Lassus the visitor's valued experience was to be reached via their 'imaginative thought-stream': and this was to be prompted by a fully sensory, including mindful, experience (ibid p21).

Barragan's juxtaposing of volcanic rock with modern house walls gives potential for imagining pre-industrialised peoples living in rock caves. Burle Marx's introduction of wild Brazilian plants and in meandering riverine configurations might prompt imaginative associations of Brazil's physical geography with its contemporary culture.

Imagination in Thomas Church's work seems to call on invocations of the borrowed landscapes, for instance of marshland and sea. Adriaan Geuze involves surreal elements in his designs, giant articulated lighting masts and massive pergola 'fauna wall'; intriguing and potentially stimulating imaginations.

Peter Latz attached importance to a site's potential to be appropriated imaginatively by its users (Weilacher 1996, p129). He voices his view for Landschaftspark Duisburg-Nord not on imaginative engagement in historical understanding, but rather placing more emphasis on free and imaginative associations.

Fantasy freely interprets the structures and spaces, regardless of the historic function they have had: the old walls of the bunker buildings become 'rock faces' in a mountain landscape, and the rigid tangle of rusty blast furnaces look like a hunting dragon. The central idea is to adapt the purposes of the structures; the blast furnace becomes an observation tower or the 'Matterhorn' dominating the surroundings (Latz1996, p55).

Sorensen's interstices between ovals, and his provision of simple play elements (water, grass and trees) that would stand in for their imagined counterparts (rivers, meadows, forest) similarly appealed to free and playful imaginations.

Cramer's IGA exhibition Theatre Garden is an example of guided imagination. Not a functional theatre in any sense, but having a somewhat theatrical presence with a title of that name, Weilacher (2001 p161) thought that its openness to participation, more than just viewing, made it responsive to

'interpretative possibilities' in which people 'could become the actual protagonists of the scene'.

A less cerebral, more physical stimulation of emotional equivalency was aimed for by Lawrence Halprin in his fountain designs. His Canyon Fountain gorge in Freeway Park, evocative of Yosemite gorge, gave the physical experience of being under or close to a gorge waterfall in its configuration. This was to encourage 'physical participation and, through that, an intensified emotional and psychological experience' (Beardsley 2009, p33). Halprin's emphasis is on psychological rather than imaginative faculties, although the principle he developed of emotional equivalency - a person immersing themselves into a state of being that was evocative of another state of being - shares some commonality with imagination. This thought is affirmed by Halprin's correspondence with Donlyn Lyndon in which, describing qualities of admirable places, and having listed 'distinct and memorable', 'sustain(ing) exploration and continuing attention', 'personal interaction', that it be 'derived from multiple sources' and be 'open to continuous change': he states, 'But I would add that good places always have responded to humor and fantasy' (Halprin 1989, p65, italics added).

Prompts, perhaps, to a more fantastical imagination are evoked at Andersson's garden at Marnas. Unsettling shrinking and lengthening of lateral hedges alert to a less logical encounter through the garden. The hen-shaped hawthorn plants suggest 'the autonomy of non-human actors and the impulse to create their stories' (Spirn 1996, p39). In that frame of mind, all kinds of implausible associations between gardens and children's tales might flourish, as to whether there is something wild and unknown that lurks on the other side of clipped hedges where they are left to be wild and unkempt.

A different strategy was chosen by Gilles Clement. The Derborence garden was to be encountered actually only by the gardener; it was to be encountered imaginatively by park goers looking up to some of the planting protruding form its seven metre high 'cliff'. The situation of an inaccessible plateau in a public park, and a glimpse of its overtopping plants was the only physical experience Clement allowed. All else is for park visitors to ignore or imagine.

Dan Kiley talks about 'trying to get a vibration' (quoted in Treib 2009, p44), about 'a poetry of space', and the 'mystic quality of space' (Kiley 1982, p43); placing his emphasis on feeling the changing character of a place, and on the dynamic feeling of movement through it. For Kiley, this spiritual perception of a landscape is attributed to an entrancing rhythm. Yet it seems not so far removed from Ingold's (2012, p7) understanding that,

'Perception is imaginative, then, in so far as it is generative of a world that is continually coming into being with and around the perceiver, in and through his or her own practices of movement, gesture and inscription.'

Richard Haag's design intention towards emotional and attentive connection with a landscape is similarly sympathetic to Ingold's understanding of imagination. Both Condon (1998, p57) and Meyer (1998, p11) write of their affective experiences at Bloedel Reserve. The Moss Garden particularly invoked imaginative reponses, as noted previously.

Metaphors and allusions – Imagination guided

Symbolic representations call on a particular, often culturally defined understanding combined with imaginative, rather than literal, interpretation. Jellicoe's use of symbols, the whale shaped lake at Sutton Place for instance, rested on a somewhat didactic Jungian justification.

Ed Bye explains his book *Moods in the Landscape* as 'a photographic essay on illusion and allusion in the landscape' (Bye 1999, p26). He delighted in landscape forms that might provoke imaginative associations. Cantor (1997 p216) quotes Bye giving examples of the importance of site features:

a site can have gnarled and contorted oaks, twisting against the sky and suggesting the possibility of stretching the weird scene into a garden of the grotesque. On the other hand, a landscape with violent outcroppings may suggest a landscape of the brutal.

From encounter to active imagining we can sympathise with Komara's (1990 p83-84) evaluation that from such suggestive landscape features 'the visitor

is intended to cross sensuously and mentally to other places, times, and images.'

Dieter Kienast's garden inscriptions, lettering artfully picked out in the material on a range of structures, are emphatic invitations to think and imagine. Kienast's intentions clearly included imaginings. Writing of a client's garden in south Germany, (he shares the ownership of intention): 'In our garden the error becomes an intention --- the inscription protects us from the abyss and allows our thoughts to soar' (Kienast 2004 p56). The error to which he refers is the quote from Bomarzo that had so tactfully altered Dante's apocalyptic text into the more amenable "Ogni pensiero vola" ('every thought flows /flies' or 'let go of concerns'): thus inviting pleasure, not the inescapable abyss (ibid). Kienast posed a number of these double meanings: they seem immediately to provoke a 'what if . . ?' Located at places for pause and contemplation, outlooks rather than shrouded enclosures, his design intention for imagination is palpable at these focal points of the gardens.

lan Hamilton Finlay's work – and perhaps this was generated by his fundamentally poetic perspective - has been described as 'challeng(ing) its visitors to the indispensable act of imaginative empathy' (Bann 1993, p110). His locations for referred meanings were precise, gaining subtlety from the layers of different, yet associated, referents and from their deliberate incompleteness (Hunt 2008, p66). Ricoeur's (1985) understanding of imagination as an intellectual and intuitive synthesis, finds sympathetic responses in Finlay's work. His recognition of the unchained nature of this synthesis is shown by his acceptance of some visitors' lack of understanding of some works, and his perception that intellect alone would not gain a proper understanding (Weilacher 1996, p100). As Finlay's landscapes may be perceived as intellectually demanding (of knowledge of so many classical and political references), it is particularly important that the designer attributed an instrumental role to imagination.

The approaches of these designers, and in particular, of Descombes, Lassus, Latz, Halprin, Andersson, Bye, Kienast, Clement and Finlay, demonstrate the importance and value with which they design imaginative opportunities into their

work. In the designs of Descombes, Lassus, Bye and Finlay, imagination, inherently temporal, is central to their work and to understanding it: it appears as a core principle. That is, designing the pragmatics of a site, though it, too, is vitally important to achieve well, was insufficient for these designers. Conan's (2004, p15) assessment about Lassus, expresses this well: the meaning that designs should have for users was to 'emerge --- from the(ir) free imaginations'. In this they validate Pallasmaa's (2005, p143) urge to 'feed the imagination' and opportunities for 'mystery and dreaming'.

LAYERS

A layered recognition and understanding of a situation or place is one that has a simultaneity of significant meanings, and one in which further meanings are found with layered depths.

Layers in juxtaposition and contrast

Meaning is a consistent thread throughout the employment of layers. Alerting attention by deliberate juxtapositions, which highlight the duality of the other's qualities by their proximity and simultaneity, cuts through inattentive complacency. The intention is to lead site users to their own active engagement in the site, a prerequisite for finding meaning and for aesthetic receptiveness.

The impact of Church's juxtapositions insinuate being about something less to do with meaning than about delight and energy. The sand in the Martin garden separates a confrontation between the zigzag seating edge and the curvaceous plant border, an expression perhaps of both energetic exuberance and relaxing at the beach. A similar proximate contrast in the Donnell garden with the orthogonal indents of the deck butting up to the biomorphic curves of the pool highlights sensations of the enfolding closeness of the trees (in and by the deck) and the watery expanse of the hazardous marshes beyond the pool.

Lassus, similarly, used live and inert 'plants' at the Colas gardens; and Kienast, making a wall stand like a framed picture at the Keonig-Urmi garden, so that the slow deteriorating process of its rammed earth structure would be prominently

displayed: both brought attention to the natural and the artificial by these juxtapositions.

Both Barragan at El Pedregal, and Bye at the house on the Connecticut coast, juxtaposed indigenous rock with interloping residence. The unmistakeable layering of ideas around bedrock appropriated for contemporary residence is achieved by this conspicuous proximity.

Adriaan Geuze's design work could be characterised as essentially juxtaposing layers of images, uses and perceptions: and shocking us with unexpected treatments.

Order can be based on disconnection and superimposing. --- creat(ing) new surrealistic tendencies - combining different atmospheres and different possibilities together (Geuze 1993, p38-39).

Geuze communicates his mission in landscape design as enabling people 'to make a beautiful life' (ibid p39). For this, he feels, surreal, disconnected and superimposed (layered), environments are necessary (ibid).

Gilles Clement's masterful juxtapositions at Parc d'Andre Citroen stage contrapuntal highlights through the design. The large level central lawn is defined by its closely articulated edges against which, on one side, Clement's serial gardens make enclosed planted spaces, each one individual, with disciplined maintenance. The alternation of the gardens with the water chutes heightens, by the repeating contrasts, anticipation and arrival, a ratcheting kind of dramatic tension. Finally, or maybe initially depending on direction of approach, the Garden in Movement lies in abandoned contrast to the carefully constructed and maintained serial gardens, as a place where the plants seem to put themselves and people secrete themselves among bamboos. The juxtaposition heightens the significance and sensation of both the serial gardens and the Garden in movement. For Clement this was a device conveying meaning:

a counterpoint to the Garden in Movement --- "a work of excellence, a stylistic exercise --- of the garden full of a controlled, tamed diversity. --- one option does not destroy the other --- Both alternative modes are forms, but the question is not

about form, it is about what you want to say; the problem of meaning becomes the truly important question." (Rocca 2008, p61,quoting Clement).

Haag juxtaposed the four entirely different types of landscape experience at the Bloedel Reserve - the modernist planar garden; the devastated forest buried in moss and resurrection; the restrained, still and focussed Reflection Garden and the loose wildness of the bird sanctuary. Each garden demands a different kind of immersive contemplation; which, having moved beyond each garden is confronted by the contrasting demand from the next; thus building a dramatic tension, an escalating emotional tempo, between expectation and reception.

Layers in thresholds and transitions

Thresholds and transitions involve a leave-taking of what has just been experienced layered together with preparatory anticipation of what is about to happen.

Luis Barragan's distinctive modern architecture employed thresholds, transitions, and emphatic juxtaposition of materials. At San Cristobal, walls and their openings present thresholds and transitions from inner to outer state, from water courtyard of a disciplined equestrian setting to an outer world.

