

Complexities of Communication and Practice in Architect-Client Relationships

Ahlam Saud Harahsheh

A thesis submitted in partial fulfilment of the requirements for the degree of

Doctor of Philosophy

The University of Sheffield
Faculty of Social Sciences
Sheffield School of Architecture

September 2019

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Dedication

This work and all its outcomes are dedicated to:

The memory of my father: the greatest man, leader, and role model;

My mother, Prof. Haya Harahsheh, who never attended a collage yet managed to be our ultimate supervisor;

My first supporter and my backbone: my husband, Wasfi;

My best friend and my inspiration to be better every day: my son, Zaid;

My bundle of joy, who decided to join me from the beginning of this journey: my son, Faris;

And again: my brother, Anwar—the hand behind every success in my life.

- Ahlam

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Foreword

My passion for architecture and teaching is what paved my path through academia and, before joining academia as a lecturer at the University of Jordan in 2013, I obtained my two degrees in architectural engineering from the University of Jordan, BSc in 2005, as well as my MSc in 2010. Additionally, I have worked as an architect and design coordinator in a variety of projects within Jordan and the Middle East (2006-2013). Furthermore, in 2016, I was awarded a scholarship to pursue my PhD degree in the UK, sponsored by the University of Jordan.

My relationship with this research is multi-layered: I am conducting the research as a Jordanian architect and academic. As an architect, I believe in the importance of the architect-client relationships within everyday practice: indeed, it reflects 'common sense' that architects need to listen and collaborate with their clients. However, this simple and intuitive fact is often forgotten in actual practice, and so the aim here is to shed light on everyday practices that can help in developing those relationships—for the greater good of the profession. Here, my research primarily investigated 'ordinary' projects from everyday practice that represent more than three quarters of the turnover of projects of Jordanian architect work on¹. Meanwhile, as an academic, I am also concerned with architectural practice as a research area, and it is whilst bearing this in mind that I understand the importance of 'academia to link up with practice' (Samuel, 2018) in an attempt to enhance both academic research and professional practice. As a Jordanian, I am investigating areas of architectural practice research that are often neglected in the Jordanian context that require urgent attention and investigation as a result of its importance to the contemporary changeable Jordanian architectural practice. Indeed, this research is dealing with a variety of issues that overlap: the challenges facing the housing sector in Jordan, changes within the architectural profession from an informal practice context to a relatively professionalised industry, and the complexities of architect-client communications due to differences in social and intellectual priorities.

Thus, in order to explore the politics of architect-client relationships, this research puts forward the narratives of seven residential projects in Amman, Jordan; furthermore, this research aims to be a useful step toward enhancing architectural practice through emphasising the importance of this essential relationship in contemporary architectural practice in Jordan. The case studies featured here explore a range of narratives in an attempt to answer the question, *How does the*

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¹ as confirmed by the architects interviewed in this research

architect-client relationships impact the outcome of residential projects in Jordan? Each narrative suggested something different: elements that reinforce the relationship, and others that stand in the way of the development of the relationship—and, accordingly, the design—were highlighted, and, whilst there are many common aspects amongst the case studies, each one reflects unique characteristics of the architect-client relationships explored. Indeed, it is important to highlight the gap in the architectural research in this subject area—especially in Jordan.

It is no secret that finished projects receive much attention within architectural practice—mainly because they are seen and evaluated by different people, and in the context of Jordan, they been investigated by a variety of different researchers. But what actually happens and how a design is developed remains unknown (Franck & Howard, 2010; Pressman, 2006). This research examines the relationship through the process of design and supports the understanding that the 'hidden process of design' is of very high importance, drawing attention to the complicated process of creating the project—within which the architect-client interactions are the most intensive.

Summary

This research examined architect-client relationships in the context of residential projects in Jordan at different scales of inquiry—from single house design generation, to architectural practice and education, analysing seven case studies that shed light on the varying aspects of this relationships, as well as how it develops and evolves. Indeed, the importance of constructive relationships between architects and clients is well-documented within the literature, a variety of approaches to research within architectural practice having developed in complexity, reflecting changes in the nature of contemporary practice. In the context on Jordan, the profession undergoes many changes (increasing professionalism, client knowledge and expectations change, and high competition within the profession), whilst the housing sector goes through a radical change as a result of the economic, demographic, and social change. This research investigates the architectural design process from the perspective of the architect-client relationships, as well as how the design evolves through their interactions, shaping both the process and the result. Furthermore, the social dimension of the design process is investigated, showcasing where the interactions of different actors play a significant role in (re)producing the design.

As a whole, this research bridges a breadth of research topics (including practice management, architectural design, housing studies, marketing, and relationships), attempting to make connections between these different layers of architectural research through studying the politics of architect-client relationships.

Indeed, this research emphasised the importance of architect-client relationships as a pillar of the contemporary architectural practice, highlighting the role of cultural aspects in the practice, as well as the fact that the relationship is complex and involves a variety of actors. This research additionally calls for efforts to be paid toward educating the clients and the architects through enforcing the role of official bodies concerned with the housing sector in Jordan, as well as through the development of the pedagogies within the schools of architecture whilst maintaining core cultural values specific to the Jordanian context.

Key words: Architect-Client Relationships; Residential Projects; Design Communications; Actor Network Theory; Jordan.

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Abbreviations

AIA American Institute of Architects

ANT Actor Network Theory

DOS Department of Statistics - Jordan

JEA Jordanian Engineers Association

JHDA Jordan Housing Developers Association

HUDCHousing and Urban Development Corporation - Jordan

RIBA Royal Institute of British Architects

RSS Royal Society of Science - Jordan

UREC University (of Sheffield) Research Ethics Committee

General Notes

- The use of the first person within different sections of this thesis is meant to engage the reader;
- For the ease of referencing the quotations from the interviews that the researcher conducted in this research, the simple reference format is used at the end of each quotation; please see **Table 2-3** for full reference of interviews. All these interviews were conducted as face-to-face interviews by the researcher;
- In Chapters Four, Five, and Six, when using 'architects' or 'clients'" it is not meant to generalise: rather, it refers to the architects and clients interviewed for this research.
- In order to ensure the privacy of the research interviewees, some photos, images and plans are removed from this version of the thesis.

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My research was based on interviews and, hence, without the participation of the architects and clients of my case studies, this research could not have been done; thus, I would like to thank them all for their time, enthusiasm, and valuable participation: their contribution is highly appreciated as they became friends and continued to support my research whenever needed.

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Chapter One

Pathway to the research: context and practice

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1. Chapter One: Pathway to the Research: Context and Practice

Without a client, there is no architect. They must see their roles as inseparable. (Pressman, 1995).

1.1. Introduction

Largely as a result of the growing understanding of the impact of continuing changes in the profession on the built environment, real-estate market, economy, and social structure of societies, the research of architectural practice has received growing attention on an international scale over the past twenty years²—and it is such research of architectural practice (especially in Europe and North America) that has highlighted the importance of the design phases in helping to enhance the quality of design, in turn reducing waste (in terms of time, budget, and efforts) and achieving better client/user satisfaction (El. Reifi & Emmitt, 2013; Formoso, Tzotzopoulos, Jobim, & Liedtke, 1998; Knotten, Svalestuen, Hansen, & Lædre, 2015; Thyssen, Emmitt, Bonke, & Kirk-Christoffersen, 2010; Tilley, 2005). Indeed, during the early design stages, the influence of the clients can be very high, their engagement in the design process being highly recommended by a range of different studies (Chandra & Loosemore, 2011; Jensen, 2011; Norouzi, Shabak, Bin Embi, & Khan, 2014; Pressman, 1995, 2006; Siva & London, 2009a).

The generation of architectural design is commonly understood as a sociotechnical process, involving repeated sessions of interactions, negotiations, meetings, and communications—as

² Some examples are: (Bendixen & Koch, 2007; Dansoh & Frimpong, 2016; Edwards, 2005; Hansen & Vanegas, 2003; R. Hay, Samuel, Watson, & Bradbury, 2017; Linden, Dong, & Heylighen, 2017; McDonnell & Lloyd, 2014; Norouzi et al., 2014, 2015b; Oak, 2011; Otter & Emmitt, 2008; Ryd, 2004a, 2004b; Siva & London, 2012; Thyssen et al., 2010; Tilley, 2005; Tusa, 2002)

well as other sorts of social engagements between different actors (Oak, 2011). Both characteristics of the design process (the technical and the social) are of great importance and understanding them as inseparable is essential when it comes to trying to understand the nature of the design process. Indeed, each design process involves a unique communication process, each step of which also possessing its own kind of communicational requirements, requiring coordination at the intersection between actors with different ways of interpreting information. Notably, the social dimension of the design process is of great interest within this research. This includes: the process of making the design and the interactions that happen around it; the actors involved; the actors' manners, degrees, and impacts of involvement; and the grouping and regrouping of those actors. All these factors are studied to understand, analyse, and develop the way in which the design evolves.

Indeed, the importance of architect-client/user interactions is well-documented within the literature, some examples being: (Bertelsen & Emmitt, 2005a, 2005b; W H Collinge & Harty, 2013; William H. Collinge & Harty, 2014; Cuff, 1992; Ivory, 2004; McDonnell & Lloyd, 2014; Norouzi et al., 2014; Norouzi, Shabak, Embi, & Khan, 2015b; Oak, 2011; Siva & London, 2011; Thyssen et al., 2010; Tusa, 2002). The consensus is that an effective architect-client interactions results in improved architecture, buildings, satisfaction in clients, and, in turn, a better-built environment (Pressman, 2006; Siva & London, 2012).

Calls for building collaborative relationships between architects and clients are widely seen in architectural practice research worldwide (Franck & Howard, 2010; Pressman, 2014; Siva & London, 2012), many studies having highlighted the positive impact of this collaborative relationship on the process and product of design (Angral, 2019; Cuff, 1992; Franck & Howard, 2010; Pressman, 2006, 2014; Siva & London, 2009a, 2012, 2016). Despite the fact that by their role definition, architects have the knowledge and experience to produce designs, they also require essential input from their clients (Murtagh, Roberts, & Hitchings, 2016) and, in this vein, a variety of bodies of architectural practice within both the UK and USA have highlighted the importance of the architect-client relationships through publications targeting both architects and clients. As an example of this, the Royal Institution of British Architects (RIBA) has produced a range of publications in this regard in the last five years (RIBA, 2015a, 2015b, 2016, 2017). Within the publication Working With an Architect for Your Home, the RIBA stated that, 'Good architecture needs collaboration and dialogue; you need to respect each other's views' (RIBA, 2017). In another RIBA publication named It's Useful to Know, it was stated that, 'Every engagement between an architect and client should be [a] positive and

productive experience; a good working relationship in very important to ensure a successful project' (RIBA, 2015b). Meanwhile, the American Institute of Architects (AIA) have also produced several publications in this regard (the AIA, 2006, 2007); for example, within You & Your Architect: A Guide For a Successful Partnership, the AIA stated, 'There is no substitute for the intensive dialogue and inquiry that characterize the design process' (the AIA, 2007).

The importance of the architect – client relationships in the Jordanian context could be seen through understanding the current state of the profession, the centrality of it in practice, and the wider cultural nature of society: indeed, the architectural profession within Jordan is generalist and largely composed of small practices that make up the majority of offices; there is less specialisation in terms of dividing the design job into different segments and specialisms, and, additionally, in residential projects, clients are 'non specialist', as the majority of the clients are end-users, this project hence perhaps being their first—and maybe last—project. Nevertheless, the profession is undergoing a notable demographic, economic, and regional changes, the construction industry having inevitably become increasingly marketized, perceived through increasing professionalism (in terms of regulating practice, increasing competition within the market, the growing role of BIM in the design process, etc.), changes in the nature of the client (as access to architectural knowledge has increased due to the wide use of internet and social media, where design and construction ideas can easily be explored by non-professionals and that result in increasing their expectations), and the growth of developer-led projects (yet this does not mean mass-housing developers selling prototyped houses as might understood in other contexts). Overall, a large share of the housing market remains private residential projects, commissioned by private individuals, such changes being reflected in practice and having resulted in a change of the profession from a socially orientated to a relatively professional arena. This emphasises the importance of this research now as aa way to understand and develop the relationship and practice. Indeed, research concerning architectural practice in Jordan is limited, and no previous studies explicitly about the architect-client relationships have been identified.

Indeed, this research builds upon studies that call for improved architect-client relationships, emphasising their importance overall to the architectural profession. This research also builds upon previous research that looked at the social context of architectural practice in order to develop the understanding of its components, its difficulties, and how it can be developed, taking into consideration the core cultural values specific to the Jordanian context.

1.2. Research Aims and Objectives

The primary aim of this thesis is to develop a comprehensive understanding of the architect-client relationships in the Jordanian context, whilst simultaneously developing an understanding of the social—as well as the technical—aspects of the architect-client relationships. These aims amalgamate into the overall objective of understanding the current state of such relationships that will help in developing the relationships and the practice in Jordan and, indeed, this research should also address the lack of architect-client relationships studies in the context of Jordan, in turn providing a first step toward more research in this area. The better we understand architect-client relationships, the better—or so it is believed—the practice of architecture. This aim is to be achieved through the following objectives:

- To explore the importance of architect-client relationships in the context of residential projects in Jordan;
- To look at the complexities of the communications between architects and clients during the different stages of the residential project;
- To understand the importance of the social dimension of the relationships, as well as its impact on the whole architectural practice by influencing the relationship;
- To analyse the actors that create, impact, and sustain architect-client relationships.

Overall, I aim to understand architect-client relationships within its wider context of architectural practice and architectural education in Jordan and, in order to address such an aim, this research purposes to answer questions concerning architect-client relationships and architectural practice in Jordan. The overarching research question is, **How do architect-client relationships impact the outcome of residential projects in Jordan?**—the 'outcome' being not the building/house alone, but also the satisfaction of both parties, the architectural profession, society as a whole, etc. To answer this question, the following questions should be answered:

- How architect-client relationships are developed and sustained through the project life cycle;
- How different actors influence architect-client relationship;
- What benefits derive from studying architect-client relationship in architectural practice and architectural education.

Accordingly, the thesis is structured around answering those questions, as well as achieving the aim and objectives of this research (as clarified in **Figure 1-1**). The thesis structure will be clarified in Chapter Two (Section 2.5). This chapter describes the pathway of this research

through the lens of previous studies of architectural practice, aiming to provide insights about the research context through examining other relevant studies worldwide and in Jordan.

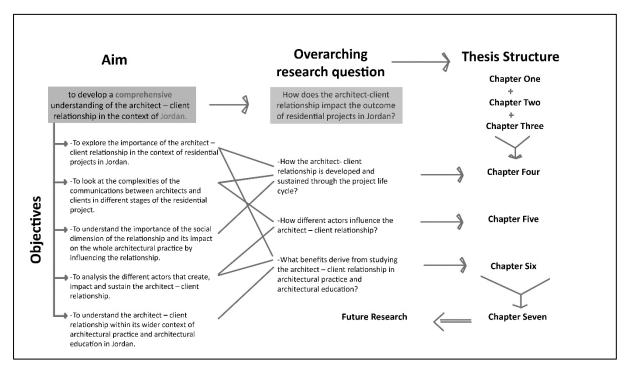


Figure 1-1: Research Design - Source: Researcher

1.3. Research on Architect-Client Relationships

A successful client-architect relationship constitutes the cornerstone of fine architecture. - AIA (1975, as cited in [(Cuff, 1992)]).

Part of the social milieu of architectural practice is the architect's relationship with the client, and, indeed, in any architectural practice, architect-client interactions are at the core of architectural design. This is due to the fact that the architect and the client are the main actors in generating the design (Cuff, 1992), and so their interactions determine the whole project lifecycle, outcomes, and success. Some scholars perceive this relationship as a business one, whereby the architect is the service provider and the client is the service receiver, the service that is traded being the architectural design (A. A. Oluwatayo, 2016)—and, whilst this perspective excludes some important aspects of architects' roles and duties in the society, it still highlights the importance of the design as a product and process for the profession. Here,

the design goes through iterative cycles of 'development, evaluation, refinement, detailing, documentation, alteration, collaboration, assessment, calculation, and planning' (Eckert & Stacey, 2001), and this aspect of design is what makes the experience of an architect-client relationship unique, the relationship consistently evolving with the design.

Through this literature review, the previous studies that have been conducted could be organised through different perspectives—and, for the use of this research, the following themes were deemed the most important.

1.3.1. The Importance of Architect-Client Relationships

A successful building grows from the relationship between client and architect. (Franck & Howard, 2010, p. 15).

The importance of constructive relationships between architects and clients is well-documented throughout the literature, the aim of the majority of which being to improve the design process—and, in turn, the design quality and profession as a whole (Eckert, Maier, & McMahon, 2005). Indeed, the full understanding of the fact that the design is not an 'architect only' responsibility and that architects do more in their practice than 'design only' are essential key notions that need to be taken into consideration when investigating architect-client relationships; although architects are trained in such a way where they have the responsibility of the design itself (Cuff, 1992), actual practice—whether that be in the Jordanian context or any other context—shows that they are not the only actor wielding a significant influence on the design. The client's role in the construction sector is essential and widely understood, and they are widely acknowledged as the initiator of the project, providing finance and quality control in terms of preparing the requirements and approving the design solutions (Cuff, 1992; Ryd, 2004a). Of course, the role of the client varies from one project to another, and from one context to another—and, in the same sense, actual practice suggest that architects do not spend all their time designing projects, but that rather much of it is spent on communicating their designs with other people—and, most importantly, with their clients (as confirmed by architects AS, FB, BJ, RW, and RB interviewed in this research, and from the researcher's own experience as an architect in the Jordanian market).

In her book *Architecture: The Story of Practice*, Dana Cuff studied the levels of interaction experienced by architects throughout the design and construction processes of a project, and it is here she noted that whilst interaction with the client is very high at the beginning of the project, it tends to decrease over the life of the project. Thus, Cuff concluded that the architect's works is all about communication (Cuff, 1992).

In the same vein, a central idea in architectural practice is that of the role of the client as a significant design resource who gives important suggestions and helps the design evolve into a better project is (Pressman, 2006); indeed, generally speaking, clients tend to have a good amount of information and a wealth of ideas concerning what they want (Gann, Salter, & Whyte, 2003), and this data should be conveyed to their architect in the design early stages so a design that can satisfy the client's needs can be produced. This is one of the pillars for a successful architect–client relationship and could also aid in reducing the time needed for alterations and amendments. Indeed, from a commercial point of view, the relationship with the client is essential for the architect's profession when considering the fact that architects need to maintain a good relationship with their clients in order to survive in their practice (Murtagh *et al.*, 2016). Furthermore, in business development studies, advice is provided for emerging businesses with specific concentration directed to the role of the clients—more specifically, how to build a client's trust, how to be good listener, etc. Indeed, there is also a growing awareness of the importance of the client's role in the profession in the scope of architectural research (Dansoh & Frimpong, 2016).

In his book *Curing the Fountain-Headache*, Andrew Pressman claims that 'better relationships produce better buildings' (Pressman, 2006)—something that concurs with other researchers and studies of the architect-client relationship (Bertelsen & Emmitt, 2005a, 2005b; Siva & London, 2012). Similarly, Dana Cuff's book *Architecture: The Story of Practice* illustrates how the collaborative design approach has resulted in outstanding buildings that are ultimately not the work of just a single person. Indeed, we can see here that the importance of a progressive relationship is not only significant in the field of producing good buildings, but also in the construction industry and the business management world—leading to its especially high degree of importance not only in small-scale residential projects, but also in large-scale projects (Cuff, 1992).

Furthermore, the importance of the architect-client relationship in terms of achieving high-quality architectural design and client/user satisfaction has been studied by a variety of researchers (Frimpong & Dansoh, 2016; Norouzi, Shabak, Embi, & Khan, 2015a; Ojelabi,

Oyeyipo, Afolabi, & Amusan, 2018; Oyedele & Tham, 2007) and, indeed, it is evident that respecting and fulfilling client's needs and aspirations is an essential aspect of successful architectural practice (Nicol & Pilling, 2000b). In the same vein, achieving improved designs is highly affected by the corporation between the architect and the client; the smoother their relationship, the higher the chance that the architect will be able to develop their designs. It has been found in some cases that clients are oftentimes afraid to try something new due to their worrying about what might happen if they decide to sell their house (Pressman, 2006), potentially creating an obstacle for the architect when it comes to them both suggesting and developing new ideas. Thus, resolving such an issue is heavily dependent on building a solid relationship of trust whereby the client can trust their architect to deliver the required standard of project. This same idea is what resulted after the recent progressive growth in developer-led housing in Jordan, whereby developers prioritise designing something easy to sell something innovative. In this case, the role of the architect—as well as the impact of the relationship—become even more important in order to maintain the quality of the overall built environment.

Notably, the dynamics and complexities of the architect's everyday practice is claimed to be neglected within architectural management research (Cuff, 1992; Siva & London, 2012), despite the fact that the architect-client relationship is an important aspect of today's project management (Meyer, 2003). In the same vein, another book by Pressman named *Designing Relationships: The Art of Collaboration in Architecture*, mainly focuses on an architect's relationships with other engineers, largely neglecting the issue of an architects' relationships with clients—especially those for small projects. Of course, this naturally leads to question of why these relationships are overlooked. This could be answered by different assumptions: are those relationships taken for granted? And is the relatively low profit of them a factor of architects considering them as simple and straightforward³?

It is no secret that architect-client interactions are fraught with opportunities for misunderstanding (Pressman, 2006), and so effective collaboration in architecture requires efficient communication between all actors and at different levels (Pressman, 2014); indeed, as is now becoming apparent, communications between architects and clients are viewed as critical for effective shared understandings of the project requirements and expectations

³ even though one residential project profit is much lower than commercial projects one but using the long tail theory those projects are the main income resource for most architects

(Bogers, van Meel, & van der Voordt, 2008; Chandra & Loosemore, 2011; William H. Collinge & Harty, 2014; Jensen, 2011). The different sequences of a poor architect-client relationship could be seen at different levels of design and construction, and it is with this in mind that Pressman concluded from his own practice and research that 'the absence of a direct relationship with the clients can be disastrous' (Pressman, 2006, p. 25). Similarly, the most recent research by Akash Angral (2019) strengthens the idea that part of the current architectural profession's predicament is that of the defective architect-client relationship—especially when it comes to the issue of fees. Thus, it recommends for architects to receive training in the skill of client management. Angral's research in the context of the UK and other countries (as part of his data was collected through online survey) observed what architects need to do, although it did not investigate how the architect and clients should collaborate to make such a relationship better.

Indeed, the importance of architects' communication skills is documented in a variety of studies and is thus considered as one of the evaluation tools for the success of architecture. Siva et al. (2009) comprised of clients that had developed a relationship of trust and respect with their architects, depending in their own experience and their appreciation for the architects efforts—and this was especially heightened when the architects met their needs and respected their ideas (Siva & London, 2009a). On the other hand, failure to fully understand a client's requirements resulted in a negative impact being wielded on the value of the projects, as the clients ultimately did not receive their desired project (Knotten et al., 2015). As would be valuable to note, pitfalls in communications between the architect and the client—especially in the early stages of design and brief preparing—could very well lead to 'legal squabbles' (Pressman, 2006), and similar research by (Norouzi et al., 2015a) is focused on user involvement in the design process by identifying the needed socio-technical characteristics for a successful architect-client relationship. Indeed, it is this study that clarified that the social aspects of design communication between architects and clients that motivate them to build a meaningful relationship results in better participation and accordingly better client satisfaction with the design. However, a clear definition of a successful relationship is required here.

In order for successful architect-client interactions to come to fruition, both parties should make efforts to enhance the communication between them, as well as to overcome any gaps or misunderstandings they have in regard to each other's wants. Whilst some studies highlighted the need for client learning (e.g., William H. Collinge & Harty, 2014; Jensen, 2011; Norouzi, Shabak, Embi & Khan, 2015; Shen *et al.*, 2013), other studies stated that architects need to

work on their communication skills; as an example of this, Eckert *et al.* (2005) suggested that architects must be educated in the realm of taking responsibility for the information needed by others (Eckert *et al.*, 2005), and, indeed, this could be regarded as a call for focusing on architectural practice within architectural education.

Despite the above, our knowledge and understanding of the importance of a collective architect-client relationship does not always match what happens in actual practice: for example, research by (Vennström & Erik Eriksson, 2010) provided a survey to 87 Swedish construction clients, its results indicating that despite the client acknowledgment of the importance of having a collaborative relationship with their architects to achieve successful projects, clients would make project decisions that contradicted this understanding, tending to have a short-term outlook on projects. It was also found that they would easily and frequently change their architects. Meanwhile, other studies concerning architect-client relationships within residential projects (Cuff, 1992; Gorse & Emmitt, 2009) have highlighted some problems concerning client dissatisfaction of the design and the process; for example, (A. A. Oluwatayo, Alagbe, & Uwakonye, 2014)—conducted in Nigeria—comprised of a questionnaire that was distributed to 141 architectural firms. The results show that architects understand that clients are mainly concerned with the technical service, so they do not make enough effort to build upon the relationship management, as well as any other aspects of the project relationship. Meanwhile, clients appear to hope to enjoy a good relationship with their architect. In regard to the above study, although these researchers discussed case studies from other contexts than Jordan, it is still important to look at them in a wider context to shed light on and widen research understanding.

This relationship is of great importance through all the phases of the project—from the beginning, until the very final stages. Clearly, there is a direct correspondence between the quality of communication and, accordingly, the relationship and the quality of architecture (Pressman, 2006). Notably, the problem is sometimes not in the design itself, but in the way it is communicated, and this, again, sheds light on the importance of an architect's communication skills.

Another key notion that is successful in highlighting the key elements of this relationship importance is that of the fact that it ensures the architecture is connected to its context and in the same time fulfil the client's requirements; indeed, this element is important in all types of projects, and it becomes especially vital in residential projects, within which the importance of maintaining a good professional relationship between the architect and the client is widely

understood—as confirmed by many studies (Dansoh & Frimpong, 2016; Norouzi et al., 2015b; A. A. Oluwatayo, 2013; A. Oluwatayo, Ezema, Opoko, & Fulani, 2014; Pressman, 2006; Siva & London, 2012). Such relationships vary in complexity, depending on the nature of the individual project and client requirements. Here, the study by (Siva & London, 2012) investigates the architect-client relationship in the context of private single dwelling projects in Australia, looking closely at the patterns of client learning through their interactions with their architect. They found that this resulted in better relationships.

Design communication within architectural projects has become very complicated in recent years due to a variety of reasons (e.g., the complexity of architectural projects; the development of information management systems and BIM), and it is such reasons that have impacted the way in which the design is developed and generated (Norouzi *et al.*, 2015b). Indeed, there is sometimes a perceived need to recreate the design in visualisations in order to make the client understand it (Pressman, 2006). Research by (Sebastian, 2011) investigated changing the roles of project actors through the use of BIM in hospital projects in the Netherlands, and concluded that BIM provides a different platform for relationships in construction projects (e.g., it provides integrated procurement, which replace the dualities in relationships); the client would have one relationship with one party that is responsible for the design and construction instead of having two relationships—one with the architect for the design, and the other with the contractor for the construction. Indeed, this wide use of BIM applications would create a sort of cross-discipline collaboration between the traditional project main actors, as their roles and relationships would be affected.

1.3.2. Perspectives in Studying the Architect-Client Relationship

The architect-client relationship possesses a multitude of aspects that could be examined from a variety of perspectives. In the literature, researchers take different routes to examine this relationship: namely, a professional perspective (e.g., (Ivory, 2004; Oak, 2011); a social perspective (e.g., (McDonnell & Lloyd, 2014; Norouzi et al., 2015b); a psychological perspective (e.g., (Siva & London, 2009b, 2011); amongst others. Indeed, architect-client relationships have occasionally been mentioned whilst examining other areas of research related to architectural practice: for example, design management (El. Reifi & Emmitt, 2013; Knotten et al., 2015; Svalestuen, Lædre, & Lohne, 2014; Tilley, 2005); lean architectural practice (MAZLUM, 2015; Mryyian & Tzortzopoulos, 2013); design methodologies (Eckert

& Stacey, 2001; Shen, Zhang, Shen, & Fernando, 2013); participatory design (Lawrence, 1985; Norouzi *et al.*, 2014); BIM in architectural design (Sebastian, 2011; Shen, Shen, & Sun, 2012; Tessema, 2008); and architectural profession ethics (Spector, 2001).

One way to discuss practice-related issues is by examining actual practice case studies (e.g., Design Through Dialogue by Franck & Howard (Franck & Howard, 2010); the two versions of the book The Fountain-Headache (Pressman, 1995) and Curing The Fountain-Headache by Andrew Pressman (Pressman, 2006)). Indeed, within architectural practice research in the last decade, it is common to find studies that describe architect-client interactions using the observations of actual practice—and this clarifies the significance of understanding the complexities of the social environment in which the architect-client relationship is in (e.g., (Chandra & Loosemore, 2011; William H. Collinge & Harty, 2014; Ivory, 2004; McDonnell & Lloyd, 2014; Savanovic & Zeiler, 2006; Siva & London, 2009b). One of the above studies that observed actual practice in order to examine the relationship between communication exchange and quality of design is that of Chandra & Loosemore (2011), within which it was argued that increased communication exchange between architect and client would lead to a better brief and, thus, a better design through discussing a case study of hospital design; such an argument was based on the premise of these interactions developing a common understanding, also confirming that the lack of interaction is a source of briefing pitfalls (Chandra & Loosemore, 2011; Khosrowshahi, 2015). A second example of actual practice observation is that of Ivory (2004), which discusses three case studies of architect-client interactions, as well as the impact of those interactions on design in the UK. Ultimately, this study showcased that architects are able to manage their relationships with clients very effectively, also noting that the architects had little interest in developing a full role for clients in the design process (Ivory, 2004). This, in turn, leads to questions concerning the architect's willingness to facilitate client involvement/engagement in the design process, as there are, indeed, frequent complaints amongst architects against some clients who are claimed to interfere in the design process and prevent architects from doing their best work (Cuff, 1992). In these examples of actual practice observation studies, although research has focused on varying aspects of interest, the observation of the actual practice helps the researcher to examine the various aspects of interactions in its real environment—which can, in turn, lead to applicable research outcomes.

Notably, a social psychological⁴ approach is used by several researchers that discuss the social nature of the communications in the context of architectural design (Eckert et al., 2005; Khosrowshahi, 2015; Oak, 2011; Siva & London, 2009a, 2009b, 2011). Due to the fact that people interact with one another in a social context here, communication is considered as social as well as cognitive—the latter being because understanding what is said heavily depends on the person's intellectual abilities. In addition, feelings are central when people communicate in terms of whom we communicate with and our position with regard to the message content (Eckert *et al.*, 2005). In a similar vein, some researchers have investigated at the efforts that could be made towards developing effective communication between the architect and the client; the work by (Norouzi et al., 2014) brought into focus the importance of looking at both social and technical sources of misunderstandings in architect client communications, and, whilst this research investigated the architect-client relationship from the communication point of view, it has highlighted the important roles of architects, clients, and communication tools in the relationship.

Notably, research conducted by Siva and others (Chen, 2008; Siva & London, 2009b, 2009a, 2011, 2012, 2016) investigate the architect-client relationship in light of Habitus Theory—which is borrowed from sociological theory. Here, this theory suggests that the nature of architecture places architects within 'architectural habitus'—distinguishing them from clients who are not trained to be architects. Moreover, when they come together to work on a project, a mismatch between the two habitus would impact the relationship—a 'habitus shock'. Here, Siva suggests that client learning would be the best way to overcome any tension in the relationship, and, accordingly, although this research looks closely at the architect-client relationship and the tensions that that could result in any clashes that occur, it deals with this relationship as if it were formed by two actors only, overlooking other actors that sustain this relationship.

In the same vein, the research by (McDonnell & Lloyd, 2014) examined a successful architectural project (meeting client's expectations) that spanned over seven years with a focus on the expectations during the process of the design and the communication around it, examining how both architects and clients talked about the project during and after the design

⁴ Gordon Allport's (American psychologist) defined social psychology as 'an attempt to understand and explain how the thought, feeling and behaviour of individuals are influenced by the actual, imagined, or implied presence of other human beings' (Allport, 1985: p. 3) as cited in **(Oak, 2011)**.

and construction process—and, ultimately, how these relate to the expectations of the building. It concluded that those expectations are linked to the efforts paid by the architect.

In the UK, the RIBA Client Liaison Group published the 2015 report *Client & Architect: Developing the Essential Relationship*, this report presenting the findings of a two-year analysis of the relationship between architect and clients⁵. More than five hundreds clients were consulted through a process of discussions and interviews intended to help architects improve the relationship with clients (RIBA, 2015a), and the report ultimately contained different perspectives on the architect-client relationship, presenting its findings under five headings:

- 1. Championing the vision (clients are looking for an architect who can deliver a vision);
- 2. Listening and understanding (clients are looking for architects who value their ideas and opinions, although they think architects who listen properly are rare);
- 3. Engaging with people (good communication involves keeping the client ahead of the process);
- 4. Delivering technical content (new technologies and processes are forcing architects to adapt); and
- 5. Learning and improving (architects must demonstrate how they benefit clients, and clients increasingly see the benefits of post-occupancy evaluations) (*Designing Buildings* Wiki, 2015; RIBA, 2015a).

Studies such as the above showed how each perspective helped in understanding different aspects of the architect-client relationships, ultimately demonstrating that no single perspective would fully explore all aspects of the relationships.

1.3.3. Wider Lens

As mentioned earlier, the architect-client relationships has been investigated whilst studying other areas of architectural practice research, the changing economies and the changing elements of the architectural profession on a global scale leading to many researchers investigating the cost and value of design today. As an example of such research, (Lawson & Pilling, 1996) shed light on the relationship between the cost and value, and used this perspective to look at the architect-client relationship. It ultimately highlighted that architects need to engage clients at 'the right level and the right time', also calling for the RIBA to take

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⁵ Not much detail is there about the nature of those clients.

on a more active role in supporting architects, stating that architectural schools should use more 'client-centred' approaches in their teaching.

As new needs and technologies have emerged in the construction industry, traditional boundaries between professions have been crossed, creating interdisciplinary work environments (Jaradat, 2012); here, architecture as a profession has become more interdisciplinary as more knowledge and technologies are required in the field of practice, in turn resulting in a change in the traditional role of the architect and requiring a radical change in the manner in which architects deal with clients in order for them to maintain their position within the industry (Siva & London, 2011). It is argued that architects require different types of knowledge and skill that would require different approaches for practice and education (Salman, Laing, & Conniff, 2014) than that of other fields—and, to complicate this further, the skills and knowledge needed for the architect today are different from the past. The introduction of many technologies and the overlapping of different professions interests have created new definitions for the role of the architect.

Due to the fact that the challenges are different, discussions concerning the architect's value and role vary depending on context; indeed, in (Frimpong & Dansoh, 2018), the architect's role and value is examined in a variety of contexts: namely, the UK, Netherlands, France, and Ghana. It is seen that the architect's role is being encroached on by other people (e.g., onestop-shop service providers), and the literature reviewed in this article suggests that this is a result of changing economic conditions, architectural culture and education, and the breakdown of traditional architect-client relationships. Indeed, we can see here that this could become an issue in Jordan in the future—that is, unless these issues are addressed now. Saying this, considering their role is protected by law, the fear that architects will lose either their jobs or their central role in the building industry is not the main concern in Jordan; instead, architects worry about whether the full extent of their work is appreciated, and thus seek greater recognition that the choice of a good architect involves more than just finding someone who can draw the working drawings and stamp them for planning permission. Over the course of the following sections, the contextual background of the research in Jordan will be discussed in order to frame the subsequent discussions of architect-client relationships, as well as the understandings of their roles and responsibilities.

1.4. Background of Jordan

Jordan lies in the heart of the Middle East with an area of 89,318 km². Jordan, as a state, was formed under the British mandate in 1921 and the Hashemite Kingdom of Jordan became an independent state in 1946—and, since then, Jordan has faced rapid growth in population. In the first Census in 1952, Jordan's population was 586,200 (around half of whom were Palestinian who moved to Jordan after the 1948 war), and this number swiftly grew 9.53 million in 2015 (including Syrian refugees) (DOS, 2016). Indeed, the population of Jordan is remarkably urbanised, comprising 90.3% of the total population (HUDC, 2016); further, the average family size in 2015 was 4.82, and the total number of families was 1,977,534 (DOS, 2016). This rapid growth in Jordan's population is thought to be due to both 'natural' (in 2010 was estimated to be 3.1% (DOS, 2016; HUDC, 2016)) and 'unnatural' growth as a result of different immigrations from surrounding countries—the result of regional instability. It is clear from **Table 1-1** that the most recent increase in population is due to the ongoing Syrian crises.

Table 1-1: Population in Jordan - Source (DOS, 2010b, 2016)

Year	1952	1961	1979	1994	2000	2004	2008	2010	2013	2015
Population in Million	0.59	0.90	2.13	4.14	4.86	5.35	5.85	6.11	6.46	9.53

Amman is the capital of Jordan and the largest city in terms of population and economic impact—and, although Amman's area is 7,579 km² (around 8.5% of Jordan's area) (DOS, 2010a), the majority of the governmental, political, economic, social, and cultural activities take place in Amman (Albetawi, 2013). Notably, Amman's population was 4.007 million people in 2015, representing 42% of the total population of Jordan (DOS, 2016).

In order to wholly understand this research context, the following subsections provide an insight into architectural practice, as well as architectural education, in Jordan through a brief history of the profession and related researches on practice.

1.4.1. Architectural Practice and Education in Jordan: An Overview

The history of the architectural practice in Jordan can be traced back to the early years of establishing the state: in the 1920 and 1930s, the newly established state focussed attention on public spaces rather than construction of new iconic buildings in the capital (Daher, 2008; Jarrar, 2013): for example, 'Faisal Square' in the heart of Amman played an important role in the political, social, and economic development of Amman during the 1930s (Jarrar, 2013), the main buildings built at that time being houses, whose style was influenced by Lebanese, Syrian, and European houses styles as a result of the training of the architects who worked at that time in Jordan, who were either from those countries or were educated there (Jarrar, 2013). Leading from this, the 1950s could be seen as the beginning of a home-grown Jordanian architectural scene, as many Jordanian architects returned after education in Europe and the USA (Jarrar, 2013). Further, since then, the architectural practice continued to develop and change and be impacted by the wider economic, regional, and political situations.

The Jordanian Engineers Association (JEA) was established as a society for engineers in 1948, and obtained its license in 1949 (JEA, 2019c), the number of Jordanian architects (registered in the JEA) growing from 10 in the 1950s to 381 in the 1970s (JEA, 2019b), all of whom were educated outside Jordan. In 1975, the first school of architecture in Jordan was established at the University of Jordan as part of the Engineering faculty, the first graduates from this school being 13 architects in 1980. Following that, other universities established departments of architecture, totalling twenty schools of architecture in 2018, with around 1,100 graduates annually. Today, the number of architects in Jordan is around 14,400 architects with 4,278 students currently enrolled in university (JEA, 2019a).

Considering the existing local market is not currently able to absorb such high numbers of graduates, increasing numbers of graduate architects—combined with an economic crisis due to wider regional instability—has resulted in growing unemployment amongst architects in Jordan—and, in the same vein, graduate architects lack many skills that could help them engage with the market (as claimed by the architects interviewed in this research, notably: RB, AS, RW, FB, RL, KB, and DK). Please see

Table 1-2 for an illustration of the growing numbers of architects in Jordan through the last decades.

Table 1-2: Architects Registered in JEA (1958-2018) - Source JEA Statistics

Year	Number of new architects registered at JEA	Total number of architects registered in JEA
1958	4	10
1968	14	84
1978	44	381
1988	208	1730
1998	180	3733
2008	360	6283
2018	1137	13903

In all universities in Jordan, the study of architecture is a five-year program (including summer training for 6-10 weeks in an architectural firm (Isra University, 2016; Jordan University of Science and Technology (JUST), 2016; Middle East University, 2016; Petra Private University, 2018; Philadelphia University, 2011; The University of Jordan, 2005). Schools of architecture in Jordan are currently part of the Engineering faculty, and students are accepted according to their grades in the national high school exam. A graduate from these schools of architecture needs to register in the Jordan Engineers Association (JEA) in order to be a qualified architect and can then practice architecture without any further requirements. Furthermore, in order to establish an architectural office, there is a requirement of seven years of experience, with at least three years of design experience (JEA, 2019b). Jordan Engineers Association is the official body of all engineers in Jordan (architects are considered engineers in Jordan), and membership to this association is compulsory for all engineers to practice design and supervision work in Jordan (JEA, 2019b).

1.4.2. Research on Architectural Practice in Jordan

The discussion around architectural practice and the architect-client relationship is still largely understudied in the Jordanian context. The majority of the conducted architectural research discusses the physical environment and 'products' of architecture, rather than shedding light on the processes of making this architecture. Indeed, there is some research concerning architectural practice in Jordan (Daher, 2008, 2013; Hammad, 1999; Jarrar, 2013) and the housing sector—the latter of which has been studied from different angles. Most research has been directed towards low-income housing (e.g., (Al-Homoud, Al-Oun, & Al-Hindawi, 2009; Alnsour, 2016); informal/illegal housing (e.g., (Alnsour, 2011; Meaton & Alnsour, 2012); and the relationship between offer and demand in the housing market (e.g., (Al-oun, Al-Homoud, & Jawad, 2010; Alnsour, 2016)), Al-Rifae's 1987 book documented the First Houses of Amman in the early decades of the twentieth century (Al-Rifae, 1987), becoming a reference for residential-related research in the context of Jordan. This is because it documented the drawings and details of these houses. Further, whilst reviewing the available research on architectural practice and housing related research in the context of Jordan, no studies have investigated the architect-client relationships. The importance of this subject is highlighted in international literature, as well as in the interviews conducted with the architects in this research.

Whilst the number of Jordanian architectural researchers in PhD programs worldwide is growing, it is notable that not much research is directed toward architectural practice: one example of PhD research examining architectural practice is that of (Jarrar, 2013), which explored cultural influences in Jordanian architectural practice post-1990. The research utilised an ethnographic approach, including interviews with five Jordanian architects examining their work and influence in architectural practice in depth. This research highlighted the changing role of the architect, as well as the relationship between architecture and the real estate development industry. It also highlighted the importance of studying the process of design and practice to better inform and develop architectural education.

Research on architects' work has also received attention⁶ within architectural research in Jordan, where the works of Jordan's architects (e.g., Jafar Towkan; Rasem Badran, etc.) have received much attention.

In his paper *The Architecture Experience in Jordan During the Nineties*, Bilal Hammad⁷ discusses the status of the profession, during which he points out the issue of the increase of architectural schools leading to an increase of graduates—also leading to an increase in researchers and holders of higher degrees. This has also led to changes within architectural practice due to the wide introduction of technology within practice (Hammad, 1999). Today, around twenty years after Hammad's paper, additional studies are required to evaluate the effect of these changes on the architectural scene in Jordan.

Research by (Al-Werikat, 2017) examined the role of the client in delays to construction projects in Jordan, ultimately suggesting that contractors can aid clients in the construction process, managing expectations, time, etc.. They also conclude that including the client in project meetings can aid the client in becoming involved in project management. Overall, the study concluded that clients change their minds a lot and take time in decisions, leading to an extra delay in such projects. Although this issue touches different aspects of client role in the construction industry, it does not discuss the architect-client relationship, nor does it discuss the need for client education in order to help them fully engaged in the design and construction.

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⁶ Some examples are:

[•] Abu Ghanimeh, A.; Pisani, M. (2001) Jafar Tukan Architecture. Libria: Rome.

[•] Abu Hamdan, A. (1984) Jafar Tukan of Jordan. In MIMAR 12: Architecture in Development. Singapore: Concept Media Ltd.

[•] Al-Asad, M.; Al Hiyari, S. (2005) Sahel Al Hiyari Porjects. Center for the Study of the Built Environment (CSBE): Amman.

[•] Steele, J. (2005) The Architecture of Rasem Badran: Narratives on People and Place. New York: Thames and Hudson.

[•] Khammash, A. (1986) Notes on Village Architecture in Jordan. Lafayette: University Art Museum, University of Southern Louisiana.

⁷ Bilal Hammad is a leading figure in the architectural scene of Jordan. He graduated from the University of Alexandria, Egypt in 1975. He started his private practice in the late 1970's.

1.4.3. Residential Projects in Jordan

Home ownership is of significant importance within the Jordanian culture, and has a distinguished place not only as an economic factor, but also in terms of social and psychological standing; indeed, homeownership is a form of security, achievement, intimacy, privacy, heritage, and tradition, and, for many house owners, the house is their single most valuable possession (Al-Azhari, 2012).

As a result of the continued acceleration in growth of the Jordanian population in the last two decades, there is now an increased demand on services, infrastructure, health, transportation, education and housing (Albetawi, 2013). In a similar vein, the housing crisis—as well as related conditions—is complex, possessing a complex socio—economic nature. Indeed, one of the main challenges facing Jordan in respect to housing policy is determining the best practice for dealing with an escalated demand for housing—which has arisen as a result of high population growth (Alnsour, 2016; Alnsour & Hyasat, 2016).

The Jordanian housing sector has produced an annual average of 28,600 units between 2004-2011 against a demand of 32,000 units; further, between 2011-2015, the average was 40,830 units, with an increased demand of more than 60,000 units due to the influx of Syrian refugees. Indeed, the majority of houses are designed to accommodate higher income groups, resulting in a housing shortage for low-income groups (Al-Homoud et al., 2009; DOS, 2014; HUDC, 2016; MOP, 2014; H. UN, 2016; U. N. UN, MOP, & Cooperation, 2013) and, thus, these numbers of units do not fulfil the actual demands of the public. From previous experience with refugees from different countries in Jordan, it is expected that the majority will not return to their home countries in the near future.

Notably, the housing sector in Jordan is divided into two main sectors: individual residential projects, and the developer led housing companies. The latter is emerging significantly in recent years in the market. Before delving into this further, it is important to highlight that the terms 'housing project' and 'residential project' possess different meanings in the context of architectural practice in Jordan: residential projects are used when relating to single-house projects led by the end user, whilst housing projects are associated with developer-led projects. This differentiation in use is not only about the scale of the project, but also includes other meanings (e.g., quality and building typology).

Despite continuous changes in the housing sector in Jordan over the last five decades (e.g., change of area; house layout; type of housing and finance methods), the majority of residential

units are still lived in by owner-occupiers rather than tenants; the last available statistical census from the Housing and Urban Development Corporation (HUDC) stated that 70.7% of occupied residential units in 2013 were owned by their occupants (HUDC, 2016) and, although the average annual current per capita income is about \$5,000 in Jordan, there is a strong cultural preference for homeownership (Alnsour, 2016).

It is this concentration of property trading in Amman that clearly demonstrates the centrality of the capital to the Jordanian real estate market. In this vein, according to Oxford Business Group, 43,386 transactions took place in Amman Governorate in 2014 (Oxford Business Group, 2016), such a figure justifying the choice for the case studies in Amman, as there is a need to study the housing sector from different angles in Amman. More than 1,253,000 single-family and multi-family dwellings comprise the residential sector in Jordan (HUDC, 2016), and these can be partitioned further into major types of dwellings: Villa, dar (house), apartment building, and multi-family compound (Al-Asad, 2010).

Notably, prior to the 1970s, people in Amman would build free-standing, one-storey, single-family houses or villas (Al-Asad, 2004), and, indeed, a family's social status was strongly related to this particular form of housing structure (Malhis, 2008). Apartments have only grown in popularity since around 1975 (Al-Momani, 2003), although these still were not the first choice of the upper-middle-class in Amman at this time. However, after the contionus increase in land prices—as well as the changes in the socioeconimocal factors—, it became the only affordable option for most of the upper-middle-class (Al-Asad, 2010; Malhis, 2008).

In order to better understand the context of residential projects in Jordan, it is important to look at the common process of building a house. According to the **Procedural Guide for Building Licenses** published by the Jordanian Engineers Association (JEA) (JEA, 2018b), the procedural requirements of a single house/ small residential development are clarified in **Figure 1-2**:

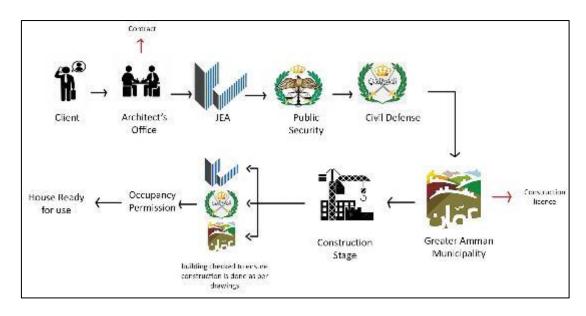


Figure 1-2: The Procedural Requirements of Buildings/Houses in Amman - Source: (JEA, 2018b)

The client/owner will search for an architect's office that suits their requirements/budget/expectations, then contacting this office in order to prepare the design of the project. Usually, after the first meeting, the architect will prepare an offer for fees (which could be verbal or in writing), and, after this is agreed upon, they will sign the general JEA contract (and, in some cases, the architect will have their own additional detailed contract). After finishing the drawings and approving them with the client, a full set of drawings (to include architectural, structural, mechanical and electrical drawings) are prepared for the next stage—namely, acquiring the construction licence (the equivalent of planning permission). Such drawings will then need to be checked against regulations, building codes, and civil safety requirements by the JEA, Greater Amman Municipality (GAM), and Civil Defence officers (CD). When the construction licence is finally obtained, construction can commence, after which the client needs to get an occupancy permit by getting their building checked by JEA, AM, and CD in order to ensure the construction has been completed as per the drawings—no changes having been made on-site—and that the regulations and codes were properly followed. When this permission is obtained, the house/building is ready for use. It is important to highlight the role of the architect and the client through this process, where many of those steps need their cooperation in order to obtain the necessary permits.

Zoning and building regulations in Amman are clarified in the Regulations of Zoning and Building of the City of Amman No 28 of the year 2018 and amendments, such regulations clarifying that the residential areas in Amman are classified into nine different zones (Article

4 A Greater Amman Municipality, 2018, p. 4). Each of these has its own regulations with regard to setbacks, the allowed percentage of footprint of the buildings, and the height and number of floors allowed in the area. Please see **Table 1-3** below for a clarification of these regulations in some zones in Amman as clarified in the regulations:

Table 1-3: Zoning and Building Regulations According to the Regulations of Zoning and Building of the City of Amman No 28 of the year 2018 and amendments. - Source: (Greater Amman Municipality, 2018)

Zone	set	backs		Allowed	Number	Total
	Front	side	back	footprint	of floors	height
Α	5	5	7	39%	4	16
В	4	4	6	45%	4	16
С	4	3	4	51%	4	16
D	3	2.5	2.5	55%	4	16
Agricultural Areas	15	15	15	4%	2	8
Rural Areas	12	10	10	10%	2	8

As mentioned earlier, the role of the architect in residential projects is protected by law in Jordan: whilst the architect-client relationship is direct in the context of residential projects in Jordan, it currently undergoes changes due to the growing roles of the developer-led projects, as well as the change of the client nature and the growing role of media in the practice. Those changes impact the relationship in different ways, and the need today is urgent to address this relationship and the changes that it goes through.

1.5. Chapter Conclusions and Remarks

Through reviewing the literature concerning architect-client relationship, there were a number of studies that created a solid foundation for this research which also helped in understanding the worldwide politics of architect-client relationship, its importance, and aspects of interest (i.e., relationship challenges; object role; impact on design, etc.) that could be looked at in the Jordanian context. Indeed, it is such research that builds upon the previous work of different researchers of architect-client relationship, suggesting how the story is different or similar in Jordan. Upon reviewal of the different researches worldwide, it was found that in the majority of architect-client relationship research, the relationship between two actors is studied in the design stages. Meanwhile, in the context of architectural research in Jordan, it was found that there is a large lack of studies in this field.

This chapter also considered the pathway to the research area, and the context of the research was discussed. Different researchers have different perspectives when discussing the architect-client relationship, all of which shed light on the relationship from different angles—which also helps in understanding the relationship and its importance in research and practice.

This research has evaluated these perspectives from the viewpoint of understanding the context and practice in Jordan, ultimately taking steps in the right direction in answering the research questions about the different aspects of architect-client relationship in the context in Jordan. This research in this context specifically is the first of its kind.

In the following chapter, the methodology used in this research is clarified.

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Chapter Two

The methodology

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2. Chapter Two: The Methodology

2.1. Introduction

This chapter aims to describe the methodological approach employed in this thesis, as well as to explore the structure of the thesis. The study of the architect-client relationship in the design stages involves many overlapping areas of architectural practice research, in turn justifying the use of various methodological approaches. Notably, this research subject area is seen through 'fragmented' concepts—a fragmented lens or perspective —that the researcher is trying to bring together in this thesis.

Notably, this chapter is structured in four main sections: the first discusses the research approach; the second provides a clarification of the utilisation of Actor Network Theory (ANT); the third clarifies the methodology, data collection, and analysis processes; and the fourth clarifies the structure of the thesis.

2.2. Research Approach

As Chapter One emphasised, it is evident within the literature that a constructive relationship between the architect and client is essential in order to develop the design process and outcome (Linden, Dong & Heylighen, 2017); saying this, when it comes to a complex field like a design context, it is difficult to analyse architect—client relationships using all the available theories and approaches. Furthermore, more than one approach helps shed light on further aspects of this relationship, in turn aiding in understanding its implications and determining the research contribution.

In lieu of applying one methodological approach comprehensively, the different methodological approaches described here are each applied at various points in the research in order to support a fuller understanding of the complexities of architect-client relationships. That not only helped in understanding the various aspects of the relationship, but also reflect the complexity of the relationships in the context of this research.

2.2.1. Trace the Relationships: The Other Way Around

Within this research, architect-client relationships were examined following the design/construction phase. Further, although some sessions of the actual architect-client meetings were observed, the main bulk of the data was collected post-completion of the design/construction phase through detailed interviews with both the architects and the clients. Indeed, this permitted for the architect and client to look back on their relationship and evaluate its strengths and weaknesses without worrying about the impact of their opinions on an ongoing project. Notably, the collected data was used to trace the design stage relationship, as well as to examine the involved actors, tools, communication, and any other factors that were seen to influence the relationship, design process, and product.

It is important to bear in mind that this research is not a Post Occupancy Evaluation (POE) study; rather, it could be seen as post project analysis for architect-client relationships, designed to aid in closing the gaps in understanding and enhancing the architect-client relationships in order to contribute to developing architectural practice in general.

Interviews have been used before in order to understand housing-related issues in the context of Jordan: for example, Daher (2013) undertook interviews with residents of housing schemes (Decent Housing for Decent Life Project), in which the residents were passive recipients of a product following the completion of the project, rather than being actively involved from

inception). The findings focus on residents' dissatisfaction with the provision of local amenities (waste, water, schooling), rather than the quality of the housing or their involvement in its creation. The research concerns reflect an 'outside' understanding of the vagaries of the housing market and public service provision, overlooking the cultural significance of private ownership of a family dwelling that reflects the majority of people's lived experience in Jordan. Notably, the methodology adopted within this thesis instead focuses on the actors and relationships involved from the inception of the design of a family house, through to the completion of construction and occupation, tracing the evolution of ideas (as well as hopes, dreams, and aspirations) and imposed constraints (such as budget, timescale, and regulation) over time, reflecting the significance of the process for everyone involved in this context. Indeed, the process of interviewing architects and clients, as well as analysing their communication patterns over the lifecycle of the project, reveals the changing priorities and tensions in play at a time of great material and societal change in Jordan, prioritising a 'local' understanding of the powerful forces at play, rather than trying to impose an intellectual model of those forces derived from elsewhere.

2.3. Utilising the Core Principles of Actor Network Theory (ANT)

Architectural projects emerge through complex interactions between different actors of design (Cuff, 1992), including those of both architects and clients—and, accordingly, this research focuses on the design stages whereby these progressive cycles of interaction occur at a particularly intense degree. The roles of different actors and their methods, degree, and impact of involvement—as well as their grouping and regrouping—are studied in order to enhance understanding, analysis, and development of the way in which the design is evolved. From this perspective, some principles were borrowed from Actor Network Theory (ANT) in order to study the complexities of such ever-evolving relationships over the course of the project cycle.

Before we delve into this, it is important to understand that designs are not developed in a straightforward manner (Bogers *et al.*, 2008; Norouzi *et al.*, 2015a; Sharif, 2016); rather, they are developed in more complex ways than often assumed via interactions between the different actors of the design, including human and non-human actors, all possessing different roles and effects—and both, of course, contributing to the evolution of the design and the product as a whole. Notably, the design itself is comprised of a sociotechnical mix of actors and networks,

all impacting one another and reproducing the design through a continuous loop of interactions (Sharif, 2016).

Actor Network Theory (ANT) can be defined as a theory of agency and organisation (Bosco, 2014; Tomczak, 2016), rejecting the dualism between human and non-human actors and instead insisting that they both should be studied and treated in the same manner (Sharif, 2016; Tomczak, 2014). Indeed, ANT is considered a method for understanding and investigating relationships by tracing connections between actors, providing a framework in order to investigate power and organisation by mapping the range of actors involved in creating those networks. Hence, the use of ANT may differ completely from one research approach to the next and can result in a range of different outcomes (Cressman, 2009; Sharif, 2016).

Notably, ANT was developed by Bruno Latour, John Law and Michael Callon in the field of Science and Technology Studies (STS) (Sharif, 2016; Tomczak, 2014, 2016), and it has been applied to a number of research subjects in a variety of ways—from art, to engineering, to law, to education, to architecture, and to sociology (Tomczak, 2014, 2016). Meanwhile, in terms of the field of architectural research specifically⁸, it has been applied by a wealth of researchers (Fallan, 2008; Sharif, 2016; Yaneva, 2005, 2009b)⁹, this application within the architect-client relationship specifically yielding results that suggest the agency of non-human actors (i.e., drawings; brief; experience; etc.) requires as much attention as human actors (i.e., architects; clients; contractors; etc.). Further, it examines the interactions between such characters that establish, reinforce, and sustain the relationship. For example, researchers such as Yaneva (Yaneva, 2005, 2009a) provide this focus on non-human actors through their studies of design processes.

A variety of ANT core principles were borrowed for this research, the first of which being the principle of generalised symmetry: this means that equal attention is given to the agency of human actors and non-human actors, and, when discussing stronger and weaker actornetworks, their power comes more intensely connected for longer periods of time (Latour, 1996b); in other words, agency from the ANT perspective is a relational effect—not a possession of the actor. Indeed, it is important to clarify here that 'to say that there is no

⁸ The specific utilization of ANT on this research comparing to other researches is discussed in chapter five introduction

⁹ Other researchers work is discussed in chapter five introduction.

fundamental difference between people and objects is an analytical stance, not an ethical position' (John Law, 1992, p. 383). From this, we can garner that there is symmetry between human and non-human actors when they are studied and analysed—not that they are necessarily of the same nature. This principle is usually applied to examine the impact of nonhuman actors in a network—or, in the context of the architect-client relationship during the design stage, different actors play a major role in establishing, reinforcing, enabling and sustaining the relationship. These actors are both human and non-human, material and nonmaterial, and so, based on the above principle of generalised symmetry, all actors were investigated from the same perspective, their roles also being studied equally. Such an approach enables the research to investigate actors that may previously have been taken for granted, and, in turn, this helps in understanding new aspects of the relationship. The architect-client relationships can vary significantly between case studies (e.g., if only one actor is missing in the relationship), and so this is considered to be the key strength of applying ANT in this field: it can shed light on 'neglected' actors in the relationship, especially those where the actors cannot speak for themselves (e.g., tools; experience; previous projects). Indeed, when those objects are represented within their networks (e.g., actors with relations and agencies), they become more 'visible'. As Latour says, 'What was invisible becomes visible, what had seemed self-contained is now widely redistributed' (Latour, 2010, p. 3). These actors contribute by providing a platform for repeated sessions of interactions, negotiations, meetings, and communications—amongst other sorts of social engagements. Further, they arrange fragmented ideas and create a shared vision of design, as well as engage in different human actors in (re)producing the design.

The second core principle of ANT is the process of translation (Cressman, 2009; Fallan, 2008; Tomczak, 2014, 2016), which is largely used to study the construction and change of the relationships and agency of actors; this process illustrates the ways in which the respective actors come together and integrate to form an actor-network, as well as how relationships are established within the design stages between different actors—and, finally, how this process influences the interactions that occur through the process of (re)producing the design. Indeed, through understanding the roles of these actors—as well as the ways in which they perform whilst re/producing the design, new insights concerning understanding and enhancing the design process can be achieved (Eckert & Boujut, 2003). From an ANT perspective, the power of a relationship is largely dependent on either the stability of the actor-network, or the interactions between them; further, any changes of actors and networks—as well as those of

their relations—transform and shift the relationship, in turn changing the design. In other words, the collective/network keeps changing and growing through the translation processes (Sharif, 2016).

The third core principle of ANT is punctualisation—i.e., the notion that one actor network/node connects and links with other networks/nodes, in turn creating one larger actor network (Cressman, 2009). The importance of the concept of punctualisation within this research specifically lies in helping to contextualise the architect-client relationship within any other future researches; indeed, as Callon clarifies, 'The process of punctualisation thus converts an entire network into a single point or node in another network' (Callon, 1991, p. 153). Indeed, such a notion can be seen when zooming in and out of the architect-client relationship, as well as when studying the relations within this actor-network and, indeed, in a larger network (please see Chapter 5 and Chapter 6).

The final principle is the mediator concept, this being an actor that connects two other actors (Latour, 1996b; Sayes, 2014; Tomczak, 2014); as with the design itself, the relationship is maintained in a continuous loop as it is established and re-established and, thus, as the architect-client network keeps evolving continuously through their interactions, they are connected differently each time—usually through a 'mediator' or 'mediators'. The mediator in each phase is different and can differ from project to project. Overall, it forms the architect-client relationship, in turn impacting the progress of the design and the product. Please see **Figure 2-1** for a clarification of the use of ANT in this research.

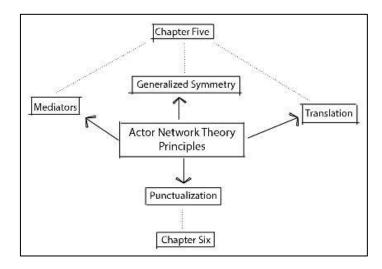


Figure 2-1: Utilising ANT in the Research - Source: Researcher

2.4. Methodology

In order to obtain the research aim and objectives—as well as to answer the research questions—, this research implemented a case study methodology, inspired by both Actor Network Theory and Grounded Theory. The key aim here whilst implementing this approach was to `actively retrace the architect-client relationships after the completion of the design and/or construction process. Indeed, the purpose of investigating case studies is to build an understanding of the different aspects that comprise the architect-client relationship, as well as the influence these elements wield, in a more detailed way through looking at specific examples in a specific context (Creswell, 2007; Flyvbjerg, 2006). Case study methodologies come in all sizes and shapes, and, with this in mind, can therefore be adapted for different research approaches. The methodology may include one case study or more (Flyvbjerg, 2006; Mills, Durepos, & Wiebe, 2010; Yin, 2009), and in this research in particular, seven case studies were chosen. Before delving into this, it is worth discussing some previous approaches to studying the architect-client relationship in the literature. Whilst some relied on surveys (e.g., (Angral, 2019; Vennström & Erik Eriksson, 2010), others discussed single case studies (e.g., (Chandra & Loosemore, 2011). In each of these approaches, the richness of the data varies, and, accordingly as does the outcome. Leading from this, this research is not intended to generalise, but to build a detailed understanding of the relationship—, and, since the relationship possesses many aspects and thus that no single case study can illustrate these different aspects, the decision was taken to study a limited number of case studies to ensure the research remained focused.

Indeed, the utilisation of such a case study methodology aided in formulating explanation, as well as clarifying different events in context (Yin, 2009). Notably, one of the key benefits of case study research is the opportunity for practical knowledge generation (Flyvbjerg, 2006); these approaches aided in re/reading the architect-client relationships through a new lens with the reconstruction of the story through input from the architect and the client, as well as the drawings, pictures, and other tools employed (Mills *et al.*, 2010). Further, in order to develop a contextual understanding of the architect-client relationships, they were studied within their actual 'habitat'—i.e., that of an architectural project; and, accordingly, since the aim of the research was to develop understanding of social as well as technical aspects of architect-client interactions, the chosen case studies had an overtly social context: residential projects in Jordan.

As mentioned above, the case study methodology is informed by different theoretical background, so an inductive qualitative methodology is utilised (Groat & Wang, 2013; Lucas, 2016), through which themes emerge from the collection and analysis of data (Creswell, 2007; Gray, 2018; Lucas, 2016). Further, in order to capture the complexities of the reality of architect-client interactions, the relevant data was retrieved from the field for later analysis in order to identify any hidden themes and patterns—which is also the reason why a Grounded Theory approach was also employed (Creswell, 2007; Lucas, 2016). Indeed, ANT complements the Grounded Theory approach, as they are both bound to the context as the main source from which the data emerges (Sharif, 2016); when used together, they also help in capturing and understanding the different 'mini' theories that emerge from the actual world via the narratives of the case studies. Here, it is also of high importance to clarify that the aim of this research is not to develop one self-standing theory that explains and clarifies all the complexities of the architect-client relationships; after all, this relationship is multi-layered and needs to be examined using different lenses. Please see Figure 2-2 for a summary of the methodology implemented within this research.

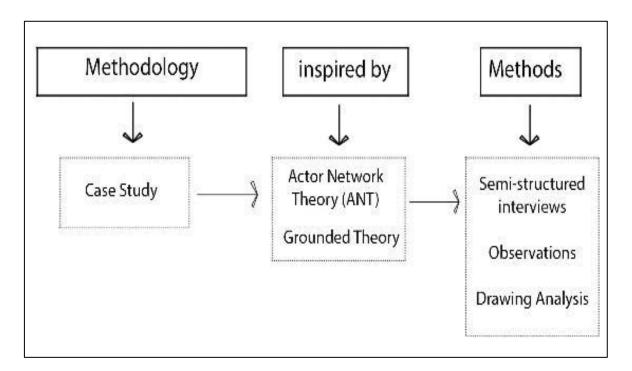


Figure 2-2: Research Methodology- Source: Researcher

2.4.1. Choice of Context

Within this research, the architect-client relationships are studied within the context of residential projects within Jordan—and it was as a result of a variety of different reasons that this type of project was selected. Firstly, it is assumed that studying architect-client interactions in a socially oriented context will allow the researcher to analyse the impact of these interactions on the overall design process; secondly, the nature of residential projects in Jordan—i.e., one whereby it appears that owner-occupiers still dominate the housing market. Of the seven case studies selected, five include the client as the end user, whilst two are developer-led projects, and, in this context, understanding of the importance of the project for the client and therefore architect—client interactions are predicted to be more intensive. Thus, client participation in the design and following construction will be high. Please see **Figure 2-3** for a clarification of the importance of discussing the architect-client relationships in the context of Jordanian residential projects.

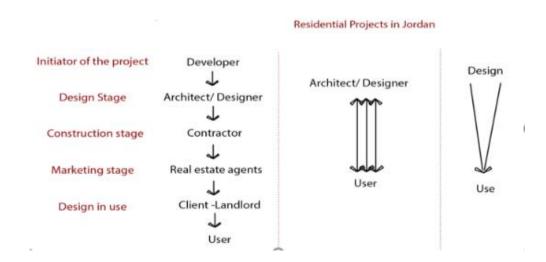


Figure 2-3: The Architect-Client Relationship in the Context of Jordanian Residential Projects - Source: Researcher

When the design is transformed into an object for use, the main 'human' actors change: a developer approaches an architectural firm for a certain project, and the architect develops the design before the contractor gets involved in the construction. Then, after the completion of the construction, the real estate agents market the project and the project units are sold to end

users. However, in the case of residential projects in Jordan specifically¹⁰, the client who approaches the architect in the beginning is the same end user of the house—and, in the same vein, the architect-client relationship hence continues to evolve all through the life cycle of the project—not only in the design stage.

2.4.2. Choice of Case Studies

Each case study was chosen in order to shed light on a variety of aspects of the architect-client relationship; for example, in order to understand the impact of the personal relationship between the architect and the client on the process of design, case studies where the architect and the client had a previous relationship were examined. Indeed, whilst no case study can be used to generalise, diverse cases do still help in a developing a wider understanding of different aspects of the relationship.

 ${\it Please see Table 2-1 for a summary of the interviews for the case studies; conversely, please see}$

Table 2-2 for clarification of the most important aspects of each case study.

Table 2-1: Case Study Interviews- Source: Researcher

	Architect Pseudonym	Client Pseudonym		Key Reason for Selection
Case Study 1	RB	RB1	Female – Female	Family relationship connection
Case Study 2	AS	AS1	Male – Male	The nature of the participatory design. Implementation of green principles and its impact Family relationship connection.
Case Study 3	AS	AS2	Male – Male	Architect-developer relationship. Developer with high standards for the project.
Case Study 4	RL	RL1	Female – Male	Long architect-client relationship. Family relationship connection.
Case Study 5	КВ	KB1	Female – Female	The relationship was developed to become a very close friendship through their communication throughout the project.
Case Study 6	КВ	KB2	Female – Male	Repetitive client. Use of different communication mediums.
Case Study 7	DK	DK1	Female - Male	Architect-developer relationship. Repetitive client.

¹⁰ five out of the seven cases studies in this research.

Table 2-2 - Case study most important aspects - Source: Researcher

Case study	Family relationship	Tools used	Client highly involved	Long relationship	Change the relationsh	of	Developer case	Repeat Client
Case Study 1	✓			✓				
Case Study 2	✓		√					
Case Study 3			√				✓	
Case Study 4			√	✓				
Case Study 5			✓		✓			
Case Study 6		√		✓				✓
Case Study 7							✓	✓

2.4.3. Research Methods

The research was partitioned into two key phases: the first an extensive desk research whereby any challenging aspects of the architect-client relationships were examined and compared in order to build a solid base for the second phase; and the second being the study of seven case studies of architect-client relationships in the context of Jordanian residential projects. For the second phase, several research methods were used for data collection and analysis (including in-depth semi-structured interviews, observations, and drawing analysis). Please see **Figure 2-4** for an illustration of the research design.

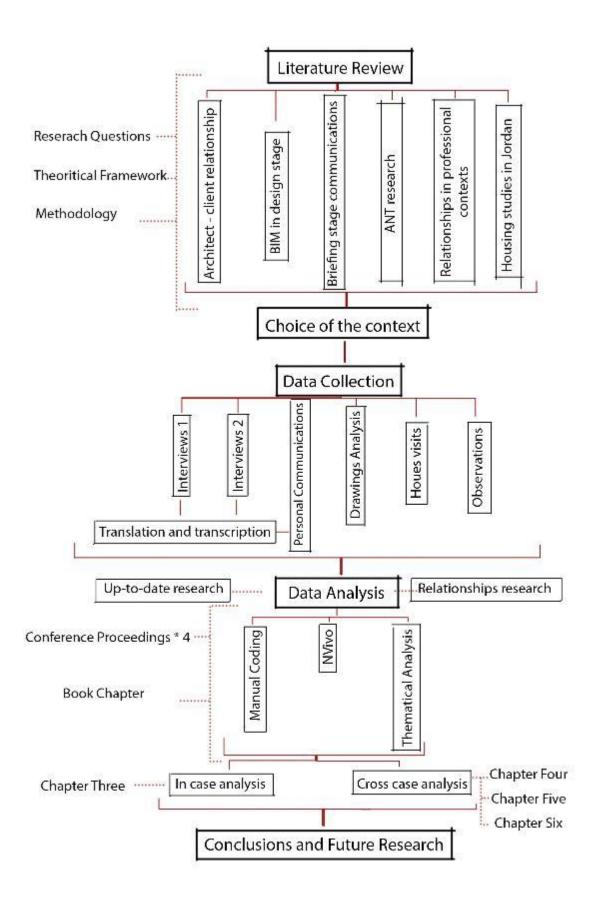


Figure 2-4: Research Design- Source: Researcher

Understanding that studying relationships cannot consist of entirely objective research—as well as the fact that every individual will have a certain perspective of the truth (Frimpong & Dansoh, 2016)—is essential within this research. Accordingly, a variety of case studies were examined in order to build a constructivist vision of the architect-client relationship that also take into consideration the material/non-material actors of the design. Indeed, the constructivist perspective supports the idea of 'multiple realities', whereby no single experience can be thought of as typical or applied to all other cases—and this, of course, supports the basis for the research that there is no 'standard' architect-client relationship that can be generalised, but that each case study has the potential to shed light on a different aspect of the relationship. This can help to build a more complete picture about the relationship¹¹. This also supports the critical position that identifies the complexities, messiness, unpredictability, and social nature of the relationships in the context of Jordan.

2.4.3.1.Data Collection

The data collection process commenced with our selection of the architects that would be included in this research, during which process I relied on my knowledge and experience as an architect in the Jordanian market to approach different architects who work mainly in residential projects, in turn forming a purposive sample (Creswell, 2007). The first shortlist included 43 architects, who were chosen from different practices in Amman. The criteria for selection were: their practice should be based in Amman, Jordan; they should work mainly within residential projects; and their offices should possess a good reputation in the market. At a later stage, this shortlist was reduced to 25 architects whose participation was considered particularly valuable. Notably, architects from a variety of backgrounds were selected in order to maximise the variation of the sample, as well as to increase the likelihood that each participant would contribute unique characteristics to enhance the richness and completeness of the themes that would emerge from their narratives. After being selected, the interviewed architects were divided between male/female, all possessing between 5-45 years of experience.

¹¹ This is seen as a potential for future research, as choosing other case studies is believed to expand the reliability of this research outcomes and would help in understanding other aspects of the relationship that this research case studies did not cover.

They were all also from different office sizes—some single architect offices, some larger and more well-known offices.

Face-to-face detailed interviews were the main source of data collection (Corbetta, 2003), such a method being implemented due to the architect's and client's views and understandings being required for the study—and talking to them is considered the most pragmatic and meaningful way of gathering such data that can help to build an understanding of the social context of architect-client interactions. The focus of this research centres on the architects' and clients' experiences, as well as their understanding and valuing of the relationship and the process that was the main motivation to undertake the in-depth interviews. This approach emphasises the importance of the architects' and clients' own views of the process, as well as exploring their ability to reflect on their experiences of the relationships—the focus of the research. This also supports the decision to have multiple case studies in this research, as each case study contributes to the understanding of the relationships within the Jordanian context significantly. This approach also supports the critical position of this research, which identifies the complexity and the social nature of architect-client relationships in Jordan through looking to the multiple case studies. Notably, interviews were conducted on an individual, one-to-one basis.

Considering the gaining of access to interviewees—especially clients—can be a significant barrier to research (Lucas, 2016), I used my own personal contacts and networks in addition to official letters that explained my position as a researcher from the University of Sheffield—and, in doing the latter, I made the decision to contact the architects first and, through them, reach clients. I contacted my participants via email, Facebook pages, and Facebook messenger over the course of May-July 2017, introducing myself as a Jordanian PhD researcher at the University of Sheffield and asking if they would be willing to participate in the research. 15 of the 25 contacted architects responded that they would be willing to participate. Further, an information sheet¹² including potential case study criteria was sent by email in mid-June 2017, and the willing participants were asked to identify potential case studies from their practice. I introduced my research title, objectives, university, and supervisor's names, and also offered clarification for the fact that the University of Sheffield Research Ethics Committee (UREC) had approved my research, that participation was voluntary, and that participants could choose

.

¹² appendix 9.1

to withdraw at any point. It was clarified that all the collected would be treated as highly confidential, and would be used solely for research purposes and not shared with any third party. Meeting dates and locations were decided at this stage, and, prior to the meeting dates, reminders were sent to the potential participants, some dates were amended, and four of the 15 architects apologised and withdrew from the research due to personal circumstances. I travelled to Amman in July/August 2017 and again in August 2018 in order to conduct the interviews. Since English is not their first language and they required encouragement to speak more, the interviewees were told from the beginning of the interview that they could use Arabic or English to answer questions—whichever they preferred. This ensured that the language of the interview would not stand as a barrier to communicating ideas and reflections around the project. Further, the interviews were semi-structured, recognising that new perspectives and issues will more readily emerge in a more conversational, unstructured section of an interview (Groat & Wang, 2013).

During the first stage, I conducted a total of 18 interviews; 11 with architects, four with officials, two with house owners, and one with an academic. All of these interviews were digitally voice recorded and conducted in the participants' offices—with the exception of the two house owners' interviews, which were done at their houses. Interviews were recorded on two devices: a digital voice recorder and my personal iPhone. Despite the fact that I was concerned over the possibility of our recording the interviews leading to the interviewees' discomfort or nervousness, it did not seem to bother any of my interviewees. Questions were divided into different categories: the architect-client relationship; the design process; and architectural practice in Jordan. Although I prepared questions for the interview, I allowed conversation to flow, instead using the questions as a rough framework for the interview. In turn, many aspects of architectural practice in Jordan concerning the politics of the architect-client relationships were discussed. The architects then identified potential case studies, the criteria for such selection being provided by myself beforehand¹³. These were also discussed

¹³ The case studies criteria as clarified for the architects were:

^{• &}lt;u>It should be a residential project</u>: this could be a house, villa or apartment building, whether a new project, renovation or extension (e.g. an additional floor).

[•] There should be a good relationship with the client.

[•] The project should be <u>occupied</u> or in the final stages of construction.

[•] For a client who also resides in the property: it would be helpful to measure the client's "degree of satisfaction" with the design based on their experience of using the house.

There should be a complete set of drawings.

after the interview, ensuring that the architects¹⁴ understood the variety that the research required. The selection of clients—based on referrals from practicing architects—helped in securing access, also guaranteeing complete data collection for each case study, as additional data in the form of drawings was required from architects. At this stage, 18 case studies were identified from the architects' work, 12 of which being chosen for invitation to the study. I then asked the architects to approach the clients themselves, which led to nine clients agreeing to participate; however, two then apologised and withdrew, leaving us with a total of seven clients for interviewing.

For the second stage of interviews, the seven clients were interviewed in August 2017, two of which in their homes, two of which at their architect's office (at their own request), and three of which in their own work offices. All the case studies were in the middle- and upper-class areas of Amman¹⁵, and the interviews themselves were guided by the previous interviews with the architects—though open questions were also included so new aspects could be raised through the client's responses. Since in the majority of cases there was more than one person acting as the client, the main person who met the architect was identified as 'the client', whilst others were considered as 'client family members'. Verbal and written consent forms were collected from all the participants, and anonymity was also guaranteed for them all. Please see **Table 2-3** for a summary of all research interviews.

During the interviews with the architects and clients—as well as in order to refresh their memories with regard to the project (and to gather as much details as possible about the project and the process of design)—, different creative interview techniques were used. This was seen to be of great importance for the completion of the data gathered from the architects, as well as that of the clients: for example, the use of drawings during the discussions around the narrative of the design, as well as the attempt to trace the changes in different design stages drawings. In some cases, the discussion around one design change in the plans would bring more stories from the clients (as in Case Study One and Four), the discussions around a 3D drawing bringing more about the client appreciation of the architect's efforts (as in Case Study Three), and so on. Further, when possible, the house visits also helped in discussing different

.

[•] Access is required to archive meeting reports, work progress reports, and changing orders.

¹⁴ I assume that they suggest their 'perfect' case studies, even though; I found from the analysis some gaps in the relationship.

¹⁵ That was a result of the case studies selection by the architects.

areas of the relationship through walking interviews, as watching the client interacting with the design and adapting it in their everyday living brought more specific questions, which in its role brought more details about the 'story' of the project and the relationship.

For all the case studies utilised, drawings and documents were collected from the architects and the clients; additionally, for two of the total case studies, the houses were visited¹⁶, during which time pictures were taken and observations documented. One authentic architect-client meeting was also observed, and notes were taken of the tools, settings, and language used.

In order to further develop the analysis of the case studies—as well as to discuss and validate the findings of the analysis—, the two architects with two case studies selected were interviewed again in August 2018 at the architects' offices. These interviews were shorter than the first interview, as they were focused exclusively on the findings of the first stage of analysis.

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¹⁶ Contextual interviewing and walking while doing the interview: studying the architect- client interactions is a multidimensional social reality study. In this research, it was intended to capture complexity of this relationship and interactions, that's why, whenever there was chance to do contextual interviews, I have gone for that. Walking with participants can generate understandings of what it's like to live in a place. They can elicit talk about certain spaces and aspects of design. This was helpful, especially in case study one, where walking with the client around her house brought more stories to tell about the design of the different parts of the house and stories of her relationship with the architect.

Table 2-3: Research Interviews - Source: Researcher

Pseudonym	Category	Date of interview(s)	Length of the interview	Nature	Location
AH	Architect/	25/8/2017	40 mins	Formal/	Architect office
7.11	Female	25,5,2017	40 Hillis	informal	And intect of fice
AK	Royal Science	8/8/2017	90 mins	Formal	RSS offices
	Society	-, -,			
AS	Architect/ Male	20/8/2017	120 mins	Formal/	Architect office
	·	14/8/2018	45 mins	informal	
AS1	Client	23/8/2017	30 mins	Formal/ informal	architect office
AS2	Client	23/8/2017	60 mins	Formal/ informal	client office
ВН	Architect/ Male	16/8/2017	60 mins	Formal/	Architect office
511	All children with the	20/8/2017	90 mins	informal	7 ii ciii cec oi ii ce
DK	Architect/	13/8/2017	120 mins	Formal/	Architect office
J.	Female	13, 3, 201,	120	informal	, a contect of fice
DK1	Client	16/8/2017	30 mins	Formal/	client office
_		-, -,		informal	
FB	Architect/ Male	6/8/2017	90 mins	Formal/	Architect office
		-, -,	·····-	informal	
GA	Architect/	14/8/2017	90 mins	Formal/	Architect office
	Female	. ,		informal	
HQ	House owner	16/8/2017	30 mins	informal	Client house
IH	House owner	15/8/2017	60 mins	Informal	client house
JE	Jordan Engineer	10/8/2017	20 mins	Formal	Architect office
	Association				
KB	Architect/	16/8/2017	120 mins	Formal/	Architect office
	Female	14/8/2018	30 mins	informal	
KB1	Client	21/8/2017	45 mins	Formal/	client house
				informal	
KB2	Client	23/8/2017	30 mins	Formal/	client office
				informal	
MA	Housing and	6/8/2017	60 mins	Formal	HUDC offices
	Urban				
	Development				
	Corporation				
OA	Academic	24/8/2017	60 mins	Formal	University office
RA	Architect/	10/8/2017	45 mins	Formal/	Architect office
	Female			informal	
RB	Architect/	2/8/2017	60 mins	Formal/	Architect office
	Female			informal	
RB1	Client	9/8/2017	60 mins	informal	client house
RL	Architect/	7/8/2017	90 mins	Formal/	Architect office
B: 4	Female	0/0/05:=		informal	1
RL1	Client	8/8/2017	60 mins	Formal/	architect office
		0/0/05:=	400	informal	
RW	Architect/ Male	8/8/2017	120 mins	Formal/ informal	Architect office
ZO	Jordan Housing	16/8/2017	60 mins	Formal	JHDA offices
	Developers				
	Association				

2.4.3.2.Data Analysis

The interview recordings were transcribed for the subsequent stage of analysis. Considering the majority of the interviews had been conducted in Arabic, the translation of the interview transcripts was carried out before the analysis was undergone. The translated transcriptions for each case study were read several times, notes also being taken at this stage, and analysis was carried out manually before being coded in NVivo11 software. Indeed, NVivo helped to organise the data and identify common themes across the case studies and interviews. At this stage, drawings were also studied, and changes in the design were mapped between design drawings and working drawings. The process of coding and analysing the interviews was not a linear process, but involved iterative loops of coding, identifying themes, analysis, rethinking of the original coding, and adaptation to accommodate new emerging ideas and concepts. Indeed, even though architects do not hold any meeting records (MOM)¹⁷ or site visit reports, the interviews and the available drawings aided in generating an understanding of the development of the case studies. Please see **Figure 2-5** for an illustration of the methodology undertaken in Case Study Six (KB-KB2) as an example.

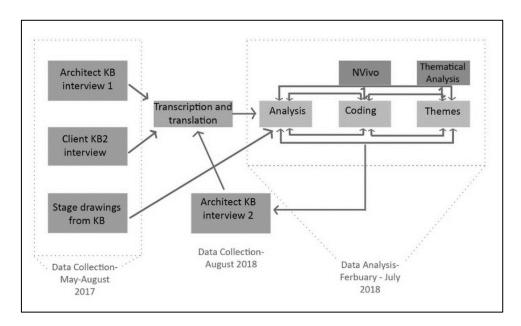


Figure 2-5: Data Collection and Analysis in Case Study Six (KB-KB2) - Source: Researcher

¹⁷ Using MOM for residential projects in not a common practice in Jordan. Most architects and clients rely on oral / verbal communication during their meetings. In some cases, if the client is aboard, emails would be used to communicate. In this case, the architect and the client relied on verbal agreements all the way of the design and construction process.

During the first stage of analysis, each case study narrative—as well as the corresponding analysis—were examined individually in order to identify themes, key actors, communication patterns, and associations (please see Chapter 3). After this, a cross-case analysis between all the case studies was conducted in order to investigate the aspects of the relationship, as well as to identify any key similarities and differences (see Chapter Four, Chapter Five, and Chapter Six). Identification of such similarities helped in identifying the main actors that influenced the relationship, whilst that of the differences helped in framing the architect-client relationship in a wider lens.

In a similar vein, for the purpose of validating and testing the data, different loops of data collection and analysis were performed; plus, in order to collect any missing information, as well as to provide any needed clarification after transcribing the interviews, the participants—especially the architects—were contacted at different stages of data analysis. These communications were done via email, Facebook messenger, WhatsApp, and telephone. Indeed, this loop between data collection and analysis ultimately aided in reconstructing different aspects of the relationship, filling the gaps that emerged when the fragmented data was put together. It is also important to highlight that the architects were contacted after the interviews, as I have interviewed the clients after them; hence, some clarifications concerning the issues that arise from the client interviews was needed from the architects. Also, the architect's understanding and appreciation for the research made it easier to recontact them afterwards. Contact with clients was limited, and I tried to gather all the data needed from them through the face-to face-interviews in order to respect their time and their voluntary participation in the research.

In order to utilise the data collected, a Thematic Analysis (TA) approach was applied to the analysis—this approach being defined by Braun & Clarke as 'a method for identifying, analysing and reporting patterns [themes] within data'. Such an approach helped in understanding and bringing together the themes and ideas that emerged from the fieldwork data, a main advantage of it being that 'thematic analysis is not wed to any pre-existing theoretical framework, and so it can be used within different theoretical frameworks' (Braun & Clarke, 2006, p. 9).

Indeed, the actors within each case study were identified concurrently with data collection and analysis. Further, by analysing the interview transcripts, the main actors mentioned by both the

architect and the client were traced, their roles at different stages then being identified. Matters of concern to the actor's participation in the relationship were identified, and actors that helped in building the relationship, supporting it, and challenging it were identified and followed—overall aiming in establishing the limits of the network and focusing the research. As non-human actors cannot talk but act, their actions can be revealed through the interviews with the human actors.

2.4.4. Ethical Considerations

Many ethical decisions were taken into account over the course of this research journey; since the research was based on interviews, ethical procedures were followed according to the University of Sheffield Research Ethics Committee (UREC), such considerations including the following:

• Approval of the University Research Ethics Committee Review Board

Prior to the onset of the fieldwork, the research obtained the required ethical approvals from the University of Sheffield Research Ethics Committee (UREC) (number 013632-dated 07/06/2017 [please see Appendix (9.1)]; the process itself of filling out and providing the ethical approval application aiding in highlighting issues of concern with regard to the interviews design and overall conduct.

• Informed Consent

All the interviewed participants voluntarily agreed to participate in the research project, both verbally and in writing, prior to the study's conduction. The overall purpose of the research was made clear to participants, and all were informed that they possessed the full right to withdraw at any given point if wanted. Finally, all participants received an information sheet with contact information for both the researcher and the university [please see Appendix (9.1)].

• The Consideration of Any Harm that could Affect the Participants

It was made abundantly clear to the participants that the research did not seek to evaluate the work of the architect or the knowledge of the client; in addition, the interview locations were chosen by participants to ensure they had optimal comfort during the whole process.

• Confidentiality and Anonymity

Confidentiality and anonymity were guaranteed for all the involved participants, and, accordingly, although all the interviewed architects and officials were happy to be identified,

their names have been documented as a pseudonym in order to guarantee the anonymity of the clients (as most of them preferred to remain anonymous). Houses addresses and client information have also been kept private.

It was also requested by some of the architects and clients that I did not tell the other party what they had said, in turn adding more sensitivity to my role as a researcher and challenging my ethical decision-making, as it would have normally been optimal to discuss some statements with the other party. From my own perspective, what was said largely concerned the project, process, and workings of the relationship, not the more 'personal' aspects to the whole experience. However, since I could not guarantee the understanding of the other party, I respected these requests.

Another issue concerning the sensitivity of some issues discussed in the interviews (e.g., questions concerning financial issues) lay in the fact that such things are regarded as very personal matters in Jordanian culture, and so my questions concerning such subjects were openended so the interviewees could decide whether to answer. Relationships, as an example, are an example of such sensitivity in Jordanian culture, and, as a Jordanian, I understand and appreciate cultural issues concerning such topics—especially any male-female encounters and how these may encroach on this sensitivity (and this included my relationship and meetings with my interviewees). Thus, I tried to counterbalance this by ensuring my meetings with my male interviewees were in public/workplaces.

2.5. The Structure of the Thesis

The ideas and methods involved in this research continued to evolve throughout the course of the study, and so I kept myself open to new possibilities and new terrains that this research may investigate—such an attitude being inspired by that of Yaneva, for her openness to surprises and detours. One of the challenges that I faced when I started writing the thesis was the different ways of structuring and arranging the case studies findings; indeed, the structure of the research was like a puzzle that could be arranged in a range of different ways, all of which creating a different way of expressing and evaluating the data.

This thesis has been structured into seven chapters that can all be linked back to the research aim, objectives, and questions. The first chapter presents the pathway to the research and highlights the context of the research in terms of the physical and theoretical contexts, providing insights and analysis of the architect-client relationship literature. This also provides

an overview of the architectural practice within Jordan, as well as the current challenges being faced by Jordan specifically in term of practice, education, and population. Meanwhile, the second chapter examines the methodological approach that has been followed, clarifying the use of Actor Network Theory (ANT), as applied to the case studies. Here, we can also see a discussion of the research design, data collection, analysis, and any limitations identified within the study. Subsequently, Chapter 3 contains the narratives of the seven case studies of this research, the stories and drawings of which being neatly summarised. Similarly, this chapter is considered with referencing so as to allow for the analysis in the discussion chapters, and it is expected that the reader will need to go back and forth between Chapter 3 and the subsequent chapters.

Further, in order to investigate the aspects of this relationship, this has been analysed at three different levels: the level of the relationships (Chapter 4); zooming in to investigate the actors of the architect–client relationships (Chapter 5); and zooming out to study the architect-client relationships as part of a bigger network. Please see **Figure 2-6** for a clarification of the levels of investigation of the architect-client relationship in this research.

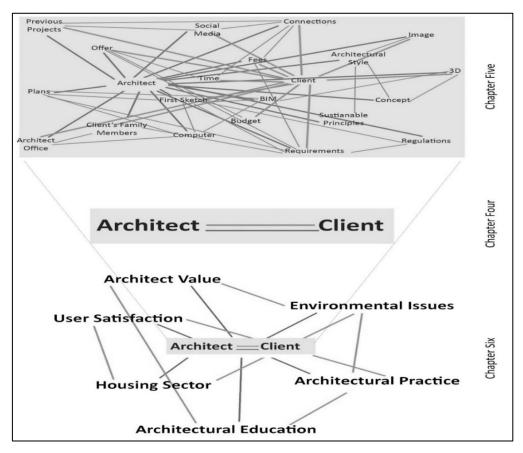


Figure 2-6: Levels of Research Investigation- Source: Researcher

Meanwhile, Chapter 4 discusses patterns of communications within the studied architect-client relationships across the seven case studies; additionally, the quality of communication between the architects and clients is followed from the early stages of the relationship through the project life cycle, the social dimension of the relationship being discussed here—high emphasis being placed on the trust and personal relationship impact on the architect-client relationships. Leading from this, Chapter 5 zooms into the actors of the architect-client relationships and their associations; this chapter also documents our shadowing of such actors as they create, change, challenge, and sustain the relationships by investigating the relationship collective (network). Chapter 6, on the other hand, goes on to zoom out investigate the architect-client relationship as part of a bigger network, whereby the relations between this actor-network and architectural practice/education are investigated. Finally, Chapter 7 summarises the findings of the research at this stage, offering conclusions and future research plans.

2.6. Chapter Conclusions and Remarks

This chapter aimed to clarify the methodological approach that has been adopted in this research in order to effectively obtain the overall objective of studying the architect-client relationships in the context Jordanian context; it has clarified that a case study methodology—inspired and informed by ANT and Grounded Theory—has been followed, and the research design and journey have also been well-clarified.

Saying this, the limitations and obstructions of this research and methodology impacted the way in which this research was developed, including: the time and space located for a PhD research; the cooperation of different participants; and the access to different projects and case study data.

To explore this further: although 25 architects were approached in the first stage of communications of this research, only 11 were maintained through till the interview stage—in turn representing only 44% of the contacted participants. To add to this, one of the main limitations of the conducted data collection was the poor archiving system used by the architects in terms of keeping different stage drawings and minutes—as well as other communications. Further, it was noted that the majority of the architects largely relied on verbal communications with their clients—especially when it came to small-scale projects. Meanwhile, in some cases, no contract was signed between the architect and the client except

that of the general Jordan Engineers Association (JEA) contract—which notably does not include many details of the project in terms of the timeframe or any further requirements.

Another limitation of this chapter was the reliance on the memory of the architect and the client: although all of the case studies have been recently completed—more specifically, within the last five years—, but, nonetheless, architects oftentimes unfortunately find it difficult to recall specifics about a certain job (e.g., the number of meetings that took place at the design stage) due to poor archiving practices. In addition, clients seem to forget some crucial details concerning the sequence of changes in the design (i.e., who changed what and when). Those areas were overcome by using creative interview techniques, as clarified in this chapter.

In addition to the research methodology limitations discussed above, this research possessed some other limitations, such as: the limited time I unfortunately had in Amman (as this was during my PhD—i.e., when was based in Sheffield—, and so a change in one interview date or time would have caused a large impact on the data collection plan). Another limitation separate from the above lies in the clarification of the research importance for both architects and clients: whilst most architects appreciated the research and its focus, some clients appeared to find it difficult to understand how this research could be helpful; for example, I was asked by one client how this could be related to PhD research—which showcases how inapplicable this style of research may have been perceived by some of the participants. Thus, this required me to reclarify the importance of the research, as well as how the research outcome could be helpful for the future of the architectural practice and as a result the built environment.

The following chapter summarizes the narratives of the seven case studies that used in this research.

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Chapter Three

The case studies narratives

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3. Chapter Three: The Case Study Narratives

Instead of presenting instructions, rules, or specific techniques as a manual might, we draw examples from actual architectural projects. - Franck & Howard (2010).

3.1. Introduction

This chapter includes the narratives of the seven case studies of this research, and its overall aim is to familiarise the reader with the case studies along with their different aspects—an understanding that is required in order to understand the following analysis chapters. Thus, with this in mind, this chapter is structured into seven sections, each of which following the narrative of one case study through the project life cycle.

3.2. Case Study One: The Case of Architect RB and Client RB1

When the Client is a Family Member

In order to thoroughly investigate the impact of the personal relationship between architects and clients on their professional relationship, a variety of case studies whereby the architect and client have a previous relationship were examined. This case study in particular, in this vein, was selected because the client possessed a family relationship with both the architect and the contractor.

Notably, this case involves a new construction villa project, comprised of three floors (basement, ground, and first floors), and an annex building. The total floor area is 676m² (as per the design), as well as an additional 32m² implemented during construction. Design work for this project commenced in 2011, construction then starting in 2012 and continuing until its completion in 2014. The client has occupied the villa since 2014, and the villa resides is in one of Amman's upper-class areas.

The architect RB has been in practice for more than 25 years, and has worked in a variety of engineering firms in Jordan; she is now the principle architect in one of Jordan's oldest architectural firms, whereby different types of projects (from educational and commercial to governmental and residential) are taken on. Architect RB is also active in joining architectural reviews in many Jordanian universities.

Meanwhile, Client RB1 is a housewife and her husband a doctor, working both in Jordan and abroad. RB1 has lived in several countries, and has lately settled in the Gulf area. She has three daughters of the college/high school age, and does not have any engineering background—although she harbours an interest in interior design. This is her first experience of an architectural project.

I became acquainted with RB from her participations in reviews in architectural schools; I asked a mutual friend to ask her if she had the time and willingness to participate in the research project and, after her initial acceptance, I approached her in May 2017 through her personal Facebook page with a message introducing the research project. Considering it matched with her professional interests, she replied indicating her willingness to participate in the research, and so a meeting date in August 2017 was agreed upon to discuss the matter further. Additionally, an information sheet—including potential case study criteria—were sent to her

via email before the meeting date arrived, and she was asked to identify potential case studies from her practice.