Thresholds, which bear the quality of the moment of change between one character of space into another, draw attention to the juxtaposed qualities of the adjoining spaces. Dan Kiley's steps at the Currier Farm link one part of the garden to the next. They are described in his book with Jane Amidon as appearing 'to hover in the air, releasing visitors for just a moment' (Kiley & Amidon 1999, p45). The point to emphasise is that, for Kiley, his design operated simultaneously with both its 'classic structure' and with materials that spoke of their local provenance (ibid p44). Illustrative of this is the way the water was channelled by the base of the stone wall. The water connected and situated the garden in relation to its mountain source. The channel ran a short length in which the water was 'tamed and then let go as a feral agent' (ibid p45). This is the context then, within which the suspended steps, crossing the wall and joining the two parts of the garden, made of local marble, 'appear to hover

in the air, releasing visitors for just a moment from the solid earth as they pass from one terrain to another' (ibid p45). Awareness is drawn at this threshold to the significance of the water, its mountain source, its brief visit, and its further destination.

Peter Walker, with Joan Brigham, composed Tanner Fountain as a feature juxtaposing the stillness of the stones with the speed and directionality of the confluence of multiple paths: the stones spill around, girdled in a circumference that has captured their movements. Situated at and in a confluence of paths, the Tanner Fountain could also be thought of as an open threshold: and its various elements create layers of tempo. Temporality, largely from characteristics of layers, plays a major part in its identity.

A kind of hybrid form between transitions and collage are Halprin's designs, aimed to be an unfolding sequence, a process in stages of bodily empathising, accumulations and transference of, for instance experiencing a Yosemite waterfall with the Central Plaza Canyon Fountain in Freeway Park.

Layers in collage

Sorensen orchestrated layered relationships, often wth plant material, volumes and configurations of multiple layers into rhythmic relationships, for instance for Vitus Bering Park, the Church Plaza at Kalundborg, and Naerum Allotments. The complex relationships are formed in his landscapes and extend to experiences of them.

Iliescu (2007) gives an interpretation of Peter Latz's work that is fundamentally heterochronous. She characterises collage principles worked out in the Latz's home garden (ibid p149). With the juxtaposition of old and new materials, the old, that had seemed relatively transient, having been salvaged, become part of building an enduring garden. In addition, the new relationship given to these old and new elements inverts the expected process of duration; the apparently permanent becomes transitory while apparent 'debris now seems to hold more promise' (ibid). Iliescu (ibid p152) names this use of interweaving, 'double-

nature' to bring to their designs a capacity to break the linearity of the discourse, and highlight differences, raw edges, and conflicts.' More than drawing attention to its materials from different eras, Latz's walls have the capacity to become absorbing artifacts. This layered outlook is confirmed by Weilacher (2008, p114), who writes that 'Latz urgently defines design as the concrete influencing of the intelligibility of information layers.' For the design at Landschaftspark Duisburg Nord, Latz and his team were finding coherent organisation of the site elusive until they opted for a layered superimposition of four formative elements which became the water park, the rail park, linking promenades, and fields and gardens (ibid p115). The treatment of these layers was, moreover, non-sequential: Latz's team focused on redefining, redirecting and reinterpreting the potential of these elements for the site and site visitors (Tate 2001, p120). The redefinitions, redirections and reinterpretations are, in themselves, additional layers.

Lassus (1998¹ p75) has written that for his design of the Tuileries gardens he had wanted 'to perpetuate through fractions' parts of its previous designs. His term for this was not layers, although the meaning is the same, but 'interlacing' (ibid). He then quotes himself from his book *Le Jardin de Tuileries*:

The progressive development of the garden does not result from successive adjunctions of new parts, but from a succession of re-writings on the same space and from reinterpretations, by the society which uses it, of the sense of the garden at each moment of its history ... It is thus that multiplicity of the site that had to be made poetically tangible and to be followed to the present (italics added).

It becomes apparent that the operative phrase in Weilacher's summary (1996, p105-106) of this aspect of Lassus's design philosophy, is 'levels of meaning': 'Landscape - like millefeuille – consists of many historical layers and levels of meaning superimposed upon each other.'

A correspondingly layered world view is shown by Georges Descombes. He has written about appreciating a site's palimpsests, 'geological, morphological, vegetal, animal and human-made dimensions of a place' (Descombes 1999, p80). The treatment given to some glacial boulders

illustrate this, previously likely to be overlooked, scrubbed to their underlying whiteness, signalling to those who are curious about their journeys of geological upheavals. Descombes worked on these layered 'manifestations of dynamics --- forces, activities, events, and actors' in order not to define the history or archaeology of the site, but to tease out new realisations, new relationships, giving

attention to that which one would like to be present where no one expects it any more. Thus, for me, to recover something - a site, a place, a history, or an idea – entails a shift in expectation and point of view' (Descombes 1999 p79).

Descombes' talk of these as 'shifts in complexity' (ibid) makes an imperative to jolt away complacent blind spots and make manifest new realisations.

Similarly Richard Haag's work is an example of layered working with geological, hydrological, social and natural systems. At Gas Works Park the design included healing layers (multiple contaminations), social layers (multiple activities accommodated), and historic layers (remains of previous industrial uses). In contrast to the extroverted, centrally located city park of Gasworks, at Bloedel Reserve, Haag brought to bear a differently layered experience, as mentioned above, of humankind's time and place in the world.

Geoffrey Jellicoe's Jungian perspective on layered experiences was as a sequence within a person's (Jungian) development, ranging from *primeval* to *developed* level. In addition, Jellicoe was keenly appreciative of historical layers. At Shute House garden he relished the design conveying the narrative of the place referring back two millennia (Spens 1994, p105 quoting Jellicoe). His strategic use of water throughout the design

was holding together the competing ideas that had been introduced into the woodlands – ideas remotely associated with Islam, Greece, the Middle Ages, the primeval, and other times and cultures (ibid p106 quoting Jellicoe).

lan Hamilton Finlay's numerous compositions with their many layered meanings exist to intrigue people, offering possibilities to pause, to think, to feel and to break the habitual pace of onward progress. Meanings, interpretations and references are layered into his work. For instance an arched stone bridge is

inscribed with, ARCH, n. A MATERIAL CURVE SUSTAINED BY GRAVITY AS RAPTURE BY GRIEF. The layers of meaning and coctrasts of meaning here are various, making several 'readings' that a visitor might savour: ancient with modern; accepted definition of arch with added perspective on soaring rapture; the essential conflict of the presence of rapture being dependent on the existence of grief; the curving arch being dependent on gravitational force; and any personal associations. The layers of meaning deepen the significance and reception.

With the active, engaged participant in mind, appreciation of a landscape gains resonance when the design enables it to be multi-layered. Such a heterochronous outlook on design was expressed lucidly by Sven-Ingvar Andersson, with Shakespeare as his leitmotif:

I do my best to work like Shakespeare. I try to bring out different levels in my projects. --- These qualities go beyond artistic and aesthetic considerations. A garden should be such that it can be experienced over and over again --- and discover new aspects each time (Weilacher 1996, p163 quoting Andersson).

Designing with layers, often layers of information, or synthesising a wealth of information into syntactical layers, as Latz expressed it; or, like Sorensen, orchestrating layers of relationships; or levels of meaning as realised by Andersson and Finlay; these temporal layers, in their various forms, have been used as a way for designed landscapes to carry meaningful content. Shakespeare is an apt mentor.

Aesthetic values

Assembling instances of work within these temporal themes has demonstrated their aesthetic use by designers. This is an aesthetics not residing in objects set outside from a site user. It is a transactional aesthetics, not placed or given by a designer, but one whose potential uptake has been designed in with layers at juxtapositions, at thresholds, in dramatic tension; with tempo in somatic immersion and with stillness; with durational temporality, ephemera and longevity; and with prompts to imaginative associations. Other temporal

characteristics, while not claiming aesthetic value, have been used phenomenologically, to involve site users into the site, by designing for spontaneous use and with dynamic tempos. Designers communicating meaning, even though not primarily aesthetic meanings, have worked with layers as collage; and designed with processes. All these temporal design strategies have been working to connect people with landscape. This is landscape as 'interworld' (Conan 2003, p316): one where landscape processes increase the 'subjective dimension' (Berrizbeitia 2007, p177). This should not surprise when we reflect back to Husserl for whom temporality 'consititut(ed) the bedrock of phenomenology' (Zahavi¹ 2003, p81). Temporality's phenomenological base makes each theme an expressive medium, able to confer meaning.

CHAPTER 12. IN CONCLUSION

Development of the work

This study aimed to demystify and enunciate temporality as it applies to designed landscapes. An elucidation of theoretical thinking on temporality was embarked upon, bringing an understanding of the subject within a landscape context.

This conceptualisation of temporality, applied to landscape design, has been instrumental in developing and articulating principles, terms and organising themes.

The landscape context was specifically probed, through the work of selected landscape designers, as to how they expressed temporality, and what aspects of temporality they invoked. Through published written accounts of landscape designers and landscape theorists/ landscape architectural critics, an analysis of the physical, spatial manifestations of the temporal has opened towards a stimulating awareness of temporality's design potential. The reader may notice a deepening appreciation for some of the selected designs, and potential for a deepening resonance responding to temporality's embrace of the phenomenological. This may prompt reflection about the importance of designing for temporality, which, with reference to contributions in the literature review (Chapter 2) from Ingold (2012) and Bergson (in Muldoon 2006) is effectively integrating ourselves and becoming with our landscapes.

Outset

At the inception of this work, my understanding of time in designed landscape was primarily identified as, a) processes (vegetation, ecological and social aspects), and b) something that was poorly understood and conceptualised in landscape architecture theory and practice.

Time and Temporality – a Phenomenological Approach

From this start, and in researching philosophical approaches to temporality, a phenomenological approach became central. Concepts of time, inseparable from universal time, are inevitably positioned outside phenomenological experience. Thus, temporality became the term that I consistently used to define a phenomenological sense of time, and one that is necessarily (owing to its phenomenological character) connected with its sensed meaning. My expanding interpretation of temporality has moved beyond common conceptualisations of time (I use the word advisedly) as measured. This temporality involves some conceptual adjustments: it is distinguished from time, a distinction without which an understanding of temporality is severely impeded. And the conceptual bind of a linear trajectory of past/ present/ future is relinquished by positioning temporality as heterochronous, embracing other and different characteristics that are non-linear; imagination for instance, and the multiple synchronicity of layers.

Theory of temporality in a landscape context

Temporality is a *sense* of time; which, through its phenomenological nature, is associated with a person finding meaning. It is qualitative, not quantitative, in this regard; with a propensity to aesthetic involvement. Temporality, in a landscape context, is heterochronous, its presence is expressed variously through diverse temporal-related characteristics. It is omnipresent with spatiality.

Themes of temporality in landscape

Through extensive review of literature and evaluation of selected designers' projects, in addition to a developed theoretical understanding of temporality, I have organised its characteristics into temporal themes. Of the five themes, process, duration and tempo were anticipated from initial stages of the work. Imagination and layers emerged later during analysis of descriptions of landscape works such as those of Gilles Clement and Bernard Lassus. The organisation into five themes does not claim any kind of equal division of

significance. Significance relies on its specific application by a designer, and its reception by a site user.