The architect's office resided in one of Amman's old business districts, and, upon my arrival at the office, I enquired about the required architect's office. From there, the secretary led me to a very busy, overloaded table, reams of sketches also being dotted on the wall and A3 plans lying across the table. At this time, RB was busy with one of her juniors, discussing an elevation proposal, and yet she still greeted me and asked the secretary to take me to the meeting room until she had finished with the junior. The meeting took place in the meeting room, and, after the consent forms were signed and the research project clarified, a semi-structured, in-depth interview was conducted for a total of 60 minutes. After this, a potential case study was identified and discussed, RB at this point offering to approach the client to ensure her willingness to participate and to share the relevant project data with the me (i.e., drawings and notes).

It was confirmed by RB a little later that RB1 was happy to participate and for their contact information to be shared. Once this was provided, RB1 was approached by phone, and a meeting was arranged in her house in August 2017. RB1's house is located in one of Amman's prestigious suburbs, and I was greeted by RB1 at the door before she guided me into the house. Meeting RB1 in her house and conducting a contextual interview proved to be very helpful for the research: through this, it was possible to observe the ways she was using and interacting with the final design, as well as how she had adapted different parts of the house after occupying it to suit her lifestyle better. It was here that RB1 explained about the process of design, as well as her relationship with the architect and the contractor. The interview took a total of 60 minutes, followed by a tour of the house and the surrounding garden for an additional 35 minutes. During the tour, RB1 added more valuable notes concerning the design, as well as the things she liked or disliked about the whole experience—all of which proved invaluable later on.

Using the data garnered from the interviews, the house visit, and the drawings, I then attempted to reconstruct the project narrative; please see **Figure 3-1** for an illustration of the key events across the project timeline.

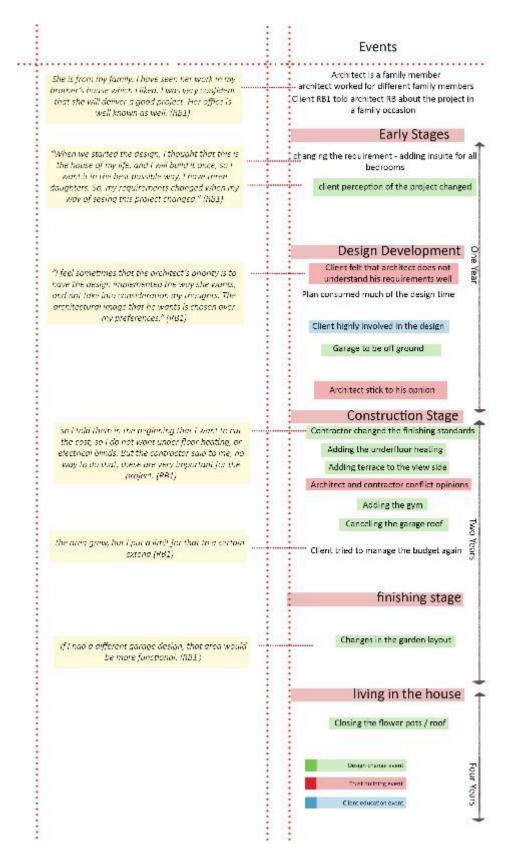


Figure 3-1: Case of RB-RB1 - Project Timeline - Source: Researcher

3.2.1. Project Kick-Off

Ideas for this project date back to 2011, when RB1 and her family was considering settling in Jordan; however, communications concerning the project at this stage were informal in nature. It was at this point that RB1 mentioned to RB on a family occasion that she intended to build a house, and that she wanted her to be the project architect. After such an event, RB1 visited RB at the office to officially start the design and the project.

When RB1 was asked why she chose this architect. RB1 stated:

'She is from my family. I have seen her work in my brother's house, which I liked. I was very confident that she would deliver a good project. Her office is well-known, as well.' (RB1)

Indeed, RB confirmed her office's reputation has an impact on the clients who come to their office. In this vein, RB remarks,

'Our clients are looking for something outstanding, and that is why they came to our office in the first place.' (RB)

Here, RB1 perceived this as an advantage to work with an architect who she knows, stating,

'She knows me well; knows my lifestyle.' (RB1)

In an attempt to keep the relationship as professional as possible, RB ensured all the meetings arranged for were set in her office—which was also convenient for RB1, as she could employ the facilities in the office to better understand the design (e.g., computers for 3D visualisations; material samples and examples from previous projects).

As per common practice, in order to both understand their requirements and build up trust, RB routinely shows new clients her previous projects. Here, she stated,

'By showing them different projects that we have worked on, we can achieve client satisfaction, which is what we are aiming at.' (RB)

3.2.2. Briefing and Design Development Stages

Over the course of the briefing stage, communications largely centred on defining RB1's requirements and preferences; here, RB mentioned the effort she always puts into

understanding her clients' requirements and lifestyle, tending to study each client's requirements individually to try to formulate the best possible design solution. RB stated,

'An architect in a villa project needs to understand their client's life; they need to "live" the details of their client's daily life.' (RB)

Although RB1's main priority here was her limited budget, she was also aiming for a high-standard final project; indeed, she stated that for her, the importance of the project as 'the house of my life' had shaped—and sometimes altered completely—her requirements. Further, RB1 also stated that her perception of the project altered significantly after her first interactions with her architect with her recognition that the project was her one chance to build 'my lifetime house'. After this, she started adding requirements, shifting the standards and making more of an effort to refine the details. This is especially clear when considering moments such as when RB1 changed her requirements from having a shared bathroom for her daughters—as an initial requirement—into having en-suite bedrooms, as well as when she changed the original planned heating system to underfloor heating, including Solar Thermal Panels for water heating. Notably, the contractor was also a key influence in the project standards at this stage. RB1 stated,

'When we started the design, I thought that this is the house of my life, and I will build it once, so I want it in the best possible way. My requirements changed when my way of seeing this project changed.' (RB1)

RB also emphasised the importance of this stage in terms of the overall design experience—especially when it comes to residential projects—by declaring,

'After the first meeting, we would take two to three weeks to develop a proposal. For me, this is the most important time of the project.' (RB)

Indeed, it is safe to conclude that RB1 was highly engaged in the design process: during the interview, it was abundantly clear that she has developed her knowledge and experience in this field over the course of the project—although at some points, when it came to her being asked to make decisions concerning the design, she oftentimes found herself unable to because of her lack of experience. Here, she stated that she needed more knowledge at certain points in order to make decisions. An example of such is,

'The architect asked me if I want the garage underground or beside the house. I have no idea how it would be. At least if I

saw the two options in plans for example. But the architect was doing only what I have asked for without showing me the options. That impacted my decisions.' (RB1)

Indeed, despite that RB certainly made an effort to educate RB1 through the life cycle of the project, there were some points where RB1's lack of knowledge and experience were a barrier in terms of her involvement. As discussed by RB, a key example of this is,

'The land is high, so the engineers and the architect kept telling us that the cut would cost so much, but never gave me a figure—so I did not know how much "this much" [was]! Is it 5K or 50K? So we ended [up] doing a high garden at the rear, which is only used as a fruit garden. I could use it as part of the outdoor sitting area, or I could put the house in the back and add more area to the front garden. If I [could have known] a clear figure for the cost, my choices might [have] be[en] different.' (RB1)

Another issue here was the way in which RB1 perceived the architect's design decisions and supervision notes: indeed, lack of understanding behind the reasoning of such decision-making was prevalent here, and this inevitably led to RB1 questioning why certain decisions were being made. Here, RB1 stated that,

'Some decisions I feel that this is what I want, but the architect refuse them for no logical reason—or she would refuse for less important reasons.' (RB1)

She also added,

'I feel sometimes that the architect's priority is to have the design implemented the way she wants, and not take into consideration my thoughts; the architectural image is chosen over my preferences.' (RB1)

As a result of these frustrations, RB1 attempted to learn more—both intentionally and unintentionally: she would search for design ideas over the internet, visiting material shops and familiarising herself with measurements and areas. She said in this regard,

'Sometimes the architect would tell me that this would be 10m, for example—[but] I cannot feel what 10m is like. I used to put all these measures in front of me to understand; otherwise, I will not know what 10m is like, and accordingly, I will not decide.' (RB1)

RB clarified that she always makes a conscious effort to maintain her professional standards, no matter who the client is; however, one example mentioned by RB1 suggested that the architect only offered her one option for the design, and, from RB1's perspective, this option

always seemed to require little effort—and she believes this occurred as a result of the nature of their relationship (i.e., a personal one):

'The architect used to give me only one option, and I needed to decide on it, not having other options to choose from. It would be easier if I had options; that could open new horizons for me. I would prefer [to] see three different options so that I could choose elements from them.' (RB1)

Conversely, when RB was questioned on her common practice when dealing with clients, she clarified that she almost always proposes more than one option to the client, stating,

Sometimes I cannot make my mind up about the design, so I propose... [the client with] more than one proposal.' (RB)

If we are to take both claims into account, then, this shows that RB clearly did not follow through with her 'usual' routine with RB1—and this could, indeed, be due to a multitude of reasons. Perhaps RB thought that she understood exactly what RB1 wanted and needed from their previous relationship; or, conversely, RB may have taken her client for granted and saved her efforts for another client, who would typically expect more effort in order to be satisfied with the service. We were, unfortunately, unable to clarify this point by asking RB about this further due to the sensitivity of the relationship.

An example of a trust-diminishing event is when RB1 felt that RB did not appear to fully understand her requirements during the design development stage; the example RB1 uses here concerns the maid's room, in which RB1 outlined that she wanted it to be on the ground floor. However, RB kept locating it in the basement, and, although this is a small design detail, it had an impact on the client's level of trust in the relationship. RB1 stated,

'I wanted the maid's room to be on the ground floor near the kitchen. The architect kept putting it in the basement floor. It took time for the architect to understand that this is what I want[ed] and what suit[ed] me more.' (RB1)

In the same vein, the design evolved via the communications that occurred concerning 2D and 3D drawings, RB1 claiming in this regard,

'I prefer plans and 3D drawings. I can read plans and 2D drawings. I like them and sometimes I like to draw some. But my husband does not like them, and he prefers to see the 3Ds.' (RB1)

On this note, RB1 used to bring with her photos and pictures concerning design elements that she wanted to implement in her villa:

'She [RB] started to do sketches for me, and I brought for her images and photos from the internet—and we worked together toward a design that we both found [to be] good.' (RB1)

Indeed, RB's use of 3D visualisations at the different design stages helped RB1 to understand the ideas, test them, and in turn cooperate in making decisions. Here, RB stated,

'When she understands the project, she would get involved more, and would ask for modifications more. It is a two-edged sword. Before BIM was widely used, the client would see one 3D or so, and would approve it easily. Now, with easier 3D generation, I see that clients are giving more notes.' (RB)

3.2.3. Construction Stage

As a result of the growing role of the contractor, the relationship transitioned from a bilateral relationship into a triple-sided relationship—and, indeed, what made this situation in particular more complex than most is the fact that it was built upon a family relationship between those three actors. Additionally, although the contractor was involved from early in the project—specifically from the design stages—, he still proposed many changes during the construction stage. Furthermore, a variety of design changes occurred as a result of RB1 clarifying the role of the contractor in changing the standards of the project. Here, she states,

'I did not want underfloor heating or electrical blinds—but the contractor said to me [there was] no way [not] to do that, [as] these are very important for the project.' (RB1)

Going off her interview, RB1 primarily experienced the tension caused by the new connection, as she has a family relationship with both. RB1 said here,

'The situation was really hard. They are both relatives... It was really very hard, because I do not want to lose my relationship with any of them.' (RB1)

At this stage in the process, communication between the architect and contractor was occurring in parallel and in intersected patterns—and, according to RB1, just resulted in additional tension—especially for RB1, who needed to balance the relationship and make a high degree of effort to ensure project worked out. This was sometimes at the expense of her satisfaction on the design itself, and so this could be seen as yet another negative impact of the personal relationship in the reluctance to take difficult decisions. Here, RB1 stated that she was unable to express her frustration concerning the design in terms of both the delays and the

quality—and this led to her worrying that any clashes between her and the architect would be reflected in their family relationship. Here, RB1 said,

'This relationship even caused some sort of shyness from my side; sometimes, I could not ask for what I wanted. And sometimes, I accepted decisions that were not my favourite.' (RB1)

She also added.

'If I were not working with a relative, I would be more daring [in] amend[ing] and mak[ing] decisions. It is different if you are always worried that [a] family relationship would be impacted due to the business. And you know such misunderstandings would not vanish when the project is finished.' (RB1)

Indeed, we can also spot such an impact on the personal relationship here in RB1's recommendation for people who want to start their own house projects:

'My advice to anyone who wants to start a project is go for someone where the relationship is only business with them... If I [could] go back to Day One, I would choose a professional business relationship, rather than this family relationship. In a way, it is less of a headache to work with a non-relative.' (RB1)

Notably, as a result of the intervention of the contractor, many design changes occurred over the course of the construction stage, including:

- The addition of a gym room on the first floor, in a space that was designed to be private terrace:
- A change to the main path in the garden;
- Changes in the levels of the garden where extra area was added to the lower garden;
- Changes to the materials around the windows (i.e., adding stone);
- The removal of the garage canopy;
- Changes to the window of the guest room (i.e., from three small windows to one big window);
- The removal of tiles on the entrance:
- The addition of a terrace to the view side.

Please see **Figure 3-2**, **Figure 3-3**, **Figure 3-4**, **Figure 3-5**, and **Figure 3-6** for an illustration of these changes—all of which being as a result of the architect-client-contractor interactions that occurred over the course of this process.

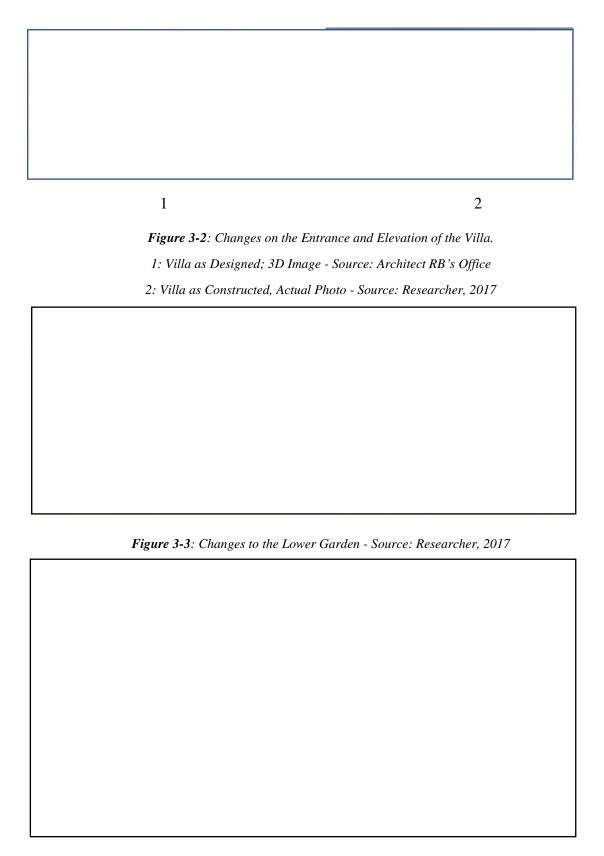


Figure 3-4: Adding the Terrace to the View Area and the Removal of the Entrance Tiles - Source: Researcher, 2017

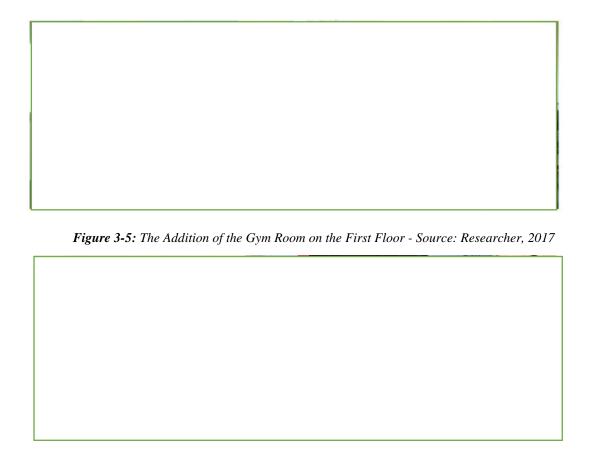


Figure 3-6: Changes to the Entrance Design and to the Guest Room Window - Source: Researcher, 2017

3.2.4. Post-Project Completion

The interviews, conducted on both the architect and the client, were undergone three years after the project's completion, and, when asked about her trust in the architect following the completion and occupation of the house, RB1 notably responded,

> 'I feel I was in a middle place between complete trust and no trust. The architect knows her domain better than me, but this is my house, and I want to be sure that every single corner is as I wanted it to be. The architect sometimes sticks to her opinion, and that made me uncomfortable.' (RB1)

It is worth noting that after occupying the house, RB1 made some minor changes to the design: notably, she removed the plant box on the roof due to a leak and poor insulation, added a canopy to the garage (please see **Figure 3-7**), and made some changes to the dirty kitchen area.



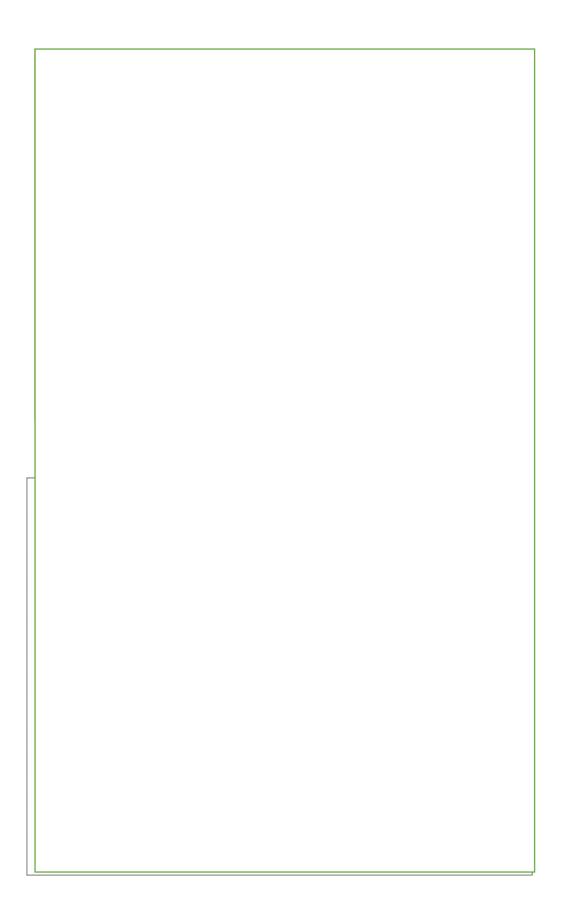
Figure 3-7: The Addition of the Light Garage Canopy after Occupying the House - Source: Researcher, 2017

3.2.5. Remarks on Case Study One

As has been well-established throughout this paper so far, the most important aspect of this architect-client relationship is trust—and, unfortunately, this seemed to have kept swinging from the client's viewpoint over the course of the process; indeed, small incidents have impacted the client's overall feelings toward the process. The question of trust here was not about the architect's ability to deliver the project—as is commonly the case—, but instead about the smoothness and ease of the relationship itself. There definitely appears to be a conflict in opinions between the client and architect here: whilst RB described the relationship as 'smooth and great', RB1 described it as 'stressful and hard'.

Indeed, the personal relationship here is a key aspect of this relationship: it impacted not only the communication experienced here, but also the overall design process and, ultimately, the client's satisfaction. Indeed, the irritation experienced here as a result of the personal/family relationship has been a detriment to the client's satisfaction and comfort during the whole process.

Please see **Figure 3-8** for the working drawings of this project.



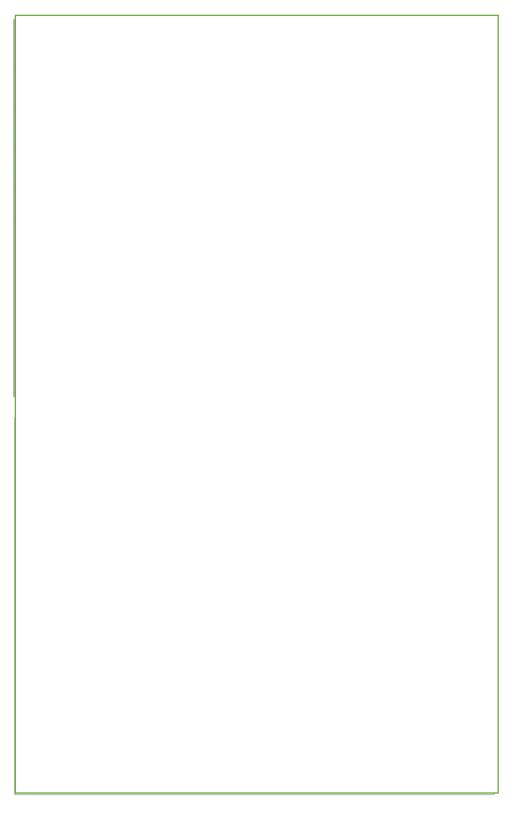


Figure 3-8: Project Drawings—Plan and Elevations (Modified Scales) - Source: Architect RB's Collection

3.3. Case Study Two: The Case of Architect AS and Client AS1

Participatory Design Case

It is no secret that participatory design projects are fraught with sessions of architect-client interactions, and, since it sheds light on certain aspects of the architect-client relationship from projects that are more client-led, it is its clear nature that leads to it being of great interest in this field. Moreover, the implementation of green principles impacted the design and the relationship.

In this case study, we are dealing with a new construction villa project; it consists of a basement for services, as well as two floors of accommodation above, totalling to an area of $365m^2$ (as per the design). Notably, the design stage commenced in February 2016, whilst the construction phase started that following September. The villa was still under construction when the interviews were conducted. Finally, the location of the villa is in a middle-class area of Amman.

I previously knew the architect AS through his participation in teaching and reviews at the University of Jordan: he has been in practice since 2006, and also established his office—alongside two other architects—in 2011. His office work spans across a multitude of different project types (from educational to commercial and residential) and has an expanded portfolio in residential projects—both villas and apartment buildings—, making up the main wealth of his projects at around 75%. In his residential projects, AS's key aim is delivering a high standard of design whilst also applying green principles. Notably, AS is active in the Jordan Engineers Association (JEA) and the architectural division, and regularly partakes in the examination of graduation projects and reviews in a number of Jordanian universities.

On the other hand, Client AS1 is an electrical engineer working in the public sector; he is married with three children. The project is located in a middle-class area of Amman, and AS1 was primarily looking for an architect who could deliver the project completely, from design to construction.

For this research, AS was initially approached in May 2017 by email, introducing the research project, after which he replied indicating his willingness to participate. A meeting date in August 2017 was agreed upon and arranged for, and, as standard, an information sheet—including potential case study criteria—was sent prior to the meeting date. He was also asked to identify potential case studies from his practice.

Notably, this particular architect office is located in one of the busiest areas of Amman, and, upon my arrival, I was struck by the modern interior design of the office (please see **Figure**

3-9): there was a wealth of high-detailed 3D images of projects from the entrance, reception room, and meeting room—this latter place being where the interview was conducted (please see **Figure 3-10**). After the consent forms had been signed and the research project clarified, a semi-structured interview was conducted for a total of 120 minutes, two potential case studies for the research being identified and discussed. Further, the architect offered to approach the clients to ensure their willingness to participate in the research, as well as to share project data with me (i.e., drawings and notes).

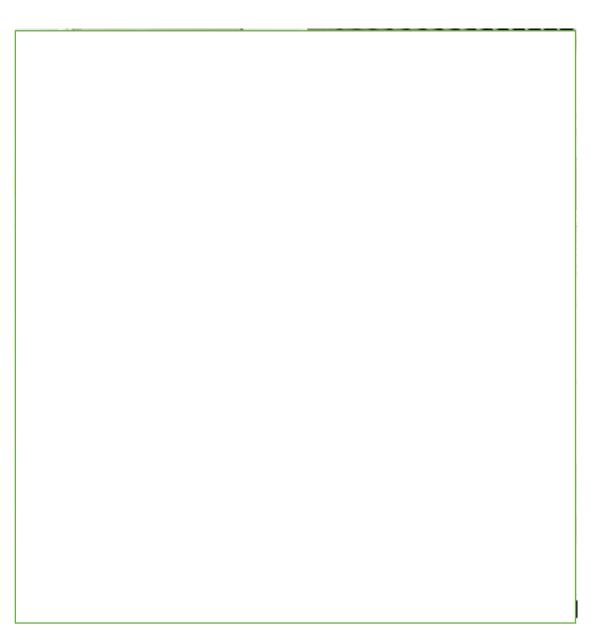


Figure 3-9: Assistant Architect's Office - Source: Architect AS's Collection

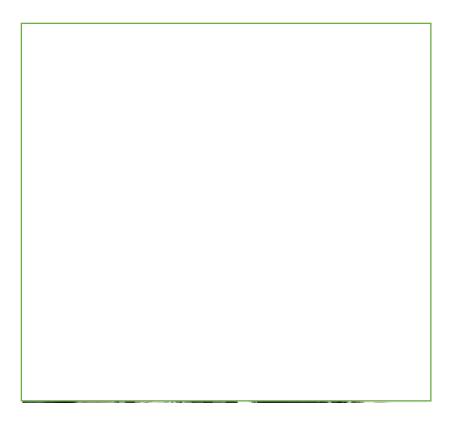


Figure 3-10: Meeting Room at Architect AS's Office - Source: Architect AS's Collection

As procedure, AS confirmed that AS1 was happy to participate, sharing their contact information with me after this consent was obtained. After this, AS1 was conducted by phone, and it was arranged that we would meet at the architect's office—as per his preferences—in August 2017. The interview lasted for a total of 30 minutes, and AS1 offered to arrange a visit to the site at the time of the interview; however, due to the limited time I had in Amman at that stage, the fact that the project was under construction and the client was not yet occupying it yet meant this visit could not be followed through.

A year later (in August 2018), I travelled back to Amman to validate the first stage of analysis via the interviewing of AS again in his office, where we again discussed the case studies in light of my first set of analysis—and, indeed, this second interview aided me significantly in developing deeper insight into the reflections from the architect about the data and the analysis.

Thus, using the data from the interviews and the drawings, an attempt to reconstruct the project narrative was undergone. Please see **Figure 3-11** for an illustration of the key events across the project timeline.

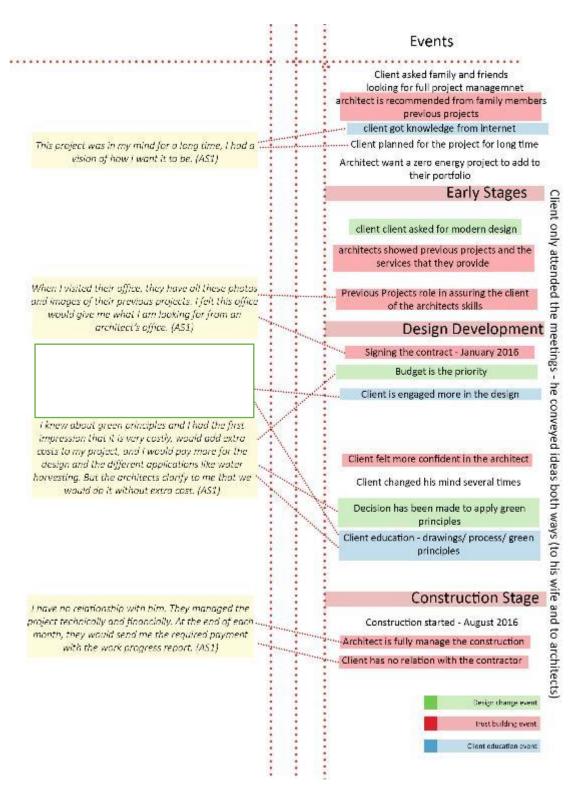


Figure 3-11: Case of AS-AS—Project Timeline - Source: Researcher

3.3.1. Project Kick-Off

In the moment when AS1 made the decision to build his house, he discussed this issue with his in-laws, who promptly recommended AS as an architect: they had a family relationship with this architect, and had enjoyed their experience with him. As it happened, AS1 already had the name of AS in his 'shortlist' of architects, and, following this advice, he approached AS. AS1 mentioned that he approached other offices, but these did not show any interest in his project due to its small nature, possessing a limited budget and being set in a middle-class area.

AS1 possessed a great number of ideas before approaching the architect: the importance of this project was, for him, very high, and he perceived the project as the 'house of my life':

'This project was in my mind for a long time, I had a vision of how I want it to be.' (ASI)

When the time came of AS1 visiting the architect in his office, he claims to have been amazed by the architect's work from the images he saw—and this, ultimately, is what pushed him to decide to work with AS. Here, AS1 stated,

'I had the chance to see their portfolio booklet. When I visited their office, they [had] all these photos and images of their previous projects. I felt this office would give me what I [was] looking for.' (ASI)

Over the course of their first meeting, AS1 asked for a modern design with an 'L'-shaped plan. Taking this into account, AS refined the requirements and showed him their previous projects, the way in which they worked, and the design process. Notably, the majority of the communications occurred concerning the contract and the fees. AS stated,

'In the contract, I make it clear what I am going to deliver (in terms of drawings and dates), and the fees required would be stated as well. This will show the client the amount of work that will be done.' (AS)

Although this stage did not include any design communication, it still laid the foundation for upcoming design sessions. The type of data exchanged at this stage with the architect was clarified in AS1's statement,

'Before signing the contract, we only exchanged information about the services they provide and the requirements I want. But they did not do sketches before the contract.' (ASI)

Indeed, this was confirmed by AS:

'The first meeting is a two-way introduction: the client introduces us to his project, and we introduce him to our design and quality.' (AS)

3.3.2. Briefing and Design Development Stages

This stage in particular was characterised by its very intensive communications; whilst AS mentioned that AS1 was somewhat passive at the beginning and that he—the architect—employed different tools to enhance his engagement with the design, AS and AS1 later began meeting regularly, such appointments usually lasting anywhere between two to three hours. Here, design options were discussed, amended, and decided on—and, in turn, AS1's involvement became high: his participation in the design during the briefing stage via his deciding on the project programme was high. Notably, during the later stages, the design of plans took most of the design time.

During the earlier stages of the project, the architect's team suggested applying green principles and aiming for a 'zero energy' project¹⁸--and, indeed, when it was broached, AS1 was open to this suggestion, although he requested more clarification concerning the application of these principles. Here, he made it clear to the architects that he was interested in the idea but was also working within a tight budget that he wanted to adhere to. Notably, this factor also drove the design and construction afterward.

AS1 had a false idea concerning the cost of design and the application of solar panels, and so the architect's role was naturally to clarify for him the actual cost of these applications. Here, AS1 stated.

'I knew about green principles, and I had the first impression that it is very costly, would add extra costs to my project, and I would pay more for the design—but the architects clarif[ied]... that we would do it without extra cost.' (AS1)

In a similar vein, AS used different tools in order to engage AS1 in the design process (e.g., questionnaires; matrixes; schematic plans), AS1's background in electrical engineering justifying the use of such tools. At the beginning of the design stage, in order to ascertain his

¹⁸ As this architectural office is considered new, the architects' team were aiming to expand their portfolio and to include different type of projects in it. Having a "zero energy project" is of great importance for them as they aim to work with international NGOs.

requirements, AS provided AS1 with a questionnaire, after which he developed a matrix, working closely with the client on the relationships between different spaces. Indeed, as a result of such an approach, the design was developed in a participatory way. The first stage of layouts was developed as zoning plans, where AS1's input was specially required; please see **Figure 3-12** and **Figure 3-13** for examples of such zoning diagrams (plans and sections).

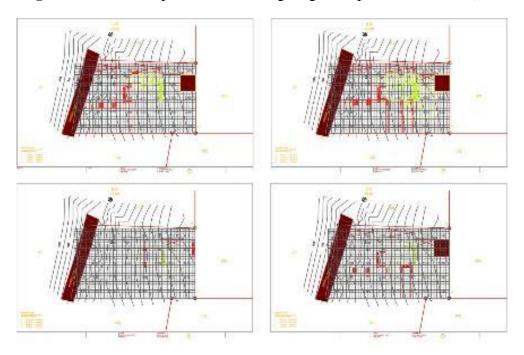


Figure 3-12: Zoning Plans for the Project (Modified Scale) - Source: Architect AS's Collection

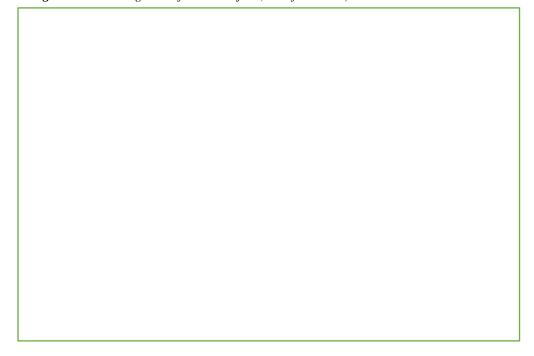


Figure 3-13: Zoning Sections for the Project (Modified Scale) - Source: Architect AS's Collection

This stage was comprised of a multitude of appointments between these two actors, as confirmed by AS1:

'The process was interactive. We were meeting whenever a proposal is ready. We would discuss the proposal and amend it, then we would meet again.' (ASI)

In addition to this, AS1 requested AS to fully supervise and manage the construction process at this early stage, such full supervision including full financial control¹⁹ for the architect through his subsidiary contractor company.

Notably, AS tends to use—and show his clients that he uses—different software(s) in their design, which was also confirmed by AS1:

'At a later stage, we were discussing the design on the computer on a 3D software. We were amending the 3Ds directly together sometimes.' (AS1)

Indeed, AS confirmed this importance of using 3D computer software when it comes to enhancing understanding in the design, as well as in giving feedback: 3D drawings (please see **Figure 3-14**) would provide the a client better visualisation and understanding of the project, in turn giving him the chance to provide his notes and to participate in the design. Here, AS explained,

'We would show the client the project not only as printed 3D shots, as a model in Sketch Up. We would open the file on this screen, and we would rotate the model with him and show him different angles. And he would say "show me that side", and so on. This would give him a better understanding of the design and its components. This would bring more involvement than the 2D drawings.' (AS)

¹⁹ It is important here to highlight that one of the main reasons for Jordanians to build their own houses and supervise the whole process is that they want to keep the financial issues under their control and that there is a general feeling that contractors will not do the job perfectly and try to "betray" them. When client AS1 gave the architect AS full supervision over his project, this indicates an important case of a trust that been built through their relationship that been developed through the early design stages communication.

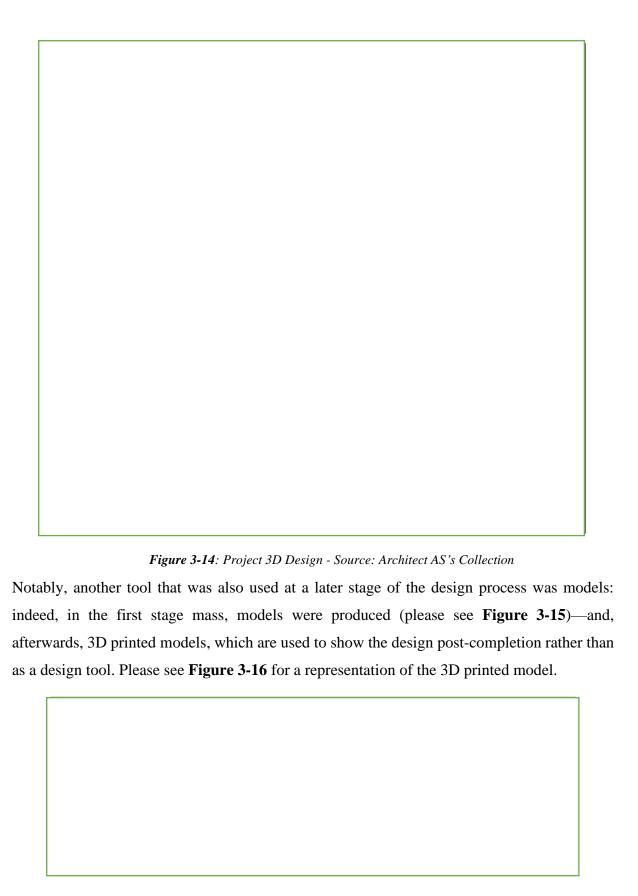


Figure 3-15: Mass Model Used in Design Development - Source: AS's Collection

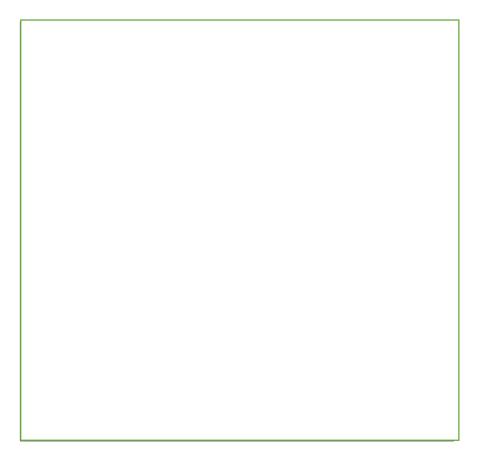


Figure 3-16: 3D Printed Model Pictures for ASI's Project - Sources: Architect AS's Collection

3.3.3. The Construction Stage

The contract between AS and AS1 detailed all design, supervision, and construction managements. Further, AS1 had no relationship with the contractor; AS managed the project and the relationship with the contractor in a comprehensive way. Here, AS1 clarifies,

'I have no relationship with him. They managed the project technically and financially. At the end of each month, they would send me the required payment with the work progress report.' (ASI)

3.3.4. Remarks on Case Study Two

The relationship within this case study began as an indirect one—and, after signing the contract, the relationship became a formal/professional relationship. This then developed in later stages into a friendship.

It is important to mention here that AS1 highly valued the fact that AS was close to his age: he perceived this as a largely positive factor that influenced his project communication.

Furthermore, another praised aspect of the relationship was that of the role of the client's family members: only AS1 ever met the architect, his wife and other family members not having any contact with the architect at any point. In order to ensure his family members were still involved in the process, however, AS1 conveyed the design ideas to his wife: and he would discuss such things with her before conveying her ideas and suggestions to the architects, and vice versa²⁰. Here, AS1 said,

'With every proposal, I would take it home and discuss it with my wife and return back to the architects, but she would not attend the meetings. I used to convey the design ideas both ways.' (ASI)

Indeed, the participatory nature of this project has positively impacted the client's perception of the project, as well as his overall satisfaction with the design: AS1 was part of the design, and the relationship with AS was a collaborative one. This led to AS1's high support of the architect, whilst also allowing for him to feel in a position to criticise or question the design or the process if needed. This could be seen in different statements by AS1, such as:

'I was a partner in the design. All decisions were made together. So, I am responsible for the design as much as the architect.' (ASI)

Another statement supporting such a notion is:

'I was so involved in the design; it was all clear for me. However, there is no perfect design: that is why you need to compromise.' (ASI)

Furthermore, the participatory design spirit was clear throughout in the way both architect and client spoke about their involvement in the design. In this regard, AS1 said,

'There are decisions that <u>we</u> delayed. ..., but <u>we</u> did not come up with a solution, so <u>we</u> did not do it.' (ASI)

AS1 also stated,

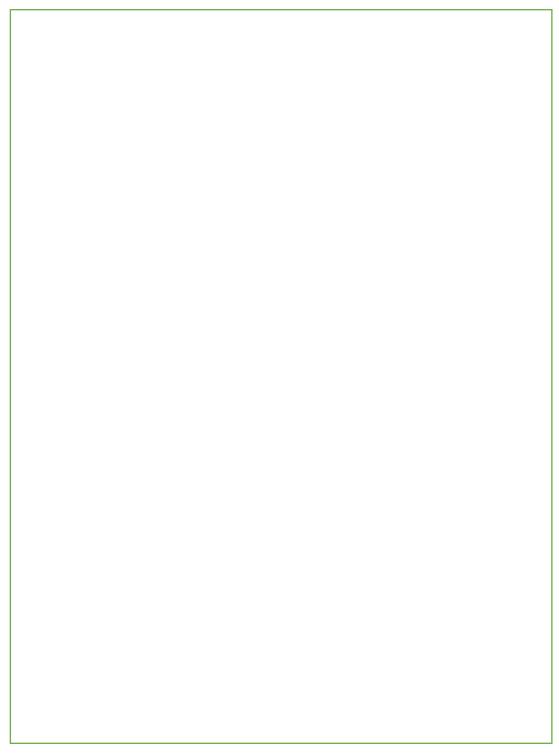
²⁰ Although client AS1 was not asked directly about the reason for not bringing his wife to the architect's meetings, it could be understood from the general cultural context. Architect AS is a 'male' architect, and some people – due to cultural and religious backgrounds- have restrictions of the male-female interactions. Client AS1 is from a conservative background, and this could be the reason for not involving his wife directly in the design process.

'We got to the design that <u>we</u> agreed on. It took so much time and <u>effort from both of us.</u>' (ASI)

Similarly, when AS1 was questioned concerning his satisfaction with the design, his answer was linked to his budget and ability to build: he was overall satisfied with the process and his relationship with the architect, and it was both of these factors that ultimately influenced the way in which he felt toward the design in hindsight. Further, since this is a participatory design project, the client's relationship with the design is very close, and, in turn, he felt more attached to the design considering he was essentially a part of its evolution. Here, AS1 stated,

'I am totally happy. Actually, I am glad that they were very patient with me; I kept altering the design and amending it for more than six months. No other office in Amman would accept that.' (ASI)

Please see **Figure 3-17** for the approved design drawings for the project.



 $\textbf{\textit{Figure 3-17}: Project Approved Design (Modified Scale) - Source: Architect AS's Collection}$

3.4. Case Study Three: The Case of Architect AS and Client AS2

The Demanding Developer

Within this case study, we are dealing with a new construction apartment building, consisting of a basement for services and five residential floors, each with two 150m^2 apartments and one 100m^2 apartment around a central atrium. Notably, the total project area is $3,250\text{m}^2$, as per the design, and the design process itself commenced in 2015. The construction process then started in 2016—and it was whilst this process was still ongoing that the interviews of this study were conducted, in August 2017.

Notably, this case study was selected due to the fact that it demonstrates aspects that emerge when the client is an experienced developer; accordingly, it is a good example of how developers could raise the standards of their projects through including every aspect that the end user would require.

Further, as mentioned in our exploration of Case Study Two, architect AS was approached in May 2017—and, thus, this case study was also chosen from his work. AS2 is, notably, the manager director of LD Company—a new registered housing company based in Amman, Jordan. This is LD's second housing project. Meanwhile, AS2 is educated in electrical engineering, and has 15 years of experience in the construction industry.

As standard, AS confirmed that AS2 was happy to participate, sharing their contact information with me once this consent was obtained. From this point, AS2 was approached and a meeting arranged for at his site office in August 2017. I noted that this office was well- decorated and furnished with modern furniture, a fancy coffee machine, AC, and many project images on the walls.

The interview lasted for a total duration of 60 minutes, during which AS2 showcased a wealth of knowledge and enthusiasm for the project; indeed, in some parts of the interview, it was almost like he was 'marketing' his project and not answering the questions directly. Regardless, different aspects of the housing sector and residential projects were discussed, as well as his own experience in the relationship with the architect.

Armed with the data from the interviews and the drawings from the architect, an attempt to reconstruct the project narrative was underwent. Please see **Figure 3-18** for an illustration of the key events across the project timeline.

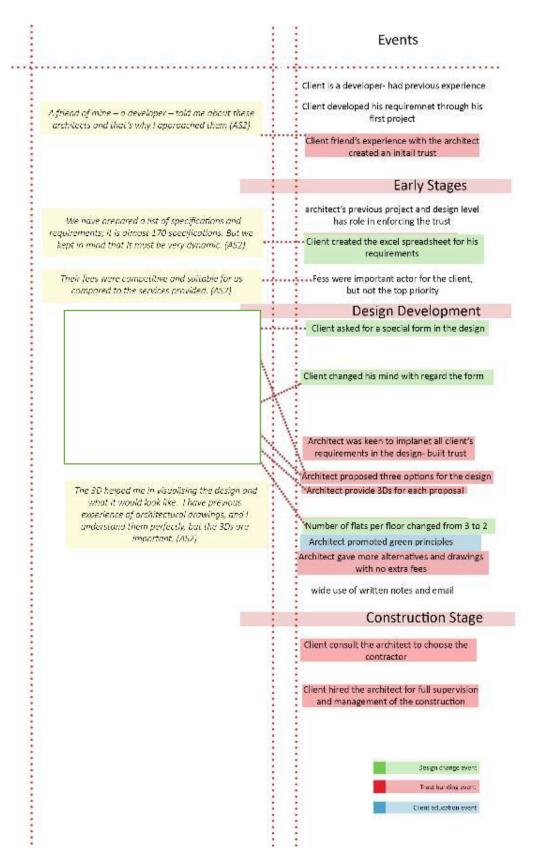


Figure 3-18: Case of AS-AS2—Project Timeline - Source: Researcher

3.4.1. Project Kick-Off

When looking to begin his project, AS2 was looking for an architect who could provide outstanding designs for him, and, in pursuit of this, he asked his friends for recommendations. As a result of this 'word of mouth', AS2 approached AS, stating that,

'A friend of mine—a developer—told me about these architects, and that is why I approached them. When I met them, they gave me different designs, and I felt that they were special and different from [the] other offices I have seen before.' (AS2)

At this stage, the communications that ensued were a tool to market the architect, as well as to agree on the contract. It also clarified the basis that the following interactions would follow. Notably, the majority of these correspondences focused on the contract and the fees. Indeed, AS confirmed the centrality of fees in architect-client interactions, and, even though the fees involved were not of particularly high importance for AS2, it was one of the issues taken into consideration when making the decision to work with the architect. AS2's knowledge of the market made his decision upon solid criteria. AS2 stated,

'Their fees were competitive and suitable for us compared to the services provided.' (AS2)

3.4.2. Briefing and Design Development Stages

It is worth noting that AS2 had previous experience in construction, and was involved in every design decision; and, accordingly, he prepared an Excel spreadsheet with all his requirements—comprised of 170 instructions (please see **Figure 3-19**). Indeed, this document ended up playing an integral role throughout the entire project life cycle: it worked as a controller for the design decisions, a tool to evaluate the success of the design strategy, and an indicator of client satisfaction. AS2 has confirmed that when they prepared this document, they aimed to convey all their aspirations to the architect—and, indeed, it was used on a variety of occasions to ensure the quality of the design. In this regard, AS2 stated,

'We have prepared a list of specifications and requirements; it is almost 170 specifications. However, we kept in mind that it must be very dynamic. If certain things are difficult to implement or apply, we try to amend them while achieving the result that we want.' (AS2)

Indeed, such flexibility between both the architect and the client made this document more vital—and, in a way, more important, as it responded to restrictions and other events on-site,

as well as construction difficulties. Whenever such obstructions occurred, it was amended promptly and accordingly, the document being continually (re)formatted during the design stage. For AS, it functioned as a checklist: it would be checked by him after each stage of the design development—although he did mention that it created some restrictions around the design.

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Figure 3-19: Part of the Client Requirements (The Excel Sheet) - Source: Client AS2

When AS was approached by AS2, he proposed the design idea to be a cylinder core with two wings. After hearing this, AS gathered the necessary data and started the design process, ultimately preparing three proposals: one developing the client's idea; and two developing modern proposals. He prepared plans and 3Ds of all three proposals (**Figure 3-20**). It seemed that this was the first keystone of the trust-building at the beginning of the relationship, as according to AS2, this showed that his decision to work with AS was correct. Here, he states,

'The architect listened to my idea, he sketched it and made drawings of it, then show me its advantages and disadvantages and gave me other proposals. This not only respected my ideas, but it showed me how professional these architects are, their moral standards, and their skills. They gave me developed proposals, not ordinary or repeated ones.' (AS2)

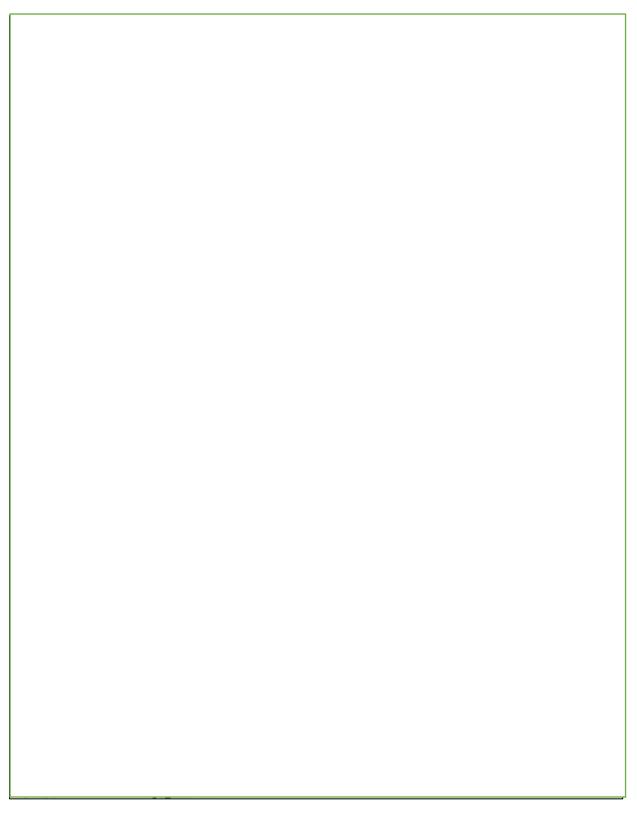


Figure 3-20: Three Design Proposals at Early Stages of the Project (Modified Scale) - Source: Architect AS's Collection

Indeed, after this, AS also showed AS2 the application of his idea, also outlining the advantages and disadvantages of it in order to involve him in the design decisions. Please see **Figure 3-21** for an illustration of one aspect of this comparison between the proposals.

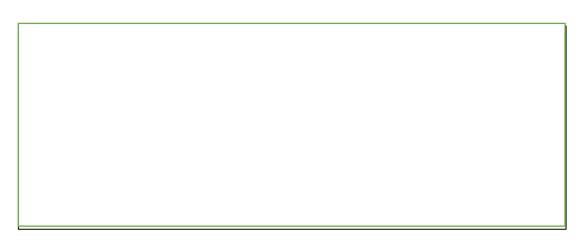


Figure 3-21: Comparison of the Three Proposals with Regard to the Heat Gain - Source: Architect AS's Collection

Upon reviewing these, AS2 decided on Proposal 2 for the final proposal for development—and, according to this decision, the number of flats per floor changed from two to three, in turn also decreasing the area of each flat from around 220 m² to around 150 m². This also decreased the price of each apartment, making it easier to sell and, hence, more profitability in the project.

Both through the design development process and as part of AS's efforts to apply green principles in his design, AS's team aided in refining the specifications of the insulation. Communications surrounding such endeavours were very open and intensive. Indeed, AS and AS2 have confirmed that they met many times, and that this communication was not only in the form of such direct meetings: there was also a flow of communication and information between them through written notes and emails. This was, indeed, reflected in the smoothness of the later stages of the project—as well as in the ultimate satisfaction of the client; indeed, at the same time, AS even stated that these communications were 'more' than what the project needed.

Such intense interactions and client involvement have resulted in the increased usage of visual objects in the design stage—and, just as notably, it also required the architect to prepare more drawings and details. At the briefing stage, plans helped in ensuring that all the client's requirements were applied and were also used as a tool in order receive more specific

requirements from the client. Similarly, AS2 emphasised the importance of 3Ds in the design process, stating,

'The 3D helped me in visualising the design and what it would look like. I have previous experience of architectural drawings, and I understand them perfectly, but the 3Ds are important.' (AS2)

Indeed, the overall quantity and quality of the visual representations AS provided have played a key role in the relationship: this could be seen as a response to the 'demanding client'. Their role was essential in the decision-making process, and ultimately helped in constructing a sense of trust and appreciation.

3.4.3. The Construction Stage

As we have witnessed above, the intensive interactions in the design stage paid off later with smoothness of the construction stage: indeed, the strong trust relationship that had been built through the design interactions led to the later actions by both the architect and the client reflecting the dual understanding and appreciation of the other's role; as an example of this, before the construction phase commenced, AS2 consulted AS concerning the selection of a contractor.

The rigid nature of the communication continued through this stage, and AS has published some pictures of the project during his regular visits to the site on Facebook—and, when examining them, it can be seen that they do reflect the attention AS gave to the project. Some of these posts are in showcased in **Figure 3-22**.

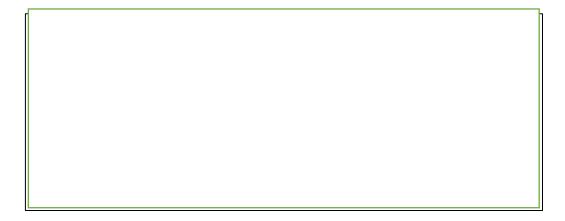


Figure 3-22: Architect's Facebook Posts About the Project - Source: Architect's Facebook Page (Retrieved 24/04/2018)

The trust built through their previous interactions have, indeed, impacted communication with contractors and sub-contractors, such a smoothness creating a space for more rational decision-making, as well as the development of a team spirit amongst the architect, client, and contractor. This was confirmed by AS2:

'We would listen to both: architect and contractor; we work as a team. We all work for the project's benefit; there is no conflicts of interests. We try our best to achieve our goals with regard to quality and time.' (AS2)

Notably, AS2 hired AS for full supervision and construction management on-site, even though he also had his own office on-site and was visiting daily.

3.4.4. Remarks on Case Study Three

It is important to bear in mind that the client's background and education influenced his understanding of the architect's role, and materialised as a driver for shaping their interactions; AS2 showcased a clear understanding of the value that the architect brought to his project. In terms of the trust developed through their interactions: it began at a small-scale before rapidly developing into a stronger, more reliable one as they interacted more. This progressive trust-building was connected to the client satisfaction: the client was satisfied with the process, the efforts made by the architects, and the result.

Through our interview with AS2, it was abundantly clear that he was thoroughly satisfied with the design and overall process, this being reflected in several of his different comments (please see **Figure 3-23**).

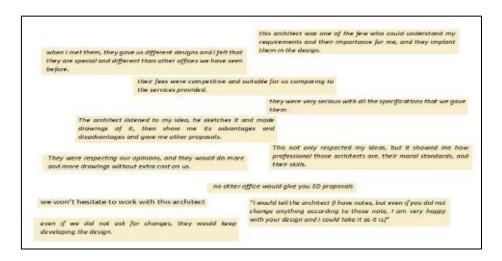


Figure 3-23: Client AS2 Comments that Reflect his Satisfaction of the Relationship with his Architect - Source: Client AS2—Personal Communication (23/8/2017)

It is essential to note that the client in this case study has taken some degree of social responsibility through his design-related decision-making, in turn resulting in better design solutions and potentially resulting in a better-built environment and housing sector conditions.

Indeed, the architect-client relationship here developed from a very professional, formal relationship, to one of a strong, trusting relationship—and this is, according to the client, because of the continuous efforts made by the architect towards enhancing and developing the design.

3.5. Case Study Four: The Case of Architect RL and Client RL1

Long-Lasting Relationship

When it comes to Jordanian residential projects, the design stage usually takes between six to nine months on average (as is the case in the case studies of this research thus far); however, in this case study, the design actually continued to evolve over a six-year period.

In this case, we are dealing with a new-build villa project, consisting of two floors with a total area of 420m^2 (as per the design). The design process commenced in mid-2009, the construction process then starting shortly after in 2010. However, the construction process was paused between mid-2013 and mid-2016, during which time the villa was redesigned. Construction then resumed in 2016, and the villa was approaching completion when the interviews were conducted.

This case study was selected due to the fact that it demonstrates a case where the client was hesitant in his decisions, frequently altering the design due to uncertainty. Thus, the architect's attempt to keep the design coherent and proper was obstructed by a client that kept changing his mind, the design thus reaching a stage where the architect's role was limited to 'draw' the client's continuous changes. Indeed, even during the construction stage, the design was modified, many walls being altered at the client's request during this period.

Notably, Architect RL has a wide experience in practice for more than 23 years, her speciality being in residential projects; she established her office in 2005, and this experience is easy to see in in her designs, relationships with her clients, knowledge of the market, and participation in architectural education.

Meanwhile, Client RL1 is a civil engineer who works in project management; he works abroad, and is married with five children. Notably, RL1 possesses wide engineering knowledge in large-scale projects, and has worked with many architects before. The project is in one of Amman's middle-class areas.²¹

RL was first approached by myself in May 2017 via email, introducing the research project, and she responded indicating her willingness to participate. Thus, a meeting date in August

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²¹ The understanding of Amman's urban fabric as west Amman (the upper-class areas) and east Amman (the lower-class areas) is no longer agreed on. There are some areas in-between that considered 'middle-class areas', and those areas are blended in all areas of Amman.

2017 was agreed upon, and, as standard, an information sheet—including potential case study criteria—were sent to her via email before the meeting date had arrived. She was also asked to identify potential case studies from her practice.

RL's office is a small office, with many previous projects 3Ds and pictures dotted around the place. Notably, the interview itself took place in the architect's office, and, after the consent forms were signed and the research project clarified, a semi-structured interview was conducted for roughly 90 minutes. After this was done, any potential case studies were identified and discussed, RL offering to approach the client to ensure his willingness to participate in the research, as well as to share project data with me (i.e., drawings and notes).

It was later confirmed by RL that RL1 was, indeed, happy to participate, and, after this consent was received, she shared the contact information with me. After this, I approached RL1 by phone and we arranged to meet in the architect's office the following day—as per their request, as he has a meeting with the architect. The interview lasted for 60 minutes, during which a variety of aspects of his own experience were discussed and the client's wide engineering knowledge and interest in the research area was expressed.

After the client's interview, he had a meeting with the architect that I requested to attend—and, during this meeting, the discussions largely centred on the selection of a doorframe. When they started the meeting, they discussed the options verbally before RL printed an AutoCAD plan (black and white on A3 paper), and, from there, they started discussing the plan. After this, RL opened the AutoCAD file on her computer, and the discussion continued on-screen.

Using the data from the interviews and the drawings from the architect, an attempt to reconstruct the project narrative was undergone from here. Please see **Figure 3-24** for an illustration of the key events across the project timeline.

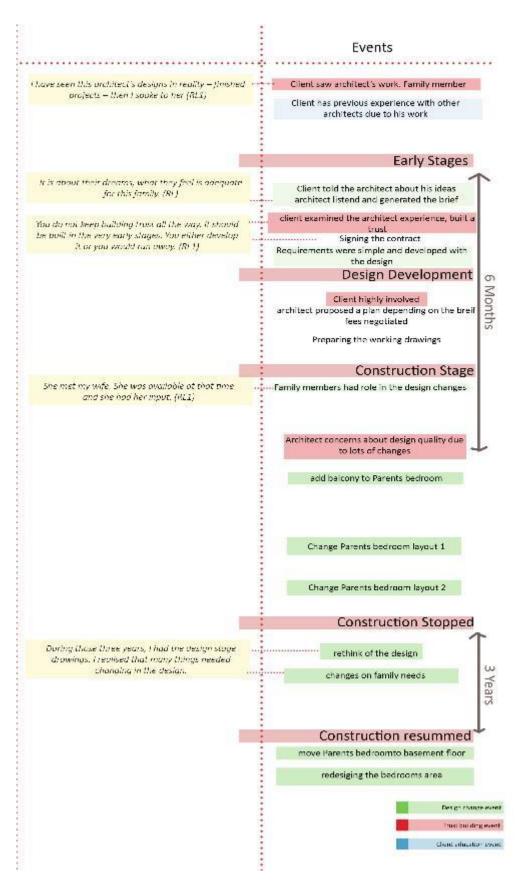


Figure 3-24: Case of RL-RL—Project Timeline - Source: Researcher

3.5.1. Project Kick-Off

When RL1 was questioned on his reasoning for selecting this architect, he responded,

'I have seen this architect's designs in reality—finished projects—, [so] I spoke to her.' (RL1)

Although there is actually a family relationship between RL and RL1, this connection does not seem to have influenced the relationship at all due to RL's conscious effort to separate her personal and professional relationships at all time—during such efforts RL kept all project-related discussions in her office, signed a formal contract with RL1, and charged him as any other client. In this regard, RL stated,

'When I design a house for relatives, sometimes the family relationship interferes, but I try to stick to the work as a job.' (RL)

Upon RL1's first meeting with her, he expressed satisfaction at her experience and knowledge, as this was of high priority considering the client's background as an engineer who has previously worked with different architects in large-scale projects. Indeed, RL1 claims to have trusted the architect. However, this seems to have been based on his evaluation of the architect's previous work, way of thinking, and reputation in the market—not because of his own experience with her. Here, RL1 stated,

'You do not keep building trust all the way: it should be built in the very early stages. Either you develop it, or you would run away.' (RL1)

He also adds,

'During the early stages—the brief stage—I could tell if the architect can do the project or not, all those would be reflected in the project, the experience, the trust, etc.' (RL1)

Conversely, RL believes that trust has gone through cycles of ups and downs—particularly when it came to the design development stage. In her first meeting with RL1, RL explained the timeframe of the design stage, as well as the process in terms of the drawings provided and the design stages that she adheres to. RL1 perceived this as a 'way of educating her clients'. The impact of the architect's efforts here have gone beyond the immediate benefit of the project, as it has helped her build her reputation as a good architect, in turn allowing for stronger architect-client relationships.

Additionally, when asked about the importance of the experience of the architect and its impact on the architect-client relationship, RL1 answered,

'Building a house is a lifetime investment. I will not put it in the hands of unexperienced people. I looked for an architect with many years of experience even that is not a guarantee anyway. I would never go for a very young architect: the probability of not managing the project is very high, and I will not take that risk.' (RL1)

Furthermore, the patterns of communication in the early design stages here were formal and intensive; indeed, considering it is the main influencer of the communications—with the first meeting more like a social chat, where the project, the requirements, the users, the architect, and the budget are informally introduced—, RL confirmed that the social envelope of the project is something that cannot be ignored, clarifying,

'The first meeting is usually about what they are thinking about. I let them speak as much as they want. In the first meeting, I hear from them [concerning what] they want... It is about their dreams—what they feel is adequate for this family; the areas they want, the budget they can afford. In residential buildings, it is more personal and about what they feel—their life. The house is your entire life.' (RL)

3.5.2. The Briefing and Design Development Stages

Over the course of these processes, communication between architect and client continued to happen intensively: when RL1 approached RL, his requirements were simple, and they developed as the design was generated. This was assured by RL1 as he states,

I did not give her a detailed brief; we have developed it together.' (RL1)

Furthermore, since it allows for further understanding of exactly what they are looking for—as well as the fact it gives clients the opportunity to consider different ways that their requirements can be applied—, RL stated that she usually proposes more than one design to her clients:

'I usually try in the second or third meeting to give two options, because it would take you nearer to what the client wants. When he looks at two options, he would say, "this one is closer to what I want".' (RL)

In this project in particular, the briefing, design, and construction processes all overlapped: the design was developing and being altered through intensive sessions of discussions, and

continued to be amended during the construction stage²². This increased the intensity of the interactions and ultimately impacted the quality of design and relationship.

Notably, part of the social envelope of the relationship is the architect-client's family relationship, and, indeed, RL confirmed the importance of meeting family members—the wife in particular—in the early stages of the design process:

'It is much easier to understand the whole issue if his wife is attending the meeting.' (RL)

2D drawings were used regularly in their meetings, and the design was developed via their interactions. Here, RL1 stated,

'The first sketch was so close to what we said in the first meeting and it was developed; the final drawing is extremely different from the first sketch.' (RL1)

Notably, the client's significant background in engineering aided him in understanding the drawings, and so the need for 3Ds was minimal. Here, RL1 stated,

'[I liked] the perspectives when the architect provide them; they helped my wife to visualise the ideas. I think the plans are easy [to] understand... [for] an average person; it does not need an engineering background.' (RL1)

Additionally, RL1 also stated that he did not need much help in visualising his project, and that he thus does not see any importance in using BIM in residential projects. Here, he said,

'I do not think that we need BIM to visualise the design: a perspective is enough. Not because I am [an] engineer: my house is small, my corridors are 1.2 x3 m, [so] why would I need a virtual reality or advanced BIM to visualise it? I think BIM is just a fancy thing, but it is not useful in projects like mine.' (RL1)

3.5.3. The Construction Stage

Considering the construction stage in this case was relatively long (six years) and included many sessions of design meetings, amendments, and changes, communication continued to

²² In principle: construction should follow the planning permission drawings. The practice indicate that clients change the design on site and when it comes to occupancy permission (occupancy permission is given after the construction finished and before occupying the house, this permission is given by the municipality), they will pay a fine.

occur more frequently than usual. Further, as mentioned above, the project's design continued to develop dynamically during the construction stage.

The first design was developed according to RL1's initial requirements, which were approved by him before being developed into working drawings. The construction then commenced accordingly. Some of the design change events are tracked and summarised as follows:

• Adding a Balcony to the Parents' Master Bedroom

The original design had balconies that went through to the living room; however, after finishing the excavation and the super structure, RL1 found that the location of the balconies did not provide any privacy. In addition to this, he also found that a better view from the house would actually be from the parents' bedroom, and so, with this in mind, he asked to add a balcony to his bedroom. This requirement was not mentioned before, views from and into the house not having been discussed during the earlier stages of design/construction²³.

• Changing the Layout of the Parents' Bedroom:

The design of the parents' bedroom was altered several times—these mainly being the walk-in-closet and the bathroom. Indeed, different layouts and proposals kept being brought forward, such constant changes clearly indicating a hesitation in making and sticking to design decisions. Regardless, these amendments were reflected in the construction, walls being demolished, rebuilt, and then demolished again. This, as would be expected, had serious financial implications²⁴, and the role of the architect in this process was limited to drawing and redrawing at the client's request.

• Changes Made during the Break in Construction

As a result of some financial circumstances, RL1 paused the project for a total of three years, during which time RL1 amended the design several times, suggesting new ideas and trying different solutions; he used the drawings to develop his ideas before then discussing them with

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²³ This question the tools used by the architect to clarify the design to the client, if they were suitable, enough and comprehensive. Architect RL depended on the client's engineering background that would help him understand and visualize the design. This could be one of the reasons that she did not use the 3D drawings as much in this project.

²⁴ According to the client, the cost of the design changes was around 12% of the total cost of the construction. Although the client justifies this cost, and think it is acceptable, it is still high figure, and could be avoided in different ways.

the architect. Once this had been done, they would amend it accordingly and RL would prepare a new set of drawings, etc. RL1 states in this regard,

'During those three years, I had the design stage drawings. I realised that many things need changing in the design. After that, when I decided to resume the construction, I thought of the possibility of amending the design. I studied the cost and decided accordingly. I started the changes on paper—not directly in construction. We decided not to change anything in the structure.' (RL1)

• Changing the Location of the Parents' Master Bedroom

Once the construction process had recommenced, the main change was that of the location of the parents' bedroom, which was moved to the lower floor—and, as we can see from the fact that it contradicted all the previous requirements of RL1, this decision was a major one.

Furthermore, the importance of the client's wife's involvement in this entire process was not clear until the construction stage—especially in the design changes after construction was resumed. Indeed, it was her request for a bigger bedroom that greatly changed the design, RL1 in turn deciding to move the bedroom to the basement to make it bigger. This issue was not of high importance before this stage, although this was notably the only design decision made at the request of RL1's family. Here, RL1 stated,

'My wife felt it was too small for us, [and] although I do not agree with her, I respected that. We moved our room to the basement floor and swapped the rooms with the boys: we kept the little boy's room with us in the basement floor; that was the only possible way to have a bigger bedroom. We ended up with this big bedroom [pointing to a plan in front of us], with this generous bathroom, walk-in closet and balcony.' (RL1)

From the above, we can see how fluid RL1's requirements were, as even his basic requirements were flexible and changeable. Indeed, this was reflected further in the design process, as well as the atmosphere the architect was working with.

In a similar vein, despite the fact that RL is an experienced architect, the changes of the design have impacted the quality—which may seem fairly obvious considering changes during

construction will almost always be a compromise²⁵. Nonetheless, RL tried to maintain the integrity of the design, as well as to keep the budget under control. Here, RL1 justified the changes in his project: due to the length of time the project took, his requirements changed. He stated,

'Our needs keep changing and developing. There are many factors that affect what we do, and I think in residential projects this is very normal. Everybody wants to have everything in his own house.' (RL1)

RL1 also brought up one of the examples of interactions in the construction stage here, explaining, 'When we start[ed] construction, I felt that the rooms are small—you know, when you start the construction, it looks much smaller than it is. When I told the architect that, her response was,

'Do not worry, it looks small now, but when we finish it, it will look as designed". I trusted her experience, and she was right: I waited until we finished the plaster and paint, and it was as expected.' (RL1)

Another consequence of the overlap between the design and construction was that RL had to closely follow the work on-site in order to assess the impact of the amendments on the whole design—as well as the possibility of implementing those amendments. Here, RL1 stated,

'When I give her my ideas, she [would] comment on them [and] decide on what is suitable and applicable. She would tell me her concerns and sometimes I agree with her, and other times I do not.' (RL1)

Notably, it is essential to highlight the importance of the architect's role at this stage, as well as RL1's understanding and appreciation of that: indeed, RL1 was very aware of the centrality of RL's job and the importance of her role. Similarly, RL1 commented on the role of contractor as follows:

'They would have the plans from the architect and would work according to them. No changes were made for their work. I would listen to their suggestions, but I would decide if I want to change or not.' (RL1)

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²⁵ An example of that is the design of the balcony of the master bedroom. Because this space was added during the construction, there was a column that affected the space design. Also, the design of the elevation was affected.

3.5.4. Remarks on Case Study Four

During my discussions with RL and RL1, the main question in my mind was whether there was any possible way to minimise the time and changes of this project, or whether anything could have been done (or should have been avoided) in order to improve the outcome of the project. However, after the sessions of interviews, it was clear here what my answer was: it was not about what the architect did or did not, but more about the client's personality itself.

Thus, in this relationship, trust was of the utmost importance: the long relationship could not have sustained itself without trust. RL1 was wholly confident of the architect's ability to deliver the project and fulfil his requirements, and this trust also translated to confidence as RL1 repeatedly claimed 'she can do it'. However, the client's trust was not reflected in giving the architect enough space to do the design, leading to the question of not whether the architect could do it, but whether she could do it *well*. Indeed, even though RL1 stated at different stages that he trusted the architect from the beginning of the project, the design changes suggest otherwise.

Going on from this, the architect's trust in the client is worth examination: RL had concerns concerning RL1's ability to make decisions from the get-go—as well as his following her advice and paying for the extra work. Indeed, RL always had doubts over whether the design would be final at any given point, always expecting RL1 to come back and ask for changes after the matter had been settled. She also knew that she needed to follow the construction very closely, as RL1 may not follow her recommendations after the event.

Despite all the design changes and the length of the relationship, RL1 confirmed that he was happy and satisfied with the process and the result as a whole, stating,

'The architect was very helpful: it is a small architectural practice, and they have the time and the ability to follow the changes. They are more flexible about all the changes and the fees.' (RL1)

Conversely, RL believes that trust relationship underwent through a cycles of ups and downs–particularly during the design development stage.

3.6. Case Study Five: The Case of Architect KB and Client KB1

When a Client Becomes a Friend

This case study was selected due to it demonstrating a case whereby the relationship develops to become one of very close friendship through their communications throughout the project. Notably, this case study involved a new construction villa project, consisting of a basement for services, as well as a ground and first floor. The total area here is 780 m², and the design process began in 2014, construction coming to a close in in 2016. The villa has been occupied since then.

When I first started preparing my shortlist for the architects for my research, Architect KB was on the top of my list: they have been in practice for more than 30 years, and the scope of her office is residential and commercial projects. Indeed, KB is particularly well-known in the residential projects market—particularly when it comes to villa design for the upper middle-class.

Meanwhile, Client KB1 is a pharmacist married to a doctor, and has been living in UAE—as well as some other countries—for a long time. This project was notably not her first experience in construction; as she had built two houses before. She also has three children.

KB was first approached by myself in June 2017 via email, in which I introduced myself and the research project. She responded indicating her willingness to participate, and a meeting date in August 2017 was accordingly agreed upon and arranged for. An information sheet was also provided, including potential case study criteria, via email, prior to the meeting date. She was also asked to identify potential case studies from her practice.

The architect's office is notably part of her own residence: she turned the second floor of her house into a design office, and that and the house entrances are each on a different side of the building, giving the office its own distinct character. Further, the architect office has a space for the meeting, with a table, sofas, and a mini library (**Figure 3-25**). Notably, whilst the other architects share an open-plan office (**Figure 3-26**). Both spaces are full of previous project images, 3Ds, and sketches, giving the visitor an idea about the quality of work delivered at this office (**Figure 3-27**). There were different samples of materials visible in the office (**Figure 3-28**).

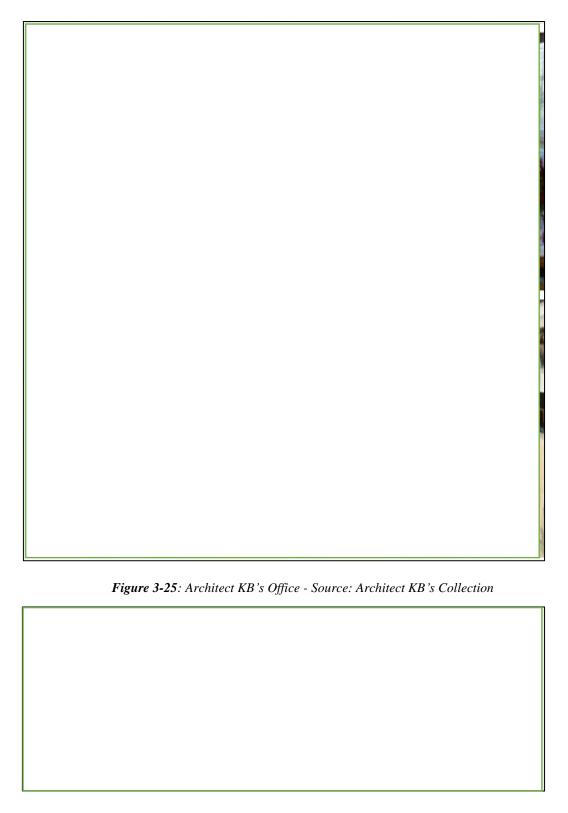


Figure 3-26: Assistant Architect Offices—Architect KB's Office - Source: Architect KB's Collection



Figure 3-28: Material Samples at Architect KB's Office - Source: Researcher

Notably, the interview took place within the architect's office—and, after the consent forms were signed and the research project clarified, a semi-structured interview was conducted for a total of around 120 minutes. During this time, the potential case studies were identified and discussed, KB offering to approach the clients herself to ensure their willingness to participate in the research, as well as to share project data with me (i.e., drawings and notes).

Once confirmation was received that KB1 was, indeed, happy to participate and have their contact information shared, I approached KB1, a meeting at her villa being arranged for in August 2017. This interview lasted for 45 minutes, during which different aspects of her experience in the relationship with the architect were discussed.

Notably, it was a year later (in August 2018) that I travelled back to Amman to validate the first stage of analysis by interviewing KB again in her office, where we discussed the case studies again in light of my first set of analysis.

Through the re/construction of the project timeline, the events through the cycle of re/producing the design were identified and classified into three main categories: design change events; trust building events; and client education events. Please see **Figure 3-29** for an illustration of some of the events through the project timeline.

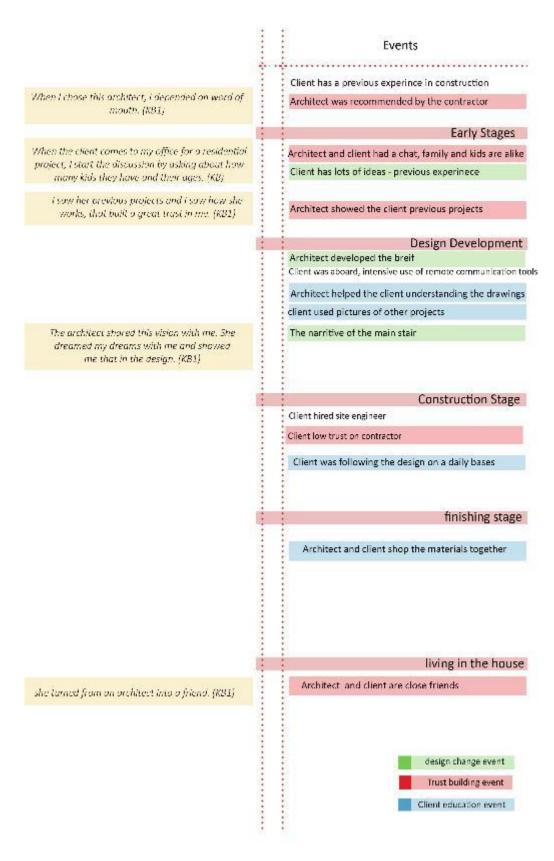


Figure 3-29: The Case of KB-KB1—Project Timeline - Source: Researcher

3.6.1. Project Kick-Off

It is important to note that KB1 was not familiar with the Jordanian architectural market, and so she met with more than one architect. The contractor—who KB1 knew before starting the project—nominated KB, and it was after their meeting that they found they got along together easily and thus decided to begin the journey together. When asked about this, KB1 stated,

'When I chose this architect, I depended on word of mouth. I was living outside Jordan and did not know the market here, so I depended on what people told me... I liked her work; it is complete, elegant, and she knows exactly what she is doing and how to do it. I liked the designs, the image, and the style.' (KB1)

Furthermore, when KB1 approached KB, their communication in the beginning was rather informal: they talked a lot about family and children. Indeed, this was confirmed by KB stating,

'When the client comes to my office for a residential project, I start the discussion by asking about how many kids they have and their ages. This is important to break the ice—and to know for the design.' (KB)

During their first meeting, KB showed KB1 her previous projects, which ultimately aided in building trust and reassuring KB1 of KB's capability to deliver the project from the earliest stages. Indeed, previous projects also reflect the years of experience for the architect. Here, KB1 stated.

'I saw her previous projects and... how she works. That built a great trust in me. I trusted her years of experience. She is not a young architect, and she has been in the market for a very long time—[and] this is what creates my trust as well.' (KB1)

3.6.2. The Briefing and Design Development Stages

Notably, KB translated the first meeting's verbal communications and requirements exchange into programme and zoning diagrams, stating in this regard,

'I would know the requirements through our chat; then, I would do a design and keep asking them. I would write the requirements and draw matrixes and so on from the data I have from our chat. In addition, many clients would bring pictures for the things that they like and prefer.' (KB)

Another point of note is the fact that KB1's previous experience in construction influenced her requirements, expectations, and involvement in this project. Here, she stated,

'This is the third house that I built. There is a Jordanian proverb that I believe in: First house, sell it; second house, rent it; third house, live in it. I have told the architect that this is the house of my life, and I want it to be the best possible. I tried to avoid all my previous mistakes in the previous houses.' (KB1)

Considering she is clearly an experienced client, KB1 found it was easier for her to convey her ideas using visual means. She stated,

'I told her [KB] my functional requirements, and I brought her pictures of what I am looking for. I have helped her by clarifying my preferences, and she would clarify for me what goes with my design and what does not. I trusted her from the beginning, and that made everything easier.' (KB1)

At the beginning of the design, KB1 was outside Jordan, and so she would exchange ideas about design with KB via email, telephone calls, and face-to-face meetings when she so happened to be in the area. Further, KB would send the proposals via email, followed by a video call to discuss the matter. Unfortunately, this type of communication delayed the design at the beginning of the project—but it also gave KB and KB1 enough time to review and comment on the plan's design. This paid off at later stages, as all the plans details had been discussed and agreed upon beforehand.

Please see **Figure 3-30** for an illustration of the different patterns of communications in the design stage of this project.

	Same time synchronous	Different time asynchronous		
Same place collected	Face to face interactions meetings Site visits Material selection			
Different Place remote	Remote interactions Video calls	Communications and coordination Emails WhatsApp		

Figure 3-30: Patterns of Communication in the Design stage in KB-KB1 -Source: Researcher - Based on Classifications of Communication as Design Supportive Tools for Johansen (1988) (as cited in [Norouzi, Shabak, Embi, & Khan, 2015)])

Notably, visual objects were combined with verbal clarification of the design at this stage, which helped KB1 to understand and participate in the design. Indeed, KB highlighted its importance here by stating,

'The way you present your design is very important: it would say more than the design and the drawings. Sometimes I have the design in front of me, and I am clarifying for the client the circulation and the functions—[and] I watch them [and] they do not look at the drawings! They only listen to me.' (KB)

In a similar vein, when comparing the early design stage plans and the approved plans that have been followed during construction, the amendments appear to be minor: KB confirmed that she listens to her clients 'well' and, 'because of her experience', she can usually tell what they are looking for. She stated,

'I would sit with my clients for one or two times, and I would understand exactly what they want. When I show them the first sketch, they would be amazed! And most of the time they would say this is what we are looking for.' (KB)

Please see **Figure 3-31** for an illustration of the ground floor plan in the early stages, as well as that of the plan eventually agreed on.

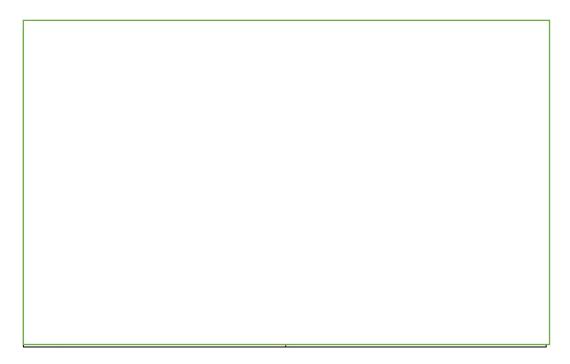


Figure 3-31: Project Stage Plans (Modified Scale) - Source: Architect KB's Collection

Notably, the introduction of the lift core was as per the client's requirements in case they needed to install a lift in the future. Thus, the lift has been accordingly relocated, as shown in the above plans.

It is also important to bear in mind that KB1 also requested changes to the entrance: she has a house in Dubai, and she liked the entrance of that house, thus asking KB to look into doing something similar. Here, KB1 stated,

'I had an image for the house from the beginning: I had a house in Dubai, which I liked. I tried to do something close to it.' (KB1)

The main change at this stage was in terms of its location, as the client felt it important to have the main stair be between the ground and first floors. Indeed, this is part of a narrative that has influenced the project and the relationship, and KB tells the story by saying,

'I want it to be the house of my life, where my daughters will get married; I was thinking of my daughters as brides going down the stairs! The architect shared this vision with me; she dreamed my dreams with me and showed me that in the design. That is why I am telling you she turned from an architect into a friend. When she did the design of the stairs, she was telling me, "I can hear the music and the cheering of the bride!" That made her closer to me. I have invited her to my daughters' weddings, and she saw them coming down the stairs.' (KB1)

As we can see from the above, the design of the main stair and going this deep into the personal life of the client clarifies the social nature of the relationship—and, although a personal relationship is seen as a double-edged sword in professional contexts, in this case study, it seems it wielded an exclusively positive impact. Indeed, KB confirms that when she understands the client as a person, the design typically comes out better than it would have otherwise. KB1 confirmed this by stating,

'Because she got involved in the details of my life, the relationship became very personal. She completely understood what we are looking for, and what we wanted.' (KB1)

Furthermore, although KB1 is an experienced client, she stated that the architect still managed to help her significantly in understanding the drawings—something perceives as being part of the architect's job (to educate their clients). She stated,

'I am not an engineer, but I have a scientific background that helped me understand the drawings. The architect helped me: I used to like 3Ds more—they are easier to understand and help you in imagining the whole project.' (KB1)

She also added,

'I believe that the architect should clarify for his clients whatever they decide on.' (KB1)

In the same vein, KB1 confirmed that she has made an effort to educate herself on this matter in order to help her understand the design and get further involved in the process. Here, she stated,

'I used to pay much effort to understand the plans and the drawings. It was not easy. I used to ask the architect about everything that I did not understand.' (KB1)

Furthermore, KB clarifies the use of visual objects: 2D drawings are used first, being manual, coloured, computer-generated drawings. KB notably used colours to indicate the plan's elements (doors; walls; windows)—a method used to educate the client and help her read the plans easier. KB clarified this by stating,

'I would make an initial sketch; then, I would draw it on AutoCAD [and]... colour it. When the client sees a coloured plan, he/she would be more interested than a black and white one. I colour the walls in dark blue, and the windows in red. The colours... make it easier for the clients to understand.' (KB)

Additionally, material samples were used frequently in the design and finishing stage; KB and KB1 would visit material shops together and discuss the samples. This was clarified by KB, who stated.

'It is much easier to show a sample instead of verbal clarification: it helps in accelerating the decision-making, and helps the client to understand and imagine the material and how it will look. In addition, I show them pictures and photos. Even before I start the design and after we have talked in the first meeting, I would show them pictures of the things that I understood as their preferences so I [can] ensure I did not misunderstand them.' (KB)

3.6.3. The Construction Stage

During the construction stage—particularly the structural stage—, KB1 was not involved due to the fact that she depended on the site engineer and architect to manage the quality of the work. When KB1 was asked on whether she listened to the architect or contractor more, she responded,

'I used to listen to the architect; I liked her more. Maybe being a female could be a factor. It was easier to call her and talk to her than talking to the contractor. I trust her.' (KB1)

Furthermore, considering KB1 was not in Jordan at the beginning of this stage, she hired a site engineer to follow the site work for her. After a while, KB1 moved to Jordan, and from there, she was following the design and construction on a daily basis.

3.6.4. Remarks on Case Study Five

An essential aspect of this case study in particular is that KB and KB1 became close friends as a result of their interactions around the project: KB's way of breaking the ice with KB1 was through talking about family, kids, hobbies, etc., and this ultimately helped in building a base for the relationship to develop into a friendship later. Indeed, even after the completion of the project, the relationship between them continued, KB always being invited to KB1's house she for celebrations, feasts, and other social activities at the house. KB1 would also visit KB in her house and office from time to time, and, when KB approached KB1 for participating in this research, KB1 replied positively—simply because the request came from her 'friend' KB.

Indeed, this foundation of trust developed for both KB and KB1 from an early stage: the architect's responses to client requirements were highly appreciated, and KB1's understanding, involvement, and comments on the design were similarly appreciated by KB. Indeed, this could be easily perceived across the project life cycle. Despite all of the above, however, when KB1 had a new commercial project, she did not approach KB—which could be seen as a drawback in the trust.

Bearing in mind the fact that KB1 was very precise in her requirements and was looking for a certain image (that KB ultimately achieved in this project) client satisfaction was impressively high here. This satisfaction was evaluated in the design and the process, and it was clearly found that KB1 was very happy with how the relationship had developed and how it had turned into a friendship. Indeed, KB1 sees the architect's experience as key to a good relationship that develops for the success of the design and the project. This all aligns with KB's aims for a satisfied client: the importance of client satisfaction is not only in achieving the best possible design for the client, but also for the architect's benefit, since when a client is satisfied and happy with the design, They would market the architect and, in this way, the architect would have more clients. KB confirmed the importance of satisfying the client for her, stating,

'This is very rewarding for the architect: it is, in a way, more important than the fees.' (KB)

Indeed, this appears to be true: KB1 mentioned that she recommended KB to other people when they asked for her opinion on architects, stating,

'I have a brother-in-law who wants to build a house, and I recommended the architect for him; he also liked the design of our house. There are many people who asked me about the architect, and I have told them.' (KBI)

On this note, KB also added,

'It is a real happiness when you see it after construction and when you become a good friend of your client. You become a member of the family.' (KB)

3.7. Case study Six: The Case of Architect KB and Client KB2

A Client for the Third Time

This particular case study concerns a new villa project with an approximate area of 600m²; the villa consists of two floors: a ground floor for bedrooms and services, and the first floor for living, guest rooms, dining room, and a kitchen. The project is currently at the finishing stage²⁶.

Client KB2 is a businessman and, because of his experience in a range of architectural projects (namely residential and commercial), he has gained a relatively good expanse of knowledge in architectural design, reading drawings, and construction. KB2 is notably married with three daughters, and this villa is his fourth residential project; his plan is to have it as 'a house for the rest of my life'. KB2 has worked previously with architect KB in a villa proposal in 2005—then in an interior design for an apartment in 2011.

As mentioned in Case Study Five, KB was approached in June 2017 by myself, and this case study was selected from her work; as standard, KB confirmed that KB2 was happy to participate and have his contact information shared. Thus, KB2 was approached and a meeting at his office was arranged in August 2017, the interview lasting for a duration of 30 minutes—within which different aspects of his own experience in the relationship with the architect were discussed.

Further, using the data from the interviews and drawings, an attempt to re/construct the project timeline was undergone, the events through the cycle of re/producing the design being identified and classified into three main categories: design change events; trust building events; and client education events. Please see **Figure 3-32** for an illustration of some of the events through the project timeline.

²⁶ At the time of the first round of data collection in August 2017.

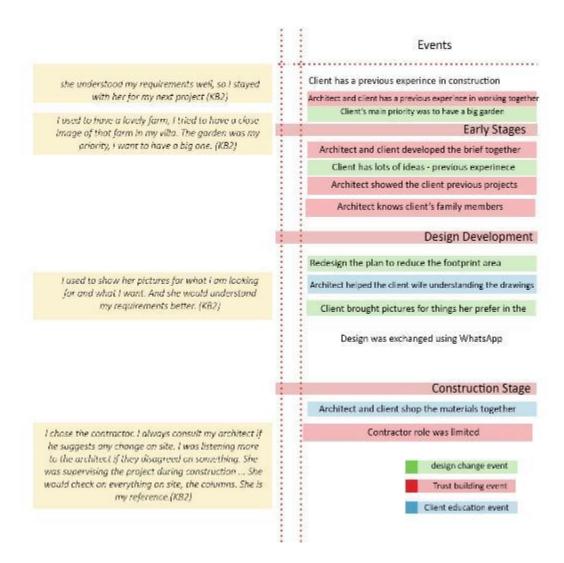


Figure 3-32: Case of KB-KB2—Project Timeline - Source: Researcher

3.7.1. Project Kick-Off

It is important to note that KB and KB2 actually have a long-lasting relationship that goes back to 2005, when KB2 approached KB for a villa proposal: at this time, drawings were prepared, but a change in KB2's personal circumstances led to his postponing the project. It was in 2011 that he approached KB again for an interior design job for an apartment—and then again in 2016, this time for this villa design. KB2 confirmed that he 'was very happy and she understood my requirements well, so I stayed with her for my next project'. He added,

'The way and process of design is matching what I want. In addition, my taste in architecture and my preferences match her.' (KB2)

Thus, as a result of their previous relationship, there was a shared understanding of what the client wanted and how the architect worked right from the beginning of the design of this project. This relationship so happened to also extended to include his family (wife and daughter), and so the architect's understanding of the family also helped her in defining their preferences at early stages. KB2 highlighted this point by stating,

'[The personal relationship impacted the relationship] in a very positive way. She would understand our lifestyle. In addition, [she wouldn't have known] all these issues... if she [had] not interact[ed] with my wife [and] my daughters.' (KB2)

3.7.2. The Briefing and Design Development Stages

A variety of tools and communication methods were used to develop the brief—and, when KB2 was asked about the data he provided to the architect, he responded,

'The theme I want—the basic requirements. As I told you before, the garden was my priority; therefore, I asked for two floors instead of one so I can have a bigger garden and a swimming pool. I have three daughters, so I asked for a provision for what to do when they get married and leave the house. I thought of the flexibility of the design and what to do in the future.' (KB2)

At the beginning of the project, KB2's main priority was to have a big garden—hence why he asked for a two-floor villa. Notably, the development of the brief continued to occur during the design stage, and, according to KB, some requirements would not be clear for the client until they first see the plan. KB clarified this by stating,

'There are requirements that the client does not recognise until he sees the relationships in the plan.' (KB)

Comparing the plans at different design stages appears to provide a wealth of insight: at the first stage, the drawings showed a large footprint, and the relationship between the indoor and the outdoor is not clearly demonstrated (**Figure 3-33**); however, after sessions of negotiations, the design of the plans was developed to be more compacted, leaving extra area for the garden and a larger provisioned area for the swimming pool. Clear indoor-outdoor connections are also shown (**Figure 3-34**).

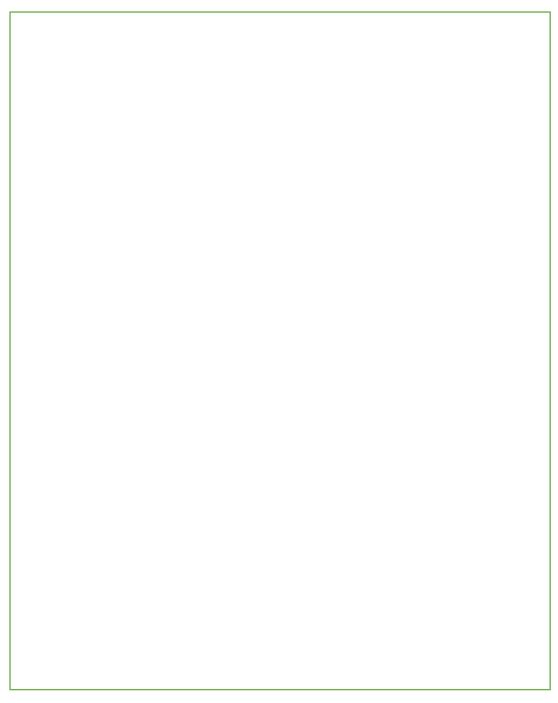


Figure 3-34: Approved Plan (Modified Scale) - Source: Architect KB's Collection

Notably, the design underwent various cycles of development. Both client and architect would meet frequently, and design ideas were constantly sent to KB2 as soon as they developed. For example, KB would send the sketch to KB2 using WhatsApp (**Figure 3-35**)—i.e., she would not wait until their next meeting.



Figure 3-35: Using WhatsApp to Communicate Design Ideas -Source: Researcher

Notably, KB used to prepare drawings prior to their meetings—AutoCAD 2D drawings that she would then colour manually. In many of these design meetings, KB would allow KB2 to participate in the design generation by showing him other design solution that could be applied, using tracing paper and manual sketches. Such freehand sketches (**Figure 3-36**) appeared to have helped in approving the design quicker, as the design alterations could be done whilst KB2 was still in the office and able to give his feedback immediately. KB2 remarked on the use of different visual drawings, stating,

'She will print them [the drawings] and we will discuss them on paper—and then she will amend them and reprint them again. We used to see plans and 3Ds, all printed. For the plans, I preferred them to be furnished, with dimensions.' (KB2)



Figure 3-36: Freehand Sketches—KB-KB2 - Source: Researcher

Indeed, 3D drawings were widely used within the communications, and these were also used by KB in a later stage of design after approving the plans. Here, she stated,

'I need to get their spatial requirements and zoning. This is the most important. I always assure them that the 3D and the image would be perfect, but at this stage, let us concentrate on the plans.' (KB)

Conversely, KB2 preferred the 3Ds from the beginning of the project:

'[I preferred] the 3Ds; I wish... they were available from the beginning of the design. They help in clarifying all the project aspects. In addition, I can make my decisions better—even [those of] the interior. The 2D is good, but the 3D is much clearer and better. (KB2)

In addition to project drawings, both KB and KB2 used other visual objects (e.g., pictures and photos) to communicate their ideas, which were shared in both printed and digital form. Additionally, samples were highly used in the discussions around finishing materials.

3.7.3. The Construction Stage

As confirmed by both KB and KB2 in this case study, the contractor's role was limited to applying the design:

'I do not allow the contractor to interfere in the design. If he wants to suggest anything, I tell them [contractors] to speak to me first before speaking to the client. In addition, I tell my client to come back to me if he or the contractor have any notes.' (KB)

In the same vein, the client stated,

'I chose the contractor. I always consult my architect if he suggests any change on site. I was listening more to the architect if they disagreed on something. She was supervising the project during construction... She would check on everything on site, the columns. She is my reference.' (KB2)

3.7.4. Remarks on Case Study Six

As a result of their healthy relationship and interactions, the personal relationship's importance is very clear, ultimately influencing and enforcing the trust experienced here; indeed, it was KB and KB2's previous experience of working together that ensured the relationship was already developed before starting the journey of design.

When it comes to client satisfaction in this case study, a high degree of this could be perceived from the early design stages, through to the very completion of the project; the previous experience of KB and KB2 gave a boundary for expectations, and this influenced the later relationship and outcome. Indeed, KB2's satisfaction could be seen through his comments:

'She tried her best to make a design that would satisfy me as a client, without compromising the quality... I am very satisfied with the design now. It reflects all... I want... I felt that this architect did a great job in my project. She exceeded even my expectations.' (KB2)

3.8. Case Study Seven: The Case of Architect DK and Client DK1

When the Client is a Developer

Before we delve into the relationship experienced in this case study, we first need to contextualise it with the wider recognition that it is only a stage of a longer relationship that actually begun in previous projects and continued after the completion of this one. This case selected due to it demonstrating the growing percentage of developer-led housing projects in Jordan. Notably, this project is considered as a typical apartment building in terms of design and standards.

This is a new construction developer apartments' building, the project consisting of five floors, with three apartments on each floor. The total area is roughly 2,100m², being in one of Amman's upper middle-class areas. The design of the project commenced in August 2014 and the construction started a little over a year later, in September 2015²⁷. This closed in March 2017, the project being in the marketing and selling stage when the interviews were conducted.

Notably, Architect DK has been in practice for around 20 years, working in different large architectural firms in Jordan before starting her own architectural office. She works in specifically residential and commercial projects, and is also a part-time lecturer at different schools of architecture in Jordan.

Meanwhile, Client DK1 is a civil engineer with 30 years' experience; he has worked as a contractor since the 1990s, and has recently started his own housing developing company. He is also the contractor for his own projects.