The contribution of a theory and overarching organisation of temporality's themes demonstrates its purpose by looking forward to potential application by a designer. By retaining a full and whole understanding of temporality, not transferring autonomy to individual themes, two difficulties would then be avoided. Firstly, themes would not come adrift from the inherent phenomenological nature of temporality, with their capacity for significance and meaning: and, secondly, the occasions when the heterochronous nature of one theme overlaps and layers to another would not be truncated. That a single manifested temporal gesture is capable of expressing several characteristics from different temporal themes, as explained at the beginning of Chapter 10, demonstrates the severalness of temporal characteristics. Their heterochronousness is something that I have treated as such. Remembering Bergson again (from the beginning of Chapter 10), I aim to retain their 'fluid qualitie(s)' (Muldoon 2006, p81 quoting Bergson).

Descriptions in the literature on designed landscape works use a range of expressions, rarely 'temporality', but recognisable as such by the characteristics they describe. Through the lens of temporality this work has found landscapes in a *process* of 'becoming'; some engaging the aesthetics of involvement in stages of a journey. Design approaches have avoided the fixed; working with process as agency on pollution, the ecological, the social and cultural; sensitive to a powerful sense of open-endedness; making process emphatically visible; finding process-driven forms; propelling plants as substance for creations by the gardener and by their processes; designs made as living through process.

Within the theme of *duration*, ephemeral moments in landscape have been awakened by planting and seasonal highlights, effects of light and of shade. Designs have enabled improvised happenings. And reminders of the long enduring have prompted sublime aesthetic responses, or conversely, have signalled 'discordant temporal scales' (Meyer 1998, p15).

Tempo, by its somatic effects, has been prioritised for its kinaesthetic and haptic attraction. Dynamic prompts of halts, runs, and rhythms, both mellow and vibrant, have been engaged. Some tempos have been immersive: stillness has been evoked as a way to open up contemplative perception and absorption.

Imaginations have been provoked as routes to discovery and meaning; and enrolled in people's encounters with history and with imagined narratives. It too has been about involving people in the landscape, about avoiding distancing and 'plung(ing) into a poetic world receptive to (their) fantasy' (Conan 2004, p18). It has engaged with metaphor and allusion, and with empathy.

Some works have been described as collage, overlaying the anticipated and the found, and so prompting re-evaluations. *Layers* have been juxtaposed and formed as thresholds to jolt attentiveness, and make aware. 'Interlacing', as Lassus termed his method (1998¹, p75) has intentionally not followed sequence. Works have layered relationships and potential interpretations to stimulate fresh encounters.

Temporality in designed landscapes: meaning and significance: implications:

Original contribution

The original contribution this work makes is in forming a theory of temporality in designed landscapes that previously was absent from landscape architecture. The conceptual foundations of the theory are built on the work of Husserl, Bakhtin, Ricoeur, Bergson and Berleant which, with integrity to those concepts, I have applied to landscape. Analysis of temporal characteristics from examples of designed landscapes has articulated this theory: it has, additionally, necessitated the development of a language of terms, in which temporal attributes are organised (though with alertness to non-exclusiveness) into a thematising structure of tempo, process, duration, imagination and layers.

This work provides a theory for temporality in designed landscapes; an organising thematic structure; and an analysis of temporal examples in designed landscapes from nineteen landscape designers.

Implications

This theoretical framework of temporality stimulates awareness of the potential of its components for design with expressiveness and meaning, concurrent with its innate phenomenological imperative (see Chapter 2 on temporality and meaning).

The phenomenology of temporality being 'linked with the state of being of each person, their perceptions and associations' (Muldoon 2006, p73-74), qualitatively differentiates it from an experiential approach in landscape architecture which is, rather, associated with doing and having. [I reflect on whether the insistent practice of emphasising sensory qualities (with no mention of the mind or cognitive perception, a limited focus on touch, smell, sound etc) has developed in an effort to compensate the over-weaning status of the visual (see Chapter 1) that haunts landscape architecture. I muse on whether an embrace of temporality in landscape design would be the conduit for re-balance to more fully aesthetic work.]

Chapter 10 has assembled the substance of different representations of temporality in the ways they have been expressed as design principles, design intentions and/or reception of landscape designers' work. These have shown their capacity for carrying levels of meaning, evoking emotional responses, aesthetic responses, immersing, prompting imaginations, and, in many ways, have shown a capacity for connecting people to landscape. In making a case for valuing temporality, the significant contribution from these principle characteristics to designed landscapes should come to be understood as primarily important.

Work of selected landscape architects has been critiqued solely or primarily in terms of the temporal qualities evident in their work, so as to bring into sharp relief the temporal characteristics in the work. An extension of engaging

temporality as a focus for critique is its use as a tool for critical analysis of landscape designs. I have used this effectively, for instance, in a detailed analysis of Walker's Tanner Fountain (see Chapter 8); also in a comparative analysis of gridded plazas, Walker's Keyaki Plaza and Kiley's South Garden at the Chicago Art Institute (see Chapter 10).

In a world in which we value meaning, this is a vindication for the importance of articulating temporality in landscape design. Meaning from landscape is a person's making sense of, of realising something for themselves, awoken to values and significance. It plays an active part in a person's encounter, and countermands designed landscape for passive consumption.

A further implication of this work, since its subject is broader than particularities around design, and since I have found stimulating texts in broader landscape disciplines, is its potential interest to cultural geographers and social scientists.

As the work progressed, I have found that aesthetics has developed into one of the major features of temporality. Effects of temporality's characteristics incline towards 'the vital engagement of intense appreciation, the grasping of embodied meanings, the expansion of what is called, poetically, the human spirit' (Berleant 1997 p75): and an 'involvement with an environment (that) is strongly perceptual, (and which) takes on an aesthetic character' (ibid p164). This indicates a fresh engagement for landscape design in the discourse of aesthetics. Perhaps this work will contribute towards a response to Gustavsson's (2012, p28) plea for landscape design aesthetic to go beyond 'formal properties such as hierarchy, harmony, shape and rhythm': and, through phenomenological temporality, might provide her an 'offer (for) more philosophical relevance in methods for evaluating landscapes and practicing design than is currently the case'.

A further implication from an aesthetic comprehension would be an understanding of the negative effects from privileging the photogenic as a design principle; or of portraying designed landscapes through photogenic criteria (see Introduction: The visual as dominating criteria).

Limitations of the thesis

This research work has focused on temporality, its meaning and characteristics in designed landscapes. It does not attempt to extend to make a comparative evaluation of those designers or their works. Nor does it attempt to make a comparative evaluation of temporality in designed landscapes across and between the decades. Structuring the work by decades, which began as an ordering approach, became a fifty year perspective across which a critical eye could be cast to ascertain that designing temporal characteristics may have ebbed and flowed with individual designer, but not with eras and fashions.

This work, by sourcing information entirely from published writing is limited to writers' articulation of characteristics recognisable as being temporal.

Notwithstanding an analytical evaluation of the texts, still it is necessary for there to have been some mention, or trigger word, of temporal characteristics by landscape designers and landscape theorists/ landscape architectural critics, in order to yield it as material for this study.

Inevitably there are areas for further work which could not have been included here, for capacity reasons.

Possibilities for further research

During work on this thesis a number of issues and lines of enquiry have been indicated that are outwith this particular study:-

- A social science investigation into people's responses to characteristics of temporality
- A study of perceptions of temporality within a heritage context
- Implications for the process of, the practice of designing landscapes.
- Implications for perception of temporality from work towards ecological resilience to climate change.
- The practicable application of designing characteristics of temporality at different scales, micro and macro. Would designing with a focus on temporality be overshadowed by macro scale issues of social, economic and political processes? And what are the implications for distinctive contributions between design professions?

REFERENCES

Adam, B. (1998). <u>Timescapes of Modernity: the environment and invisible hazards</u>. London, Routledge.

Adams, W. H. (1991). <u>Roberto Burle Marx: the Unnatural Art of the Garden</u>. New York, the Museum of Modern Art, New York.

Allen, D. C. (1990). Tanner Fountain. <u>Peter Walker: Experiments in Gesture</u>, Seriality, Flatness. L. L. Jewell. New York, Rizzoli: 14-19.

Andersson, S.-I. (1995). "Individual Garden Art." Topos (11).

Andersson, S.-I. H., Steen (2001). <u>C. Th. Sorensen: Landscape Modernist</u>. Copenhagen, The Danish Architectural Press.

Andersson, T. (1997). "The Links Between Nature and Artefact." Topos: 51-56.

Arlt, P. (2006). Urban Planning and Interim Use. <u>Temporary Urban Spaces:</u> <u>concepts for the use of city spaces</u>. F. H. R. Temel. Berlin, Birkhauser: 39-46.

Ashworth, G. J., Graham, Brian (2005). Introduction: Senses of Place and Senses of Time and Heritage. <u>Senses of place: Senses of Time</u>. G. J. A. B. Graham. Aldershot, Ashgate.

Bakhtin, M. M. (1986). <u>Speech Genres and Other Late Essays</u>. Austin, University of Texas, Austin.

Baljon, L. (1992). Designing Parks. Amsterdam, Architectura and Natura Press.

Bann, S. (1993). "A Luton Arcadia: Ian Hamilton Finlay's contribution to the English neo-classical tradition." <u>The Journal of Garden History</u> 13(1-2): 104-112.

Bann, S. (1995). "The Landscape Approach of Bernard Lassus: Part II: texts translated and introduced by Stephen Bann." <u>The Journal of Garden History</u> 15(2): 67-106.

Bann, S. (2003). Sensing the Stones: Bernard Lassus and the Ground of Landscape Design. <u>Landscape Design and the Experience of Motion</u>. M. Conan. Washington DC, Dumbarton Oaks: 53-74.

Barragan, L. (1980). Official Address, 1980 Pritzker prize. <u>Barragan: the complete works</u>. R. Rispa. London, Thames and Hudson: p204-207)

Beardsley, J. (2009¹). Being in Space: Lawrence Halprin's urban ecologies and the reconciliation of modernism's ideals. Where the Revolution Began: Lawrence and Anna Halprin and the reinvention of public space. R. Gragg. Washington DC, Spacemaker Press: 26-34.

Beardsley, J. (2009²). Dan Kiley in Public. <u>Dan Kiley Landscapes: the poetry of space</u>. R. M. R. M. Treib. Richmond, California, William Stout: 98-115.

Bedarida, M. (1995). "French Tradition and Ecological Paradigm." <u>Lotus International</u> 87: 6-31.

Berger, A. (2001). "Representing the Designed Landscape: Image Models Words." <u>Landscape Journal</u> 20(2): 194-198.

Berger, A. (2006). Drosscape. <u>The Landscape Urbanism Reader</u>. C. Waldheim. New York, Princeton Architectural Press: 197-218.

Berleant, A. (1997). <u>Living in the Landscape: toward an aesthetics of</u> environment, University Press of Kansas.

Berrizbeitia, A. (1999). Dan Kiley: Early Housing Projects and Garden Prototypes, 1941-52. <u>Danial Urban Kiley</u>. W. S. Saunders. New York, Princeton Architectural Press: 21-36.

Berrizbeitia, A. (2005). <u>Roberto Burle Marx in Caracas: Parque del Este 1956-1961</u>. Philadelphia, University of Pennsylvania Press.

Berrizbeitia, A. (2007). Re-Placing Process. <u>Large Parks</u>. J. C. a. G. Hargreaves. New York, Princeton University Press: 175-197.

Berrizbeitia, A. (2009). Landscape Alchemy: the Work of Hargreaves Associates. Pt Reyes Station, ORO Editions: 60-65.