DK was first approached by myself in May 2017 via email, introducing myself and the research project as standard. Once she responded indicating her willingness to participate, a meeting date in August 2017 was agreed upon and arranged for, and, as usual, an information sheet including potential case study criteria were sent to her by email prior to the meeting date, asking her to identify potential case studies from her practice accordingly.

The interview took place in the architect DK's office, upon entering which I noticed lots of materials samples and previous projects pictures in the assistant architects' office (**Figure**

²⁷ The delayed construction starting time was due that the client was securing the enough funding for the project and not due to any delays in the design.



Figure 3-38: Architect DK's Office - Source: Architect DK

Throughout the interview, a range of potential case studies were identified and discussed, DK offering to approach the clients themselves in order to ensure their willingness to participate in the research, as well as to share any relevant drawings and notes with me.

Indeed, it was some time later that DK confirmed DK1 was happy to participate and have their contact information be shared. Once this go-ahead was received, DK1 was approached and a meeting at his office was arranged for in August 2017. Notably, the interview lasted for a total duration of 30 minutes, different aspects of his own experience in the relationship with the architect being discussed, as well as the construction industry itself.

From this point, armed with the data garnered from the interviews and drawings, an attempt to re/construct the project timeline was undergone, the events through the cycle of re/producing the design being identified and classified into three main categories: Design change events; Trust building events; and Client education events. Please see **Figure 3-39** for an illustration of some events through the project timeline.



Figure 3-39: The Case of DK-DK1—Project Timeline - Source: Researcher

3.8.1. Project Kick-Off

As a result of their interactions within previous projects, the relationship between DK and DK1 was developed as a professional yet long-lasting one, indicating that trust had been previously developed. DK clarifies this by stating,

'He is a client who has worked with me before, and he come back for a new project—[he is] repetitive client. When the client knows me, or [has] worked with me before, there would be chemistry between us. The work with him would be easier because there are common points that we both know: he understands me, and I understand his style and his needs. (DK)

Furthermore, when DK1 was asked, why he chose to work with this architect, his prompt response was,

'We have worked together before, and I liked the way she works on and it matches what I was looking for. She also gave me a competitive price for the fees.' (DKI)

He justifies his answer by clarifying the fact that he values the fees and design quality when it comes to choosing an architect who harbours the same values. He remarks,

'As a developer, the fees are very important. This project is [an] investment, and everything paid is important to take into consideration. If it were for my own house, I would give more attention to the architect's choosing and... [would] not think of the fees as an essential factor. However, in this investment case, I would give the quality of the design and the design fees the same attention.' (DK1)

As a result of the fact that this relationship was long-term, there was no need in the beginning of this project to have many introductory meetings; from the first meeting, they started discussing the requirements and commenced work on the brief. Here, DK1 shared his vision and requirements with DK, stating in this regard,

'I had an image in my mind; I told the architect about it, and she developed something matching what I have asked for.'
(DK1)

It was also at this stage that verbal communications were most dominant, the architect's previous projects also being used to show the client some design ideas.

3.8.2. The Briefing and Design Development Stages

From the very beginning of these stages, the requirements were clear: DK1 conducted his market study and decided on the requirements he was looking for in accordance with market demand. There was also a previous understanding of the process of the design, as well as the data required to start the project.

Accordingly, communications at this stage largely centred around analysing the site forces, as well as the way in which they could utilise the maximum area for the project. During the early meetings, DK1 asked for three apartments on each floor, these requirements then being translated into a brief developed by DK and DK1. Here, DK1 clarified how did he decided on the project program, stating,

'I did not give her written requirements, but we developed the brief together. The areas that I am looking for, the spatial requirements... It all depends on the location of the building. Some locations require minimum areas and special interior requirements, so according to our understanding of the location and the market, we decide. We try to do something that match[es] a wider spectator of people.' (DK1)

It was also at this stage that DK and DK1 would meet on a weekly basis to discuss the design development, planning permission procedures, and any changes to the requirements.

Furthermore, as a result of the regulations of the parking lots²⁸ needed for the apartment building (15 parking lots, as per the initial design), DK1 asked DK to change the design into two apartments per floor so he could reduce the parking lots needed to 10 parking lots. DK obliged, and the design was promptly amended according to this request. Bearing this in mind, DK1 also redid his feasibility studies and accordingly decided to pay the fine for the parking lots, asking DK to amend the design to three apartments per floor again.

Although DK1 is considered an expert in construction-related issues, he has stated that he found himself amazed by the solutions DK was developing to generate better designs, taking into consideration all site forces, regulations, and requirements.

²⁸ The regulation of the buildings in Amman was requiring one parking lot per apartment regardless the area of the apartment. In case the developer could not provide this parking lots, he would pay a fine. Later in 2017 the regulation was amended, and no planning permission is approved without providing the need parking lots.

During the preparation of the final working drawings, DK confirmed that she needed to prepare a 'quantity' of design details and drawings to show to the client in order to justify the fees, as well as to show him her efforts in a 'material' form.

It is worth noting that the client's experience was a key influence in the visual tools used: DK1 confirmed that his knowledge helped him in understanding all design aspects, and that here, he preferred 3Ds considering they would help in conveying the design ideas. Here, he stated,

'Because I am an engineer, it was easier to communicate and understand what the architect is doing and developing... I would prefer 3Ds: the image, then, would be clearer for me. I do understand plans perfectly, but 3Ds are great to understand the image of the building.' (DKI)

Within this case study, material samples were used in order to decide which details of the drawings would be required for the project. Please see **Figure 3-40** for an illustration of some of the samples at the architect's office.



Figure 3-40: Material Samples in the Architect DK's Office - Source: Researcher

3.8.3. The Construction Stage

Considering DK1 is the contractor, the interactions with the architect continued to occur over the course of the construction stage, and, although DK did not supervise the construction after the structure stage, DK1 would still meet with her on a monthly basis to ask for detail drawings, as well as to update her on any changes on-site.

One such design change that occurred during the construction stage was that of the merging two flats on the first floor, these flats later being sold after the super structure stage to one end user, who asked to have them as one bigger flat. This redesign was done by DK over the course of the construction stage, and DK1 relays this as follows:

'He asked for some changes in the layout, and we did what was applicable and what we could do. I did not consider the flexibility of the design from the beginning of the project, but when a client come[s] and ask[s] for changes, we... try our best to do what is applicable.' (DK1)

Indeed, by understanding the limited nature of the role of the architect when it comes to providing the design drawings and supervising the super structure stage, we can in turn understand the impact of the end user. Then, at the stage where the end user is part of the project network, the architect role is finished; and, because of the end user requirements, DK and DK1 came together again and amended the needed layout at a later date.

3.1.1 Remarks on Case Study Seven

Depending on whether one looks at it from the architect or client perspective, the impact of the architect-client personal relationship can be seen very differently; however, they both worked on maintaining the professionalism of their relationship. From DK's viewpoint, the personal relationship did not impact the design itself; however, it did impact the relationship and the communication around the design, which, if things were to not run smoothly, could result in a stressful atmosphere for the relationship and the project. From the client's perspective, working with the same architect for a long time would lead to the architect taking the client for granted.

Indeed, from DK's point of view, the trust experienced in this relationship was very high from the onset—and, indeed, DK1 also clarified that he trusted DK to deliver the design drawings. However, they also note that this trust faced a turning point when he got the detailed working

drawings at a later stage: he was unhappy with the quality and quantity of the details. He advises in regard to repeating clients,

'If the architect is working with the client for the first time, he would pay more attention and efforts in the design, and he will provide more drawings and details. Once they know each other and became friends, he won't pay as much efforts as before.' (DK1)

Chapter Four

Patterns of communication in architect – client interactions

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4. Chapter Four: Patterns of Communication within Architect-Client Interactions

4.1. Introduction

Architect-client patterns of communication over the curse of the project lifecycle have been investigated in light of the seven case studies; indeed, communication channels are variable when it comes to the design process, and this is seen to wield an impact on the overall architect-client relationship.

Furthermore, in order to answer the research question (i.e., how the architect-client relationships are developed and sustained through the project lifecycle), this chapter is formed into nine sections: Sections 2 to 6 follow the patterns of communications from the initial stages of the project/relationship, up until the point of the construction stage. Indeed, this following of the communications highlighted a multitude of aspects of the relationship discussed in Sections Seven, Eight, and Nine. Meanwhile, Section 7 surveys at the social dimension of this professional relationship by looking at the personal relationship impact, friendships, within the professional context, and trust as a pillar of the relationship. Following from this, any knowledge gaps, as well as the clients' education and learning, are discussed in the eighth section. Our chapter then closes with Section 9, whereby we discuss the satisfaction experienced through the responses from the architects and clients. The importance of this chapter lies in the fact that it reveals aspects of the current architectural practice within the context of the Jordanian residential projects, in turn helping in understanding the contemporary practice and, in turn, supporting the argument of the necessity of research in this area.

4.2. The Architect and the Client

When viewing the architect-client professional relationship from the angle of how it was initiated, we can understand any later aspects of the relationship better; this is as a result of the fact that an essential part of the relationship is constructed at the very beginning—before any drawings or sketches have been generated (Pressman, 2006).

On an international basis, architects are not always involved in residential projects, the UK being an example of this (Samuel, 2018)—and this, as expected, creates challenges in terms of the quality and delivery of the project (Dansoh & Frimpong, 2016). However, this situation is different in Jordan, as here, the 'Law of Urban and Rural Zoning and Building No 79 of the Year 1966' and the 'Regulations of Zoning and Building of the City of Amman No 28 of the Year 2018 and Amendments' are applied. These regulate all aspects of construction within Jordan. Indeed, here, Article 55-A of the Regulations of Zoning and Building of the City of Amman No 28 states,

'Planning permissions may only be issued according to engineering drawings issued by an authorized design body or an engineering office registered with the Jordanian Engineers Association and approved by them and complying with the technical codes and requirements stipulated in the approved building codes.' (Greater Amman Municipality, 2018)

In other words, this article states that 'stamped drawings' from an architect's office are required in order to build anything in Amman. Hence, the choosing of an architect is one of the most important decisions the client faces at the onset of the project (Frimpong & Dansoh, 2016). Indeed, here, a variety of scholars have researched the criteria clients should consider when selecting their professional serveries providers (Cheung, Kuen, & Skitmore, 2002; Day & Barksdale, 2003; Duhan, Johnson, Wilcox, & Harrell, 1997; Kugyte & Šliburytė, 2005; A. A. Oluwatayo, 2016; Rönn, 2014). Here, the American Institute of Architects (AIA) has highlighted three criteria for the selection of an architect: Value-Based selection (VBS); Cost-Based Selection (CBS); and Qualifications-Based Selection (QBS) (A. A. Oluwatayo, 2016). Indeed, these criteria centre on the job required, and not any other factors that may influence the relationship at hand. As we can see from the above, the task of selecting an architect for residential projects is no easy feat: this is exacerbated by the fact that the majority of the time, the clients are also inexperienced, and this project could be their first—and last—ever project (Dansoh & Frimpong, 2016; A. A. Oluwatayo, 2016). Indeed, here, research indicates that it is

not only the quality of the architectural design the architect delivers that matters, but also the personal impressions given off (Lawson & Pilling, 1996).

Here, Dansoh & Frimpong (2016) state, 'A good architect, from the client's perspective, is one who is a teacher and a team player, and one who is willing and able to provide an all-inclusive professional service' (Dansoh & Frimpong, 2016, p. 20). Indeed, such a notion was supported by the feedback from the clients of this research, whereby the architect's efforts were highly appreciated and ultimately influenced the clients' evaluation of the relationship. For example, Client AS2 from Case Study Three (AS-AS2) stated in this regard,

'This architect was one of the few who could understand my requirements and their importance for me.' (AS2)

Generally speaking, it was found that clients would typically make their decision concerning the selection of the architect with the help of others: clients would discuss their intention to build a house alongside their family, friends, and colleagues, and would ask them for recommendations for different services related to house construction—including recommendations for architects. Indeed, in the context of our research case studies specifically, the answers to the question of why they chose this architect could be categorised into five categories (please see **Table 4-1**).

Table 4-1: Choosing the Architect in the Seven Case Studies - Source: Researcher

Clients' Answers	Case Studies
Family Connections/Relationship	RB-RB1 / AS-AS1 / RL-RL1
Office Reputation	RB-RB1 / AS-AS2 / RL-RL1/ KB-
	KB1
Architect's Fees	AS-AS2 / DK-DK1
Repeat Client	KB-KB2 / DK-DK1
Word of Mouth/Family and Friends'	AS-AS1 / AS-AS2 / KB-KB1
Recommendations	

The first answer is via family connections—a route that is highly connected with Jordanian culture, whereby the family, extended family, and even the geographical area that a person comes from, will impact their ultimate decisions. Indeed, as we can see from the above, it is not always the professionalism of the architect that is of the highest importance, but also their social connections. This comes about as a result to several reasons: firstly, they may receive a

'better' offer in terms of fees (or the design would be done for free²⁹); or, alternatively, they may simply trust the architect more. Furthermore, social pressure may be a factor here, as this would direct the client to work with their 'relative' architect³⁰. Indeed, within Case Studies One, Two, and Four, both the architects and the clients possessed a family connection—either through direct or indirect family members. In Case Study One (RB-RB1), Architect RB worked in one of Jordan's oldest architectural firms, and was thus held in good professional standing; however, when Client RB1 was asked why she chose this architect, her answer spanned three main reasons (not just the architect's impressive reputation): family connection, previous projects, and office reputation. Here, Client RB1 stated,

'She is from my family. I have seen her work in my brother's house, which I liked. I was very confident that she would deliver a good project. Her office is well-known, as well.' (RB1)

Meanwhile, in Case Study Two (AS-AS1), Client AS1 was aware of the family relationship impact on his decision: he mentioned he did his research before approaching this architect. Alternatively, in Case Study Four (RL-RL1), the client did not mention any family relation between himself and the architect.

As can be seen above, office reputation was also found to be of high importance when it comes to hiring architects, such a finding supporting those of other research (e.g., (Frimpong & Dansoh, 2016; A. Oluwatayo et al., 2014). Indeed, when the office is well-established and has been working in the market for a considerable amount of time, it will gradually reach a larger number of clients—and, in some cases, it may direct certain groups of clients to the office. For example, in Case Studies One, Three, and Five, the office reputation was an important factor for the clients when it came to choosing their architects; for instance, Architect RB in Case Study One (RB-RB1) confirmed her office's reputation as one of Amman's most prestigious practices has wielded an impact on the clients who come to their office.

On this note, Architect FB has also highlighted the way in which the quality of work, fees, and office reputation have an impact in directing clients to him: he clarified that when he started his office, different types of clients would come to him compared to those who would come

²⁹ The family connection affects the fees aspect of the relationship as well. Architect AS mentioned in his interview an incident of a family member who approached him for a residential project. He stated that he did the project free, because it is for a family member.

³⁰ This cannot be generalised, and the intention is not to suggest that this is overtly negative.

today. Even then, he tried to keep his architecture 'proper' and would not allow for any compromises when it came to quality or fees. This indicates that, in some cases, architects are also selective of the clients they accept in the same way that clients will be cautious with their selection of them (Architect FB, personal communication, 6/8/2017). Indeed, this correlates with the UCL 2016 study (Murtagh *et al.*, 2016).

As can be seen above, an architect's fees_also play a role in architect selection; indeed, the current state of the profession in Jordan—as well as the wider regional economic situation—add a high degree of importance to this factor. Indeed, it was found that fees are not of central importance for the case studies of this research, the majority of the clients stating that this was due to the project's importance to them personally—as well as because they viewed it as a 'lifetime project' and, hence, worth the investment, other factors in turn taking higher priority. At the same time, it was found in the developers' cases studies (namely Case Study Three and Seven), the architect's fees did, in fact, play a role in architect selection.

Another element that may come into play during architect selection is that of whether they are a repeat client, whereby the architect and the client have previously worked together on a separate project. There are many underlying aspects that have been taken for granted in this case: for example, the trust would be developed through their previous interactions³¹, such as in Case Study Six (KB-KB2), whereby the client's previous positive experience in working with the architect was his first motivation in working with her again. Indeed, this previous experience resulted in a mutual trust and harmony within their communications, turning them into successful working partners. Meanwhile, in Case Study Seven (DK-DK1), Client DK1 is a repeat client, and, as a result, there was a previous understanding of the process of the design and the data needed to start the project—to a certain degree.

Following from this, it seems the most common reason for selecting an architect is that of word of mouth³²; indeed, this supports the findings of a range of other studies (e.g., (Duhan et al., 1997; Frimpong & Dansoh, 2016; A. A. Oluwatayo, 2016). Specifically in the study of Duhan *et al.* (1997), it has been suggested that clients will often look for recommendations from their family and friends for services providers that they trust, in turn basing their selection of their

³¹ the trust could be changed and challenged in the new relationship as in case study seven.

³² Word of mouth recommendations could be classified into two categories, depending on the relationship between the decision maker and the recommendation source: strong – tie sources (Family and friends) and weak – tie sources (acquaintances and strangers) (Duhan et al., 1997).

architects upon such recommendations (Duhan et al., 1997). Indeed, people highly value what others have to say about their own experience with a service provider, and, in some cases, 'perception is more powerful than fact' (Arredondo, 1991 [as cited in (Dansoh & Frimpong, 2016)). Indeed, residential projects are of particularly high importance for the client, and it was found that people would discuss the different aspects of their project with their family, friends, colleagues, and even strangers over the course of the process³³. Likely as a result of such discussions, clients would tend to mix their personal emotions toward someone (in this case, the architect) with the professionalism and the skills he/she has³⁴, potentially resulting in a very subjective opinion directly connected to the experience of that person. Nevertheless, word of mouth was an overarching reason for architect selection in the majority of the cases studies. For example, in Case Study Five (KB-KB1), Client KB1 clarified that the reason behind approaching this architect was solely through the word of mouth of her contractor, whilst in Case Study Three (AS-AS2), Client AS2—a professional developer and engineer—selected Architect AS for his project as a result of other people's recommendations; here, he described how his trust in them as a professional architect connected directly to what he had heard about him from other people's experiences.

Indeed, the interviewed architects were aware of this aspect, and it could be seen that they related it to the culture people share. Notably, it is not always previous clients who will recommend an architect, but also friends, colleagues, or people who have heard something about a client's experience (RW).

In order to shed the light on architects and clients roles at this stage, issues surrounding the onset of the relationship are discussed within the following subsections; the efforts of the architect and roles of the clients in marketing the architects cultural related issues.

Architect AS commented on this from his practice by stating:

³³ One of the interviewed house owners (IH) stated that when he built his house it was his first experience in construction, he felt that he needs to learn many things about design and construction. He gained much information from different sources, his friends, his family members and he mentioned:

[&]quot;once I went to buy tiles for the kitchen, I sat with the showroom manager for three hours discussing all types of tiles he has, I showed him the plan of my house and he gave me great ideas to apply in the design" (IH)

[&]quot;The clients would get feedback from anybody he meets. His friends, relatives, neighbours, etc. and this would confuse all of us. At a certain stage, no more feedback is needed." (AS)

³⁴ This also important when discussing the importance of architect – client interactions/ relationships for the architectural practice and the wider society appreciation for the value of the architect in the society.

4.2.1. Architect's Efforts in Marketing Themselves

Architects tend to work with both public and private sector clients, and, when working with the former group, there is often a clear criteria for architect selection (A. A. Oluwatayo, 2016; Rönn, 2014): in the private sector, architects are required to pay efforts to reach clients. This is because choosing architects—as seen in the previous section—is based on subjective attributes (Kugyte & Šliburytė, 2005; A. A. Oluwatayo, 2016).

On this line of thought, when it comes to their practice marketing, the interviewed architects were found to possess diverse opinions: while many advertisements for contracting companies could be found in the Jordanian construction industry magazines, it was very rare to find an advertisement for an architectural firm³⁵. Indeed, Architect AS highlighted in his interview,

'Some architects don't prefer to advertise themselves to reach the clients. They would say, "I am a consultant; my clients should approach me".' (AS)

Furthermore, the high use of images for their projects around the architect's office was highly noted (e.g., **Figure 3-27** and **Figure 3-37**): all of the offices visited had collections of images, 3D visualisations, and photographs of previous projects within their offices, and these pictures would give the office visitor (i.e., a client doing 'window shopping') an idea of this architect's quality of work, as well as the diversity of projects they worked on. For example, in Case Study Two (AS-AS1), the images of the previous projects in the office played an integral role in assuring the client of the architect's experience, as well as their ability to deliver the project. Such pictures varied between 3D computer-rendered images and real pictures; exterior perspectives and interior detailed pictures. Some of these pictures were taken over two decades ago, whilst others were still under construction at the time. Indeed, such a variety of images helps in giving a potential client a wider understanding of the architect's portfolio.

Another indirect way of marketing is through previous projects by their physical presence: here, Architect RL noted finding that one of her commercial building projects had a huge impact on marketing her office for clients as a result of its location on a main street.

³⁵ On 4/12/2018, I was listening to a local radio in Jordan through the internet, and an advertisement for an architect / interior designer came across. I would say that this is the very first time that I have heard one.

Whilst the offer is not the first point of contact, architects³⁶ highlighted that it can aid the client in making a decision to work with a particular architect; here, Architect RW stated that he writes about his company and the architectural style they follow as part of the financial offer provided to clients before signing the contract. Similarly, Architect AS clarified that he also would add any details about the service he is going to provide within his offer and contract.

Notably, the growing importance in social media as a marketing tool has been widely noted in recent business research (Evans & McKee, 2010), and, accordingly, the interviewed architects have made use of social media as a platform to advertise their work and reach new clients. This is also connected to their preferences of an 'indirect' marketing: indeed, Facebook is becoming the 'number one platform' for internet marketing. Here, Architect DK remarks,

'I think Facebook is more important than the website; there is more chance to be seen and accessed.' (DK)

Similarly, as a result of the current market state, Architect AS confirmed that there is a need to reach out to clients, and that social media use helps architects not only in reaching new clients, but also in becoming known in the architectural practice community within the region. This leads to them forming more connections with academics and students alike. Here, Architect AS clarified his Facebook³⁷ posts' impact on his practice by stating,

'Publishing on Facebook would give surprising results: in addition to reaching new clients, it has an impact on my

³⁶ When referring to (architects) or (clients) in this thesis, I am refereeing to the interviewed architects and clients of this research and it is not meant to generalize.

³⁷ Facebook is an open platform for architects to present and show their work. It is important to compare the presence of projects in Facebook pages or in architectural magazines. When architectural magazines were the only platform for architects to show their work, there were many aspects that controlled or limited this process; there were selection criteria for publishing a project, and an architect's connections and relationships would have an impact on whether more or less of their projects were published. Publishing a project became known in professional circles as an accomplishment that an architect needs to work hard to achieve. Years of experience and a high quality of work were needed. In contrast, Facebook is an open platform where anyone can publish any project; regardless of the quality of the design, the project stage of construction and the architect's years of experience. This helped many relatively young architects become known to their clients in a very short time. From the point of view of architectural critique, not all the published projects, which collect large number of 'likes' and 'shares', are considered good examples of architectural projects in Jordan. As the Facebook reputation is based on the architect's network rather than the quality of the architectural product. Another point is the impact that could be emerged from the architects' desire to publish their projects in social media. That might result in architects prioritize a project that is publishable rather than a project that meet the clients' aspirations. The study by (Angral, 2019) support the idea that some architects are more concern with the 'aesthetic' aspect of their building in favour of their clients' needs so they can add it to their portfolio.

connections with the academics. We get invitations for juries, and students will come for case studies and feedback. You could have a strong reputation that would require years and years without social media. Architects used to have to design many projects and their projects need[ed] to be built and occupied so people would know them; [but] today, social media would do that for you.' (AS)

Notably, architects use their project images as a tool to make a statement with regard their quality of work; further, Architect RL uses her office website and Facebook page to show clients the quality of architecture she delivers, as this eases communication during the first meetings.

Clients are aware of an architect's presence on social media, and it is used to 'shortlist' architects before even visiting their offices; indeed, Client AS1 mentioned Facebook pages as a resource for his research concerning architectural offices in Amman. Please see **Figure 4-1** for an example of some Facebook posts from some of the architects interviewed in this research.

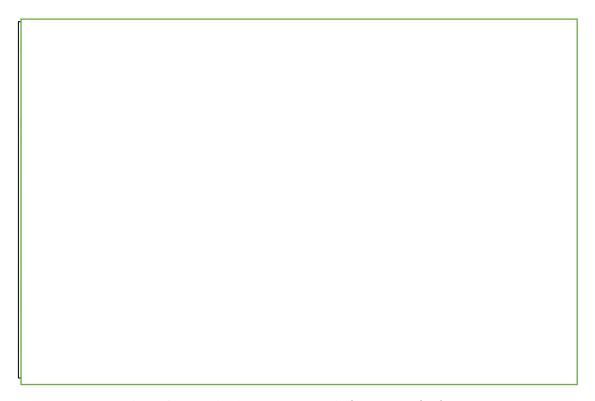


Figure 4-1: Facebook Posts - Source: Architects' Facebook Pages

4.2.2. The Client's Role in Marketing their Architects

Within Jordanian architectural practice, there is a clear reliance on clients to market their architects, and it is this reliance on 'word of mouth' that highlights the importance of clients as marketing ambassadors for their architects. Indeed, some of the interviewed architects clarified that they rely on such broadcasting in order to open the door to new clients. Here, Architect KB stated,

'Clients come to me through my previous clients. I do not do any kind of advertising through media.' (KB)

Indeed, such a method requires effort from the architect, as they would need to maintain a good relationship with their clients and deliver a project that would satisfy the client for them to speak 'positively' about their architect later. Here, Architect KB drew attention to her efforts in delivering a project that met her client's aspirations, stating,

'I aim at a 100% satisfied client. I won't accept 99%! I want to have a sustained relationship with them, and I want them to tell others about me and send me new clients—and this is what usually happen. If he was not a satisfied client, he would not send his friends or family members.' (KB)

In the same vein, Architect RL perceived a client's referrals as a reward for her effort, mentioning that her efforts within each project paved the way to the next project. This, according to her, is what has built her presence in a competitive market. She highlights,

'By being a good friend to my clients, I made more clients.' (RL)

Similarly, the interviewed architects highlighted the importance of networking with clients and contractors to 'survive' their careers. For example, Architect AS indicates the importance of connections over the quality of work, stating,

'Architects would get most of their projects because of their connections, rather than the quality of their work.' (AS)

This aspect is essential when evaluating its impact on the way in which architects need to manage their practice: indeed, it requires sufficient communication skills, as well as a flexible personality, to maintain good relationships with clients and contractors, and, although an architect's role is essential, these aspects require more effort in terms of tolerating all types of clients and contractors. Leading from this, architects thus require more skills than their design skills for their business to survive in today's market: as we can see, design communication is

becoming increasingly important, as it would clarify for the public the importance of the architect role—as well draw any attention to architectural education, which clearly needs to incorporate further development of the future architect's interpersonal skills (A. A. Oluwatayo, 2016). This issue is discussed further in Chapter Six of this thesis.

4.2.3. Cultural Issues: Male-Female Interactions and Age

Whilst issues surrounding gender³⁸ are not the focus of this research, it could not be ignored that some issues concerning the genders involved in the architect-client relationships framework were raised consistently during the interviews. Such issues reflect common cultural aspects of female-male interaction within Jordanian society. This research attempted to look at the image of the relationship from a wider lens, taking into consideration that there are a variety of routes and perspectives when it comes to investigating such a relationship³⁹.

Six female architects were interviewed, and the question of the impact of being a 'female architect' was discussed during the interviews. Fortunately, the positivity of this was highlighted by each architect—especially when it came to residential projects. Architect KB shed light on client's wife role⁴⁰ in the design, as well as the client's preferences of having his wife dealing with a 'female' architect. Furthermore, Architect DK highlighted the importance of the 'chance' and exposure the architect has within the office they work in, stating,

'I do not see my relationship with clients in this way. I deal with my client as an architect, not as a "female architect"—and they deal with me [in] this way. I do not deny that sometimes I face obstructions, because not all the people are in the same level of education and awareness: sometimes, a client would look at you, and you feel that he has no trust in you. It took me a while to build... trust. On the other hand, many people find it an advantage to work with me, as they think "females" are better understanding and more patient.' (DK)

³⁹ Jordanian society shares the values and morals of the Arab Muslim communities. Women's participation in work in Jordan is considered low comparing to the high percentage of female degree holders.

³⁸ This area of research needs to be further investigated. For example the research by (Friedman, 2003)shed the light on the implication of the gender in houses projects.

⁴⁰ Keeping in mind the role of the wife in the Jordanian society as the 'manger' of the household, where decisions with regard the household would be taken by her, or with her consultation.

Similarly, when the clients of female architects were asked if the issue of gender had wielded any impact in their choices, their answers showed that they believed in their architect regardless of their gender: what they cared about the most was the professionalism of the architect, as proven by their work.

Conversely, the majority of the interviewed clients connected the architect's age with their experience. For example, in Case Study Four (RL-RL1), the client insisted that he would not work with a young architect as he 'trusts the years of experience'. Indeed, this supports Pressman's statement concerning clients perceiving young architects as inexperienced (Pressman, 2006); however, it opposes the findings of (Dansoh & Frimpong, 2016), whereby clients were seen to prefer young architects so as to achieve a power balance. In Case Study Two (AS-AS1), it was evident that the relationship was highly influenced by the fact that both the architect and the client were relatively young and close in age to each other. Client AS1 highlighted this, stating,

'I would like to emphasise the importance of the architects being young. Their enthusiasm was very high, and they cared a lot about everything in the project. I do not think that I would find such care elsewhere.' (ASI)

For Client AS1, this helped him in terms of exchanging ideas with the architect: he felt the architect listened to him very well and understood what he wanted, acting accordingly.

The subsequent stage after selecting an architect is, of course, approaching them, and, hence, the following section look closely to the architect-client's first interactions within the seven case studies.

4.3. Architect-Client Early Interactions

Design begins with conservation. - (Franck & Howard, 2010)

During the initial stages, the first architect-client interaction takes place—and, as is well-documented within a range of psychological studies, the first impression is essential in building a relationship (Cuff, 1992)—and a professional relationship is no exception to this rule (Chaplin, Phillips, Brown, Clanton, & Stein, 2000; Dougherty, T. W., Turban, D. B., & Callender, 1994).

An point of note concerning the first interactions between a client and architect is that these are social in nature—as can be seen when tracing the issues discussed in the meeting. Bearing in mind the fact that the projects discussed are residential projects (i.e., are inherently social in nature), the social aspects of the negotiations are of great importance for the development of the design; for example, Architect KB found the best introduction for a residential project is to talk about the family and children. She found that this conversation would 'break the ice' and give the client a comfortable, familiar place to start talk about their project and requirements—plus, for her, knowing about family members would help in understanding the client and their requirements, in turn resulting in the best possible design. Architect KB also highlighted that she would talk about her family also, in turn providing a sort of ease to the relationship.

Indeed, here, the clients confirmed the importance of the first meeting in terms of their decision to work with the architect or not: although clients may arrive with a preconceived image about the architect's work, architects still need to make an effort towards 'winning' the client over. Indeed, the majority of the interviewed architects highlighted the efforts they would make during the first meetings toward convincing the client of their proficiency in delivering a project. Here, Architects RW and DK mentioned they need to show clients they are knowledgeable experts, Architect RW finding it to be the perfect time and place to market himself and his work. He clarifies this further by stating,

'This first meeting is important to market myself: I show them my projects, and I let them speak about their projects and what they want, what they are looking forward to, [and] to speak about the possibilities of working with each other... if we agree on an offer.' (RW) Additionally, Architect RW attempts to provide some design ideas within the first meeting to assure the client he can do the project, and deserves to be trusted. Here, he states,

'I... [show] them [a] couple of ideas... just to draw their attention to myself.' (RW)

As has become evident, the first meeting is not only about introducing the architect and the client to one another, but also to introduce the project, giving them the space to express the potential of working together. Here, Architect AS highlighted this stage is a two-way introduction process, stating,

'The first meeting is a two-way introduction: the client introduces us to his project, and we introduce him to our design and services.' (AS)

The project is introduced at this stage in the form of basic requirements. Architect DK explained that the client introduces the project in three parallel factors: main functions, area expected, and budget. As an architect, this would help her to determine the scope of work and, accordingly, the fees. Here, Architect DK stated,

'This is usually what they say to me: I have a 500 m^2 land, and I want to build 200-250 m^2 . I want three bedrooms, [an] office, and [a] living room.' (DK)

The initial meeting is essential in terms of understanding the client and their architectural knowledge in order to decide on the suitable visual tools to use. This point is highlighted by architects AS, RW, and DK, Architect RB also highlighting the importance of this first meeting in terms of understanding the client as a person in order to develop the designs and proposals. Here, Architect RW stated,

'The first meeting with the client is important to understand how he thinks, and if he is able to understand sketches and plans.' (RW)

Indeed, one of overarching practices within the initial meetings for the interviewed architects is the presence of their previous projects, as this gives the client an idea about the architect's work quality, also helping in trust-building. Here, Architect DK stated,

'Usually, in the first meeting, the client will come and tell us his requirements; then, we would show him sample of our previous works.' (AS)

Here, Architect DK finds the use of previous projects images and 3Ds essential in terms of showing the client the quality of service they can expect. According to him, this also helps in

managing expectations, as well as giving the client a realistic impression concerning the level of service they can expect (please see **Figure 3-27** and **Figure 3-37** for previous projects in architects offices).

A continuous cycle of learning and teaching is present at this very early stage of the relationship, Architect RW using previous projects in the first meeting to educate his clients about the architectural style he follows on his projects. Indeed, when the client sees a completed project alongside a simple explanation of why and how all the design elements were selected, this helps them in understanding what to expect in the coming stages of the design.

As a general sequence of events, fees would be discussed after the first meeting, either verbally in the first meeting, over the phone, or by offer document. Generally speaking, fees within Jordanian architectural practice are applied per square metre, and this is the case for the JEA minimum fees table. Notably, research shows that clients are only willing to pay for what they perceive to be the value of the architectural services being offered to them, and such a value is almost always difficult for clients to assess at the time of fees being discussed (Frimpong & Dansoh, 2016; A. A. Oluwatayo, 2013, 2016). As may be expected, this makes the negotiation of fees a difficult task for both architects and clients, research by (Angral, 2019) finding that clients connect cheap fees with a poor service.

Notably, the Jordan Engineers Association (JEA) possesses a compulsory architectural services contract, some architects also preparing their own offer/contract document alongside this that can serve as a marketing tool, educational tool, and financial offer. Architect RW shared his offer form, which was originally written in English and has been used as an 'educational' document, expounding the architectural direction this architect tries to follow. The client's initial requirements are stated within the offer, along with the scope of work, the timeframe, and the financial offer. Indeed, Architect RW stated that this offer document would become the contract once the client agrees on and signs it. After this, they would sign the compulsory JEA contract.

Although it was found that clients do appreciate the architect's role, when it comes to fees, they do seem to try to negotiate them: JEA have a minimum engineering services fees chart that all engineers—including architects—apply (JEA, 2018a), and the interviewed architects clarified that their minimum fees, as per the JEA, are the least they can accept toward their service. Indeed, although these minimum fees are considered low, some clients would ask for lower fees, such a request being directly related to their misunderstanding of the amount of work and

time needed for designs and drawings. Indeed, according to Architect AS, the lack of experience in engineering works, as well as the underestimating of how genuine the architectural work is, are the key reasons behind why some clients look for lower fees. Architect AS clarifies such a notion by stating,

'It might be his first time experience, [and] he would say [that] it is a very simple project and I do not require much, just because he is worried about the fees.... Some clients think that the fees are too much if they don't have any previous architectural design knowledge.' (AS)

In this vein, some clients would try to get lower fees by simplifying the scope of work in the beginning of the project, in turn minimising their requirements—something that was noted by both Architect AS and Architect DK.

Here, Architect AS reports an incident from his practice, whereby the client asked for discounted fees because 'he knows exactly what he wants'. Leading from this, Architect AS expressed his thoughts about how this type of client—i.e., who underestimates what an architect does by thinking that the architect would tailor a ready-made project to match their requirements:

'Once, a client, in the first meeting, brought lots of photos and showed them to me. He said, "I know exactly what I want; I want just like these photos. There is no effort required from you." I told him, "I do not work this way: the thing that I do is design, so if you are coming to tell me how to design, then I won't work. I am here to do design." (AS)

Meanwhile, Architect DK reports the two extremes of clients that she has worked with:

'There are two extremes of clients: some who underestimate the architects' efforts and just want to pay the minimal fees... [and those] who search for higher-fee architects! He would think it is more prestigious to work with them.' (DK)

Indeed, during those early interactions, an important design pillar is being created—the brief. Hence, the following section discusses the relationship development alongside the brief-building communications.

4.4. Brief-Building

We would generate the brief through our chat. Afterwards, I would do the design and keep asking them. I would write the requirements and draw matrixes and so on. Many clients would bring pictures for the things they like—and all that helps in building the brief. - KB

It is important to note that the briefing and design stages are not separate: theoretically, the briefing stage occurs before the design stage, but in actual practice—especially within residential projects—, they overlap. Here, the design process is seen as going in repetitive loops of interactions, whereby the brief and design emerge and evolve together, shaping and influencing one another. This supports the findings of a range of other studies (CABE, 2003; Franck & Howard, 2010; Salisbury, 1998). Indeed, briefing and designing are both characterised as social processes (Yaneva, 2009b), and, although residential projects tend to require a simpler brief compared to large-scale projects, building the brief takes much time and effort: within the majority of the cases discussed within this research, the project brief kept developing during the design stages.

The reasons behind there being a prolonged briefing time vary: sometimes they lie in the importance of the project for the client, as the brief not only concerns functions and areas, but also the clients' dreams and beliefs (Franck & Howard, 2010). Indeed, the majority of the clients interviewed commented on the importance of the project as a 'lifetime accomplishment' or as 'their lifetime house'. Financially and culturally, the importance of the house impacts the decisions the clients make massively: indeed, Client RB1 of Case Study One (RB-RB1) commented on the importance of the project for her as the 'house of her life', as well as how this has changed the basic project requirements and even affected the budget she allocated for the project.

Another possible reason here lies in the client's lack of experience and knowledge at the beginning of the project: clients would rely on their architects to define the project brief before proposing the design (A. A. Oluwatayo, 2016), since they would not have the full requirements from the beginning. As has been confirmed by architects, some clients would not recognise some of their requirements until they see the first proposal; further, some studies also showcased the fact that some of the client's requirements are obscure and conflicting in nature (Brown, 2001 [as cited in (Dansoh & Frimpong, 2016)).

Another aspect here is the role of the client family members: as clarified by Architect AS, some couples would come to the architect with differences of opinions, and, by generating the brief, they would decide on different issues. Similarly, Architect DK also mentioned a case from her practice, whereby two siblings—a brother and a sister—came to her to build two attached villas, their requirements being in two different directions. Hence, through the generation of the brief and the early design decisions, she could understand her clients and bring their requirements together.

Another factor impacting the initial brief is the location of the house: different areas in Amman are characterised by different socioeconomic factors that can impact the design. Such factors could be reflected, for example, in the presence or absence of the following functions⁴¹: guard room; maid room; swimming pool; kitchen; dressing rooms; laundry room; indoor and outdoor storage rooms; and guest suite. The architect could add these functions when they understand their clients, as a person and a member of society.

Within the seven case studies discussed, it was noted that there were no allocated minutes for the architect-client meetings, and, when architects were questioned about this, they clarified they prefer to run things informally with residential project clients. Further, in six of seven of those case studies, the form of the brief was verbal discussion, and, in the remaining one (Case Study Three, AS-AS2), this was conducted in the form of a detailed 'excel sheet' of requirements⁴².

The following two subsections discuss the role of architects and clients within the briefing stage by looking at the process of brief-building as a two-way communication case, simultaneously highlighting the dynamic nature of the briefing stage within the Jordanian practice by looking at the client's priorities at this stage.

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⁴¹ This list is just for indication, it is not meant to be full or comprehensive.

⁴² The role of the excel sheet is discussed in case study three and in chapter five as an actor.

4.4.1. The Briefing Stage as a Two-Way Communication

The most important act of the architect is listening, and the successful building grows out of an intimate and continued relation with the client. - Charles Moore (as cited in (Franck & Howard, 2010, p. 12)

Considering it is developed through architect-client interactions, building the brief is a 'participatory' session, and, hence, common practice is to have a verbal conversation at the beginning that aids in deciding on the requirements. Indeed, the culture of bringing a written brief is not common in the practice of residential projects. Here, Architect AS commented on this by stating,

'People come to talk at the beginning of the project. Nobody would bring written requirements, but we do the writing.' (AS)

Architects DK, RB, AS, and RW claimed that there is a common pattern in introducing the project requirements amongst residential project clients, and that the introduction of the project in the form of functional spaces (e.g., a three-bedroom house) can show the way in which the brief is generated—built around the number of bedrooms requested.

Notably, the number and extent of the details provided at this stage varies; however, the majority of clients would provide only the number of bedrooms and the estimated area and budget, others also giving very specific details. Here, Architect AS mentioned a very specific detail given to him by one of his clients:

'When I enter the house, I want to have a recess in the entrance hall behind the door to hang the keys.' (AS)

Client engagement at the briefing stage ensures the brief reflect their intentions and requirements (Franck & Howard, 2010), and, thus, architects use different tools to capture the client's requirements. The first tool here is to ask the client questions about their requirements in order to create a platform for ongoing brief generation. This process is emphasised in the work of (Oak, 2009). Typically, architects will use visual tools—both 2D and 3D— and freehand or manual drawings to describe the requirements in full. Architect RW remarks that he would do a freehand sketch that he considers as his 'trademark' for the initial ideas that come through the first session of discussions (**Figure 4-2**), clarifying that this would bring his

and the client's ideas together, testing his understanding of the requirements. Correspondingly, Architect AS also highlighted the importance of visual tools—especially plans—when it comes to helping the client to define all his requirements. Here, Architect AS stated,

'The layout would help him to understand his requirements. It would give his unsaid requirements.' (AS)



Figure 4-2: Manual and Digitalised 3D of a Residential Project - Source: Architect RW's Collection

In order to cope with the missing requirements, architects invest visual tools in order to find out more about their client's preferences; indeed, this is a common issue architects face, and they have since found that the first sketch is the best tool in terms of obtaining the full requirements, as well as in testing the architect's understanding of the requirements. Architect AS commented on this, stating,

'I tell the client: this first layout is for you to demolish, so tell us what you like and dislike about it. Sometimes the client would give you his requirement in [an] abstract way, [so] this first layout would ensure that we got them right. When he sees the sketch, he would interact more: he would see, for instance, that he has two living rooms, [and] he would say, "Add a bathroom to the one in the ground floor, and add a kitchenette to the living room upstairs." Such requirements he might [have] never thought of... without the sketch. This first sketch is another way to take the requirements.' (AS)

In the same vein, Architect RL uses the first proposal to ensure she has understood the requirements in full—and, as we can see, this indicates that the effort made during the brief building process ultimately shapes the project.

The third tool is to use matrixes, questionnaires, and tables; here, Architect AS, RW, and RB claim that this depends on the client's background, as whilst some clients would find it easy to use them, some will not be able to. In this regard, Architect AS shares his mechanical and electrical requirement questionnaires, clarifying that the use of this matrix helps in drawing the client's attention to the available options in order to achieve better results.

Another tool architects and clients alike use are photos and images of other projects; when it comes to repeated incidents specifically, clients clarify that they bring pictures for ideas that they want to have in their houses (specifically, RB1, AS1, and KB1), stating that they find it easier to convey their ideas to their architects this way. In addition, architects would show images of their previous projects to demonstrate to clients the ways in which some ideas could be implemented within the design.

This understanding of the requirements within the early stages clearly ultimately helps in developing the design (Coughlan & Macredie, 2002), and, in turn, improved understanding of the requirements helps in reducing the alterations of design solutions, which can be a time-consuming process. An example of this would be in Case Study Five (KB-KB1) and Six (KB-KB2), Architect KB here showing how her experience in understanding what the client is looking for has helped her in achieving a matching plan for the client's requirements from the early stages. Indeed, Client KB1 and KB2 confirmed this, and, although the designs went through cycles of development at a later date, the first sketch in both cases was satisfying for the clients. Likewise, Architect AS emphasises the importance of 'listening a lot' in order for the clients to achieve a design that is ultimately satisfactory for them. Here, Architect AS suggests,

'I like to listen a lot at the beginning of the project to the client because they usually have something in mind. They have a vision of what they want.' (AS)

Conversely, a failure to understand the client requirements could lead to dissatisfaction and additional costs (Thyssen *et al.*, 2010); Client RB1 of Case Study One (RB-RB1) highlighted the impact of the architect not listening well to her requirements, as well as not understanding the importance of those requirements to her on the time needed for the design:

'It took time until we agreed on a design: there were things that I wanted, and it took time until the architect [would] understand how important it is for me.' (RB1) Whilst the relative importance of understanding and analysing the client's requirements at the briefing stage was undisputed, it was found to be a common source of confusion: clients' responses to direct questions concerning their requirements at the beginning of a project can be different to what their interactions with the architect reveals, and this could be understood in a variety of ways: Is the client aware of their requirements and their alterations? How could the architect define the clients' actual needs/requirements and aspirations? Are they well-defined in the early design stages? How do they change throughout the project timeline?

Indeed, it is important to highlight that the client's requirements may change over the course of the design process—and the interviews with both the architects and the clients showcase the degree to which the project brief changes through the design stages. As an example of this, in Case Study Four (RL-RL1), Client RL1 changed his decisions and requirements consistently during the design and construction stages, Architect RL clarifying that she tried to help him make his mind up about what he really wanted, also bearing in mind what was actually applicable to the project. The impact of client's family members on changing the requirements of the project is also notable—as clarified by Client RL1 whilst explaining the evolution of the master bedroom:

'I did not ask for [a] big master bedroom—it was not my priority—, but my wife wanted a big one. When we started the initial design, I showed her that we cannot have such a big room with the other requirements, but at the later stages, we considered the idea of swapping the rooms between floors, and I found we could do that.' (RL1)

Meanwhile, when it comes to defining the brief within developer-led projects, (e.g., Case Studies Three [AS-AS2] and Seven [DK-DK1]), the question of how a residential project could meet a variety of needs of end users came to the fore, as in this situation, the developer is acting as a substitute user. For Client AS2, he defined the project requirements through his own experience, thinking of the obstacles he has in his current house and thinking of ways to solve them, accordingly defining the requirements. Here, Client AS2 stated,

'Each developer is a user. We experience the everyday needs in a house: we know what we miss and what we want. For example, we experience a shortage of water from time to time, so we need extra storage.' (AS2)

Conversely, Client DK1 pointed out that the requirements were defined after his study of the market. Client DK1 clarifies this, stating,

'It all depends on the location of the building: some locations require minimum areas and special interior requirements. We try to do something that matches a wider spectrum of people.' (DK1)

For the architects, they highlighted that, generally speaking, developers are experienced clients—and, because the project is not for their own use but is an investment, they would have clear requirements from the beginning.

In some cases, one requirement would result in altering the entire approach of the design; for example, in Case Study Six (KB-KB2), the client's priority was to have a big garden, and it was this specific requirement that had influenced all his other requirements: a duplex villa, extra service area, and provision for a pool in the garden. This resulted in relocating the house to another side of the land.

4.4.2. Client Priorities in the Briefing Stage

Through the analysis of the seven case studies, the following client priorities within the briefing stage were identified. Notably, it is important to mention here that these actors/priorities shape the project, and, as with the requirements themselves, their importance often shifts during different stages of the project—and this change of their 'agency' influenced the relationship network, as well as the roles of other actors of the design and the relationship.

All the interviewed clients mentioned their first priority as being the house layout, connecting the layout of the house with their comfort. Here, they emphasised that they can judge their satisfaction of the design by having a plan that matches their requirements. Client RB1 summarised her views by stating,

'My main priority is to be comfortable inside the house. That could be achieved by considering the areas, the relationships between rooms, the garden. The most important room for me was the living room; I wanted it to be in the best possible way. I wanted it [to have]... good ventilation and daylight, in a central location in the house... [that is] connected to the garden.' (RB1)

As the layout design was a common priority amongst the case studies, it was noted that client input is highly intensive in the design of the plan that during the design process, as remarked by architects RW, RL, KB, and AS. The image/elevations and architectural style were noted as being of second highest importance, such a notion correlating with that of (Angral, 2019), who

found 57% of his interviewees preferred functionality (in the plan) over aesthetics (of the elevation) in house design.

The next priority concerned the exterior of the house, such a priority being witnessed more in the upper middle-class areas (as in Case Studies One [RB-RB1] and Five [KB-KB1]) than in other areas of Amman (as in Case Studies Two [AS-AS1] and Four [RL-RL1]). Such a priority influenced the choice of materials, as well as the attention given to the details by the architect. As mentioned by Architect RB, many clients pay attention to the design of the elevations, whilst Architect RL connected the location of the project⁴³ to the emphasis on the design of the elevations, concluding,

'When I work in one of the high-level districts of Amman, my clients pay lots of consideration to the exterior of the house: they want a nice plan, but also, they want their house to look great. While in most cases when working in the middle-level districts, the client will pay attention only to the main façade.' (RL)

The last priority explored here is that of budget: whilst for some clients it was clear that the limited budget they had influenced their choices during the brief stage (e.g., Case Study Two [AS-AS1]), for others, the nature of the project influenced the initial budget. Different clients also noted that the importance of the project for them impacted the way in which they deal with the budget, Client KB2 stating in this regard,

'In the villa project, priorities are different, and the budget become more flexible.' (KB2)

Indeed, the intensive patterns of communications continue to occur during the design stages, and, hence, the following section follows the relationship during the design stages, looking at the different actors' roles in the process of generating the design.

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 $^{^{43}}$ This connection underlines many socio – economic factors that is related to the location of the project. Land value vary widely between different areas of Amman, it is ranges between 50-1200 JD/ m^2 (55-1250 £/ m^2) depending on the area.

4.5. The Design Process

I know that the client is not an architect: he needs the knowledge from me, and I need to tell him what the good and bad of his choices [are], and the best practice. I must guide him all the way. - DK

There is an ongoing debate between architects concerning what best practice is: to suggest many proposals, or to develop one proposal. Whilst some architects claim they need to show their clients more than one option, others claim that the time 'wasted' in developing more than one proposal could be used in improving one design. Here, Architect KB clarified that although she tries a variety of different design ideas, she always shows her clients one proposal at a time, as in her opinion, such a method helps them in making up their mind. Saying this, some clients pointed out that they prefer to see more than one option; for example, in Case Study One (RB-RB1), Client RB1 raised this point, stating,

'The architect used to give me only one option, and I needed to decide on it. I would tell her what I want, and she would draw that, not giving me options that could open new horizons for me. I would prefer seeing three different options so that I could choose elements from them.' (RB1)

Bearing in mind the above, in order to fully explore the communications within the design stage, the use of visual tools, client involvement, and the architect's design team involvement within architect-client meetings, are discussed within the following subsections.

4.5.1. The Use of Visual Tools within the Design Stage

Communications concerning design involves the use of visual tools, drawings being of central importance for architect-client communications at all stages. Indeed, as claimed by Pressman, 'visualisation technology has taken our profession into a brave new world of communication' (Pressman, 2006, p. 147). Meanwhile, the study by (W H Collinge & Harty, 2013) surveyed the use of artefacts by stockholders within the early stages of a given architectural project, concluding that stockholders relate to the project by its artefacts of design (e.g., drawings; visualisations; physical models). Such artefacts makes their participation in the design possible,

and this can be applied to a variety of cases within this research. Here, Architect DK gave an example from her practice concerning the sequence of use of different types of drawings:

'I would start with the plan of the site—[and,] later, the 3D, because the client would understand it more than the elevations. They would understand the plan (2D drawings), but not the elevation (which are also 2D drawings).' (DK)

On this note, the 'right time' for using 3Ds within the design process is highly controversial amongst architects, such a debate being related to the difference in understanding the use of 3D representations as a 'presentation tool' or a 'design tool'. The current wide availability of BIM software has influenced the use of 3Ds, and yet architects still vary in their use of it. It was noted that some architects are still limited in adapting software for use within their practices, whilst others use software widely and in an interactive way to engage the client in the design process. A good example of this is Case Study Two (AS-AS1), whereby the architect and client worked together to generate the design using Sketch Up software to test the design ideas. After this, these same ideas were converted into a mass model (**Figure 3-15**).

A multitude of architects highlighted they only show the 3D to the client after they approve of the plans, despite the fact that they often have it prepared earlier; conversely, architects who use 3D visuals at the first stage of the design show clients 3Ds as early as the second meeting—, and, occasionally, before the plan is even generated. This could impact the design process, as some architects described it as 'a two-edged sword': whilst some clients would engage with the design better when they saw it in 3D, others will not understand that this 3D is only experimental, and subject to development at later stages. Some architects claimed that they do not have a fixed decision concerning when to use the 3D, as it depends on the client and the project at hand. Here, Architect DK clarifies her common practice, stating,

'When I find that my client does not have any experience, or he cannot imagine well, I would prepare a 3D for every sketch—even just a massing 3D—to help him imagine the design.' (DK)

Indeed, BIM and technology use within the design communications varied quite considerably: during the meetings, designs were presented in a variety of formats, from white and black CAD drawings (as in Case Study Four [RL-RL1]), to 3D live virtual reality animations (as in Case Study Three [AS-AS2]). In addition, modifications and discussions concerning the design also varied from tracing paper above the CAD drawings (as in Case Study Six [KB-KB2]) (**Figure 5-13**), to modifying the 3D model on Sketch Up (as in Case Study Two [AS-AS1]).

As design decisions are made continually through this stage, many of these communications occur around different objects other than drawings and sketches, including samples of materials that are available at architects' offices (**Figure 3-28**), stone, glass, aluminium, wood, door and window sections, paint, and tiles. The role of these objects is not limited to informing the client of the available options, prices, and sources, but also to help in making design decisions.

4.5.2. Client Involvement in the Design

Client participation within the design is particularly vital in the context of residential projects (Siva & London, 2012); however, without proper knowledge and understanding surrounding this stage, it could cause a wave of negative impacts. Bearing this in mind, client/end user involvement during the design process is highly recommended within the literature in order to achieve improved user satisfaction (Ivory, 2004; Jensen, 2011; Lawrence, 1985; Norouzi *et al.*, 2014; Siva & London, 2012), and, in the context of this research specifically, the end user is the client in five of these seven case studies. This means that the architect-client relationships of these case studies is a one-to-one relationship between the designer and the occupant. Notably, some researchers have claimed that clients are interested in the end product and the delivery of the project in time, leaving all the technical and design aspects of the project to the architect (Dansoh & Frimpong, 2016). However, this is not the case within Jordanian residential projects, which are characterised by high client involvement within the design—as confirmed by all the architects during the interviews.

The interviewed architects' views varied significantly in terms of the actual impact and limits of this involvement: on one hand, many architects highlighted the importance of client involvement and their willingness to accommodate that in the design, perceiving it as part of their everyday practice and efforts to achieve a design that suits the clients. As an example of this, Architect AS explained that understanding the client's expectations through their involvement would help in achieving a more suitable design for them, in turn saving time for them both. Simultaneously, there are concerns concerning the involvement of a client with little understanding of the architectural process and the involvement of 'difficult' clients—which is considered to be an obstacle to the process of design considering clients sometimes prevent the architects from doing their work by their high involvement (Cuff, 1992). Indeed, it was agreed amongst the interviewed architects that it is the architect's role to filter, control, and manage the whole design process—including when and how the client is involved. This correlates with

Pressman's claim that 'Listening to the client is an absolute requirement: translating, filtering, and inferring what the client says... is also an absolute requirement' (Pressman, 2014, p. 18).

Meanwhile, Architect DK pinpointed the importance of 'quality' involvement from the clients, discussing the importance of the client's knowledge and experience by stating,

'Some clients' involvement is logical, and I find it good for the design: those clients would know what they want. Sometimes I do not get exactly what the client wants, so when I propose the first sketch, the client would say, "What about changing this to be in another way?" I would say yes, your idea is workable, and is good for the design. There are creative clients whom would give you very logical ideas, and the relationship with this client would be very smooth, because you share ideas, and it is a two-way ideaexchanging [process].' (DK)

Within most cases discussed in this research, clients spoke 'proudly' about their engagement in the design—although the degree and form of involvement here varied. Indeed, many studies claimed that client engagement in the design raises the value of the project for the client (Albetawi, 2013; Angral, 2019), resulting—in the cases of residential projects—in a better rate of housing satisfaction. This was also shown within this research: in Case Study One (RB-RB1), client RB1 commented on her participation in the design:

'We worked together toward a design that we both found it good.' (RB1)

An example of a high degree of client involvement that can be considered as a participatory design case is that of Case Study Two (AS-AS1), whereby the involvement here was seen to shape the process, relationship, and design. The client's role within this project was not limited to approving the design or giving notes, but was instead extended into actually 'doing' the design with the architect; indeed, the tools the architect employed here were what made this possible, as these were mainly questionnaires, matrixes, schematic plans, and BIM software. In turn, Client AS1 appreciated the design and the project more as a result of his participation, commenting after the event,

'All decisions were made together. I am responsible for the design as much as the architect.' (AS1)

Indeed, the participatory process of the design illustrates the importance of two-way effective communication, whereby the architect welcomes the client's ideas and the client can participate positively in all stages of design. Indeed, maintaining an openness and flexibility for all the

design options is an important aspect of this case study, and this required time and patience from both the architect and the client. Further, although Client AS1 was highly involved in the design, his appreciation for the architect's role in the project was high—an important point to note, as some of the interviewed architects claimed they are not comfortable with some clients' participation within the design. This is due to the fact that clients would claim they did the design, and that the architect thus has no real important role. This case showcases the opposite, however, as a result of the client's involvement in the design process at all stages. This led to the client being able to see for himself the efforts the architect made, as well as the time the design proposals took to develop. Within this type of relationship, participation is key in order to generate a project that is more appreciated by the client.

4.5.3. Involvement of the Architect's Design Team in the Architect-Client Meetings

The question of who from the architect's design team would meet the clients was asked to all the interviewed architects and clients, and the supplied answers revealed many aspects that impact the relationship: indeed, by examining the seven case studies discussed within this research, it was noted that the principle architect is the one who meets the clients, the presence of the rest of the design team members varying from one project to another. This point is essential is terms of understanding that this creates a loop between the architect—the actual designer—and the client, and, although in residential projects the design team would be small (typically one to four architects within these research case studies), involving the actual designer with the client is highly recommended within the literature.

The reasons behind not involving the rest of the design team within the meetings firstly concern the limitation of the architect's time: the interviewed principle architect clarifies that meetings with clients are time-consuming, and they often prefer architects to be doing something 'more urgent'. Secondly, the lack of experience of junior architects is also a factor here, and also presents two sides of the same coin: junior architects are not meeting clients since they do not have experience and are thus not building enough experience because they are not exposed to clients. (Angral, 2019) claims that young architects do not have the chance to develop their skills and meet clients within architectural practices, as their work is often only as drafters. The third reason is that some clients possessed negative attitudes concerning meeting junior architects, claiming that some clients prefer to meet the same architect every time they come to the office. As for the fourth reason, this connected to the client's preferences of meeting one

architect rather than a group of architects; this is because they would be discussing 'private' and 'sensitive' issues, and would thus prefer privacy. This correlates with the findings of (Murtagh et al., 2016), who report that some architects would not give junior architects access to meetings with clients due to them wanting to protect the privacy of their clients, as they would be discussing personal issues. Architect AS highlighted this point, outlining,

'The clients would prefer more privacy: the client wants to speak about personal issues and, sometimes, sensitive issues... so he would prefer to have a small number of people in the meeting.' (AS)

Notably, after the principle architect meeting with the client, they would convey the data to their team, and, although the principle architect does the majority of the design approach, the role of other designers is still important. Architect AS clarifies this loop, stating,

'I would have a meeting with my team. I convey the information from the client's meeting in a design decisions format [and] I would tell them what to do. A summary of what he has agreed on.' (AS)

Notably, the end of the design stage and the onset of the construction stage represent a bottleneck in the architect- client relationships: by law, architects supervise the superstructure phase of the construction, and after that the architect's supervision is elective. Thus, the following section will document the relationship during the construction stage.

4.6. The Construction Stage

Theoretically, a design should be finalised before the onset of construction; however, it was noted that a multitude of design changes occur, and the architect-client interactions continue to happen during the construction stage. Further, the frequency of these meetings is usually less at this point, as is the discussions centre on the material selection, process of work, and design change requests. Indeed, these changes require sessions of redesign and approval from the architect and the client, and may involve the contractor as a participant. Further, as much as both the architect and the client are usually careful during the previous stages to achieve the best possible design that suits the requirements, it was evident that some changes are requested to the design during the construction, such changes potentially being related to a multitude of reasons that can be solved in a multitude of ways: the growing understanding of spaces, form and, spatial relationships in the design after the start of construction; the client's misunderstanding of the areas; visual access and levels, change of priorities; potential design

changes only discovered on-site; and many others. Hence, communications surrounding design changes are of high importance to highlight. As an example of this, in Case Study Four (RL-RL1), the design and construction stages overlapped; indeed, the loop of changes in the design of the parents' master bedroom could be seen an example of hesitation when it comes to making decisions, as the design of this room was changed a total of five times before being eventually relocated. The balcony addition to the parent's bedroom area could be a result of the better understanding of the potential of the project. Such design changes required sessions of meetings, as well as different versions of drawings being produced.

The architects' responses to the design changes during construction also varied, although many showed that they typically tried to solve as many issues as possible during the design stage so as to minimise the changes required later. On the other hand, other architects understand that it is not always that the design has 'faults' or is not 'well-designed', but that the client could change their mind or requirements. Indeed, Architect AS clarifies his position on changes during construction by stating,

'The client might change his mind about a certain detail during construction. I try to change the design accordingly in the best way to maintain the quality. I am very flexible with the clients; I am not le Corbusier. I have clients to satisfy. It is always possible that the client would change his mind—during the design, construction, or even after he has started to occupy the house.' (AS)

Leading from this, this draws attention to the architect's understanding of the project importance for the client in the fact that 'they are the experts' in the way they live and, accordingly, the way they want their houses to be.

Within the seven case studies, there were different patterns of contractor involvement influencing the architect-client relationship; please see **Table 4-2** for a clarification of the different aspects of the contractor's involvement, as well as a demonstration of which case studies illustrate particular aspects.

Table 4-2: Aspects of Contractor Involvement in the Case Studies - Source: Researcher

Aspect of Contractor's Role	Case Studies		
Contractor involved in an early stage of the project	(RB-RB1)/(KB-KB1)		
Contractor involved after completing the design	(AS-AS1)/(AS-AS2)/(KB-KB2)		
Architect participates in choosing the contractor	(AS-AS1)/(AS-AS2)/ (KB-KB2)		
Client has no connection with contractor	(AS-AS1)		
Client is the contractor	(DK-DK1)		
More than one main contractor involved	(AS-AS2)/(RL-RL1)		
Contractor has a role in changing the design	(RB-RB1)		

The role of the contractor is seen through the impact of their input on the project process; whilst some contractors would suggest changes in the design (as in Case Study One [RB-RB1]), others will simply suggest other ways of doing the design (as in Case Study Three [AS-AS2]); or, alternatively, their relationship with the client would be challenged because of the architect-client relationship (Case Study Five [KB-KB1]).

Notably, in Case Study One (RB-RB1), the majority of the changes that occurred during the construction stage were as a result of contractor interference: although the contractor was involved from the design stages, he still proposed a multitude of changes during the construction stage. Further, it is important to mention that the family relationship between the contractor and client was a key aspect for his intervention in the design. Here, Client RB1 clarifies.

'I did not want underfloor heating or electrical blinds, but the contractor said to me... "These are very important for the project." The contractor changed the standards of finishing, and that add more to the cost.' (RB1)

A range of architects clarified that contractors are introduced to the project after finishing the design stage, in turn indicating that the role of the contractor in the design is kept to a minimum. Notably, the limitation of the contractor's role in design depends on the way the architect and the client manage their relationship: here, Architect KB clarifies that she intervenes in choosing the contractor as a result of her desire to keep control of the quality, as well as to ensure the right implementation of the design. She states,

'The contractor in assigned usually after we finish the design. In my projects, I choose the contractor with the client: I

do not bring him, but I decide if he is suitable for the project or not. In addition, many of my clients would ask me for my recommendations for a contractor.' (KB)

In the same vein, Architect DK stated,

'Most of my clients would ask for my advice when choosing a contractor. I gave them options of the best contractors that I [had] previously worked with; honestly, I prefer if the client brought his contractor with him. I do not like to take the responsibility if the contractor disappointed the client.' (DK)

Meanwhile, in Case Study Six (KB-KB2), it was clear that the trust had been built through their previous interactions, in turn casting an impact on the relationship after construction started. Client KB2 clarifies,

'I always consult the architect if the contractor suggests any change on-site. I was listening more to her if they disagreed. She is my reference.' (KB2)

In Case Study Four (RL-RL1), the architect-client relationship lasted for a duration of an excess of six years whilst the contractors kept changing throughout the construction. Here, Client RL1 clarifies the structure of relationships in the project, stating,

'The contractor was not involved in the design stage. In addition, he has a direct contact with the architect and during construction: they meet each other and decide on the details.' (RL1)

When the interviewed architects were asked who the client listens to more during construction (i.e., the architect or the contractor), the answers varied: some architects believed that the trust they built with the client through the previous sessions of their relationship would make the client come back to them—an opinion that was particularly clear in Case Study Three (AS-AS2), Four (RL-RL1), Five (KB-KB1), and Six (KB-KB2). Here, Architect KB states,

'If he [the contractor] wants to suggest anything, I always tell them to speak to me first before speaking to the client. In addition, I tell my client to come back to me if he or the contractor have any notes. Moreover, because of the trust [built], they would come back to me for everything.' (KB)

Simultaneously, considering they know the architect would choose what is the best for the design ('not the cheaper option, as a contractor might chose'), Architect DK found, from her experience, that clients value the architect's input at all stages.

Saying this, other architects claimed that the client would think of their budget as the main driver for their decisions during the construction stage, and some contractors would suggest changes to the design to cut the cost—which the client, bearing in mind these priorities, would approve of. Architect AS clarifies his views on this by stating,

'I think clients listen more to the contractor: the client would think that the contractor has control over construction now, and he would be frightened of him. You would never make the waiter angry when you order food! He would sacrifice the architect in favour of the contractor. I am not supervising the project for any financial return at this stage—he already paid me all my fees—, but I want to maintain the quality of the project.' (AS)

Indeed, this following of the relationship and the communications between the architect and clients through the project lifecycle highlighted a variety of aspects of the relationship that will be discussed in the following sections—namely, the social dimension of professional practice; knowledge gaps; and the architect/client satisfaction of the design.

4.7. The Social Dimension of Professional Practice: Between a Professional and a Friend

We deal with our clients in a family way: we try not to be too formal with them.

This would make them more satisfied, but [also] require[s] more efforts from us. - RB

Throughout the course of this research, the social envelope of the relationship was clear: it has not only influenced the pace of the relationship, but also the communication tools used, the nature of the meetings, and the way in which both the architect and the client talk about their experience. This supports other studies indicating the significant of understanding the social environment in which architects do their work (Cuff, 1992; Norouzi *et al.*, 2015b; Siva & London, 2009b, 2009a, 2011, 2012, 2016).

Indeed, this social envelope, as well as the 'informal' approach to the relationship, is revealed by tracing the communications at different stages, as well as by looking at different aspects of the relationship (e.g., the lack of recorded minutes of meetings [MOM]; the meeting settings; the meeting nature [time; content] the language used).

Over the course of the following subsections, the impact of personal relationship on the professional relationship, as well as the change of the relationship into friendship and trust as a pillar of the relationship, are discussed.

4.7.1. Personal Relationship Impact on the Professional Relationship

It appears to be very clear that the success of the professional relationship is highly connected to the success of the social relationship within architect-client interactions (Norouzi *et al.*, 2015b), although there is a debate about whether it influences the design itself or not. Here, Architect KB claimed that the personal relationship would impact the relationship, the process of the design, and the design itself; she pointed to the importance of a mutual feeling of being comfortable in the relationship for the best results for architect, client, and project:

'Some clients I would love... I feel there is a chemistry and we understand each other perfectly. In this case, the project would be very nice. Other clients [,however]... From day one, I will not feel comfortable dealing with them, and I feel they do not like me [as a person], but still they want to work with me because they heard good things about me, or they liked my designs. Therefore, we would work, but in this case, the design will not be as good as it could be.' (KB)

On the other hand, Architect DK points to the idea that a personal relationship 'would not affect the design itself', as she would maintain the quality of her architecture regardless of the client. Nevertheless, it may put the architect under stress, as she stated,

'I think it does not affect the design itself, but could make stress for you as an architect. When I have a client who is very demanding or stresses things out, the design does not go smoothly: a one-week job would take two or three weeks because you are under stress.' (DK)

Notably, the personal relationship discussed within this research could commence before the onset of the project (as in Case Study One [RB-RB1]), or could be developed through the interactions around the design (as in Case Study Five [KB-KB1]). In Case Study One (RB-RB1), the architect and the client were family members, automatically giving the project and relationship a head-start. Here, Client RB1 acknowledged her 'thoughts' concerning this at the beginning of the project—which were all-round positive, as client RB1 stated, 'She knows me

well, knows my lifestyle'. At later stages, this personal/family relationship turned into a pressure on Client RB1, resulting in some discomfort in the relationship for her. Here, Client RB1 stated.

'Because the relationship was a family relationship, it was very hard; I do not want to lose my relationship with any of them. This relationship even caused some sort of shyness from my side: I could not ask for what I want. In addition, I accept some decisions that are not my favourite. Even if we tried to make it more like a business relationship, because of the personal relationship, it will not work: it is very sensitive. If I go back to day one, I would choose a professional/business relationship [over] this family relationship. It is less [of a] headache to work with a non-relative.' (RB1)

Client RB1 also commented on the impact of the business relationship on their personal relationship:

'If I were not working with a relative, I would be more daring to amend and make decisions. It is different from always worrying that our family relationship would be impacted due to business. Moreover... such misunderstandings would not vanish when the project is finished.' (RB1)

Meanwhile, in Case Study Four (RL-RL1), the length of the relationship during the design and the construction (six years) resulted in a strong personal relationship, whereby they became close and would understand each other easily. Further, the loops of the design changes Client RL1 requested made the architect understand him better.

On the other hand, in Case Study One (RB-RB1) and Seven (DK-DK1)—whereby the architect and the client either had a family relationship or previous experience—, both clients felt that the architect 'took them for granted' and did not invest enough effort in them or the project. In Case Study Seven (DK-DK1) specifically, their previous relationship helped to establish the relationship, build trust and minimise the design time; however, from the client's perspective, this did not result in enough effort from the architect in preparing details and accurate working drawings. Conversely, Architect DK perceived the previous experience between them as a positive actor in the relationship that positively influenced the whole project. She clarifies this by saying that the cumulative relationship resulted in a mature relationship, as well as a better understanding of the roles and expectations present here.

4.7.2. Friends For a Lifetime

So just by being a good friend to my clients, I made more clients. - RL

As a result of the social aspect of this relationship, the type of relationship can change from a professional formal relationship into an informal relationship—which, indeed, could be perceived as being connected to the general culture f Jordan, whereby the line between formal and informal relationships in business is blurry. Here, Architects RL, KB, and FB claimed that, in most cases, their client would turn into friends, Architect DK emphasising the idea of turning 'clients into friends' by stating that the success of this means that you, as an architect, need to invest efforts into understanding your client, working to achieve the best possible design for them and giving more than expected for their project. Indeed, Architect DK mentioned a piece of 'golden advice' given to her when she started her office:

'Do not make a client out of a friend; make a friend out of a client.' (DK)

Within the scope of the case studies discussed in this research, it is remarkable how many architects and clients turned into friends through their interactions around the design: for example, in Case Study Five (KB-KB1), Architect KB and Client KB1 became close friends as a result of their interactions around the project talking about family, children, hobbies, etc., which, in turn, helped in building a base for the relationship to develop into a friendship later. This was also found within other studies (e.g., (Murtagh et al., 2016), whereby the architect showing their 'human side' was documented to have helped in developing the relationship and building trust.

Meanwhile, in Case Study Two (AS-AS1), the architect and the client had an indirect relationship; however, through the communications around the design, they grew closer to each other. As a result, Client AS1 mentioned that they became friends, and the relationship evolved, turning from an indirect relationship into a professional one—which then developed into friendship.

Similarly, in Case Study Six (KB-KB2), Client KB2 was a repeat client who had developed a strong relationship with Architect KB. Here, KB1 perceived the personal relationship—one of friendship—with the architect as a positive one.

Although the majority of the architects claimed they became friends with their clients at the end of the project, Architect RL pointed out that some clients would not like to have any relationship with the architect after finishing the project: she mentioned an incident with a client who she worked with for around a year, but, after finishing the project, when she asked for permission to photograph the project for marketing purposes, the following occurred:

'I can recall a case where the client's wife said to me, "You have done your job, you got your payment in full; I do not want to see anyone who worked for me in this project." (RL)

Architect DK perceived her clients as friends, commenting that the relationship within the design context turns people into friends; here, she tries to maintain a good relationship with her clients all through the way, commenting on her relationship with her clients by stating,

'Clients become friends in 70% of the cases. In addition, we stay in touch later.' (DK1)

4.7.3. Trust

Trust is seen as an integral pillar within the architect-client relationship (Cuff, 1992; Pressman, 1995, 2006), holding more importance within residential projects as a result of the project's importance for the client, as well as the sensitivity of issues discussed. All interviewed architects highlighted the importance of dual trust, Architect AS confirming the importance of trust for a smooth process and project. He also pointed to the efforts made by the architect to gain the client's trust, stating,

'As an architect, I need to feel that my client has complete trust in me. Moreover, this is something that I need to work on: I need to show him some of my previous projects. I have won two architectural competitions, so I would tell him about that.' (AS)

At the beginning of the relationship, clients usually encounter the previous projects, which play an integral role in building trust and reassuring the client of the architect's capability to deliver the project from the earliest stages. Additionally, they reflect years of experience for the architect, Client KB1 stating here,

'I saw her previous projects and I saw how she works, [and] that built a great trust in me. I trusted also her years of experience: she is not a young architect, and has been in the market for a very long time. This is what creates my trust as well.' (KB1)

Notably, the importance of tracking trust lies in how it is developed, as well as what factors helped to reinforce it—and, through the narrative of each case study, trust develops in different ways: through the interactions around the design; through the connections; previous experience between the architect, the client, and their mutual friends; and through an architect's reputation and dedication. However, many other factors will also influence this trust, all of which being mutable and different from one case to another: the architect's experience; previous relationships; word of mouth; and the architects' efforts and previous projects. Please see **Table 4-3** for a list of the 'main' reasons for trust in the relationship, as identified by the clients of each case study.

 Table 4-3: Trust in the Relationships from the Client's Perspective - Source: Researcher

Case Study	Initial trust	Post project trust
RB-RB1	Family Relationship	-
	Office Reputation	
AS-AS1	Family Connection	Interactions around the Design
AS-AS2	Word of Mouth	Architect's Efforts
RL-RL1	Family Connection	
	Architect's Experience	
KB-KB1	Word of Mouth	Interactions around the Design
KB-KB2	Previous Experience	-
DK-DK1	Office Reputation; previous	-
	experience	

Meanwhile, **Table 4-4** and **Table 4-5** trace the trust within the relationship from both the architect's and the client's perspective within each case study. Indeed, it is interesting to note the way in which the evaluation of the trust differs between these two perspectives based on the following events that built/challenged trust.

Table 4-4: Change Levels of Trust Through the Cycle of the Project from the Architect's Perspective - Source: Researcher

Case	Project Timeline					
Study	Before Starting	Early	Design	Construction	Finishing	Occupancy
	the Project	Stages	Development			
RB-RB1	Neutral	High	High	Neutral	Neutral	Neutral
AS-AS1	Low	Neutral	High	High		
AS-AS2	Neutral	Neutral	High	High		
RL-RL1	Neutral	low	High	Neutral	High	
KB-KB1	Low	Neutral	High	High	High	High
KB-KB2	Neutral	High	High	High		
DK-DK1	High	High	High	High	High	

Table 4-5: Change Levels of Trust through the Cycle of the Project from the Client's Perspective - Source: Researcher

Case	Project Timeline					
Study	Before Starting	Early Stages	Design Development	Construction	Finishing	Occupancy
	the Project	J	·			
RB-RB1	High	High	Neutral	Low	Low	Low
AS-AS1	Neutral	Low	High	High		
AS-AS2	Low	High	High	High		
RL-RL1	Low	High	High	High	High	
KB-KB1	Neutral	Neutral	High	High	Neutral	high
KB-KB2	High	High	High	High		
DK-DK1	High	Neutral	Neutral	Low	Neutral	

The question of whether trust can be built instantly or whether it takes time appears to be a controversial one and, hence, in an attempt to answer this question, different views and experiences within the case studies are explored here. Although many architects and clients showed an understanding of trust as something that they build and sustain, others perceived trust as something that can occur instantly: for example, in Case Study Four (RL-RL1), Client RL1 claims to have developed trust in the architect at a very early stage of the relationship on the grounds of his evaluation of the architect's previous work, way of thinking, and reputation within the market—rather than on the grounds of his own experience with her. Here, Client RL1 stated,

'From the beginning, the architect should show an attitude that... lead[s] to trust. Because the early discussions would lead you to the first official step, after that you would either develop a trust or go away. The architect is responsible for building the trust. You cannot build a trust because you want to build a trust; the architect makes you trust him. You don't keep building the trust; it should be built in the early stages.' (RL1)

Conversely, trust could occur as an outcome of architect-client interactions, as confirmed by many architects and clients. For example, Architect DK highlighted the importance of interactions to build trust by stating,

'The trust in the architect-client relationship is a result of their interactions.' (DK)

Meanwhile, in Case Study Two (AS-AS1), the trust here was constructed through their interactions, as well as with the client finding his architect to be dedicated to their work, enthused and directing a lot of effort and time for his project. Client AS1 also pointed out that

when he started his project, he was 'not sure' about his choice of architect, but a strong trust was nevertheless built afterwards, in turn allowing him to become more confident.

Generally speaking, when clients are aware of an architect's efforts in a project, they trust their ability to deliver the project more so than if they weren't. Furthermore, listening to a client's ideas—especially within residential projects—is another key for building trust. For instance, in Case Study Three (AS-AS2), the first keystone of trust-building was when the three design proposals were presented. Here, AS2 stated,

'The architect listened to my idea; he sketched it and made drawings of it, then show[ed] me its advantages and disadvantages and gave me other proposals. This not only respected my ideas, but it showed me how professional these architects are: their moral standards and their skills.' (AS2)

AS2 clarified that the architect's efforts in the design, as well as their aim to satisfy the client, is what ultimately made him trust and appreciate the architect and the experience itself.

It is also important to bear in mind that the development of confidence and trust in the professional relationship takes time, as shown in Case Study One (RB-RB1): here, the client and architect had known each other for a long time before the onset of the project, and they started with a 'high level of trust' (according to them); however, when discussing different aspects of the relationship, it was found that confidence was built over time and underwent different patterns of ups and downs. Confidence was at its lowest when the most important design decisions were made at the beginning of the project.

Furthermore, trust is seen as a reward for the architect's efforts, and can result in clients recommending the architect to their peers and relatives—which can also help in building a strong reputation within the market. In this research, this aspect can be evidenced in Case Study Three (AS-AS2), whereby Client AS2 showcased a positive attitude in terms of how he spoke of his architect. This way of reporting his experience helped to market the architects' practice.

Architects can make a lot of effort to build trust, and they expect a return for this investment; Architect RL expressed her thoughts with regard to her expectations of the client's attitude in return for her effort:

> 'I really feel surprised when after the dedication I give to them during the design stage and building... they go later with another project to someone else. I feel surprised, because I gave them so much dedication.' (RL)

Meanwhile, in Case Study Four (RL-RL1), Client RL1 stated that his trust in this architect was developed as a result of her experience, highlighting the importance of the architect's experience as a factor for building trust. Client RL1 stated,

'I would never go for a young architect; the probability of not managing the project is very high.' (RL1)

Furthermore, in Case Study Six (KB-KB2), the impact of trust is not only seen through the smoothness of the relationship and the interactions, but also in how it impacts other actors associated with the relationship—which could be problematic without trust. An example of that is the matter of architect fees. In this case, the fees were not an issue to discuss, since he had a high degree of trust in the architect, as well as his intention to work with her regardless of the fees. Here, Client KB2 stated,

'I think [an] architect is like any other service provider: the barber, the butcher. Once you feel comfortable with [them], you will keep going to him, regardless [of] his fees. When I worked with this architect in my apartment, I was very happy, and she understood my requirements well, so I stayed with her for my next project. Although her fees are considered high... it [is] worth it.' (KB2)

It is important to note that the trust did, in some case studies, undergo some challenges: for instance, in Case Study One (RB-RB1), we have here an example of a trust-diminishing event (when client RB1 felt that architect RB did not fully understand her requirements). Here, Client RB1 made their feelings clear concerning the maid's room, asking for this to be on the ground floor; however, Architect RB kept locating it in the basement, and, although this is a small design detail, it had an impact on the client's level of trust. As a result of this—as well as some similar events—, Client RB1's trust in Architect RB was challenged and kept swinging between trust and lack of trust. Client RB1 stated that,

'I feel I am in a middle place between complete trust and no trust. The architect knows better than me in her domain, [but] this is my house, and I want to be sure that every single corner is as I want it to be.' (RB1)

Another challenge in terms of architect-client trust is the intervention of other people: it was claimed by many interviewed architects that clients tend to consult a number of people in the design decisions that they make, such interventions and the multiple ideas that the client then presents to the architect potentially then being reflected in the relationship. This sometimes results in a challenge to trust. Here, Architect RB stated,

'One of the main difficulties in the relationship with [the] residential project client was that he listens to so many people at the same time: he would consult his relatives, co-workers, friends, and so on. Then, he would come back to us with many ideas that do not suit his project, and he would become hesitant and [unable to] make up his mind. I would tell my client that consulting one person is a good idea, but consulting every person you meet would be bad for the project; and this would also lead to a loss of trust with the architect.' (RB)

Meanwhile, Architect RL perceived this issue from a different angle, finding that when the client trusts their architect, they would not listen to other people. She also highlighted the impact of the architect's experience on trust:

'It is all about trust: if the client really trusts the architect, they won't listen to anybody else.' (RL)

In Case Study Five (KB-KB1), the narrative of the main stair has an integral role when it comes to trust-building: because Client KB1 felt Architect KB was close to her at a personal level, she trusted her more in this project, this trust hence being best described as 'fluid conditional trust'. It was ever-changing, and the person 'trusted' at each different stage was different. Please see **Figure 4-3** for a visualisation of the change of trust within this relationship. Indeed, before commencing the project, Client KB1 was unfamiliar with the Jordanian market—and, because Architect KB's name was mentioned by the contractor (who the client knew before starting the project), Client KB1 met with them, and they found they got along together easily. Saying this, despite the fact that both the architect and client confirmed the trust here was built from the early stages and that it developed well through interactions, when Client KB1 was due to begin another project, she chose another 'male' architect due to the fact that it was a commercial project. She stated,

'I have another project now: it is a commercial centre. I worked with another architect [male architect], but now, for the interior and the reception area, I want a feminine touch. So I came back to this architect because I trust her.' (KB1)

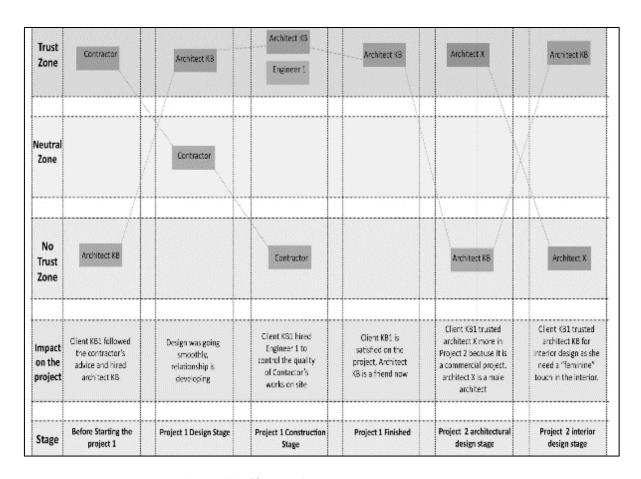


Figure 4-3: Client KB1's Trust Matrix - Source: Researcher

4.8. Knowledge Gaps

As would be expected in such an industry, clients vary in their knowledge, backgrounds, and experiences significantly⁴⁴, and so architects need to deal with this diversity in the complex context of architectural design. The variety in type of information that the architect needs to communicate with their clients is wide, and includes design solutions, environmental considerations, material selection, and so on (Norouzi *et al.*, 2015b). As can be seen in the study by (A. Oluwatayo et al., 2014), some clients lack knowledge about the nature of architectural services, as well as the statutory regulations governing the projects they intend to undertake (A. Oluwatayo *et al.*, 2014). Hence, the idea that every project has a new client, and

⁴⁴ Generally, public knowledge of architecture has changed in recent years because of the media and easy access to the internet. It has provided a medium for clients to develop and build their knowledge in all architectural aspects. This idea was confirmed by different clients (RB1, AS1, KB1), and the impact of the access to different projects on the overall project was seen through the analysis of the case studies.

this client might only undertake one project, means that there is actually no cumulative knowledge to build on—and it also means that architects need to educate every client of every residential project—unlike developer-led housing, whereby cumulative knowledge is built with every new project.

The majority of clients will experience some degree of misunderstanding as a result of their encountering a new, unfamiliar design and construction issues—something that can also be seen within other studies. An example of this would be the work of Siva & London (Siva & London, 2009a, 2009b, 2011, 2012), within which some clients possessed a good command and understanding of the architectural design, demonstrated through their interactions with their architect. Meanwhile, others did not have the same knowledge, this being dubbed a 'knowledge gap'. Indeed, it is important to mention here that the majority of the interviewed architects mentioned it and explained the way in which it impacts the flow of the design process; however, none of the interviewed clients mentioned this, some even highlighting the fact that they needed 'more information/knowledge' at certain stages in the project.

As we can see from the above, a client's lack of knowledge and experience can be a cause of stress, which can, in turn, result in disorientation in the architect-client relationship. Indeed, the importance of the efforts architects required in order to pay in educating their client to achieve better relationships and projects is emphasised in a variety of studies (Norouzi *et al.*, 2015b; RIBA, 2015a; Siva & London, 2009b, 2011, 2012). Notably, the knowledge gap is typically most visible at the design stage; here, Architect RB mentioned the knowledge gaps that she usually faces with her clients, stating,

'Many clients do not understand the drawings; they do not understand the relations in those plans, for example. Therefore, we must work on 3Ds and clarify [them] for those clients to ensure that they got it right. Another issue is that many clients do not have area and space sense.' (RB)

When it comes to the client asking to decide on the design, the direct negative impact of the knowledge gap is tactile: if the client does not have enough knowledge to understand and evaluate the design decision, they will not be able to make an informed decision. An example of this can be seen in Case Study One (RB-RB1), whereby RB1 was asked to make decisions

concerning the garage and the back garden—something she was ultimately unable to do because of her lack of experience⁴⁵.

Hence, through this research, it was found that there are different types of knowledge gaps, including: lack of knowledge of architectural styles; and not understanding the time needed for the design, areas, measurements, and drawings. In this regard, Architect AS highlighted that the knowledge gap is clearer when the design approach varies from what the client has encountered before: for example, differences between building elements associated with different 'styles'. Here, Classical elements (e.g., porticos) are commonly used in Jordan, so clients will often understand them easily; however, minimalist elevations are harder for the 'layman' to imagine. Hence, it is important to highlight that the architects clarified here that they tend to 'speak using easy language' and clarify any technical terms they use—which is also important when it comes to building the relationship, as it makes conversation more balanced than one where a 'professional' is merely speaking to a 'layman'. This was also found within other studies, such as (Murtagh et al., 2016; Siva & London, 2012).

4.8.1. Client Education and Learning

Educating the client is an integral part of an architect's everyday practice; an architect can educate clients about possibilities they may never have imagined, in turn allowing for the development of a shared vision of the project objectives towards making architecture. Indeed, this partnership is considered to be part of the relationship, as well as an outcome of it. With every design interaction, a learning-teaching process occurs that remains continuous all through the project, varying depending on the client's background, the nature of the relationship, and length of the interactions. Bearing this in mind, the case studies within this study could be categorised in accordance to their client's experience and engineering background into four different categories (please see **Table 4-6**). Besides general understanding of design and construction, it was found that clients developed discipline-specific knowledge (e.g., the understanding of principles and the application of green principles [Case Studies One, Two, and Three], architectural styles [Case Study Five], spatial qualities [Case Studies Two and Six], and dealing with site forces [Case Studies One, Three, and Seven].

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⁴⁵ please refer to case study one (RB-RB1).

Table 4-6: Case Study Classification According to the Client's Previous Experience - Source: Researcher

Case Study	Experience in Architecture/ Construction	Engineering Education
RB-RB1	X	X
AS-AS1	X	✓
AS-AS2	✓	✓
RL-RL1	✓	✓
KB-KB1	✓	Х
KB-KB2	✓	Х
DK-DK1	✓	✓

Within Case Study One (RB-RB1), RB1 attempted to overcome the knowledge gap by educating herself intentionally and unintentionally: RB1 kept searching for design ideas over the internet, visiting material shops, and familiarising herself with measurements and areas, and, during her interview, it was clear she had developed her knowledge during the project: she used architectural terms, referred to stages of construction, and was critical about the selection of design decisions.

Meanwhile, Case Study Two (AS-AS1) is an example of a client with an engineering background (electrical engineering), yet one without prior experience in construction. The design was undertaken utilising a participatory approach, this design experience being characterised by the notable efforts clients need to make in order to sufficiently educate themselves. Indeed, some of this learning occurred directly from the architect through their interactions, and another part was purely self-learning (i.e., through the internet). This learning could be seen clearly in the decision to apply green principles, as Client AS1 possessed a false idea concerning the cost and application of solar panels and insulation. Hence, the architects' role here was to clarify the actual cost of these applications, such clarification ultimately helping the client to make an informed decision: without this knowledge and the architect's effort, such decisions would not have been made.

Case Studies Five (KB-KB1) and Six (KB-KB2) are examples of clients with previous experience within construction, but with no formal engineering education. The knowledge of such clients in the field of architecture and construction was developed through their prior experience in other projects, and continued to develop through their new projects, during which they were both exposed to the iterative nature of the design process and were able to develop their strategies to cope and learn. In Case Study Five (KB-KB1), KB1 stated that the architect helped her understand the drawings, clarifying the choices of different design decisions. She also confirmed she had made a conscious effort to educate herself.

When we have a client that is an experienced engineer, the nature of the education here is different in terms of the level of detail discussed: for example, in Case Study Three (AS-AS2), the client's education was in terms of refining the specifications of insulation, whilst in Case Study Four (RL-RL1), Client RL1 stated that his experience helped him at different points. He also stated that he learned a lot about the construction of residential projects, local market, and materials over the course of this project. Further, in Case Study Seven (DK-DK1), Client DK1 confirmed that he learned about dealing with site forces, regulations, and requirements.

Indeed, even during the early stages of the relationship and the development of the brief, clients are constantly developing their understanding of the design and construction. The brief would start with a simple list of required rooms and areas before eventually evolving into a more complicated form, whereby client's aspirations and preferences are highlighted (e.g., how they want the relationships between the rooms; how they want to 'feel' the spaces).

Architects understand here that educating their clients is a part of their role, the interviewed architects claiming that they undertake lots of client education in every meeting, starting from reading the drawings and progressing to actually explaining the architectural trends, as well as choosing different finishing materials. This is due to the fact that they understand that no real engagement can be achieved if the client does not understand the design, drawings, or reasons for making different design decisions. As stated by Architect AS,

'What happens in the early stages is that I am trying to transform this layman into someone who has a basic knowledge of architecture. It would take maybe four or five meetings until I feel that the client understands what I am saying and understands the drawings.' (AS)

Indeed, Architect KB confirmed the efforts she makes to educate her clients, stating that she views it as important to raise the level of the architecture provided: if the client understands the rationale behind decisions, they will in turn respect and value the work being done.

4.9. Client/Architect Satisfaction

A range of researchers have surveyed the factors that would aid the architect in achieving better client satisfaction within their projects. One example of such a study lies in the work of (Oyedele & Tham, 2007), whereby a quantitative approach was used in order to assess the architect's performance by their clients. Here, the findings highlighted the essentiality behind the architect's efforts in communication and dealing with clients, as well as the areas that they

need to focus on in order to improve their performance and satisfy their clients. One of the definitions of project success centres on achieving client satisfaction (Meyer, 2003). Similarly, in (Frimpong & Dansoh, 2016), it was discussed that client satisfaction within a project is largely determined around three main issues: time, cost, and quality. Indeed, (A. A. Oluwatayo, 2016) also identified that beyond the provision of design services, residential clients desire to have good working relationships with architects.

Within this research in particular, a successful architect-client relationship is perceived when both the architect and client are satisfied with the process and product of the design. Accordingly, there were mixed responses across the different case studies when the architect and client were asked about their satisfaction with the design, the answer in many cases encompassing how they 'feel' about the design process, the personal relationship, the design itself, and the condition of the house after occupation. Thus, in many cases, it is difficult to trace which aspects of the design process/relationships were perceived to be the cause of particular problems and which directly led to improved client satisfaction.

In the same vein, when it comes to defining client satisfaction, (Masrom & Skitmore, 2010) found that satisfaction is determined by whether the service/product meets what the client is looking for (Masrom & Skitmore, 2010; A. A. Oluwatayo, 2016); thus, satisfaction would be granted if the design matches the clients aspirations and expectations, as well as what they actually think and feel about it (Gann *et al.*, 2003). When applying this to the context of these case studies, attempts to understand client satisfaction with a design ended up shedding light on their satisfaction with the relationship with the architect, the process of design, and other issues. Indeed, (Frimpong & Dansoh, 2016) clearly found that clients attempt to guarantee their satisfaction by making 'value for money' considerations both before and during their employment of architects—and this is done by considering a number of factors that can help them to choose an architect who is worth their fees.

Indeed, other studies have also showcased a gap between how the architect and the client typically perceive their relationship (Dansoh & Frimpong, 2016; Siva & London, 2012), and, unsurprisingly, this research has brought us to the same conclusion, evidencing the fact that their perceptions of their relationship may be different and even contradictory. For example, in Case Study Three (AS-AS2), Client AS2 evaluated the relationship to be positive and friendly; however, Architect AS's account could not have been more different, detailing how difficult and demanding the relationship had been and how hard design generation had been. Similarly, whilst in Case Study One (RB-RB1) Architect RB described the relationship as 'smooth and

great', Client RB1 described it as 'stressful and hard'. This draws attention to how the same relationship can be viewed quite differently from different angles: despite the fact that they are working on the exact same project, the architect and the client view things very differently by the end (Frimpong & Dansoh, 2016; Siva & London, 2012), Hence, their satisfaction with the relationship over the same project could also be totally different.

Considering the design is in a continuous loop of production and reproduction, it was noted that client satisfaction with the design can also be represented as a continuous loop: after all, a satisfied client today could be an unsatisfied client tomorrow, such a notion justifying the focus of this research on the emotional and social side of the relationship, as well as reinforcing the outcomes of other studies (Dansoh & Frimpong, 2016). Furthermore, when the design is in use and the client begins to interact with it on a daily basis, the client's satisfaction may change again. Indeed, oftentimes, the question of how satisfied the client is with the design has answers related to other areas separate from the design itself (e.g., the client's satisfaction with their experience and relationship with the architect; the finish materials; the housing conditions; the construction process). Indeed, such a change of satisfaction is an interesting factor to examine: when the client is satisfied, they usually have a good relationship with the architect, recommend them to other people, and talk about their experience positively; but when the client is not satisfied, they tend to blame the architect and evaluate them and their overall experience in a negative light.

As an example of this, in Case Study Six (KB-KB2), client satisfaction could be seen from the early design stages through till the completion of the project. Notably, the previous experience of working together between architect and client here provided a boundary for expectations, which influenced the later relationship and its outcome. Client KB2's satisfaction could be seen through his comments:

'She tried her best to make a design that would satisfy me as a client, without compromising [on] the quality... I am very satisfied with the design now. It reflects all that I want... I felt that this architect did a great job in my project. She exceeded even my expectations.' (KB2)

The importance of client satisfaction lies not only in achieving the best possible design and the comfort of the client, but it is also highly beneficial for the architect: when a client is satisfied, they will market the architect and, in this way, the architect brings in more clients—and, through their positive experience with their architects, clients develop an appreciation for the

architect's value, efforts, and role in general—not only as the designers of their home, but as a member of society, too.

4.10. Chapter Conclusion and Remarks

This chapter has explored the patterns of communication between the architect and client by following the relationship through the project lifecycle, showcasing the ways in which different communication tools are typically utilised within architect-client interactions. Further, the importance of previous projects, as well as the role of visual tools, were also highlighted. How these two actors have been found to impact the relationship—alongside others—will hence be discussed in the subsequent chapter.