Berrizbeitia, A. (2014). "Between deep and ephemeral time: representations of geology and temporality in Charles Eliot's Metropolitan Park System, Boston (1892-1893)." <u>Studies in the History of Gardens and Designed Landscapes</u> 34(1): 38-51.

Blankenship, J. D. (2011). Reading Landscape: Mid-Century Modernism and the Landscape Idea. <u>Geosciences</u> <u>Geography</u>. Amherst, University of Massachusetts, Amherst. PhD: 185.

Bleam, G. (2009). Modern and Classical Themes in the Work of Dan Kiley. <u>Dan Kiley Landscapes: the poetry of space</u>. R. M. R. M. Treib. Richmond, Cal: 78-97.

Bosselmann, P. (1998). "Landscape Architecture as Art: C. Th. Sorensen. A Humanist." Landscape Journal 17: p62-69.

Bowring, J. (2007). "To Make Stone(s) Stony: Defamiliarisation and Andy Goldsworthy's Garden of Stone". <u>Contemporary Garden Aesthetics, Creations, Interpretations</u>. M. Conan. Washington DC, Dumbarton Oaks: 181-198.

Brands, Bart and Loeff, Karel (2002). "Beyond aesthetics." Topos 40: 61-69.

Brassley, P. (1998). "On the Unrecognized Significance of the Ephemeral Landscape." <u>Landscape Research</u> 23(2): 119-132.

Brown, B. (1991). "Avant-Gardism and Landscape Architecture." <u>Landscape</u> <u>Journal</u> 10(2): 135-154.

Bucher, A. (2007). "G|59: A Manifesto for an Ambivalent Modernism." Landscape Journal 26(2): 236-251.

Bullivant, L. (2007). "''Activating Nature': the magic realism of contemporary landscape architecture in Europe." Architectural Design 77(2): 76-87.

Burke, E. (1958). <u>A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful</u>. London, Routledge and Kegan Paul.

Burri, R. (2000). Luis Barragan. London, Phaidon Press.

Burton, S. (1996). "Bakhtin, Temporality, and Modern Narrative: Writing "the Whole Triumphant Murderous Unstopppable Chute"." <u>Comparative Literature</u> 48(1): 39-64.

Bye, A. E. (1988). <u>Art into Landscape, Landscape into Art.</u> Mesa, Arizona, PDA Publishers Corporation.

Bye, A. E. (1999). <u>Moods in the Landscape</u>. Cambridge, Mass, Spacemaker Press.

Campbell, C. (1973). "Seattle's Gas Plant." <u>Landscape Architecture</u> 63(4): 338-342.

Cantor, S. L. (1997). <u>Contemporary Trends in Landscape Architecture</u>. New York, Van Nostrand Reinhold.

Casey, E. S. (1987). Remembering: a phenomenological study. Indiana and Bloomington, Indiana University Press.

Chalkley, B. a. E., Stephen (1999). "Urban development through hosting international events: a history of the Olympic Games" <u>Planning Perspectives</u> 14: 369-394.

Chance, J. (2001). "Connections Could Be Made There: detecting situationist tendencies in Adriaan Geuze and West 8." <u>Architectural Design</u> 71(3): 36-43.

Church, T. D., Hall, G. & Laurie, M (1995). <u>Gardens Are For People</u>. London, University of California Press.

Clement, G. (2003). The Third Landscape.

Coignet, P. (2003). "The revealing process in contemporary French landscape architecture." <u>Studies in the History of Gardens and Designed Landscapes</u> 23(2): 83-101.

Conan, M. (1993). "The Urban Invasion of Rural Culture: a review of landscape sociological research in France 1970-1987." <u>Landscape Journal</u> 12(2): 131-142.

Conan, M. (1999). "'Puer aeternus' in the garden." <u>Studies in the History of</u> Gardens and Designed Landscapes 19(1): 86-101.

Conan, M. (2000). Introduction: Contested Claims and Creative Tensions. <u>Environmentalism in Landscape Architecture</u>. M. Conan. Washington DC, Dumbarton Oaks: 1-22.

Conan, M. (2001). Introduction. <u>Landscape Design and the Experience of Motion</u>. M. Conan. Washington DC, Dumbarton Oaks: 1-34.

Conan, M. (2003). Landscape Metaphors and Metamorphosis of Time. <u>Landscape Design and the Experience of Motion</u>. M. Conan. Washington DC, Dumbarton Oaks Research Library and Collection: 287-317.

Conan, M. (2003). "The quarries of Crazannes: Bernard Lassus's landscape approach to cultural diversity." <u>Studies in the History of Gardens and Designed Landscapes: an International Quarterly</u> 23(4): 347-365.

Conan, M. (2004). <u>The Crazannes Quarrries by Bernard Lassus: an essy</u> analyzing the creation of a landscape Washington DC, Spacemaker Press.

Conan, M. (2006). "Fragments of a Poetic of Gardens." <u>Landscape Journal</u> 25(1): 1-21.

Conan, M. (2007). The Colas Gardens by Bernard Lassus: coming to terms with fleeting encounters in a decentered world. <u>Contemporary Garden Aesthetics</u>, <u>Creations</u>, <u>Interpretations</u>. M. Conan. Washington DC, Dumbarton Oaks Research Library & Spacemaker Press: 97-120.

Conan, M. (2007). "Recent Works by Bernard Lassus." <u>Architectural Design</u> 77(2): 60-65

Conan, M. (2012) Bernard Lassus - Biography.

Condon, P. M. (1988). "Cubist Space, Volumetric Space, and Landscape Architecture." Landscape Journal 7(1): 1-14.

Condon, P. M. (1998). The Zen of Garden Design: Richard Haag's Three Linked Gardens at Bloedel <u>Richard Haag: Bloedel Reserve and Gas Works Park</u>. W. S. Saunders. New York, Princeton Architectural Press: 45-60.

Conway, H. (2000). "Everyday Landscapes: Public Parks from 1930 to 2000." Garden History 28(1): 117-134. Cook, R. E. (2000). "Do Landscapes Learn? Ecology's 'new paradigm' and design in landscape architecture." <u>Dumbarton Oaks Research Library and</u> Collection 22: 115-132.

Corner, J. (1991). "A Discourse on Theory II: Three Tyrannies of Contemporary Theory and the Alternative of Hermeneutics." <u>Landscape Journal</u> 10(2): 115-133.

Corner, J. (2006). Terra Fluxus. <u>The Landcape Urbanism Reader</u>. C. Waldheim. New York, Princeton Architectural Press: 21-35.

Corner, J. (1999¹). Eidetic Operations in New Landscapes. <u>Recovering Landscape: essays in contemporary landscape architecture</u>. J. Corner, Princeton Architectural Press.

Corner, J. (1999²). Preface & Introduction: Recovering landscape as a critical cultural practice. Recovering Landscape: essays in contemporary landscape architecture. J. Corner. New York, Princeton Architectural press: ix -26.

Cosgrove, D. (1984). "Prospect, perspective and the evolution of the landscape idea." <u>Transactions of the Institute of British Geographers</u> 10: 45-62.

Crang, M. (2001). Rhythms of the City. <u>Timespace</u>. J. M. N. Thrift. London, Routledge.

Crang, M. T., Nigel (2000). Introduction. <u>Thinking Space</u>. M. C. N. Thrift. London, Routledge: 1-31.

Cranz, G. (1991). Four Models of Park Design in the United States. <u>Denatured Visions: Landscape and Culture in the Twentieth Century</u>. S. W. a. W. H. Adams. New York, Museum of Moodern Art: 118-123.

Cranz, Galen. Bolan, Michael (2004). "Defining the Sustainable Park: a Fifth Model for Urban Parks." <u>Landscape Journal</u> 23(2): 102-120.

Crossley, N. (1995). "Merleau-Ponty, the Elusive Body and Carnal Sociology." <u>Body and Society</u> 1(1): 43-63.

Czerniak, J. (1997). "Challenging the Pictorial: Recent Landscape Practice." Assemblage (34): 110-120.

Czerniak, J. (2009). Agency by Design. <u>Landscape Alchemy: the Work of</u> Hargreaves Associates. PT Reyes Station, ORO: 164 - 169.

Dagenais, D. (2004). "The Garden of Movement: ecological rhetoric in support of gardening practice." <u>Studies in the History of Gardens and Designed</u> Landscapes: an International Quarterly 24(4): 313-340.

Danow, D. K. (1991). <u>The Thought of Mikhail Bakhtin: from word to culture</u>. Basingstoke, Macmillan.

Dee, C. (2012). <u>To Design Landscape: Art, Nature & Utility</u>. Abingdon & New York, Routledge.

Descombes, G. (1999). Shifting Sites: The Swiss Way. <u>Recovering Landscapes</u>. J. Corner. New York, Princeton Architectural Press: 79-85.

Descombes, G. (2009). Displacements: Canals, Rivers, and Flows. <u>Spatial</u> Recall. M. Treib. Abingdon, Routledge: 120-135.

Desvigne, M. (2009). <u>Intermediate Natures: the landscapes of Michel Desvigne</u>. Berlin, Birkhauser.

Diamond, B. (2011). "Landscape Cubism: parks that break the pictorial frame." <u>Journal of Landscape Architecture</u> 6:2(autumn): 20-33.

Dietsch, D. K. (2000). <u>Classic Modern: midcentury modern at home</u>, Simon & Schuster.

Donadieu, P. (2006). "Landscape Urbanism in Europe: from brownfield to sustainable urban developments." <u>Journal of Landscape Architecture</u> 1(2): 36-45.

Donovan, D. (1999). The Hundred Gardens: The Social, Historical, and Design Contexts of Hollin Hills. <u>Daniel Urban Kiley</u>. W. S. Saunders. New York, Princeton University Press: 37-46.

Dostal, R. J. (1993). Time and phenomenology in Husserl and Heidegger. <u>The Cambridge Companion to Heidegger</u>. C. B. Guignon. Cambridge, Cambridge University Press: 141-169.

Douglas, L. (2008). "The Sea Ranch." Landscape Journal 27(2): 316-318.

Duemplemann, S. and Herrington, S. (2014). "Plotting Time in Landscape Architecture." <u>Studies in the History of Gardens and Designed Landscapes</u> 34(1): 1-14.

Eckbo, G. (1949). Landscape For Living. USA, F.W.Dodge.

Eckbo, G., Daniel U. Kiley, Rose, James C. (1993). Landscape Design in the Urban: Rural: and Primeval Environment Modern Landscape Architecture: a critical review. M. Treib. Cambridge Massachusetts, MIT Press: 78-91.

Eckbo, G. (1993). Pilgrim's Progress. <u>Modern Landscape Architecture: a critical review</u>. M. Treib. Cambridge, Massachusetts, MIT Press: 206-219.

Edensor, T. (2000). "Walking in the British Countryside: Reflexivity, Embodied Practices and Ways to Escape." <u>Body and Society</u> 6(81): 81-106.

Edensor, T. (2005). <u>Industrial Ruins: space aesthetics and materiality</u>. Oxford, Berg.

Eggener, K. (1999). "Postwar Modernism in Mexico: Luis Barragan's Jardines del Pedregal and the International Discourse on Architecture and Place." Journal of the Society of Architectural Historians 58(2): 122-145.

Eggener, K. L. (2001). <u>Luis Barragan's Gardens of Pedregal</u>. New York, Princeton Architectural Press.

Emerson, C. (1989). Coerced Speech and the Oedipus Dialogue Complex. Rethinking Bakhtin: Extensions and Challenges. G. S. M. a. C. Emerson. Evanston, Illinois, Northwestern University Press: 149-172.

Env.net. "EU Environmental Policy." Retrieved 8 August 2014, 2014, from http://www.env-net.org/environmental-acquis/eu-env-policy/#.

Erdem, M. N., Joan Iverson (2013). "Design of Brownfield Landscapes Under Different Contaminant Remediation Policies in Europe and the United States." <u>Landscape Journal</u> 32(2): 278-292.

Eyres, P. (2000). "Ian Hamilton Finlay and the Cultural Politics of Neo-Classical Gardening." <u>The Garden History Society</u> 28(1): 152-166.

Eyres, P. (2009). "A people's Arcadia: the public gardens of Ian Hamilton Finlay in relation to Little Sparta." <u>Studies in the History of Gardens and designed Landscapes</u> 29(1-2): 115-132.

Foss, S. W. L. K. A., Ed. (2009). <u>Encyclopedia of Communication Theory</u>. London, Sage.

Fraser, V. (2000). "Cannibilazing Le Corbusier: the MES gardens of Roberto Burle Marx." <u>The Journal of the Society of Architectural Historians</u> 59(2): 180-193.

Freytag, A. (2003). When the Railway Conquered the Garden: Velocity in Parisian and Viennese Parks. <u>Landscape Design and the Experience of Motion</u>. M. Conan. Washington DC, Dumbarton Oaks: 215-242.

Friedberg, M. P. (1996). Probing the Fourth Dimension. <u>Landscape Transformed</u>. M. Spens. London, Academy Editions: p94-99.

Gandy, M. (2009). Starting points: Gilles Clement and the Recuperation of Space. <u>Postgraduate Conference</u>. University of Nottingham.

Geuze, A. (1993). Moving Beyond Darwin. Modern Park Design: Recent Trends. H. O. Martin Knuijt, Peter van Saane & David Louwerse. AS Bussum, Prins Hendriklaan: 36-45.

Geuze, A. (2002). Arboretum Trompenburg. <u>The Public Garden: the Enclosure and Disclosure of the Public Garden</u>. A.-M. Devolder. Rotterdam, NAi publishers: 80-87.

Geuze, A. (2010). "Second Nature." Topos(71): 40-42.

Girot, C. (1999). Four Trace Concepts in Landscape Architecture. <u>Recovering Landscape: Essays in Contemporary Landscape Architecture</u>. J. Corner. New York, Princeton Architectural Press: 59-68.

Girot, C. (2006). Vision in Motion: Representing Landscape in Time. <u>The Landscape Urbanism Reader</u>. C. Waldheim. New York, Princeton University Press.

Girot, C. (2007). Traces into the Future. <u>Zeitgeist Berlin Invalidenpark</u>. L. Lerup. Zurich. GTA Verlag.

Gobster, P. H. (2008). "Yellowstone Hotspot: reflections on scenic beauty, ecology and the aesthetic experience of landscape." <u>Landscape Journal</u> 27(2): 291-308.

Gragg, R. (2009). The Portland Open Space Sequence and the Reinvention of American Public Space. Where the Revolution Began: Lawrence and Anna Halprin and the reinvention of public space. Washington DC, Spacemaker Press: 4-13.

Grosz, E. (1999). Introduction. <u>Becomings: explorations in time, memory and</u> futures. E. Grosz. London, Cornell University Press: 1-12.

Grosz, E. (1999). Thinking the New: of Futures Yet Unthought. <u>Becomings:</u> <u>Explorations in Time, Memory and Futures</u>. E. Grosz. Ithaca, London, Cornell University Press: 15-28.

Gustavsson, E. (2012). "Meaning Versus Signification: towards a more nuanced view of landscape aesthetics." Journal of Landscape Architecture 7(2): 28-31.

Haag Associates, R. (1988). "The Projects: Bloedel Reserve." Places 4(4): 14-15.

Haag, R. (1998). "Eco-Revelatory Design: The Challenge of the Exhibit." Landscape Journal 17(special issue): 72-79.

Halprin, L. (1989). "Design as a Value System." Places 6(1): 60-67.

Halprin, L. (2011). <u>A Life Spent Changing Places</u>. Philadelphia, University of Pennsylvania Press.

Halprin, L. C., Patrick (1988). "Commentary - exchange of letters." <u>Landscape</u> <u>Journal</u> 7(1): 151-152.

Hargreaves, G. (2007). Large Parks: a designer's perspective. <u>Large Parks</u>. J. Czerniak. and G. Hargreaves. New York, Princeton University Press: 120-173.

Harvey, D. (1990). The Condition of Postmodernity. Oxford, Blackwell.

Harvey, D. (1993). From space to place and back again: reflections on the condition of postmodernity. <u>Mapping the futures: local cultures, global chanes</u>. b. c. jon bird, tim putnam, george robertson, lisa tuckner. London, Routledge: 3-29.

Hauxner, M. (2002). With the Sky as Ceiling: Landscape and Garden Art in Denmark. The Architecture of Landscape 1940-1960. M. Treib. Philadelphia, University of Pennsylvania Press: 28-55.

Hauxner, M. (2006). Eithor/Or, more or less - an exchange of ideas and forms within Europe. Fieldwork. L. Diedrich. Basel, Birkhauser: 45-53.

Haydn, Florian and Temel, Robert (2006). Introduction. <u>Temporary Urban</u> <u>Spaces: concepts for the use of city spaces</u>. F. H. R. Temel. Berlin, Birkhauser.

Healey, P. Shaw, T. (1993). "Planners, Plans and Sustainable Development." Regional Studies 27(8): 769-776.

Healey, P. Shaw, T. (1993) The Treatment of Environment by planners: evolving concepts and policies in development plans. <u>Electronic Working Paper</u> Nr 4 52

Helphand, K. (1999). "Leaping the Property Line": Observations on Recent American Garden History". <u>Perspectives on Garden Histories</u>. M. Conan. Washington DC, Dumbarton oaks 137-159.

Helsinger, E. (2008). Blindness and Insights. <u>Landscape Theory</u>. R. Z. d. J. Elkins. London, Routledge: 323-342.

Herrington, S. (2006). "Framed Again: The Picturesque Aesthetics of Contemporary Landscapes." <u>Landscape Journal</u> 25(1): 22-37.

Herrington, S. (2007). Gardens Can Mean. <u>Meaning in Landscape Architecture & Gardens: four essays, four commentaries</u>. M. Treib. London, Routledge: 174-213.

Hester, R. (1983). "Labors of Love in the Public Landscape." Places 1(1): 18-27.

Hester, R. T. (2012). "Scoring Collective Creativity." <u>Landscape Journal</u> 31(1-2): 135-143.

Hey, D. C. III. EU Environmental Policies: A short history of the policy strategies. <u>EU Environmental Policy Handbook</u> 14

Higgs, E. (2003). <u>Nature by Design: people, natural processes and ecological restoration</u>. London & Cambridge, Mass, MIT Press.

Hildebrand, G. H. (1999). Dan Kiley's Miller Garden: coming to light. <u>Daniel Urban Kiley: the early gardens</u>. W. S. Saunders, Princeton Architectural Press. New York: 65-79.

Hildebrand, G. R. (1998). A Teacher's Teacher. <u>Richard Haag: Bloedel Reserve and Gas Works Park</u>. W. S. Saunders. New York, Princeton University Press: 73-78.

Hill, Kristina (2005). Shifting Sites. <u>Site Matters</u>. Carol J. Burns and Andrea Kahn. London, Routledge: 131-155.

Hirsch, A. (2006). "Lawrence Halprin's public spaces: design, experience and recovery. Three case studies." <u>Studies in the History of Gardens & Designed Landscapes: an International Quarterly</u> 26(1): 1-98.

Hirsch, A. (2007). "Lawrence Halprin: the choreography of private gardens." Studies in the History of Gardens & Designed Landscapes: an International Quarterly 27(4): 258-271.

Hirsch, A. (2012). "Facilitation and/ or Manipulation." <u>Landscape Journal</u> 31(1-2): 117-134.

Hoddinott, W. (2007). "Passing Time: A Phenomenological Approach to Heritage Design." <u>Landscape Review</u> 11(2): 42-53.

Holden, R. (1996). International Landscape Design. London, Laurence King.

Howett, C. (1993). "If the Doors of Perception Were Cleansed:" Toward an Experiential Aesthetics for the Designed Landscape. <u>Dwelling, Seeing, Designing</u>. D. Seamon.

Howett, C. (1993). Modernism and American Landscape Architecture. <u>Modern Landscape Architecture: a critical review</u>. M. Treib. Cambridge, Massachusetts, MIT Press: 18-35.

Howett, C. (1994). "Book Review of: Peter Walker: Experiments in Gesture, Seriality and Flatness." <u>Landscape Journal</u> 13(1): 70-72.

Howett, C. (1998). "Ecological Values in Twentieth Century Landscape Design: A History and Hermeneutics." Landscape Journal 17: 80-98.

Howett, C. (2002). After the "Other" War: Landscapes of Home, North and South. <u>The Architecture of Landscape 1940-1960</u>. M. Treib. Philadelphia, University of Pennsylvania Press 154-179.

- Hunt, J. D. (1993). Modern landscape Architecture and Its Past. <u>Modern Landscape Architecture: a critical review</u>. M. Treib. Cambridge, Mass, MIT Press: 134-143.
- Hunt, J. D. (2000). <u>Greater Perfections: the practice of garden theory</u>. Philadelphia, University of Pennsylvania Press.
- Hunt, J. D. (2003). "Lordship of the Feet": Toward a Poetics of Movement in the Garden. <u>Landscape Design and the Experience of Motion</u>. M. Conan. Washington DC, Dumbarton Oaks: 187-214.
- Hunt, J. D. (2008). <u>Nature Over Again: the garden art of Ian Hamilton Finlay</u>. London, Reaktion Books.
- Huyssen, A. (2000). "Present Pasts: Media, Politics, Amnesia." <u>Public Culture</u> 12(1): 21-38.
- Iliescu, S. (2007). "The garden as collage: rupture and continuity in the landscape projects of Peter and Anneliese Latz." <u>Studies in the History of Gardens and Designed Landscapes</u> 27(2): 149-181.
- Imbert, D. (1993). A Model For Modernism: the work and influence of Pierre-Emile Legrain. <u>Modern Landscape Architecture: a critical review</u>. M. T. a. D. Imbert. Cambridge, Mass, MIT Press: 92-107.
- Imbert, D. (2000). "Thomas Church: defining styles the early years." <u>Studies in the History of Gardens and Designed Landscapes</u> 20(2): 96-119.
- Imbert, D. (2002). Counting Trees and Flowers. <u>The Architecture of Landscape</u> 1940-1960. M. Treib. Philadelphia, University of Pennsylvania Press 82- 119.
- Imbert, D. (2007¹). "Landscape Architects of the World, Unite! Professional organizations, practice, and politics, 1935-1948." <u>Journal of Landscape Architecture</u> 2(1): 6-19.
- Imbert, D. (2007²). "The AIAJM: A Manifesto for Landscape Modernity." <u>Landscape Journal</u> 26(2): 219-235.
- Ingold, T. (1993). "The Temporality of Landscape." World Archaeology 25(2 Conceptions of Time and Ancient Society): 152-174.
- Ingold, T. (2000). <u>The Perception of the Environment: essays in livelihood,</u> dwelling and skill. London, Routledge.
- Ingold, T. (2012). Introduction. <u>Imagining Landscapes: Past, Present and Future</u>. M. J. T. Ingold. Farnham, UK, Ashgate: 1-18.
- Jackson, J. B. (1980). <u>The Necessity for Ruins and other topics</u>. Amherst, University of Massachusetts Press.