Architect-client relationship within residential projects are largely found to be dynamic. Similarly, the importance of communication skills for architects has also been highlighted in light of it as possessing an essential role in marketing the architect and convincing clients with suitable design decisions. Indeed, such findings should be taken into consideration when developing the pedagogies of architectural schools.

Furthermore, another factor that could be highlighted here is what is communicated through those architect-client interactions: the majority of the communications here concern the design and client requirements, and so it is important to draw the architects' attention to consider communicating their efforts to protect the public interests within their professional practices. Notably, brief-building was also found to be dynamic and a two-way communication process.

Furthermore, because of the project's high importance for the clients, clients tend to be actively involved in the design—which highlights the importance of client education and, in turn, the architect's role in that. This chapter also showcased the fact that the architect's value is impacted by a given client's 'evaluation' of their relationships and experiences. In a similar vein, when architects make an effort to educate their clients and make the language/drawings used understandable, this results in an appreciated relationship, such efforts in educating clients going beyond the immediate benefit of the project, since it has helps build architects' reputations and build trust. Client satisfaction of the design is also highly linked to their satisfaction of the process of the design and the relationship.

Notably, cultural issues have also been found to wield a significant impact on the architectclient relationship at different stages: for example, word of mouth and family relationships are frequently the main reasons for a given architect's selection. These also impact the development of the relationship into friendship.

Another aspect that could be connected to the cultural issues experienced here is the architect's preferences of indirect marketing, as well as their reliance on clients to market their architects. This requires more effort from the architects, and also adds more importance to their 'clientship' skills. Indeed, considering the role of the architect in managing the process is of such high importance, they need to be aware of the role of culture here. When fully acknowledging this, is becomes clear that cultural issues require further research in different contexts, as culture and context influence the relationship. Accordingly, no generalisations should be made from one context to another.

In the subsequent chapter, this discussion will zoom into the role of different actors within the architect-client relationships.

Chapter Five

Zoom in: Actors in the architect – client relationship

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5. Chapter Five: Zoom in—Actors in the Architect-Client Relationships

5.1. Introduction

Within this chapter, the discussion zooms in to study the key actors within the architect-client relationships—and, in order to answer the research question, (i.e., How do different actors influence the architect-client relationship?), this chapter delves further into the findings from the seven case studies.

Notably, the discussions within this chapter are conducted through the lens of Actor Network Theory (ANT)—a tradition inspired by a variety of scholars of ANT and their work (Cressman, 2009; Fallan, 2008; Kurokawa, Schweber, & Hughes, 2017; Latour, 1996; Latour & Yaneva, 2018; Loukissas, 2012; Sayes, 2014; Sharif, 2016; Yaneva, 2009a, 2013, 2005, 2009b). ANT is typically utilised within architectural design research as a way to examine the non-human actors within the design process: for instance, (Yaneva, 2009b) utilised ANT in order to study models within architectural practice in OMA office, whilst (Sharif, 2016) used ANT in order to study lighting strategies within Masdar City. Similarly, (Houdart, 2008) studied material role within architectural design using this theory, and (Loukissas, 2012) used ANT to study the role of computer simulation within architectural design in ARUP work. Here, we can see that the importance of ANT lies in the fact that it directs attention to the multiple details, reconnecting

them to one another and to the whole in order to gain a more accurate and detailed understanding of different aspects.

Indeed, the study of the different actors here showcases the ways in which such relations within one network are shaped and reshaped within the whole process. The relational setting present here also demonstrates the shifts of roles of the actors as they change the different relations that they build or dismantle, strengthen or weaken, such role shifts also providing insight into how they impact relationship networks and, accordingly, alter the design network. Here, we can see that this in turn moves the discussion of the architect-client relationship beyond the usual call for collaboration between them, instead directing it to an understanding that this relationship involves more actors than just the architect and the client. Accordingly, this chapter examines the change in networks by their actors' translations⁴⁶, whereby the associations/relations are of great interest; further, this chapter also investigates the changing roles of these actors, as well as the re/forming of the associations (the change of the agency of these actors in each of the case studies and in different stages of the project).

Notably, it is important to clarify some ANT-related terms that will be used in this chapter here. The first one is agency, which is not a quality of an actor but instead is relational and the result of the relational setting within the network. If the same actor was in a different network or relational setting, it would have a different agency. Indeed, agency will be referred to frequently in this chapter in regard to whether it is (relatively) high or low.

This chapter has been structured in three sections: the first examines the architect-client relationships as a form of network; the second discusses the way in which the actors and associations between them form these networks; and the third discusses the networks of each case study in order to showcase how the different actors come together and influence the overall relationship and design.

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⁴⁶ Translation refers to the change of relationships where actors are reshaped (or redefined) - please refer to chapter two.

5.2. Architect-Client Relationships as a Network

In a variety of studies, architect-client relationships are discussed in terms of them as a relationship of two actors (Bertelsen & Emmitt, 2005a; Hansen & Vanegas, 2003; Norouzi et al., 2015a; Siva & London, 2011, 2012; Tessema, 2008), and the value of these studies lies in the fact that they provide a closer look on the architect and the client. Saying this, a main drawback to such researches is that they rarely include other actors as part of the relationship a major problem considering a wider perspective would present the relationship in the form of many actors that constantly interact to form an actor network. Indeed, this would be a more accurate representation considering the architect is not just a single contributor who produces the design, but a network (or a group of networks) that enable them to produce the design. Such other actors include other architects within the office; drafters; engineers; drawings; the office; the tools; the software(s); any previous projects; fees; and experience. All these contributors interact with one another to generate ideas and designs that the architect then works on; thus, these 'actors' interact together to form one actor network: the architect. Likewise, the client is comprised of more than one single contributor: there are a group of actors that interact and wield a notable impact on the overall process, such as family members, the budget, and any previous experiences and requirements. Hence, when the architect and client come together in any project, they are not isolated from the many other different actors—human and nonhuman—surrounding the project (e.g., visual tools; contractors; etc). However, the associated research studying architect-client relationships treats the 'clients' as if they are external, single actors with fixed goals whose input in the process of design is perceived as secondary, when in reality, a growing number of researchers are finally recognising the fact that things are more complicated on the ground (Bertelsen & Emmitt, 2005b; Kurokawa et al., 2017), and that clients, as actors, are part of the project network, and actually constitute a network themselves whereby they have their central role in changing the project/design/relationship networks while being changed by them.

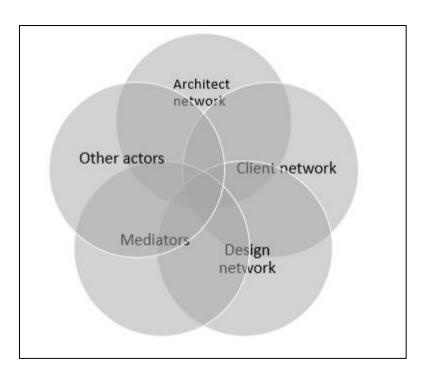


Figure 5-1: Architect-Client Relationship Network Formed by Actors from Different Networks - Source:

Researcher

As we can see in **Figure 5-1**, the design and relationship networks go hand-in-hand and, at different stages, they become one and before separating. Hence, the design network transforms to a 'use network' when the project is occupied, whilst the relationship may last after the design and project is finished—or it may break at that stage. Some actors that impact the design were found to have impacted the relationship, and vice versa, and, although those actors of design and relationship are the same, they impacted the design and relationship in different ways. Indeed, it was noted that some of the actors impacted the design process and, accordingly, the relationship (e.g., the regulations), whilst others impacted the relationship and, in turn, the design (e.g., client family members). Indeed, as this research focuses on the project from a relationship perspective, it will now examine the actors of the relationship in turn.

5.3. Actors within the Architect-Client Relationships

The architect-client relationship is perceived to be a form of network sustained by the continuous process of translation. It is the enrolment of different actors (with different roles), as well as the continuous change in relations, that widen—and even entangle—the network through the process, and, for that, it is important to shed light on these actors, their roles, and their associations.

As should be fairly intuitive, the architect and client are the main actors of the relationship (Cuff, 1992), amongst other actors that come through the process—and, hence, in order to fully understand the ways in which the architect and the client come together—as well as how they build the relationship and how our understanding of the different actors in the relationship could help in understanding the design process—, it is important to look at all these actors.

From an ANT perspective, an actor can be a network, and a network can be an actor—as explained by Callon as follows: 'The actor network is reducible neither to an actor alone, nor to a network... An actor network is simultaneously an actor whose activity is networking heterogeneous elements, and a network that is able to redefine and transform what it is made of' (Callon, 1987, p. 93). Hence, when the architect and client actor-networks come together, they cannot align together directly: they require a mediator, or a group of mediators. Furthermore, when discussing the architect and client as actors, the focus is not on who took this design decision, but on how the different actors—including the architect and the client—have come together and impacted the decision-making here. Indeed, it is such a perspective within the architect-client relationship that is the core of this research.

Within the following subsections, the actors of the relationship network are discussed, through which the main role of ANT in identifying the networks of actors is also illustrated.

5.3.1. The Architect's Network

The architect's role is seen through their management of the project, the interviewed architects and clients indeed agreeing on the 'importance of the architect's role in managing the whole relationship', as it was seen as part of 'what the architect should do' to meet the expectations of the relationship. This correlates with the findings of studies supporting the central role of the architect (Cuff, 1992; Frimpong & Dansoh, 2018).

Notably, the architect's agency is inextricably linked to the way in which the relationship develops between the role of other human actors (mainly the contractor): for example, in Case Study One (RB-RB1), the architect's agency was relatively high during the design stages but progressively decreased at the construction and finishing stages as a result of the agency of the contractor. Eventually, when the client and the contractor decided on some changes after occupying the house, the architect was excluded from the design network altogether. Similarly, in Case Study Two (AS-AS1) and Three (AS-AS2), the architect's agency grew to become relatively very high, then maintaining its agency throughout the project lifecycle due to his

control over the design and construction. Indeed, this resulted in lower agencies for other actors (e.g., the contractor, whose relation was partially dismantled). Further, in Case Study Four (RL-RL1), the architect's agency here was relatively high in the design stage; however, it was downhill from there: it gradually got lower as her relation to the design gradually weakened. Meanwhile, in Case Study Five (KB-KB1) and Six (KB-KB2), largely as a result of the effort Architect KB paid in the early stages to the relationship's development, her agency developed to be relatively high throughout the entirety of the project. On the contrary, in Case Study Seven (DK-DK1), the architect's agency swung between high and low throughout the design and construction stages. Please see Figure 5-2 for an illustration of the change of the architect's agency within the seven case studies. Notably, Figure 5-2—and similar figures later (i.e., Figure 5-3, Figure 5-4, Figure 5-5, etc.)—does not imply the linearity of relation; rather, it is an attempt to ease the understanding of the dynamics.

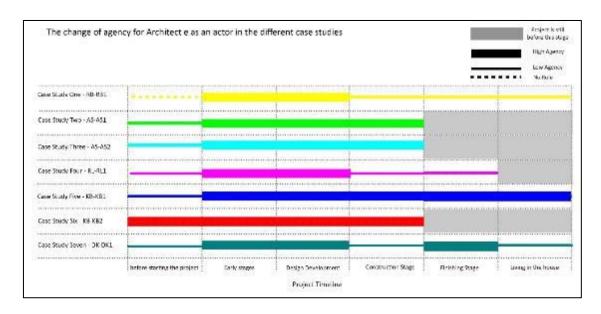


Figure 5-2: The Change of the Architect's Agency in Different Case Studies - Source: Researcher

The architect network comprises a number of actors and, depending on the context of examining this network, light has the potential to be shed on such actors. Hence, within this section, the main actors impacting the relationship here are studied in high detail. Indeed, despite the fact that networks continuously grow to uncontrollable limits, this is an attempt to put boundaries to the network, as well as to keep the focus on the actors that directly impact the relationship (since the architect network keeps evolving through the lifetime of the project, in turn undergoing different changes). Over the course of the following subsections, the

previous projects, architect's experience, and architect's fees are discussed in the context of them as actors within the architect's and relationship's networks.

5.3.1.1. Previous Projects:

The architect's previous projects are an integral actor in the architect's network and, thus, in the relationship and design networks—and, in turn, they are also a common actor within all case studies, playing a major role in establishing, enforcing, and maintaining the relationship network. Indeed, the agency of previous projects changes via the re/producing of the design, and also differs from one case study to another. Notably, previous projects were key when it comes to architect marketing (Case Study Two [AS-AS1] and Three [AS-AS2]), establishing the relationship (Case Study One [RB-RB1], Two [AS-AS1], Three [AS-AS2], and Four [RL-RL1]), enforcing the relationship (Case Study Five [KB-KB1]), interactions around the design (Case Study One [RB-RB1] and Five [KB-KB1]), building trust (Case Study One [RB-RB1], Two [AS-AS1], Four [RL-RL1], and [Five KB-KB1]), and educating the clients (Case Study Seven [DK-DK1]). Notably, the agency of previous projects was relatively very high in the beginning of the project/relationship in all seven of the case studies; however, it was a common occurrence that as the relationship (and the design) developed, the agency of previous projects would get relatively lower as a result of the growing agencies of other actors within the network. Please see Figure 5-3 for an illustration of the change of the previous projects agency, whereby it was also noted that the agency of the previous project within the developers' projects (Case Study Three [AS-AS2] and Seven [DK-DK1]) was relatively high only before the project launch before then possessing a relatively lower agency after that due to the defined requirements (where the requirements would be of relatively higher agency).

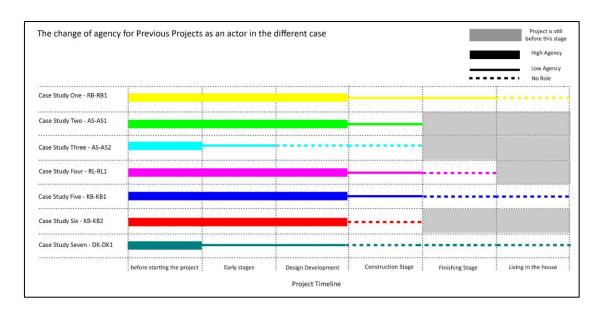


Figure 5-3: The Change of Previous Project Agency in Different Case Studies - Source: Researcher

Within Case Study One (RB-RB1) in particular, the previous projects played a major role in constructing the relationship, as the client actually approached the architect after she saw the architect's designs for her brother's house, in turn aiding in establishing the relationship and, hence, building trust. Further, at a later stage of the design, the architect referred to a range of design ideas she had used and tested before in previous projects, shifting the role of previous projects from a mere marketing tool to a client persuasion tool.

Alternatively, in Case Study Two (AS-AS1), when client AS1 saw the architect's previous projects (via images and pictures around the architect's office) he felt his 'decision is right' to work with this architect; during the early design stages, Client AS1 requested for a modern design with an L-shaped plan. However, Architect AS refined the requirements and showed him their previous projects, as well as the way in which they work and design. Hence, here, previous projects helped in minimising the time needed for the design.

Meanwhile, in Case Study Four (RL-RL1), previous projects played an essential role in establishing the relationship and building the trust from the client's perspective, it being of relatively high agency at the beginning of the design due to it being connected the architect and client. Hence, here, the, role extended to marketing the architect, building trust, and showing the architect's design skills, thus acting as a showcase for the 'products' the architect can 'produce'.

In Case Study Five (KB-KB1), Architect KB confirmed her using of 3D images of her previous projects to show new clients her designs, stating 'that built an instant trust'; in this regard,

Client KB1 also mentioned the role of previous projects in establishing the relationship before building trust. For them, previous projects reflected '*the experience of the architect*'.

Indeed, the majority of the interviewed architects voiced the fact that they utilised their previous projects in their communications with their clients, Architect RB's common practice, for example, being to show clients her previous projects in order to better understand her client and their requirements through their response, simultaneously to building up trust by doing so. In the same sense, Architect RL considers previous projects to be a tool to clarify concepts and show ideas to the clients, and, thus, she uses them frequently in her everyday practice.

Meanwhile, Architect AS uses his previous projects to convince the new client of his ability to deliver a high-standard project—essential when bearing in mind the fact that AS's practice is considered new, AS still being considered as a young architect. Thus, the question of trust is the first thing he usually faces with new clients. In this regard, he stated,

'When a client comes to me, in most cases, he does not know how good I am. I need to show him some of my previous projects. I have won two architectural competitions, so I would tell him about that.' (AS)

In the same vein, Architect RW stated that clients perceive previous projects as proof of a given architect's experience and abilities; here, he highlighted an important issue from his practice: the difficulties junior architects face when they start their own offices. This is difficult considering clients would ask to see their previous projects, only to find they still do not have much. This point was indeed confirmed by Architect AS, confirming that it has impacted the way in which he works and prices his projects. As a result of his needing to expand his portfolio in order to reach more clients, he would accept projects from sectors he had not worked in before (e.g., schools; governmental buildings, etc.) for very competitive fees (occasionally less than the design costs), just to add them to his portfolio. Indeed, the understanding of the role of previous projects in the future profession of the architect can be obtained through examination of Case Study Two (AS-AS1), who used and generated many visualisations for the project due to the importance of the project for the architect (as he wants to add it to his portfolio as a green building), thus giving it more attention in terms of design and details. Further, although Architect AS considered Client AS1's requirements (as he was part of the design), it is essential to highlight that the importance of creating a portfolio (through utilising the images of the architect's previous projects), as this has the potential to negatively impact

practice. Indeed, the architect may prioritise achieving outstanding images of the successfully completed project for their own future purposes over the client's needs.

Furthermore, as confirmed by the majority of the interviewed architects, the use of previous projects is to not repeat/reproduce the same design, but to show the application of design ideas to clients, such ideas including (but not being limited to) the layout, interior, and exterior details, dealing with site forces and context and responding to specific client's requirements and using different materials. It is the architect's role to clarify the images as a design clarification tool, as well as the ways in which the application would be similar or different in their own house design⁴⁷.

5.3.1.2. The Architect's Experience:

The architect's experience is a key actor when it comes to establishing and maintaining the architect-client relationship, being strongly connected to other actors within the architect's network (e.g., previous projects). Generally speaking, experienced architects possess a privilege over young/unexperienced architects from a client perspective: the architect's experience is seen through their years of experience (which was also found to be an important factor clients look at when choosing an architect), the diversity of their designs and projects, and their comments and suggestions during their interactions with clients. Indeed, the years of experience are reflected not only in the architect's ability to deliver the project or the design skills, but also in communication skills and the politics of dealing with clients.

Indeed, it is essential to highlight the client's understanding of experience is well-linked to the number of years; please see **Figure 5-4** for an illustration of the change of the architect experience agency. In Case Study One, the architect's experience was found to be excluded from the relationship network due to the relatively high agency of other actors (e.g., the family relationship), even though Architect RB has a wealth of experience.

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⁴⁷ Despite the wide use and reliance on previous projects images in architect— client interactions, it was also noted that the architects interviewed for this research do expend a lot of effort to produce designs that suit their client's specific requirements. This cannot be generalised across the whole architectural market in Jordan and might not reflect the actual situation about the originality of designs and the houses that are built. As an architect in the Jordanian market for around ten years, I have seen many designs that have been copied from elsewhere and duplicated in Jordan, regardless of how appropriate they are for a new context. As a result, some houses are designed according to a style, where clients would ask for a particular image for the house, without thinking about the context or the environmental factors.

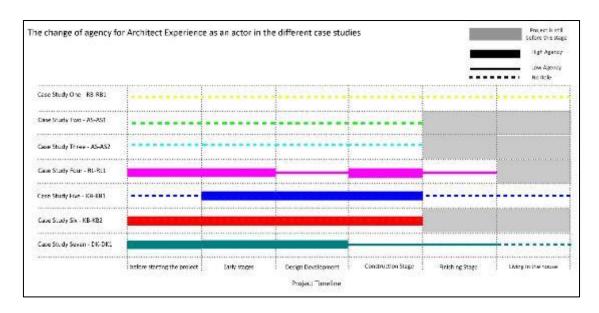


Figure 5-4: The Change of Architect Experience Agency in Different Case Studies - Source: Researcher

Meanwhile, in Case Study Four (RL-RL1), the architect's experience was indicated as being one of the main aspects Client RL1 considered when choosing this architect, the client claiming his trust of the architect was developed instantly because he 'trusts the years of experience'. Indeed, the architect's experience as an actor in this relationship shaped the launching of the project, in turn helping to building the trust.

Similarly, in Case Study Five (KB-KB1), Client KB1 confirmed the importance of the architect's experience when it comes to building the trust and establishing the relationship, pointing to the architect's years of experience to indicate them 'not being young' and, thus, being deserving of a strong reputation in the market. Similarly, Architect KB highlighted the importance of years of experience in achieving a design that satisfies the client: when Architect KB was asked about her efforts to have a satisfied client, she stated,

'My experience is my key for that. It requires good communication skills and a wide experience to satisfy a client and maintain your level of architecture.' (KB)

In the same vein, Client KB1 confirmed the importance of the architect's lengthy experience in communicating with her clients by stating,

'She would have seen many cases and she would develop the right ways to communicate with clients from different backgrounds. In addition, she would understand her clients better and understand what they are looking for. Therefore, age and experience have an important role in the relationship.' (KB1)

5.3.1.3. The Architect's Fees:

Architect's fees were found to be of relatively low agency within five of seven of the case studies⁴⁸: within the developer's case studies specifically (i.e., Case Study Three [AS-AS2] and Seven [KB-KB1]), the architect's fees were of relatively high agency, since they impact the establishment of the relationship as a result of the widespread perception of the project as an investment. In Case Study Three (AS-AS2) specifically, Architect AS confirmed the centrality of the fees issue in architect-client interactions, stating,

'Fees are important in the architect-client relationship. Many interactions happen around it.' (AS)

Despite the issue concerning fees being of low priority for Client AS2, it was one of the issues that were taken into consideration when making the decision to work with Architect AS; it was as a result of Client AS2's knowledge concerning the market that led to him making his decision upon solid criteria. AS2 stated,

'Their fees were competitive and suitable for us compared to the services provided.' (AS2)

On a similar note, in Case Study Seven (DK-DK1), the architect fees played an essential role in the relationship: whilst Client DK1 had previous experience working with Architect DK, the 'competitive' fees offered to him were a key driving force toward him choosing to work with her again. In this regard he stated that the importance of the fees is relative, and depends wholly on the project itself. During the final drawings-preparation stage, Architect DK confirmed she needed to prepare a 'quantity' of design details and drawings in order to justify the fees, as well as to show the client her efforts in the form of a material thing. Please see **Figure 5-5** for a summary of the change to the architect fees agency.

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⁴⁸ Clients interviewed clarified that the project importance for them and the perception of the project as their "lifetime house" has resulted in not considered the architect's fees as an essential factor in their relationship with their architect.

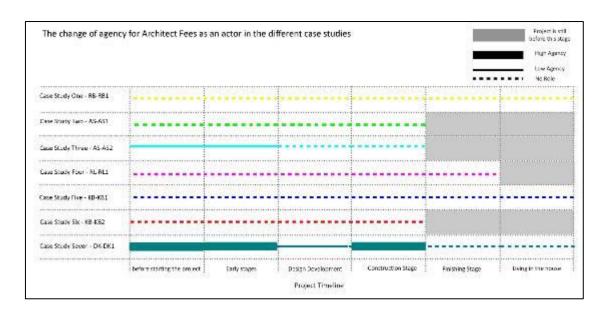


Figure 5-5: The Change of Architect Fees Agency in Different Case Studies - Source: Researcher

5.3.2. The Client's Network

The client represents a network (including their family members, budget, knowledge, and background), and, although this is wider than just such actors, the focus is on the actors: they clearly wield a significant impact on the relationship.

The client's agency is highly connected to the way in which the relationship is developed, as well as the role of other actors: for example, in Case Study One (RB-RB1), the client's agency was relatively high throughout the entirety of project, except during the construction stage due to the relatively high agency of the contractor and the pressure of the family relationship. Meanwhile, in Case Study Two (AS-AS1), the client's agency was relatively high during the design stage, since he participated in the design; however, in the construction stage, he was of a relatively low agency due to his limited role, as well as the architect's relatively high agency. Conversely, in Case Study Three (AS-AS2), the client's agency was relatively very high consistently, resulting in weaker agencies for other actors (e.g., the contractors). Further, in Case Study Four (RL-RL1), the client's agency was relatively high throughout the project, as he controlled the roles of all other actors such as the architect and the contractor. In Case Study Five (KB-KB1), meanwhile, the client was of relatively high agency throughout the project except in some stages of construction, when she was aboard; whilst in Case Study Six (KB-KB2), the client's agency developed to be relatively high throughout the entirety of the project. Finally, Case Study Seven (DK-DK1) provided a relatively high client agency due to his

control over the design and construction stages. Please see **Figure 5-6** for an illustration of the change of client agency within the seven case studies.

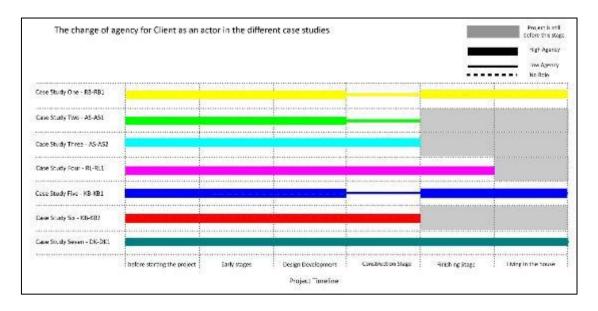


Figure 5-6: The Change of Client Agency in the Different Case Studies -Source: Researcher

In the following subsections, actors from the client's network are discussed, including the client's family members, the client's background, the client's budget, and the client's requirements.

5.3.2.1. The Client's Family Members:

Within this research, the client family members are seen as an actor within the client network—although an actor that is independent to the client as a person. In turn, this challenges the general assumptions of previous research, as they typically treat the clients and their family (even the multi-headed client) as one actor with the same roles, intervention, and goals (Kurokawa *et al.*, 2017); however, this research suggests the client family members' intervention is defined with their degree of participation—which, in most cases, is controlled by the main client. Indeed, the role of the client's family members is essential and requires serious consideration when tracing the impact of their participation in design decisions. In Case Study Six (KB-KB2) specifically, the client's family members—especially his wife—were an essential part of the relationship, attending the meetings, changing the requirements, and influencing the type of visual artefacts used to clarify the design. Additionally, the architect

could understand her client and provide the best design solution that would suit him and his family's lifestyle through her interactions with the client's family members, accordingly positively impacting the architect-client relationship.

Indeed, the client's family members' impact on the relationship is not limited to influencing the requirements or the design itself: it can also impact the time needed for the design, the process of making design decisions, and the nature of the meetings. Architect AS clarifies this impact by stating,

'Sometimes, when I discuss the design with the client, I would notice that some decisions are delayed because he takes the design home to discuss with his family. I would tell him that if you want, you can bring your family.' (AS)

Meanwhile, in Case Study Two (AS-AS1), despite the fact that the client's wife never attended a meeting with the architect, she was highly active in the design decision process, Client AS1 taking all the designs home to explain to his wife, who would then provide feedback to convey to the architect—which would then be taken into account when amending the design.

Not only are a client's immediate family members represented as actors in the relationship, but this circle could also be expanded to include many other people who act in the same manner as client family members: for example, Client RL1 of Case Study Four (RL-RL1) highlighted that the intervention of other people in the design decision-making process was not always his choice, but people would give ideas and suggestions without being asked to do so. In this regard, Client RL1 stated,

'Almost everybody affects us when we build a house. Everyone wants to give suggestions; everybody want to put ideas in your mind.' (RL1)

This point was also highlighted by the majority of the interviewed architects: clients involve so many people in the design discussions, who then become actors in the relationship and, thus, part of the network—all without fully understanding, from the client, the impact they would have on the process of design and the relationship. Indeed, the involvement of too many people in the design can result in unclear ideas, as well as the client losing their ability to make decisions easily. This, in turn, would result in the client network being contested, in turn impacting the contestation of design and relationship networks. Architect RB highlighted the impact of that on her relationship with her clients by stating,

'One of the main difficulties in the relationship with the client is that he listens to so many people at the same time. He would consult his relatives, co-workers, and friends and so on.' (RB)

Simultaneously, Architect RL highlights the situation of when their client was not in Jordan during construction, his family members then trying to interfere to 'ensure that things are right'. This would, of course, impact the architect-client relationship and trust. Here, Architect RL explains,

'Clients would ask their friends and relatives. Sometimes those offer their help without being asked, especially if the client is not living in Jordan: they would come to the site and think that they are more concerned about the client's interests than I am; they would say, "We know him better, you are just a hired architect, and I want the best for my cousin." (RL)

Indeed, the intervention of such people would lead to the trust being impacted, as when the client does not fully trust his architect⁴⁹, they may look for other opinions; however, when the client asks too many people about their suggestions, they would be overwhelmed by the diversity of ideas, in turn impacting their trust in the architect, as they may think the architect is not doing their job properly. Please see **Figure 5-7** for an illustration of the changes in the agency of client family members.

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⁴⁹ Some clients highlighted that even though they trust their architects, but because the importance of the project for them, they would like to hear other people's suggestions as that would help them achieve the best possible design in their house.

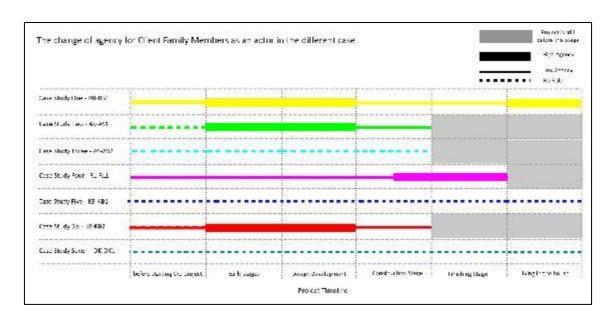


Figure 5-7: The Change of Client Family Members Agency in Different Case Studies- Source: Researcher

5.3.2.2. The Client's Background and Experience:

The impact of the client's background and experience on the relationship is reflected in their patterns of communication, time needed for the design (which could be more or less than the usual practice), the visual tools required, the timing of its introduction, and the expectations and development of the relationship.

Notably, in Case Study Three (AS-AS2), Client AS2 was an experienced developer with an educational background in engineering, which influenced the visual tools used, the application of design, the construction solutions, and the patterns of communication. Further, the relationship itself was constructed dependent on the previous knowledge the client had, of which Client AS2's was clear through the interview, his comments reflecting such knowledge and experience. Unlike other actors, the client's background maintained its agency throughout the entirety of the relationship, the client's background also acting as a meditator at the establishment of this relationship.

Meanwhile, in Case Study Five (KB-KB1), Client KB1's previous cumulative experience not only impacted the client's requirements, expectations, and involvement, but even the project before it was started: when it came to selecting an architect, she met more than one, and it was she met Architect KB that she looked at the different aspects of the architect's work (namely the quality and diversity in the designs). Notably, Client KB1's relationship with her architect was more balanced, and they worked together to obtain the result they were both looking for.

Simultaneously, Architect KB confirmed the client's experience had a positive impact on the design in terms of the process and product.

In Case Study Seven (DK-DK1), since Client DK1 is an experienced civil engineer, his knowledge impacted the relationship in terms of the ease of communication of design ideas. Architect DK commented,

'When the client has an engineering background to a certain degree, it would be easier: he would understand what I am saying.' (DK)

Indeed, a wealth of the interviewed architects perceived the client's background as being a positive influence for the relationship. Here, Architect RB stated,

'If the client has a knowledge in this field [of engineering/architectural knowledge], the relation become smoother and easier.' (RB)

Moreover, RL commented,

'It is easier to work with someone who can understand the engineering work. I usually face problems with people who don't have any idea about how the work is run.' (RL)

Please see **Figure 5-8** for an illustration the change of the client background agency in different case studies. This diagram suggests that the client's previous knowledge has a relatively higher agency at the beginning of the relationship.

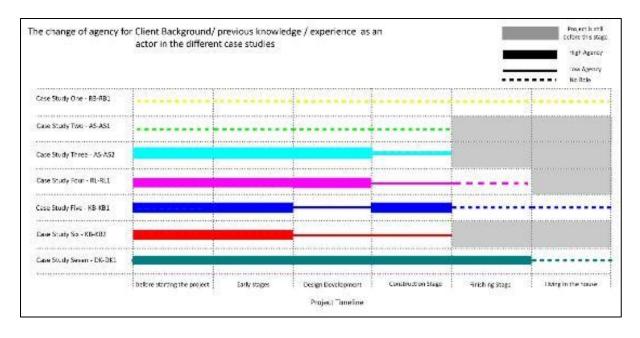


Figure 5-8: The Change of Client Background and Experience Agency in Different Case studies- Source: Researcher

5.3.2.3. Budget and Client Requirements:

Budget and client requirements are two connected actors that both impact the design and relationship networks. Further, since the agency of the actors is relational, it is important to clarify the actions that result in different distribution of agency in the case of the budget and client requirements.

In Case Study One (RB-RB1), at the beginning of the project, Client RB1's top priority was staying within the budget—and, as one may expect, this played a key role in terms of forming the brief and creating follow-on design decisions. At a later stage, however, the client's perception of the project changed, her requirements often being prioritised over the budget. The agency of these two actors kept changing through the design and construction stages, in turn mandating flexibility during the design and construction stages. In the end, this resulted in a design that was ultimately more appreciated by the client, also impacting the relationship by allowing a space for the architect to find better design solutions. For some clients (AS1), it was clear that the limited budget influenced their choices in the brief stage, accordingly impacting the design and relationship, as the agency of the budget was relatively high, in turn impacting the agency of other actors (e.g., requirements). Please see **Figure 5-9** for a diagram of the change of the budget agency.

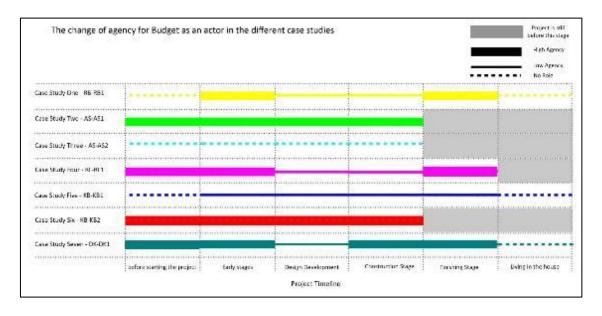


Figure 5-9: The Change of Budget Agency in the Different Case Studies - Source: Researcher

Indeed, a great number of architect-client interactions centre on re/defining the requirements, many studies claiming in this respect that a client's requirements in residential projects are dynamic. As seen in Chapter Four, the client briefs keep developing through the design stage, in turn influencing the relationship in different ways: it increases the time needed for the design, and, accordingly, increases the time and intensity of the relationship interactions. Please see **Figure 5-10** for an illustration of the change in agency for the requirements.

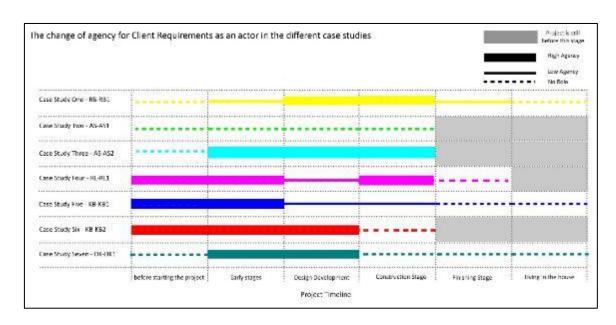


Figure 5-10: The Change of Client Requirements Agency in the Different Case Studies- Source:

Researcher

5.3.3. Other Actors

In addition to the architect, client, and their actors, other actors impact the relationship network, some of which being the networks themselves. Hence, in this section, those actor-networks are going to be treated as actors in an attempt to keep the focus of the discussion on the relationship network. Thus, in the subsequent subsections, the contractor, family relationship, design elements, regulations, and time and quality of the drawings will be discussed in the context of them as actors in the relationship network.

5.3.3.1. The Contractor:

When looking at some of the case studies detailed within this paper, it is evident that when the contractor gets involved in the project, the agency of the other actors (mainly the architect and

the client) is impacted, the contractor sometimes taking over the role of the architect (hence excluding them from the network) and in turn impacting the client's decisions (for example, Case Study One [RB-RB1]). Meanwhile, some studies examined the role of the contractor during the construction stage (Atuahene, Baiden, & Agyekum, 2017; Bygballe, Jahre, & Swärd, 2010; Sebastian, 2011); however, there is a gap in looking at the role of the contractor in the design stage and their impact on the architect-client relationship. The ANT approach helps in realising that including (and excluding) actors (e.g., the contractor) would impact the whole network and its actors by distributing agencies between them differently.

Leading from this, in Case Study One (RB-RB1), the contractor was part of the project networks during the design stage, his agency upon joining the process exceeding the agencies of both the client and architect; his involvement/interference in the design was absorbed due to the flexibility the architect and client showed. Indeed, in this case, the contractor influenced the design by suggesting amendments, raising the standards, and even by being critical about the design and the architect's work; hence, the contactor influenced the architect-client relationship by adding more pressure to the client, as he was a family member, in turn putting the client in a difficult position of trying to balance their family relationship with the professional relationship.

Meanwhile, in Case Study Five (KB-KB1), we have a situation whereby the contractor's agency changed dramatically over the course of the project: the contractor helped in establishing the relationship as he recommended Architect KB for Client KB1, and, at later stages, the contractor's agency became relatively very low as the architect and client developed their relationship. Indeed, the drop of contractor agency at these later stages could be seen in Client KB1's act of employing a site engineer to manage the quality of the construction works. Architect KB stated that the contractor's role was limited to applying the design, not interfering or changing it—and the limitation of the contractor role could be seen on the other face of the coin, whereby the strong relationship between Architect KB and Client KB1 was reinforced.

Please see **Figure 5-11** for an illustration of the change of the contractor's agency in the seven case studies. In Case Study Seven (DK-DK1), the contractor was the client and his agency was high at all stages of the project.

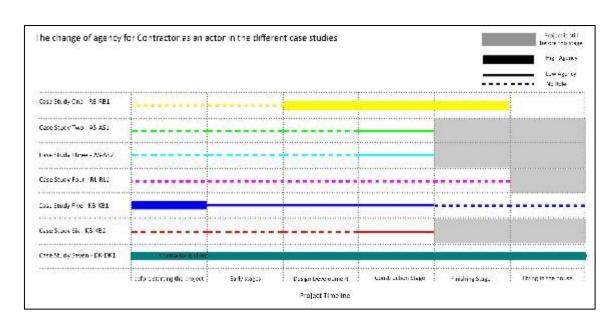


Figure 5-11: The Change of Contractor Agency in Different Case Studies - Source: Researcher

5.3.3.2. The Family Relationship:

The family relationship between the architect and client is seen as an actor in Case Study One (RB-RB1) and Two (AS-AS1), in the former of which the beginning of the project ran smoothly: the client contacted the architect directly and they decided to work together, this 'helpful' relationship then later turning into pressure for the client at different points of the relationship; here, Client RB1 has voiced that she found herself stressed at many events due to her trying to balance family with professional relationships.

Meanwhile, in Case Study Two (AS-AS1), the (indirect) family relationship was of a relatively high agency, as it directed client AS1 to contact architect AS. At later stages, it was excluded from the relationship network. Further, in Case Study Four (RL-RL1), although the architect and the client have a family relationship, it had no agency; this is because other actors' relatively high agency resulted in excluding the family relationship from the relationship. Please **Figure 5-12** for a diagram of the change of family relationship agency.

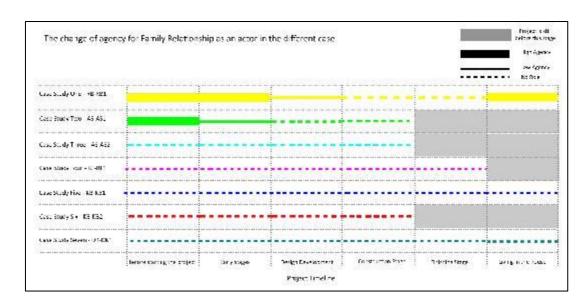


Figure 5-12: The Change of the Family Relationship Agency in the Different Case Studies -Source: Researcher

5.3.3.3. The Design Elements as Actors:

Since the design is generated through the architect-client interactions, some design elements develop their role to become actors and mediators in the relationship: for example, the main stair in Case Study Five (KB-KB1), whereby the change in the location of the main stair resulted in a change in its agency as an element of design. This is part of a narrative that impacted the project and the relationship⁵⁰, as it was relocated in the design from one of the corners, to the centre of the house facing the main entrance. The importance of this stair also changed from a secondary element—possessing a functional importance only—to a main element—one the design works around, with other spaces distributed accordingly. The communications concerning the design of this stair made the relationship stronger due to its personal aspect, in turn aiding in generating and modifying the design. The narrative of the main stair also has a role in the trust building. Further, considering Client KB1 felt architect KB was close to her at a personal level, she trusted her more in the project. Additionally, going this deep into the personal life of the client clarifies the social nature of the relationship.

Another example is that of the green principles present in Case Study Two (AS-AS1), whereby the decision of applying the green principles impacted the whole process: design, project, and

⁵⁰ Please refer to case study five (KB-KB1).

relationship. For example, it required a lot of effort from the architect to educate and engage the client in the design, also impacting the tools used to convey the design ideas and the design decisions with regard to spaces, materials, and progress of work. Notably, the agency of the green principles in the relationship was relatively very high during the design development stage.

Another example in this regard concerns the views from bedroom in Case Study Four (RL-RL1), whereby the actor was of relatively high agency in the beginning of the construction stage, impacting the design; however, it lost its high agency during the stopping time, and was excluded from the network as a result of the growing agency of other actors (e.g., client family members; requirements).

5.3.3.4. Building Regulations:

Building regulations is one example of an actor that directly impacts the design, also indirectly impacting the relationship; this could be understood through the example of Case Study Seven (DK-DK1), within which the building regulations concerning the parking lots impacted the design during the early stages. In such stages, the architect had to change the design several times according to such regulations, which also positively impacted the relationship: Client DK1 voiced their appreciation of the flexibility and time the architect offered for the project.

5.3.3.5. Time:

In the context of it as an actor, time could impact the relationship in a multitude of ways: for example, when the client is in a hurry and wants to finish the design quickly, this adds pressure to the architect and impacts the pace of the interactions; conversely, if the client has a plenty of time, they would want to spend it in more meetings and would invest more in the design stage. In Case Study Four (RL-RL1), time was of relatively very low agency in the design and construction stages: the client was not in hurry, and did not push the architect or contractor to finish in a defined time frame. Client RL1 stated,

'I have another house where we live now; I am working abroad and coming to Amman for vacations. This house would be for my retirement and vacations. I was not under any pressure to finish the house and move in quickly. Now, I almost finished the house, but I do not plan to move in until next summer.' (RL1)

Further, because time here was of a relatively low agency, this provided other actors with a space to be of a relatively higher agency (e.g., requirements; views; client family members), also giving room to complete more modifications and changes in the design.

Similarly, in Case Study Five (KB-KB1), the design of the plans took around six months due to the client being outside Jordan during the early design stages, as the design drawings were sent via email. Despite the fact that this type of communication delayed the design at the beginning of the project, it simultaneously gave the architect and client enough time to review and comment on the plans design—which helped at later stages, as all the plans details had been discussed and agreed on beforehand.

5.3.3.6. Quality of Drawings:

The quality of the drawings themselves were identified to play a role in the architect-client relationship: for example, in Case Study Three (AS-AS2), the high quality of the drawings helped in building a sense of trust in the relationship, in turn adding more appreciation to the architect's efforts. Meanwhile, in Case Study Seven (DK-DK1), the quality and quantity of the detail drawings did not meet Client DK1's expectations, which impacted the client's appreciation for the architect's efforts. This could also be linked to the client's background, since the client's evaluation of the drawings could not be possible without a solid knowledge of the architectural and construction drawings and details. Additionally, this actor challenged the personal relationship between Architect DK and Client DK1, as well as the trust here.

5.3.4. Mediators

Within this research, it was evident that an actor could play various roles, and that its agency would change throughout the continues process of translation; it was also evident that some of these actors would function as connectors—'mediators'—to connect the architect and the client networks: for example, if we look at the establishment of the relationships, it is possible to identify the actor that brings the architect and client together. In Case Study One (RB-RB1) and Two (AS-AS1), family relationships brought them to work together—and, at later stages, it impacted the process and communications around the design. Hence, the family relationship could be seen as a mediator at the beginning of the relationship and then an actor of variable agency. Further, in Case Study Three (AS-AS2) and Seven (DK-DK1), the mediator was the architect's fees, and, at the later stages of the design (and the relationship), the drawings, plans,

and 3Ds all functioned as mediators in the relationship. Hence, in this section, other actors/mediators in the architect-client relationship would be discussed, whilst in the subsequent subsections, visual materials, social media, and settings are discussed as examples of such mediators.

5.3.4.1. Visual Materials and Objects:

Considering they define how the design process and design outcome is generated (Henderson, 1998), design objects, tools, and representations (e.g., drawings; sketches; models; material samples) are the heart of the design work. Notably, Henderson (1998) was based on ANT's principle of symmetry, concluding that the objects used in the design process could either engage or restrict participation in the design process—such a finding not only highlighting the importance of these objects, but also the importance of the culture they can help to build. Further, based on ANT, design objects are actors in the network that create the design and, accordingly, the architect-client relationship. Indeed, other human actors also require those objects in order to engage in the design re/production. These objects would become the centre of the design creation and would impact the nature of interactions of other actors, the analysis of such objects aiding in developing an understanding of how the design was created around it.

Notably, there are cycles of using the objects, drawings, and 3Ds during architect-client interactions: they are used to create a shared vision of the design ideas instead of a fragmented one. Further, they are also used when it comes to defining the design problem, adding notes and comments, clarifying ideas to different actors, and modifying, developing, and approving the design—and it is such roles of objects in creating the design that impact the relationship, as they are an essential part of the interactions. In the seven case studies, the role of the objects is central in the architect-client collective, visual objects including plans, first proposal, 3D drawings, pictures, and samples. These will be discussed in turn during the following subsections. Before we do, however, it is important to highlight that the majority of the visual objects mentioned here are changeable: the development that occurs to the plans, for example, as they change many times, in turn also changing the relationship. This applies to other actors that are in a continuous change and change the network each time differently.

5.3.4.1.1. Plans (CAD or Freehand)

The plans weather CAD drawings or freehand sketches were noticed to be very commonly used in all of the case studies: indeed, the first generation of the design clearly is the development of the plans, and, accordingly, it is the first visual tool the architect uses to show the client the development of the design (as was the case in six of the seven case studies, Case Study Two [AS-AS1] possessing a client involved in the design process before the generation of the plan). However, it was found that clients develop their knowledge and understanding of the drawings through their interactions with their architects, and, as a result, the role of drawings—especially plans—is essential in the relationship. After all, the plan is not only present in the design stages, but also in the majority of the architect-client meetings, even at later stages (i.e., during discussions about finishing materials, construction stages, payments, and progress of work).

Despite the wide use of Computer-Aided Design software (CAD), Architect KB used freehand sketches when discussing design development with her clients, stating this is not the preferred method for some clients, but she sees it as an engaging way: such sketches helped her approve the design quicker, as the design alterations would be done whilst the client was still in the office and could thus give their feedback immediately. Please see **Figure 5-13** for some freehand drawings on tracing paper above the 2D AutoCAD plan from Case Study Six (KB-KB2). Meanwhile, **Figure 5-14** illustrates the change of drawings agency.

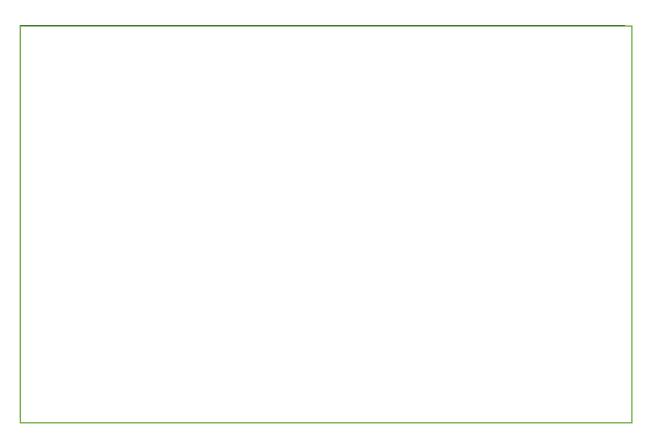


Figure 5-13: Amending the Plan Layout using Freehand Sketches -Source: Architect KB's Collection

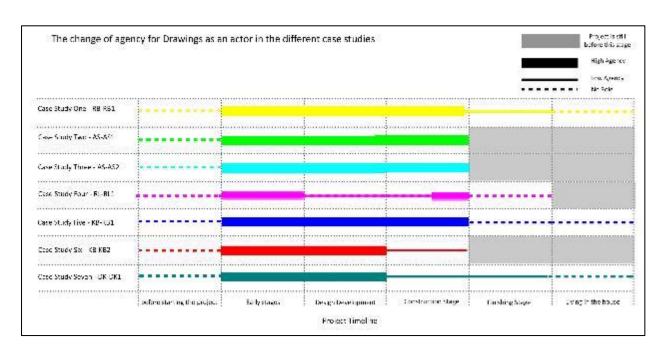


Figure 5-14: The Change of Drawings Agency in the Different Case Studies -Source: Researcher

5.3.4.1.2. The First Proposal

Although the first proposal is a plan the majority of the time, it has a distinguishing role as a milestone in the relationship, it is also proof for the client that their architect is 'good' for the project; plus, it can help the architect in ensuring all the client's requirements have been taken into consideration. Indeed, the use of the first proposal as a briefing stage tool to summarise all the client's requirements was confirmed by the different architects, being the first generated network of design as a result of the relationships. This network is made flexible and adaptive for the changing needs of the clients, as well as the differing emerging demands.