Jacobs, P. (1998). The Sensual Landscapes of Bernard Lassus. <u>Penn Studies in Landscape Architecture</u>. J. D. Hunt. Philadelphia, University of Pennsylvania: 1-8.

Jacobs, P. (2000). "Playing with Time." <u>Studies in the History of Gardens and Designed Landscapes: an International Quarterly</u> 20(4).

Jacobs, P. (2003). "Apres Baudelaire, quoi de neuf?" <u>Studies in the History of</u> Gardens and Designed Landscapes 23(4): 328-339.

Jacques, D. (2000). "Modern Needs, Art and Instincts: Modernist Landscape Theory." Garden History 28(1): 88-101.

Jacques, D. and Woudstra, Jan (2009). <u>Landscape Modernism Renounced</u> Abingdon, Routledge.

Jameson, F. (1999). Time and the Concept of Modernity. <u>Anytime</u>. C. C. Davidson. Cambridge, Mass, MIT Press.

Jameson, F. (2003). "The End of Temporality." Critical Enquiry 29: 695-718.

Jellicoe, G. (1991). Jung and the Art of Landscape: A Personal Experience. <u>Denatured Visions: Landscape and Culture in the Twentieth Century</u>. S. W. a. W. H. Adams. New York, Museum of Modern Art: 124-128.

Jellicoe, G. A. (1970). <u>Studies in Landscape Design London, Oxford University</u> Press.

John-Alder, K. (2012). "A Field Guide to Form: Lawrence Halprin's Ecological Engagement with The Sea Ranch." <u>Landscape Journal</u> 31(1-2): 53-75.

John-Alder, K. (2014). "Processing Natural Time: Lawrence Halprin and the Sea Ranch ecoscore." <u>Studies in the History of Gardens & Designed Landscapes:</u> an International Quarterly 34(1): 52-70.

Jorgensen, A. (2004). The Social and Cultural Context of Ecological Plantings. <u>The Dynamic Landscape</u>. N. Dunnett and J. Hitchmough. London, Spon Press: 293-325.

Karsten Jorgensen and Vilde Stabel, eds. (2010). <u>Contemporary Landscape Architecture in Norway</u>. Oslo, Gyldendal Akademsk.

Kassler, E. B. (1984). <u>Modern Gardens and the Landscape</u>. New York, Museum of Modern Art.

Keravel, S. (2010). "The art of transmission: mediating meaning in contemporary French landscape design." <u>Journal of Landscape</u> Architecture(Spring): 60-71.

Kern, C. R. (1979). "Upper-income Renaissance in the City: Its Sources and Implications for the City's Future." <u>Journal of Urban Economics</u> 9(1): 106-124.

Kienast, D. a. V., Gunther (2001). Parks and Cemeteries. Berlin, Birkhauser.

Kienast, D. a. V., Gunther (2004). Dieter Kienast. Basel, Birkhauser.

Kiley, D., Ed. (1982). <u>Panel Discussion</u>. Dan Kiley Landscapes: the poetry of space. Richmond, California, William Stout.

Kiley, D. and Amidon, Jane (1999). <u>Dan Kiley in His Own Words: America's</u> Master Landscape Architect. London, Thames and Hudson.

Kingsbury, N. (2014). Marnas Hus - Sven Ingvar Andersson.

Knox, P. L. (1991). "The Restless Urban Landscape: Economic and Sociological Change and the Transformation of Metropolitan Washington DC." Annals of the Association of American Geographers 81(2): 181-209.

Knuijt, M. (1993). Time, space and landscape architecture. Modern Park Design: Recent Trends. H. O. Martin Knuijt, Peter van Saane & David Louwerse. Wageningen, Thoth Publishers: 82-86.

Kogod, L. (1988). "A Commentary on the Work of Enric Miralles and Carme Pinós." <u>Assemblage</u> 7(October 1988): 108-111.

Koh, J. (2004). Ecological Reasoning and Architectural Imagination. <u>Lecture Wageningen University</u>, NL. Netherlands http://library.wur.nl/WebQuery/edepot/31548.

Komara, A. E. (1990). A.E.Bye and the Modernist Tradition. <u>Abstracting the Landscape: the artistry of landscape architect A.E.Bye</u>. C. Howett. Pennsylvania, Pennsylvania State University: 60-86.

Koningen, H. (2004). Creative Management. <u>The Dynamic Landscape</u>. N. D. J. Hitchmough. London, Spon Press: 256- 292.

Korostoff, N. P. (1990). AE Bye and the Ecological Aesthetic. <u>Abstracting the Landscape: the artistry of landscape architect AE Bye</u>. C. Howett. Pennsylvania, Pennsylvania State University: 88-109.

Kuhn, N. (2006). "Intentions for the Unintentional: spontaneous vegetation as the basis for innovative planting design in urban areas." <u>Journal of Landscape</u> Architecture 1(2): 46-53.

Kwon, M. (1997). "One Place After Another: Notes on Site Specificity." October 80(Spring 1997): 85-110.

Lafaille, M. (2008). Imagination as Landscape. <u>Landscapes of the Imagination:</u> <u>designing the European Tradition of Garden and Landscape Architecture 1600-</u> 2000. M. L. Erik de Jong, Christian Bertram. Rotterdam, NAi: 26-37.

Lassus, B. (2002). Stories for Tomorrow. J. D. H. a. M. Conan. Tradition and Innovation in French Garden Art: 221-234.

Lassus, B. (1998¹). The Landscape Approach: Bernard Lassus. <u>The Landscape Approach: Bernard Lassus</u>. J. D. Hunt. Philadelphia, University of Pennsylvania: 13-181.

Latz, P. (1993). 'Design' by Handling the Existing. <u>Modern Park Design: Recent Trends</u>. H. O. Martin Knuijt, Peter van Saane & David Louwerse. Wageningen, Thoth: 91-97.

Latz, P. (1996). Emscher Park. <u>Landscape Transformed</u>. M. Spens. London, Academy Editions: 55-61.

Latz, P. (2000). "The Idea of Making Time Visible." Topos(33): 77-82.

Latz, P. (2001). Landscape Park Duisburg-Noord: the metamorphosis of an industrial site. <u>Manufactured Sites: Rethinking the Post-Industrial Landscape</u>. N. Kirkwood. London, Spon Press: 150-165.

Laurie, M. (1993). Thomas Church, California Gardens and Public Landscapes. <u>Modern Landscape Architecture: a critical review</u>. M. Treib. Cambridge, Mass, MIT Press: p166-179.

Leenhardt, J. (2004). The Planetary Garden, Garden Unknown: On the Work of Landscaper Gilles Clement. <u>Contemporary Garden Aesthetics, Creations</u>, <u>Interpretations</u>. M. Conan. Washington DC, Spacemaker Press & Dumbarton Oaks: 223-233.

Lefebvre, H. (1974). The Production of Space. Oxford, Blackwell.

Lenzholzer, S. (2008). "A city is not a building - architectural concepts for public square design in Dutch urban climate contexts." <u>Journal of Landscape Architecture</u>(Spring): 44-55.

Ling, C., Handley, John & Rodwell, John (2007). "Restructuring the post-industrial landscape: a multifunctional approach." <u>Landscape Research</u> 32(3): 285-309.

Lister, N.-M. (2007). Sustainable Large Parks: Ecological Design or Designer Ecology? <u>Large Parks</u>. J. C. a. G. Hargreaves. New York, Princeton Architectural Press: 35-58.

Lootsma, B. (1999). Synthetic Regionalization: The Dutch Landscape Toward a Second Modernity. Recovering Landscape: Essays in Contemporary Landscape Architecture. J. Corner. New York, Princeton Architectural Press: 251-274.

Loures, L. (2009). "(Re)-developing post-industrial landscapes: applying inverted translational research coupled with the case study research method." Retrieved 28.12.12, 2012.

Lund, A. (1991). "Apt Dansk." Architectural Review 189(1130): 28-43.

Lynch, K. (1972). What Time Is This Place? London, MIT Press.

Lystra, M. (2014). "McHarg's Entropy, Halprin's Chance: Representations of Cybernetic Change in 1960s Landscape Architecture " Studies in the History of Gardens & Designed Landscapes: an International Quarterly 34(1): 71-84.

Manning, O. (1979). Designing for Nature in cities. <u>Nature in Cities: the natural environment in the design and development of urban green space</u>. I. C. Laurie. Chichester, John Wiley & Sons: 3-36.

Massey, D. (1993). Politics and Space/Time. <u>Place and the Politics of Identity</u>. M. Keith and S. Pile. London, Routledge.

Massey, D. (1993). Power-geometry and a progressive sense of place. <u>Mapping the futures: local cultures, lobal change</u>. Jon Bird, Barry Curtiss. Tim Putnam, George Robertson & Lisa Tuckner. London, Routledge: 59-69.

Massey, D. (1999¹). "Space-time, 'science' and the relationship between physical geography and human geography."." <u>Transactions of the Institute of British Geographers</u> 24(3): 261-276.

Massey, D. (1999²). Spaces of Politics. <u>Human Geography Today</u>. J. A. P. S. Doreen Massey. Malden, Mass, Polity Press: 279-294.

Meinig, D. W. (1979¹). Reading the Landscape: An appreciation of W.G. Hoskins and J.B. Jackson. <u>The Interpretation of Ordinary Landscapes</u>. D. W. Meinig. Oxford, Oxford University Press: 195-244.

Meinig, D. W. (1979²). The Beholding Eye: ten versions of the same scene. <u>The Interpretation of Ordinary Landscapes</u>. D. W. Meinig. Oxford, Oxford University Press: 33-48.

Meyer, E. (1997). The Expanded Field of Landscape Architecture. <u>Ecological Design and Planning</u>. New York, John Wiley & Sons: 70-76.

Meyer, E. (1998¹). Seized by Sublime Sentiments. <u>Richard Haag: Bloedel Reserve and Gas Works Park</u>. W. S. Saunders. New York, Princeton Architectural Press: 5-28.

- Meyer, E. (1998²). Reflections on the First Designed Landscape Forum. <u>Designed Landscape Forum 1</u>. G. Crandell and H. Landecker. Washington DC, Spacemaker Press.
- Meyer, E. (2001). "Territories: Contemporary European Landscape Design." <u>Landscape Journal</u> 20(2-01): 201-204.
- Meyer, E. (2005). Site Citations: the Grounds of Modern Landscape. <u>Site Matters</u>. Carol J. Burns and Andrea Kahn. London, Routledge: 93-130.
- Meyer, E. (2008). "Sustaining beauty. the performance of appearance. A manifesto in three parts." Journal of Landscape Architecture (Spring 2008): 6-23.
- Meyer, E. K. (2000). The Post-Earth Day Conundrum: Translating Environmental Values into Landscape Design. <u>Environmentalism in Landscape</u> Architecture. M. Conan. Washington DC, Dumbarton Oaks: 187-244.
- Meyer, E. K. (2009). Kiley and the Spaces of Landscape Modernism. <u>Dan Kiley Landscapes: the poetry of space</u>. Reuben M. Rainey and Marc Treib. Richmond, California, William Stout: 116-144.
- Miller, E. Lynn and Pennypacker, Eliza (1990). Followers of Nature's Muse: A.E.Bye and the English Landscape School Tradition. <u>Abstracting the Landscape: the landscape artistry of A.E.Bye</u>. C. Howett. Pennsylvania, Pennsylvania State University: 36-59.
- Montero, M. I. (1997). <u>Burle Marx: the Lyrical Landscape</u>. London, Thames and Hudson.
- Morson, G. S. (1991). "Bakhtin, Genres and Temporality." New Literary History 22(4): 1071-1092.
- Morson, G. S. (1993). "Strange Synchronies and Surplus Possibilities: Bakhtin on Time." <u>Slavic Review</u> 52(3): 477-493.
- Morson, S. a. E., Caryl (1989). Rethinking Bakhtin. <u>Rethinking Bakhtin:</u> <u>Extensions and Challenges</u>. S. M. a. C. Emerson. Evanston Illinois, Northwestern University: 1-60.
- Mozingo, L. A. (1997). "The Aesthetics of Ecological Design: Seeing Science as Culture." Landscape Journal 16(1): 46-59.
- Muldoon, M. S. (2006). <u>Tricks of Time: Bergson, Merleau-Ponty and Ricoeur in</u> search of time, self and meaning. Pittsburgh, Dusquesne University Press.
- Nassaeur, J. I. and Opdam, Paul (2008). "Design in science: extending the landscape ecology paradigm." <u>Landscape Ecology</u> 23: 633-644.

Neckar, L. M. (1993). Christopher Tunnard: the garden in the modern landscape. <u>Modern Landscape Architecture: A Critical Review</u>. M. Treib. Cambridge, Mass, MIT Press: p144-158.

Nickerson, T. (2004, 2010). "Landschaftspark Duisburg-Nord." Retrieved 6.11.13, 2013, from http://courses.umass.edu/latour/Germany/tnickerson/index.html

Olin, L. (1988). "Form, Meaning, and Expression in Landscape Architecture." Landscape Journal 7(2): 149-168.

Olin, L. (2010). Biography of Richard Haag. <u>The Cultural Landscape</u> <u>Foundation</u>: 2.

Olin, L. D. (2012). "An American Original: on the landscape architecture career of Lawrence Halprin." <u>Studies in the History of Gardens & Designed</u> Landscapes: an International Quarterly 32(3): 139-163.

Pallasmaa, J. (1999). Hapticity and time: Notes on fragile architecture. Architectural Review. 207: 14.

Pallasmaa, J. (2005). <u>Encounters: Architectural Essays</u>. Hameenlinna, Rakennustieto Oy.

Pallasmaa, J. (2009). <u>The Thinking Hand: existential and embodied wisdom in architecture</u>. Chichester, John Wiley.

Pauly, D. (2002). <u>Barragan: Space and Shadow, Walls and Colour</u>. Boston, Birkhauser.

Pennypacker, E. (2009). Bye, Arthur Edwin Jr. <u>Shaping the American Landscape</u>. C. B. S. Foell. London, University of Virginia Press: 42-45.

Pohl, N. (1993). In Which the Spirit of the 'Volkspark' also . . . <u>Modern Park Design: recent trends</u>. H. O. Martin Knuijt, Peter van Saane & David Louwerse. Bussum, Thoth 70-81.

Pollack, L. (2006). Constructed Ground:Questions of Scale. <u>The Landscape Urbanism Reader</u>. C. Waldheim. New York, Princeton University Press: 125-138.

Potteiger, M. P., J (1998). <u>Landscape Narratives: Design Practices for Telling</u> Stories, John Wiley and Sons Inc.

Rabinowitz, P. J. (1998). <u>Before Reading: Narrative Conventions and the Politics of Interpretation</u>. Columbus, Ohio State University Press.

Rainey, R. M. (1985). "The Landscape Art of AE Bye." <u>The Prinecton Journal:</u> <u>Thematic Studies in Landscape Architecture</u> 2: 114-123.

Rainey, R. M. (1992). "Abstracting the Landscape: the artistry of landscape architect A.E.Bye: a travelling exhibition." <u>Landscape Journal</u> 11(1): 96-98.

Rainey, R. M. (1993). "Organic Form in the Humanized Landscape": Garrett Eckbo's Landscape For Living. <u>Modern Landscape Architecture: a critical review</u>. M. Treib. Cambridge, Massachusetts, MIT Press: p180-205.

Rainey, R. M. (1994). "Environmental ethics and park design: a case study of Byxbee Park." The Journal of Garden History 14(3): 171-178.

Rainey, R. M. (2012). "La Natura come amante: Nature as a Lover; Richard Haag Associates." SiteLINES 7(2): 17-19.

Rainey, R. M. T., Marc (1999). Dan Kiley: An Introduction. <u>Dan Kiley Landscapes: the Poetry of Space</u>. R. M. R. M. Treib. Richmond, Cal, William Stout Publishers: ix - xi.

Raxworthy, J. (2004). "Writing Gardens - Gardening Drawings: Fung, Brunier and Gardening as a Model of Landscape Architectural Practice." <u>Landscape</u> Review 9(1): 196-200.

Raxworthy, J. (2006). "Static and Dynamic." <u>Architectural Review Australia</u> 095: 102-107.

Raxworthy, J. (2011). "Gardening Forms: landscape architecture and gardening in Sven-Ingvar Andersson's garden at Marnas." <u>Journal of Landscape</u> <u>Architecture</u> 6(2): 6-19.

Reed, P. S. (2005). <u>Groundswell: constructing the contemporary landscape</u>. New York, Museum of Modern Art, New York.

Relph, E. (1987). The Modern Urban Landscape. London, Croom Helm.

Relph, E. (2004). Temporality and the Rhythms of Sustainable Landscape. Reanimating Places: a geography of rhythms. T. Mels. Aldershot, Ashgate: 111-121.

Ricoeur, P. (1983). <u>Time and Narrative Vol 1</u>. London, University of Chicago Press.

Ricoeur, P. (1985). Time and Narrative Vol 3, University of Chicago Press.

Riley, R. (1992). Attachment to the Ordinary Landscape. <u>Place Attachment</u>. New York, Plenum Press.

Riley, R. B. (1998). Experience and Time in the Work of Bernard Lassus. <u>The Landscape Approach: Bernard Lassus</u>. J. D. Hunt. Philadelphia, University of Pennsylvania: 9-10.

Rispa, R., Ed. (1996). <u>Barragan: the complete works</u>. London, Thames and Hudson.

Rivlin, L., G (2007). Found Spaces. <u>Loose Space: Possibility and Diversity in Urban Life</u>. K. A. Franck and Q. Stevens. London, Routledge: 38-53.

Roberts, P. (1993). "Seattle Parks." Landscape Architecture 83(3): 49-51.

Roberts, P. (2000). The Evolution, Definition and Purpose of Urban Regeneration. <u>Urban Regeneration: a handbook</u>. P. Roberts and H. Sykes. London, Sage Publications: 9-37.

Robertson, I. M. (2012). "Replanting Freeway Park: preserving a masterpiece." <u>Landscape Journal</u> 31(1-2): 77-99.

Rocca, A. (2008). The Nomadic Garden, the Permanent Traveller. <u>Planetary Gardens: the landscape architecture of Gilles Clement</u>. A. Rocca. Berlin, Birkhauser: 263.

Rose, J. C. (1939). Articulate Form in Landscape Design. <u>Modern Landscape</u> <u>Architecture: a Critical Review</u>. M. Treib. Cambridge, Mass, MIT Press: 73-75.

Rosenberg, A. M. (1986). "An Emerging Paradigm for Landscape Architecture." <u>Landscape Journal</u> 5(2): 75-82.

Ross, J. (2009). Choreographing Nature. Where the Revolution Began. Washington DC, Spacemaker Press: 14-25.

Rousseau, S. (2003). "Schouwburgplein." Topos 33: 18-24.

Ruff, A. (2002). "Holland and the Ecological Landscape." <u>Garden History</u> 30(2): 239-251.

Ruff, A. R. (1982). An Ecological Approach to Urban Landscape Design. A. R. R. Tregay: 4-12.

Saito, Y. (1998). "The Aesthetics of Unscenic Nature." <u>The Journal of Aesthetics and Art Criticism</u> 56(2): 101-111.

San Martin, I. (1996). "Luis Barragan: the Process of Discovery." <u>Landscape Journal</u> 15(2): 99-112.

Santos, M. S. (2001). "Memory and Narrative in Social Theory: the contributions of Jacques Derrida and Walter Benjamin." Time and Society 10(2/3): 163-189.

Schroder, T. (2002). <u>Changes in Scenery: contemporary landscape architecture in Europe</u>. Basel, Birkhauser.

Scully, S. W. (1983). Introduction. <u>Art into Landscape: Landscape into Art.</u> Mesa, Arizona, PDA Publishers: vi-x.

Seamon, D. (2010) Phenomenology. Encyclopedia of Geography 1-4

Seamon, D. S., Jacob (2008). Place and Placelessness, Edward Relph. <u>Key Texts in Human Geography</u>. R. K. G. V. P. Hubbard. London, Sage: 45-51.

Seddon, G. (1986). "Landscape Planning: A Conceptual Perspective." Landscape and Urban Planning 13: 335-347.

Shane, G. (2004). "The Emergence of Landscape Urbanism: Reflections on Stalking Detroit." <u>Harvard Design Magazine</u>(19): 1-18.

Shannon, K. (2006). From Theory to Resistance: Landscape Urbaninsm in Europe. <u>The Landscape Urbanism Reader</u>. C. Waldheim. New York, Princeton Architectural Press: p141-161.

Shaw, R. (2002). "The International Building Exhibition (IBA) Emscher Park, Germany: a Model for Sustainable Restructering." <u>Planning Studies</u> 10(1): 77-97.

Sheeler, J. (2003). <u>Little Sparta: the garden of Ian Hamilton Finlay</u>. London, Frances Lincoln.

Shepheard, P. (1953). Modern Gardens. London, Architectural Press.

Shonfield, K. (2000). "The Use of Urban Fiction to Interpret Architecture and Urban Space." <u>The Journal of Architecture</u> 5(Winter): 369-389.

Singhal, D. J. (1987). "Towards a Definition of American Modernism." <u>American Quarterly</u> 39(1): 7-26.

Smith, D. W. (2013) Phenomenology The Stanford Encyclopedia of Philosophy

Smith, J. (1992). The Slightly Different Thing That Is Said: writing the aesthetic experience Writing Worlds: discourse, text and metaphor in the representation of landscape. Trevor J. Barnes and James S. Duncan. London and NY, Routledge.

Smith, N. (1996). <u>The New Urban Frontier: gentrification and revanchist city</u>. New York, Routledge.

Solnit, R. (2001). Wanderlust: A History of Walking. London, Verso.

Spens, M. (1994). <u>The Complete Landscape Designs and Gardens of Geoffrey Jellicoe</u>. London, Thames & Hudson.

Spens, M. (2003). Modern Landscape. New York, Phaidon.

Spiegl, Andreas and Teckert, Christian (2006). Tom Waits 4'3". <u>Temporary Urban Spaces</u>: concepts for the use of city spaces. F. H. R. Temel. Berlin, Birkhauser: 97-104.

Spirn, A. W. (1988). "The Poetics of City and Nature: Towards a New Aesthetic for Urban Design." <u>Landscape Journal</u> 7(2): 108-126.

Spirn, A. W. (1996). <u>The Language of Landscape</u>. London, Yale University Press.

Spirn, A. W. (2000). Ian McHarg, Landscape Architecture, and Environmentalism: Ideas and Methods in Context. <u>Environmentalism in Landscape Architecture</u>. M. Conan. Washington DC, Dumbarton Oaks: 97-114.

Spirn, A. W. (2001). Introduction. <u>C. Th. Sorensen Landscape Modernist</u>. S.-I. A. S. Hoyer. Copenhagen, Danish Architectural Press.

Stephensen, L. S. (1997). "The Danish landscape and landscape gardening: on the visualization of the aesthetic potential for nature in the cultivation of the twentieth century." The Journal of Garden History 17(4): 295-309.

Stephensen, L. S. (2007). <u>Garden Design in Denmark: G. N. Brandt and the early years of the twentieth century</u>. Chichester, Packard Publishing.

Stephenson, J. (2010). "The Dimensional Landscape Model: Exploring Differences in Expressing and Locating Landscape Qualities." <u>Landscape Research</u> 35(3): 299-318.

Stevens, Q. (2007). Betwixt and Between: building thresholds, liminality and public space. <u>Loose Space: possibility and diversity in urban life</u>. K. A. F. Q. Stevens. London, Routledge: 73-92.

Stone, M. E. (2003) Social Housing in the UK and US: Evolution, Issues and Prospects. 83

Swaffield, S., Ed. (2002). <u>Theory in Landscape Architecture</u>. Philadelphia, University of Pennsylvania Press.

Tate, A. (2001). Great City Parks. London, Spon Press.

Tate, A. (2005). Making Places Different. <u>The Cultured Landscape: designing the environment in the 21st century</u>. S. H. K. Fieldhouse. Abingdon, Routledge: 57-80.

Taylor, K. (1997). "Design with meaning." Landscape review 3(2): 3-21.

Tepper, L. (2011) Infrastructure Adrift: West 8's shell project. DOI: http://landscapeurbanism.com/article/laura-tepper/

Thayer, R. L. J. (1994). <u>Gray World Green Heart: technology, nature and the sustainable landscape</u>. New York, Chichester, John Wiley and sons inc.

Thompson, I. (1993). "Landscape Design: signposts to a postmodern future?" <u>Landscape Research</u> 18(3): 122-129.

Thompson, I. (1994) Can a Landscape be a Work of Art? An appraisal of Sir Geoffrey Jellicoe's theory of landscape aesthetics. <u>Electronic Working Paper No. 6</u> 1-19

Thompson, I. H. (1998). "Environmental Ethics and the Development of Landscape Architectural Theory." Landscape Research 23(2): 175-194.

Thompson, I. H. (2002). "Ecology, community and delight: a trivalent approach to landscape education." Landscape and Urban Planning 60: 8-93.

Thompson, I. H. (2012). "Ten Tenets and Six Questions for Landscape Urbanism." <u>Landscape Research</u> 37(1): 7-26.

Thompson, J. W. (1989). "Landscape of Dream: Warrior of Vision." <u>Landscape Architecture</u> 79(7): 81-86.

Thwaites, K. and I. Simkins (2007). <u>Experiential Landscapes: an approach to people, place and space</u>. London, Routledge.

Tregay, R. (1984). "In Search of Greener Towns." <u>Journal of Environmental Planning and Management</u> 27(2): 59-62.

Treib, M. (1993). Axioms For a Modern Landscape Architecture. <u>Modern Landscape Architecture: a critical review</u>. M. Treib. Cambridge, Mass, MIT Press: 36-67.

Treib, M. (1995). Must Landscapes Mean? Approaches to Significance in recent Landscape Architecture. <u>Meaning in Landscape Architecture and Gardens: four essays</u>, four commentaries. M. Treib. London, Routledge: 82-133.

Treib, M. (1997). <u>Garrett Eckbo: Modern Landscapes for Living</u>. Berkeley, University of California Press.

Treib, M. (2000). "Thomas Church: The Modernist Years." <u>Studies in the History of Gardens and Designed Landscapes</u> 20(2): 130-156.

Treib, M. (2001). "The Content of Landscape Form [The Limits of Formalism]." Landscape Journal 20(2): 119-140.

Treib, M. (2002). Introduction. <u>The Architecture of Landscape 1940-1960</u>. M. Treib. Philadelphia, University of Pennsylvania Press viii - x.

Treib, M. (2003). "The Hedge and the Void: the landscapes of Dieter Kienast and an overview of his career." <u>Landscape Architecture</u> 93(1): 78-87, 104-107.

Treib, M. (2004). "Landscape and Modernism: Space and Ideology." <u>Landscape</u> <u>Journal</u> 23(1): 76-78.

Treib, M. (2005). <u>The Donnell and Eckbo Gardens</u>. San Francisco, William Stout publishers.

Treib, M. (2007). "Constructing the Swiss Landscape." <u>Landscape Journal</u> 26(2): 333-334.

Treib, M. (2009). Dan Kiley: the Nature of Space. <u>Dan Kiley Landscapes: the poetry of space</u>. Reuben M. Rainey and Marc Treib. Richmond, Cal, William Stout Publishers: 56-77.

Treib, M. (2011). Meaning and Meanings: an introduction. Meaning in Landscape Architecture & Gardens: four essays four commentaries. M. Treib. London, Routledge: VIII - XX.

Treib, M. (2012). "From the Garden: Lawrence Halprin and the Modern Landscape." <u>Landscape Journal</u> 31(1-2): 5-28.

Treib, M. and Imbert, Dorothee (1997). <u>Garrett Eckbo: Modern Landscapes For Living</u>. Berkeley, University of California Press.

Tunnard, C. (1942). Modern Gardens for Modern Houses: reflections on current trends in landscape design. <u>Modern Landscape Architecture: A Critical Review</u>. M. Treib. Cambridge, Mass, MIT Press: 159-165.

Tunnard, C. (1948). <u>Gardens in the Modern Landscape</u>. London, Architectural Press.

Vaccarino, R. (2000). The Correspondence of Time and Instability: two gardens. Roberto Burle Marx. R. Vaccarino. New York, Princeton Architectural Press: 25-36.

Vaccarino, R. (2002). The Inclusion of Modernism: Brasilidade and the Garden. <u>The Architecture of Landscape 1940-1960</u>. M. Treib. Philadelphia, University of Pennsylvania Press 206-231.

Vannini, P. (2009). Interpretive Theory. <u>Encyclopedia of Communication</u> <u>Theory</u>. Stephen W. Littlejohn and Karen A. Foss. London, Sage. 1: 571-561.

Vroom, M. J. and Mutsaers, F. (1995). <u>Outdooor Space: environments designed by Dutch landscape architects in the period since 1945</u>. Bussum, Thoth.

Waldheim, C. (2006¹). Introduction: A Reference Manifesto. <u>The Landscape Urbanism Reader</u>. C. Waldheim. New York. Princeton Architectural Press: 13-19.

Waldheim, C. (2006²). Landscape as Urbanism. <u>The Landscape Urbanism</u> <u>Reader</u>. C. Waldheim. New York, Princeton University Press: 35-54.

Walker, P. and Simo, Melanie (1994). <u>Invisible Gardens: the search for modernism in the American landscape</u>. Cambridge, Mass; London, MIT.

Walker, Peter with Blake, Cathy Deino (1990). Minimalist Gardens Without Walls. <u>The Meaning of Gardens: idea, place and action</u>. M. F. R. T. H. Jr. Cambridge, Massachusetts, MIT Press: 120-129.

Wall, A. (1999). Programming the Urban Surface. <u>Recovering Landscape</u>. J. Corner. New York, Princeton Architectural Press: 233-249.

Ward Thompson, C. (2005). Who benefits from landscape architecture? <u>The Cultured Landscape: designing the environment in the 21st century</u>. K. F. w. J. H. Sheila Harvey. London, Routledge: 95-124.

Ward Thompson, C. (2013). Landscape Perception and Environmental Psychology. <u>The Routledge Companion to Landscape Studies</u>. I. T. Peter Howard, Emma Waterton. London, Routledge: 25-42.

Wasserman, J. (2012). "A World in Motion: the creative synergy of Lawrence and Anna Halprin." Landscape Journal 31(1-2): 33-52.

Way, T. (2012). "Richard Haag: New Eyes for Old." SiteLINES 7(2): 6-8.

Way, T. (2013). "Landscapes of industrial excess: A thick sections approach to Gas Works Park." Journal of Landscape Architecture 8(1): 28-39.

Waymark, J. (2003). <u>Modern Garden Design: innovation since 1900</u>. London, Thames and Hudson.

Weilacher, U. (1996). <u>Between Landscape Architecture and Landscape Art</u>. Berlin, Birkhauser.

Weilacher, U. (2001). Visionary Gardens: Modern Landscapes by Ernst Cramer. Basel, Birkhauser: 287.

Weilacher, U. (2005). In Gardens. Berlin, Birkhauser.

Weilacher, U. (2007). The Garden as the Last Luxury Today. <u>Contemporary Garden: Aesthetics, Creations and Interpretations</u>. M. Conan. Washington DC, Dumbarton Oaks Research Library: 81-96.

Weilacher, U. (2008). <u>Syntax of Landscape: the landscape architecture of Peter Latz and Partners</u>. Berlin, Birkhauser.

Weller, R. (2001). "Between hermeneutics and datascapes: a critical appreciation of emergent landscape design theory and praxis through the writings of James Corner 1990-2000 (Part One)." <u>Landscape review</u> 7(1): 3-24.

Weller, R. (2006). An Art of Instrumentality: Thinking Through Landscape. <u>The Landscape Urbanism Reader</u>. C. Waldheim. New York, Princeton Architectural Press: 71-85.

White, H. (1981). The Narrativization of Real Events (Critical Response). On Narrative. W.J.T.Mitchell, University of Chicago Press: 249-257.

Wilson, A. (1992). <u>The Culture of Nature: North American Landscape from Disney to Exxon Valdez</u>. Oxford, Blackwell.

Worpole, K. (2000). <u>Here Comes The Sun: architecture and public space in twentieth-century European culture</u>. London, Reaktion Books.

Woudstra, J. (1995). "Danish Landscape Design in the Modern Era." <u>Garden History</u> 23(2): 222-241.

Woudstra, J. (2004). The Changing Nature of Ecology: a history of ecological planting (1800-1980). <u>The Dynamic Landscape</u>. N. D. a. J. Hitchmough. London, Spon: 23-57.

Wu, Jiangou and Hobbs, Richard (2002). "Key issues and research priorities in landscape ecology: an idiosyncratic thesis." <u>Landscape Ecology</u> 17: 355-365.

Wyckoff, William and Colten, Craig E (2009). "A Tribute to Donald Meinig." <u>The Geographical Review</u> 99(3): III - X.

Wylie, J. (2005). " A single day's walking: narrating self and landscape on the South West Coast Path." <u>Transactions of the Institute of British Geographers</u> 30: 234-247.

Wylie, J. (2010). Writing Through Landscape. <u>Process: Landscape and Text</u>. C. B. a. A. Johns-Putra. Amsterdam, Rodopi: 45-64.

Zahavi, D. (2003¹). <u>Husserl's Phenomenology</u>, Stanford University Press.

Zahavi, D. (2003²). Inner Time-Consciousness and Pre-Reflective Self-Awareness. <u>The New Husserl: A Critical Reader</u>. D. Welton, Indiana University Press: 157-180.

IMAGE REFERENCES

Thesis Fig.	Thesis Page nr.	IMAGE DESCRIPTION	TITLE BOOK/ JOURNAL	DATE BOOK / JOUR NAL	AUTHOR / EDITOR BOOK/ JOURNA L	PAGE NR.	PUBLISHER
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