Here, Architect RW highlighted the importance of the first proposal for his practice: it is a 'chance' for him to show his design skills to his client and ensure that he got the requirements right, test the client's understanding of drawings, and also for his client to check if he likes the design approach. In this regard, Architect RW stated,

'I would tell the client, "My first sketch is for us to try each other." (RW)

This indeed correlates with findings of other studies of the briefing stage (Bendixen & Koch, 2007), whereby the importance of the client role, the visual tools, and obtaining the client's requirements right at early stages, are highlighted.

Furthermore, Architect RW's remarks concerning the fact that he would supply a freehand sketch for the initial ideas that come through the first session of discussions: he clarifies he would bring his and the client's ideas together and would test his understanding of the client's requirements. Here, stated,

'In the first meeting I do like to present a freehand sketch... I like to draw an elevation for this [Freehand Sketches by Architect RW - Source: Architect RW's Collection6], like this primary elevation, with some shade and shadow, to show the client what the approach is, as well as the project form.' (RW)

Please see **Figure 5-15** for an indication of some early stages manual 3D proposals by Architect RW.



Figure 5-15: Freehand Sketches by Architect RW - Source: Architect RW's Collection

5.3.4.1.3. 3D Drawings (3Ds)

Similarly to the plans, 3Ds are widely used within architect-client interactions, and it has been noted that the majority of clients—regardless of their background—prefer the use of 3D drawings. In addition, it was noted that architects vary in the timing that they introduce 3Ds of the project to the client: for example, Architect RW introduced a freehand 3D drawing as early as the first meeting, whilst Architect KB waited until approving the plans to introduce the 3Ds. Indeed, the timing of 3D introduction influences the role the 3D plays in the project: when it is introduced early (as in Case Study Two [AS-AS1], Three [AS-AS2], and Seven [DK-DK1]), it would be used as a design tool, helping in developing the design and eliciting the client input in the design; whilst when it is introduced at a later stage, it turns into a presentation tool (as in Case Study Five [KB-KB1] and Six [KB-KB2]). The wide presence of the digital technology applications in the design contexts has resulted in a shift of their use to be a communication tools (Norouzi *et al.*, 2015a); now, architects tend to use (and show their clients that they use) different software(s) within their design, such software(s) indeed making the visualisation of the design much easier, eliciting client participation. 3Ds could also be used as a client educational tool (engaging all family members) and idea-supporting tool.

Notably, 3Ds not only convey the design ideas and help clients to understand the building in a form they are familiar with, but they also generate additional dialogue around the development of the design; indeed, clients highly appreciate 3D as a visual tool, connecting it with the professionality of the architects and the time they dedicate for their project, and viewing it as justification for the fees they paid. Therefore, the role of the 3D extends its actual 'physical' presence in the communication to hold meanings of trust, bonding, and appreciation for the efforts paid in the project design⁵¹. Architect KB clarified another aspect of using visual objects, claiming that some clients want to 'see' more drawings, 3Ds, etc. in return for the fees they pay. Here, she stated,

'I do more details than required to make the client feel that the fees are justified. I put each detail on a page so they would see them as "much". Some clients want to see a material thing against their payment; some of them do not understand that they are buying ideas and experience from you.' (KB)

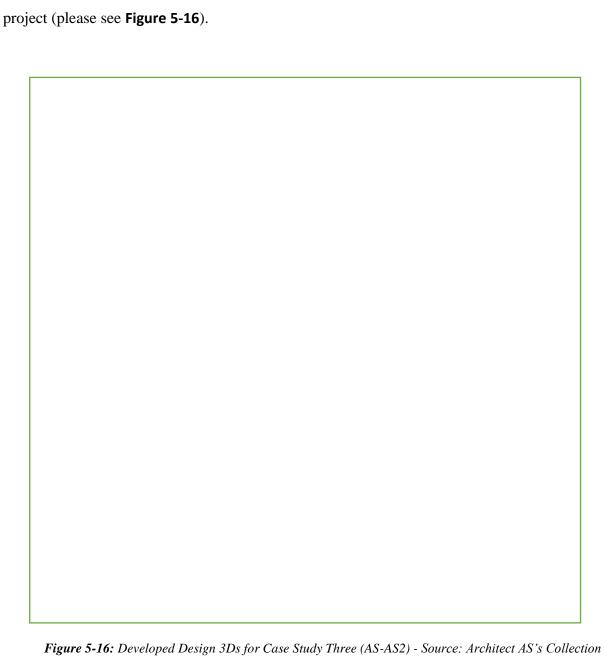
Bearing in mind the architectural knowledge gap between the architect and the client, 3Ds are important when it comes to bridging this gap, which could be seen particularly in Case Study Four (RL-RL1): the use of 3D here helped in engaging all family members in the design decisions, as they did not have any previous experience in reading architectural drawings.

Indeed, the quality of the details of 3Ds varies between different practices and the stage the 3D is used in: the former usually depends on the computer skills of the junior architects who work with the principle architect. In terms of producing the 3Ds, as confirmed by the interviewed architects, this is usually a task given to the junior architects in the firm. Here, another loop in the relationship could be observed.

Notably, 3Ds were not only used as printed A4/A3 images, but, in Case Study Two (AS-AS1), the architect showed the client the generation of the 3D on the computer screen, the client here participating in the generation of the 3D and design itself.

In Case Study Three (AS-AS2), the 3Ds were used at all stages of the design, Architect AS using 3Ds in the beginning of the project to showcase the different design approaches they can follow, as well the strengths and weaknesses of each design approach (please see **Figure 3-20**). During the later stages, different 3Ds were produced in order to show the client (as well as his

⁵¹ The debate in the literature on the impact of the BIM and wide use of 3Ds in the design process on the architectural product is acknowledged, but it is not the focus of this research.



future customers) the design, Client AS2 eventually using those 3Ds in his marketing of the

Figure 5-17Figure 5-17, meanwhile, shows the change of 3Ds agency in the relationship network; as illustrated, the 3Ds has the most agency in the design development stage as they would help in the design decision-making.

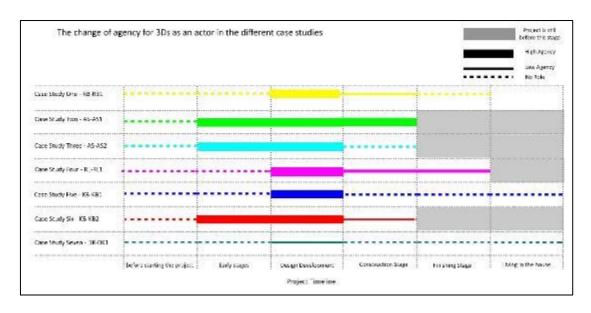


Figure 5-17: The Change of 3Ds Agency in Different Case Studies - Source: Researcher

5.3.4.1.4. Pictures/Samples/Models

In addition to the plans and 3Ds, other visual artefacts are used within the architect-client interactions (e.g., pictures; material samples; 3D models), such visual artefacts mediating the relationship and also wielding an active role, as actors, in the relationship.

Furthermore, pictures of architects' previous projects are widely used, as discussed above; moreover, pictures of other projects and designs from the internet (Pinterest and Instagram pictures are widely used by architects the clients) are used to test and convey design ideas. Indeed, in some cases (namely Case Study One [RB-RB1], Two [AS-AS1], and Five [KB-KB1]), the clients showed their requirements in the form of a picture they liked. Meanwhile, in other cases (as in Case Study Three [AS-AS2] and Seven [DK-DK1]), the architects used pictures to show design ideas to the clients. Here, Architect AS clarifies that when he shows the client a ready picture instead of creating a 3D for the idea, reasoning that this would minimise the time needed. Here, Architect AS stated,

'By experience, you realise that you do not need to do everything the hard way; you know, sometimes, if I want to do some shape for a stair, for example, I would search Instagram or Pinterest for something similar, and I would show the client this picture instead of wasting time drawing and modelling it. If he liked it, then I would draw it for him in a proper way.' (AS)

At the same time, Architect KB stated,

'I show them pictures and photos on an iPad; even before I start the design and after we have talked in the first meeting, I would show them pictures of the things that I understood as their preferences, so I ensure I did not misunderstand them.' (KB)

It is particularly important here to refer to the case whereby the client brings too many pictures and conflicting ideas to the architect, in which situation the efforts the architect pays in order to help the client to decide on what they actually want is of high importance. Here, the architects pointed out that clients with no previous experience are more likely to bring more photos and ideas to the meeting in an effort to try to educate themselves. Indeed, this could be seen as the impact of using the internet in building a public architectural knowledge. In this regard, Architect AS clarifies how he deals with clients bringing ideas in a form of a photo, stating,

'I would ask the client if there is something in his mind that he want to show me... [rather than] doing proposals and [using] trial-and-error until I by chance draw it. For example, he would bring me a picture of a traditional wooden structure; I would ask him, "What do like about this photo? Using wood, or these details?" I would tell him we could use the wood in your project in a different way: we cannot put these details as your project is modern and these details are ornamental. If you want the brown colour, we could add it to the elevation. So, we could compromise: I would understand his preferences, but that does not mean I would do them exactly as requested.' (AS)

Here, Architect KB also discussed the impact of bringing too many pictures and photos to a meeting when some of them are conflicting; she highlighted that this reflected the client's hesitation, stating,

'Many clients would bring pictures for the things that they like and prefer: I had once a client who kept bringing me pictures, different styles, and whenever anyone tells her anything, she would change her mind! This type of client [is] very hard to work with, because simply they cannot make their minds. I always tell them, "You need to concentrate on what you love and want." (KB)

As we can see from the above, the photo's role in the relationship varies: whilst it oftentimes it plays a role in conveying ideas, it also has the potential to challenge the relationship by challenging the trust, limiting the design options, and adding pressures on the architect. Furthermore, since they are considered as a medium to convey the requirements (and could be seen as part of the requirements network), a connection between the requirements agency and the picture/photos/internet images was found. Conversely, the agency of the pictures is impacted by the agency of the budget: when the budget is of a relatively high agency in the

relationship, this leads to a weaker agency of pictures and, in some cases, this would result in cutting/dismantling the relationship and excluding the pictures.

Notably, material samples are widely present in the interactions—as discussed in Chapter Four. Samples are used from the early stages of the design, and more intensively at the final stages of design development and the construction stage.

Furthermore, despite the fact that 3D images are used more frequently (since they are easy to generate and to amended), some architects use 3D physical models during their communications with their clients. As an example, Case Study Two (AS-AS1) serves as a demonstration of a wide use of different objects in the architect-client interactions (please see **Figure 3-15** and **Figure 3-16**,) as well as **Figure 5-18** for an illustration of the change of different objects' agency.

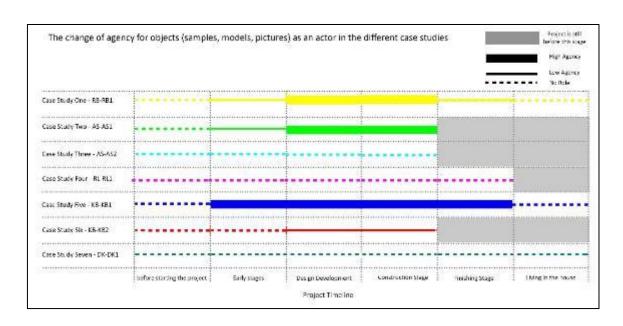


Figure 5-18: The Change of Objects Agency in the Different Case Studies - Source: Researcher

5.3.4.2. Social Media Use:

The emerging roles of the different communication channels between architects and clients have impacted the way in which the design is developed, the amount of time needed for it, and the nature of the relationship: for example, we can see in Case Study Five (KB-KB1) that email use during the design communications created another actor—time—that impacted the design and the relationship. The effectiveness of the communication at this stage is highly connected

to using the right media—that is, that which is accessible for both the architect and the client. This supports other studies, such as (Norouzi et al., 2015b).

Meanwhile, in Case Study Six (KB-KB1), the design was developed through many patterns of communication, namely: verbal communication; face-to-face meetings;, and, in Architect KB's case specifically, WhatsApp and email. This created an additional tie of communication, in turn enhancing the smoothness of the relationship and helping the client to approve the design ideas one at a time, not leaving the client's feedback until the end. Indeed, this helped in reducing the time needed for the design stage, as well as the architect in delivering a design that satisfied the client.

Please see **Figure 5-19** for an illustration of the change of social media's agency in the relationship network within the different case studies of this research.

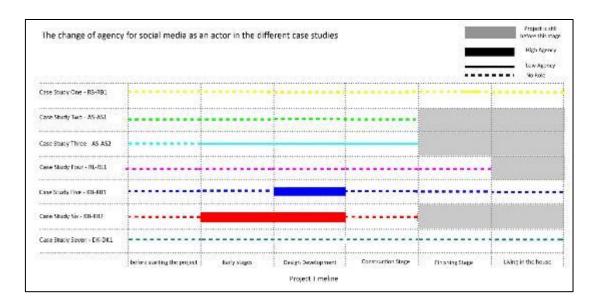


Figure 5-19: The Change of Social Media Agency in the Different Case Studies - Source: Researcher

5.3.4.3. Settings:

Within recent research surrounding human relationships, special attention has been paid to the influence of spatial context on relationships and human encounters; in this regard, Keeley & Hart (1994) argued that the 'quality of a personal relationship is inexorably related to the quality of communication between the parties involved in that relationship' (Keeley, M. P., & Hart, 1994, p. 135)—and, indeed, part of these 'qualities of communications' are related to the spatial organisation between people and things, this study of human spatial behaviour being

known as Proxemics. This is defined by Edward Hall as 'the interrelated observations and theories of humans use of space as a specialised elaboration of culture' (Hall, 1966), and, according to Hall's differentiation of space, architect-client interactions were found to be between personal (1.4 m) (usually when talking to casual friends) to social (4.2m) (business transactions and impersonal encounters (Duck, 1998, p. 11). In this regard, Steve Duck in his book named *Human Relations* states, 'Space rules carry extra information about status, ownership, and the social or personal relationship between participants' (Duck, 1998, p. 12).

Leading from this from an ANT perspective, settings themselves could be seen as a mediator in the relationship; further, when looking at the architect-client relationship from a contextual lens, the layout of the setting where the architect and client meet have a role in their interactions: indeed, from a psychological point of view, the way two people sit together has an impact on their communication and comfort and, in turn, their relationship. For example, when a person is sitting behind a desk and the other person is sitting in front of them, this creates a sense of hierarchy between them, as well as a sort of distance in the relationship and a clear power structure between one person and the other. In this type of setting, the relationship development tends to face issues concerning a sense of unequal power between them. Conversely, when two people sit together on a sofa or table with equal power, their relationship will tend to be friendlier and more personal, and could develop into a friendship, all due to them both feeling less stressed. In turn, this reduces both physical and psychological barriers and promotes a context for a less formal and more relaxing relationship (Duck, 1998).

Notably, space is also of high importance within the dynamics of conversations and social encounters (Duck, 1998; Keeley, M. P., & Hart, 1994): it appears that people find it more appropriate to sit next to someone who they agree with, and sit opposite someone who they are having an argument with or disagree with (Duck, 1998; Keeley, M. P., & Hart, 1994).

Furthermore, within all the architects' offices visited during this research, there was a meeting room with a meeting corner or sofas, used to sit with their clients. Such an arrangement of furniture in offices indicates power relationship, as clarified earlier. Please see **Figure 5-20** for some images from Architect KB's office, whereby the sofas and meeting table are part of the architect's office. Usually, the first meeting would be on the sofa corner in the architect's office, and, when plans and other visual artefacts are used later, they would meet around the meeting table. It is also important to highlight the presence of the images of architect previous projects, as well as the materials samples in the setting of the meeting with the client.



Figure 5-20: Architect KB's Office -Source: Architect KB's Collection

Meanwhile, please **Figure 5-21** for some images of Architect DK's office, which This is small yet has a sofa and chair where Architect DK meets her clients.

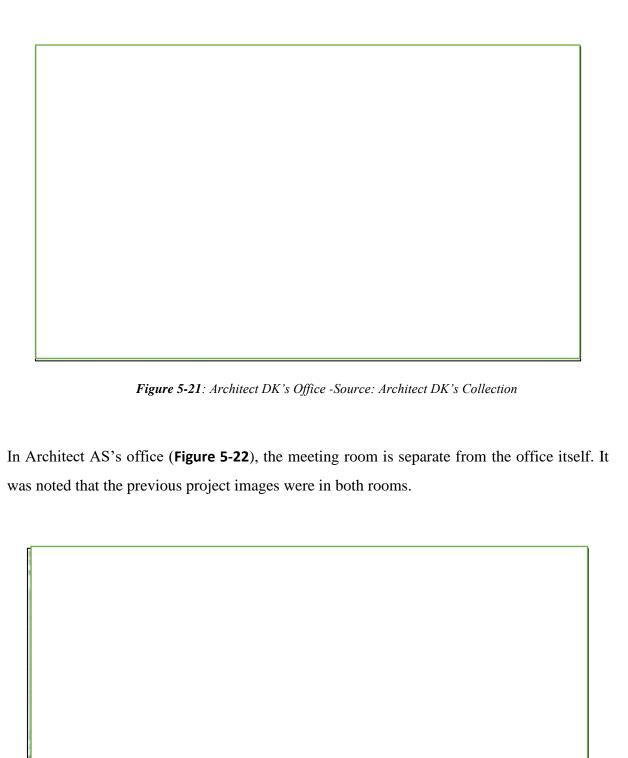


Figure 5-22: Architect AS's Office and Meeting Room - Source: Architect AS's Collection

5.4. The Networks

In this section, I will cover the progress of establishing the architect-client relationship networks within the seven case studies is followed in order to show the impact of the process of association and disassociation between the actors on the relationship. Indeed, such following of associations within the network is important in order to understand the impact of the actors on the relationship; this is similar to other studies that utilise ANT, whereby the focus is on the relations rather than the actors themselves (Kurokawa *et al.*, 2017). Hence, in the following subsections, the networks of the seven case studies are discussed separately due to the understanding of the unique nature of each case study.

5.4.1. Case Study One

The dynamics of the relationships could be captured when looking at the relationship network at different stages of the project; notably, here, actors are both excluded and included as a result of the built/dismantled relations as the project, design, and relationship develop.

Please see Figure 5-23 for an illustration of the dynamics of actors' agency within Case Study One (RB-RB1), as this reflects the changes that occurred within the relationship network as a result of the changes that occurred to the actor's roles and agencies. Indeed, Client RB1's agency was high all through the project life cycle except in the early construction stage, such a change being due to the growing agency of the contractor—who, at that stage, changed the design and standard of construction. After this point, the budget exceeded Client RB1's expectations, and, as a result, she returned back to control the relationship and, accordingly, her agency rose once again. In the same vein, the architect's agency was high during the early stages of the design and design development stages; however, with the growing agency of the contractor, the architect's agency was reduced—especially when Client RB1 felt the architect was not listening to her well or sticking to her ideas. Indeed, this became clear afterwards, whereby the architect was not consulted when the client and contractor made changes after occupying the house. Notably, the contractor's agency was high after he joined the network, in turn impacting the architect-client relationship by adding pressure to the client, as well as interfering with the design. Further, the architect's previous projects were the key reason behind Client RB1 choosing Architect RB (together with the family relationship), as well as the consistently high agency of the previous project during the early design stages, as well as design development. Notably, at a certain stage of the design development, Client RB1 felt Architect RB was not understanding her requirements well, so she used pictures and photos from the internet to convey her requirements. As would be expected, this impacted the agency of the previous projects, which remained low after that. It is noted that the majority of the changes in the actor's agency occurred between the design and the construction stages, indicating a sort of sensitivity during this stage in the architect-client relationship. In addition, it is noted that the visual materials agency was high during the design and finishing stages—which harmonised with the sequence of introducing such visual materials in the process.

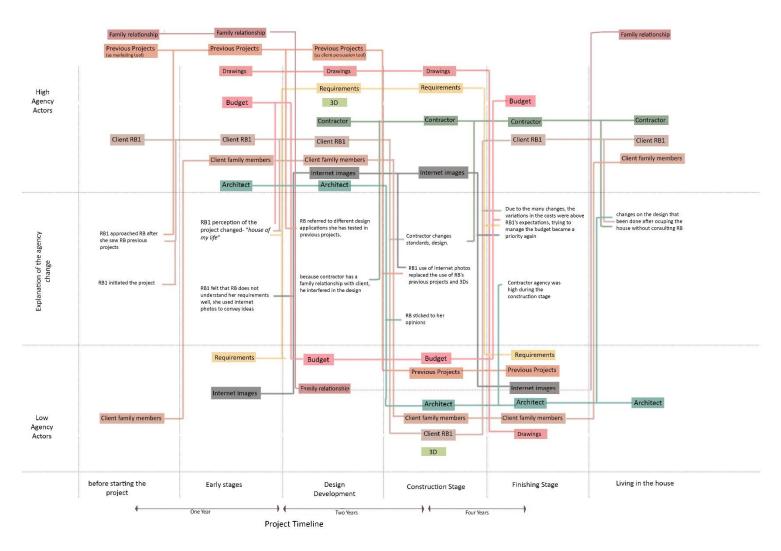


Figure 5-23: Dynamics in the Architect-Client relationship in Case Study One (RB-RB1) - Source: Researcher

In order to capture this change in the network, the following five networks (please see **Figure 5-24**) showcase the relationship network during the five stages of the project, such figures being used to make it easier to understand the complexity of the relationship. Notably, it is important to highlight that because it embeds dynamism within them, it is challenging to illustrate the network through drawing (Yaneva, 2016); thus, the attempt here was to capture some moments within the network movement in order to illustrate the different changes within actors and relationships, such 'shots' capturing the moment of stability of the network. The relationship network here is very dynamic, and so capturing it in the moment of stability is the only way to illustrate it, such changes reflecting the way in which the relationship is dynamic, as well as how the continuous process of establishing the relationships between actors is what makes the overall relationship possible. Indeed, this clarifies how the architect-client relationship is not static—as mentioned earlier: it is in fact dynamic and changeable.

Although an ANT perspective does not examine the causes within the network, it can be revealed through the analysis of the network's re/establishment that some actors' agency is connected—either in a direct or inverse relationship. Indeed, the change in the actor's nature (or value) does not always follow its change in agency in the relationship: for example, the relationship between the budget and the requirements, as the change in value between them in this case study is a direct relationship; when the client's requirements increase, the needed budget increases also. However, in the case of their agency, the relationship is inverse: when the budget had more agency, the requirements had less agency, and after that, the requirements acquired more agency, in turn impacting the agency of the budget within the relationship (please refer to **Figure 5-23** above).

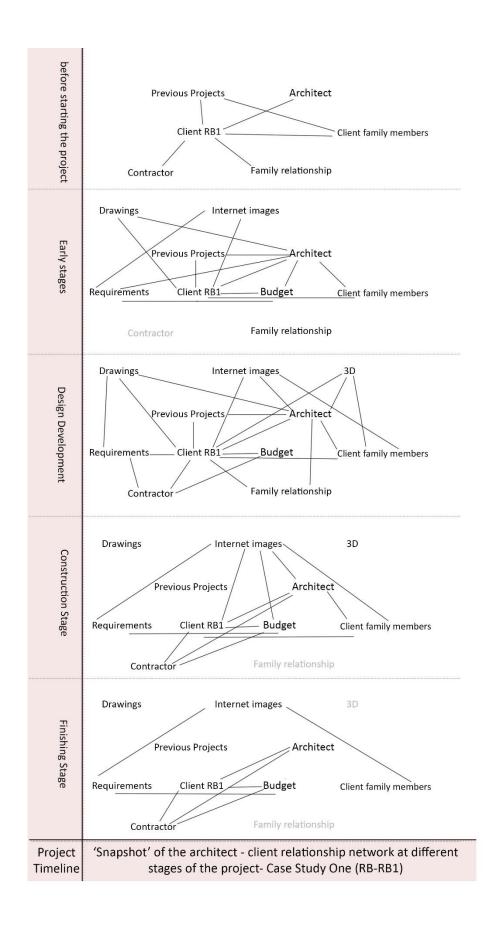


Figure 5-24: The Architect-Client Collective in Case Study One at the Different Stages- Source: Researcher

5.4.2. Case Study Two

The dynamics of the relationship between the architect and the client in Case Study Two (AS-AS1) is highly connected to the nature of the relationship, as well as the project as a participatory design project.

In Figure 5-25, you can see detailed the dynamics of actors' agency within this case study, within which Client AS1's agency was high throughout the entirety of the design stage, since he was highly involved in it. However, he was not involved at the construction stage, his role becoming limited and, accordingly his agency becoming relatively low. Meanwhile, Architect AS's agency grew very rapidly during the early stages of the project, and remained high throughout design and construction, since he managed the construction stage. Similarly, the family relationship was of a high agency at the beginning of the relationship due to it directing Client AS1 to Architect AS, before dropping in the early stages—later being excluded. Further, considering the design was developed in a participatory way, the need for different visual tools was essential at all stages—and, accordingly, they were of high agency. Here, the architect's previous project played an integral role during the onset of the relationship and in the design development stages, and, accordingly it was of high agency until the design was agreed upon and construction commenced—which yielded low agency. Furthermore, budget was an actor with high agency at all stages, as Client AS1 considered staying within the budget as his top priority. Finally, the role of the green principles was essential when it came to the design development stage, as well as afterwards, where its agency become high due to its impact of other actors (e.g., drawings [enforced the agency of drawings as the need for them was more to clarify more details of the application of the green principles]).

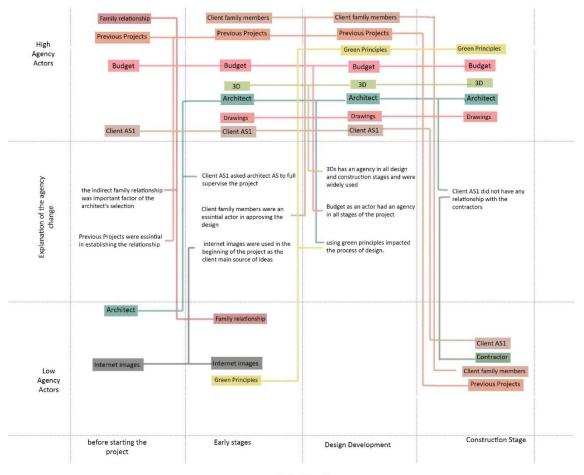


Figure 5-25: Dynamics in the Architect-Client Relationship in Case Study Two (AS-AS1) -Source: Researcher

Further, please see **Figure 5-26** for an illustration of the dynamics of the relationship in a form of four 'shots' of the architect-client relationship network at four stages of the project development. Notably, the purpose of illustrating such networks is to show the dynamic of the relationship, as well as how the relations change, develop, and are cut during the development of the relationship.

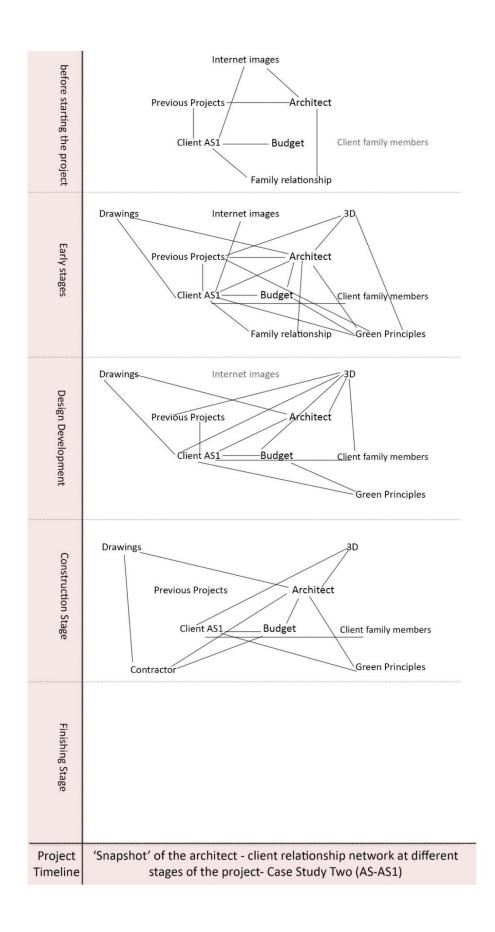


Figure 5-26: The Architect-Client Collective in Case Study Two at the Different Stages - Source: Researcher

5.4.3. Case Study Three

The dynamic of this relationship is one that developed from a professional/formal relationship into one of strong trust.

Within Figure 5-27, we can see the dynamics of the actors' agency changes, of which Client AS2's was high throughout the entirety of the design and construction stages, since he followed them on a day-to-day basis; this client's agency was enforced by the agency of his background, as well as his knowledge. On the other hand, the architect's agency grew during the early stages of design, and resulted in the strengthening of the relationship. Additionally, the client's background and knowledge in engineering was one of the high agency actors in the design stages: it influenced the agency of the other actors (e.g., the visual tools used; the requirements [in the form of an Excel sheet]), and, although previous projects were of high agency during the beginning of the project, their role and agency were limited over the course of the following stages due to the agencies of other actors (e.g., client background; requirements; Excel sheet; green principles). Further, the architect's fees were a weaker actor in the early stages before eventually being excluded.

Notably, the design communications were undergone around the Excel sheet (which contained the client's requirements), and the active role of this sheet could be seen through its presence in each architect-client meeting—as well as by understanding that it was developing throughout the lifecycle of the project. Saying this, the Excel sheet's presence did not always have a positive effect on the relationship: according to Architect AS, it contained lots of details that impacted the generation of the design—especially when Client AS2 used it as a reference for the design approvals. This added a pressure on the architect, as the quantity of the details in it made it harder for him to bring them all in the design.

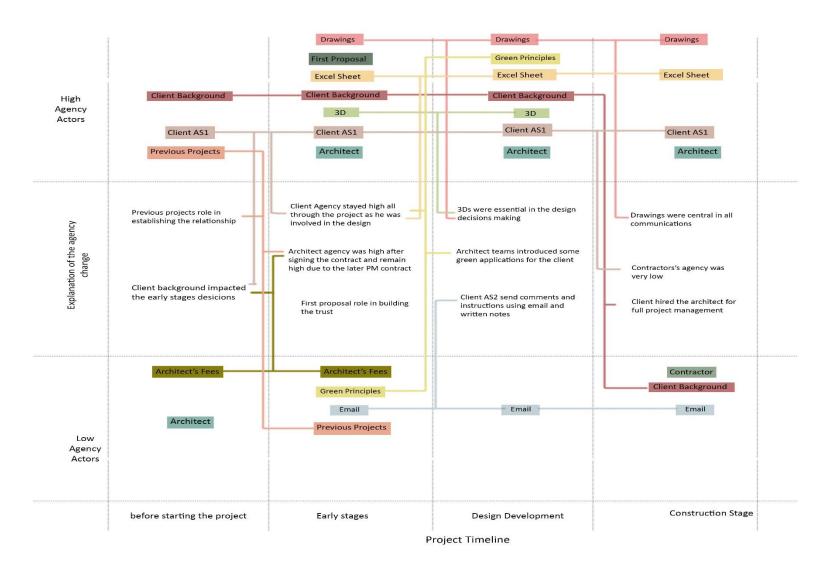


Figure 5-27: Dynamics in the Architect-Client Relationship in Case Study Three (AS-AS2) - Source: Researcher

In **Figure 5-28**, please see an illustration of the dynamics of the relationship in a form of four 'shots' of the architect-client relationship network at four stages of the project development. Notably, the purpose of illustrating such networks is to show the dynamic of the relationship, as well as how the relations change, develop, and are cut during the development of the relationship.

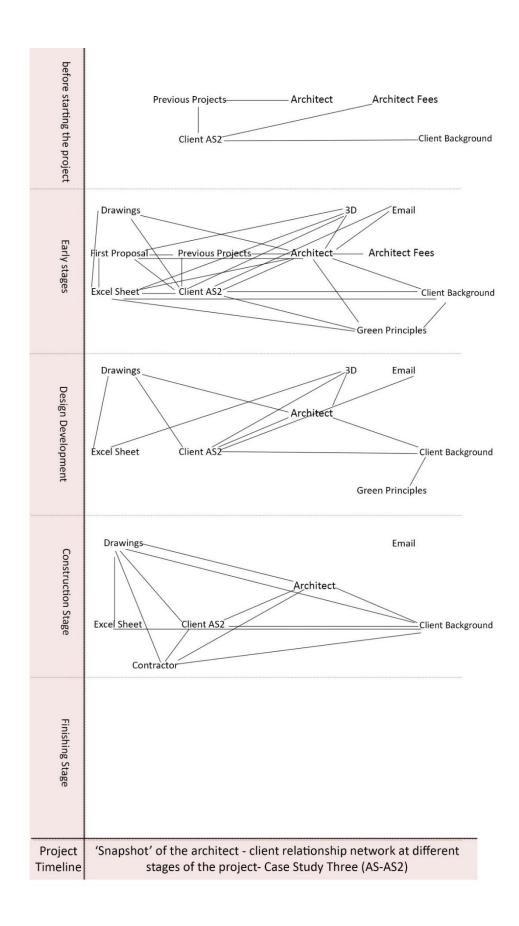


Figure 5-28: The Architect-Client Collective in Case Study Three at the Different Stages- Source: Researcher

5.4.4. Case Study Four

Within this case study, the design continued to evolve for around six years, the changes in the relations and the actors' agencies being traced (as shown in Figure 5-29): the client's agency was high all throughout the project, which impacted other actors' agencies (e.g., client background [which was high in the design stages before being lost in agency during the construction stage]). The architect's agency was also high during the design stage; however, due to the changes on the design in the construction stage, the architect's agency was affected. Similarly, the architect's experience was of a high agency in the beginning of the project, but due to the high agency of other actors (e.g., client and client experience), it became of low agency during the design stage. It was not until the client asked for a range of changes in the construction stage that the architect's experience gained its high agency again. Further, the agency of the budget and the requirements went hand-in-hand during the project, which impacted the relationship since the client asked for many changes (more requirements) whilst still aiming to control the budget. Indeed, previous projects were also of high agency at the beginning, as they helped in establishing the relationship; however, at later stages, they became of low agency due to the way the client managed the relationship. They were also eventually excluded. In terms of 3Ds, although they were used in the design and construction stages, their agency was high when the client family members were engaged in the relationship, as they helped them visualise the design. Finally, the client's family members agency was low—that is, until the client's wife proposed some changes during the construction stage, during which period their agency became high.

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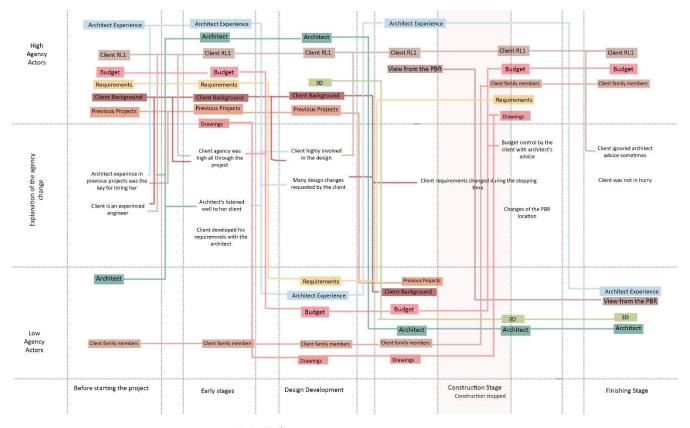


Figure 5-29: Dynamics in the Architect-Client Relationship in Case Study Four (RL-RL1) - Source: Researcher

Meanwhile, in **Figure 5-30**, please see the dynamics of the relationship, as captured in the form of six 'shots' of the architect-client relationship network during the four stages of the project development. As previously, the purpose of illustrating such networks is to show the dynamic of the relationship, as well as how the relations change, develop, and are cut during the development of the relationship.

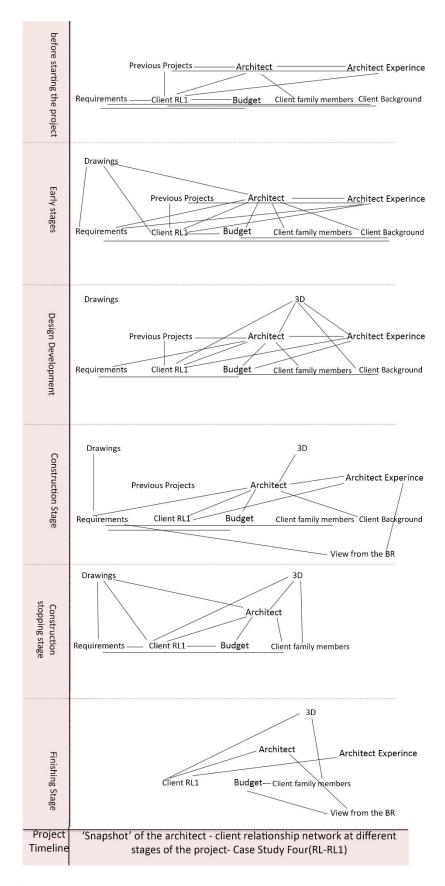


Figure 5-30: The Architect-Client Collective in Case Study Four at the Different Stages - Source:

Researcher

5.4.5. Case Study Five

The architect-client relationship in this case study developed through their interactions to become close friends, and in **Figure 5-31**, the dynamics of the changes in actors' agency are illustrated.

The architect's agency was high during the early stages as a result of her control over the design and construction and her good relationship with the client and her wide experience, which was reflected in the selection of suitable communication tools. Similarly, the client's agency was high all through the project time—except during the construction stage, for which she was away. Further, the contractor's agency started as being very high due to his role in choosing the architect, but, as the relationship was developed, his agency became low, the strong relationship between the architect and the client resulting in a weaker relationship between the contractor and the client. Previous projects was also an actor with high agency through the design stage, but it lost its agency as the construction stage started, being excluded from the relationship network during a later stage.

The client's background was of high agency at the early stages as her previous experience informed her decisions; this led to different objects being used by the client so she could convey her requirements, in turn giving them high agency during the design stage. Notably, the budget was of low agency, as the client perceived the project to be the 'project of my life', causing other actors to be of higher agency (e.g., requirements). This also occurred in the design stage, in which some actors were of high agency (e.g., the design element main stair; 3Ds; emails). During the construction and finishing stages, the architect and client shopped for materials together, in turn providing the material samples with a high agency since they generated more interactions and, accordingly, strengthened the relationship. As noted in **Figure 5-31**, the majority of the agency changes occurred between these design and the construction stages—although in this case study, the relationship was also well-developed during the early stages, continuing to evolve after the project's completion.

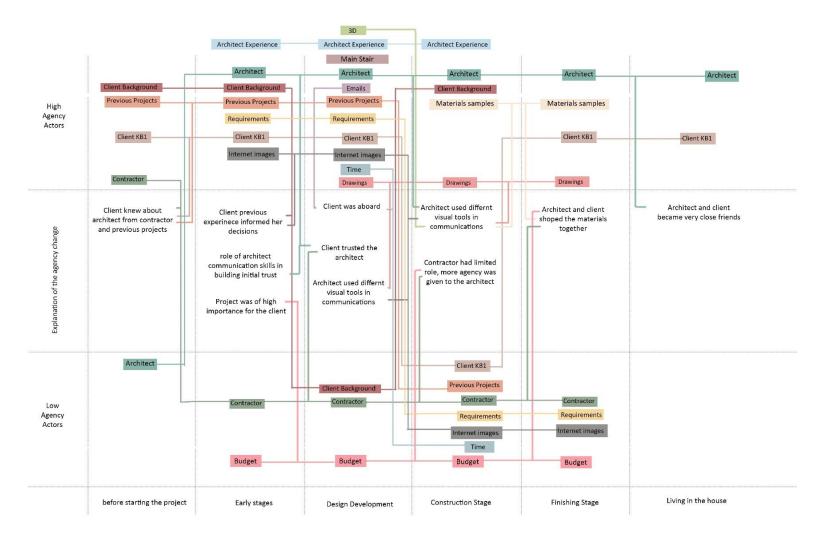


Figure 5-31: Dynamics in the Architect-Client Relationship in Case Study Five (KB-KB1) Source: Researcher

Figure 5-32 showcases the dynamics of the relationship in the form of five 'shots' of the architect-client relationship network during four stages of the project's development, the purpose here being to show the dynamic of the relationship, as well as how the relations change, develop, and are cut during the development of the relationship.

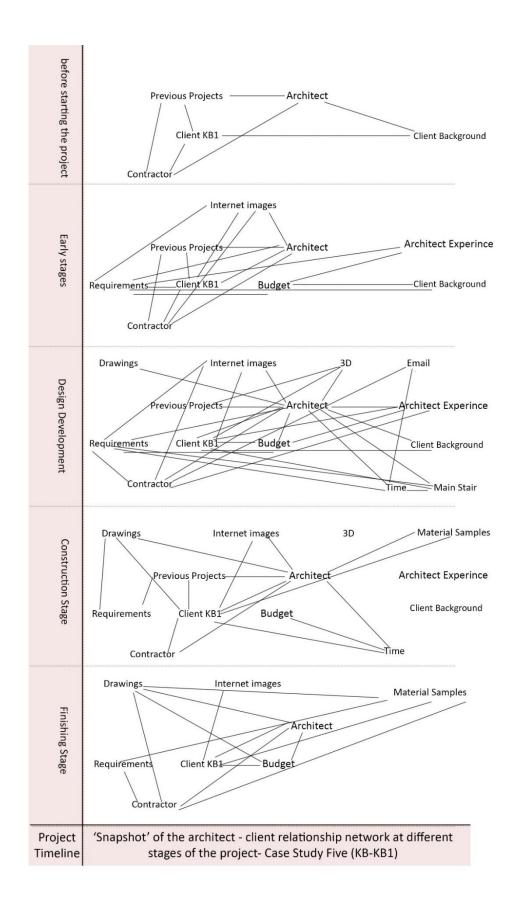


Figure 5-32: The Architect-Client Collective in Case Study Five at the Different Stages - Source: Researcher

5.4.6. Case Study Six

This case study can be seen as a step in a long-term relationship, as this was the third project the client had worked with this particular architect on; hence, the majority of the relationship developed here did so before the start of this project.

In **Figure 5-33**, the dynamics of the actors' agency changes are illustrated. Notably, both the architect and client had a high agency throughout the project timeline, and this was largely due to the well-developed nature of their relationship as a result of their previous interactions. Further, the high agency of the architect and client resulted in a high agency for the architect and client's previous experience, which also led to a low agency for other actors (e.g., the contractor, whose role was limited and controlled by the architect). Further, previous projects was of high agency through the design stage, since they were used as reference points for both the architect and the client. Finally, the client's requirement for a special garden was of high agency through the design stage, influencing the design and, accordingly, the relationship.

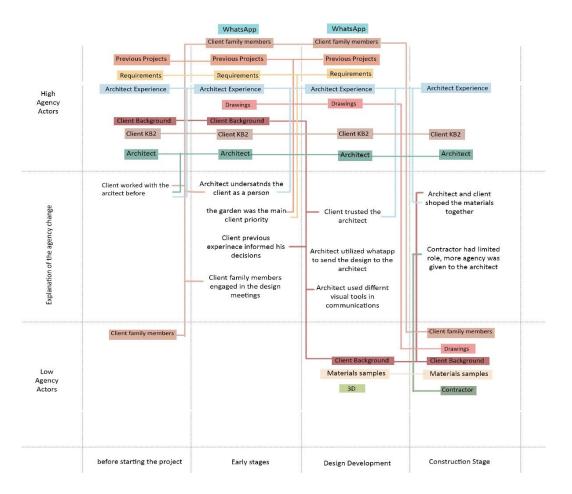


Figure 5-33: The Dynamics in the Architect-Client Relationship in Case Study Six (KB-KB2)- Source: Researcher

Please see **Figure 5-34** for an illustration of the dynamics of the relationship in the form of four 'shots' of the architect-client relationship network at four stages of the project development. The purpose of illustrating these networks is to show the dynamic of the relationship and how the relations change, develop and are cut during the development of the relationship.

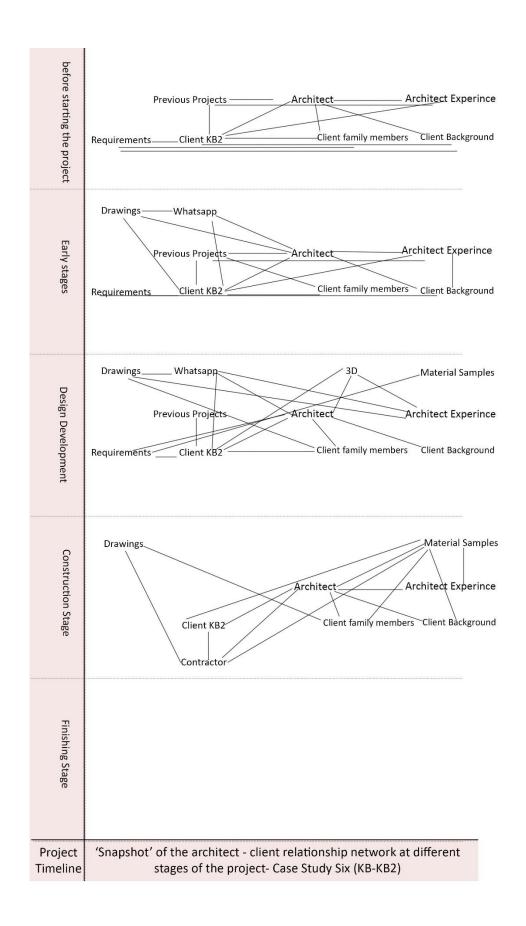


Figure 5-34: The Architect-Client Collective in Case Study Six at the Different Stages - Source: Researcher

5.4.7. Case Study Seven

This case study also concerns a repetitive client, who was also a developer and the contractor of the project—such facts ultimately impacting the different actors of the relationship.

Please see **Figure 5-35** for an illustration of the dynamics of the actors' agency changes. As can be seen, the client's agency was high throughout the entirety of the project due to his control over the project—which also resulted on the actor 'client background' to be of high agency, also. Meanwhile, the architect's agency was only high during the design stages and for part of the finishing stage, when a redesign was requested for one of the floors. Furthermore, considering this was a developer project, some of the actors were of high agency due to this project being an investment (e.g., budget; architect fees; requirements). This also resulted in other actors developing their agency during the design and construction stages (e.g., the quality of drawings).

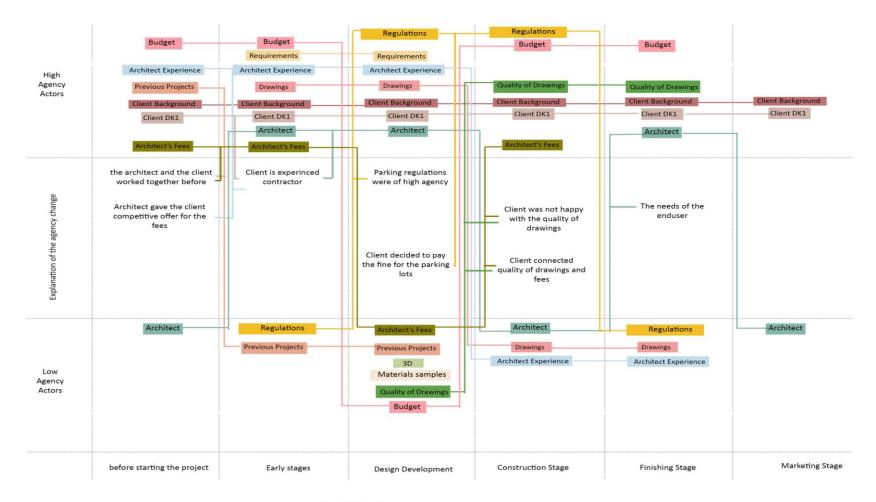


Figure 5-35: Dynamics in the Architect-Client Relationship in Case Study Seven (Dk-DK1) - Source: Researcher

Meanwhile, in **Figure 5-36**, the dynamics of the relationship is captured in the form of six 'shots' of the architect-client relationship network at four stages of the project development can be seen, the purpose of which being to show the dynamic of the relationship, as well as how the relations change, develop, and are cut during the development of the relationship.

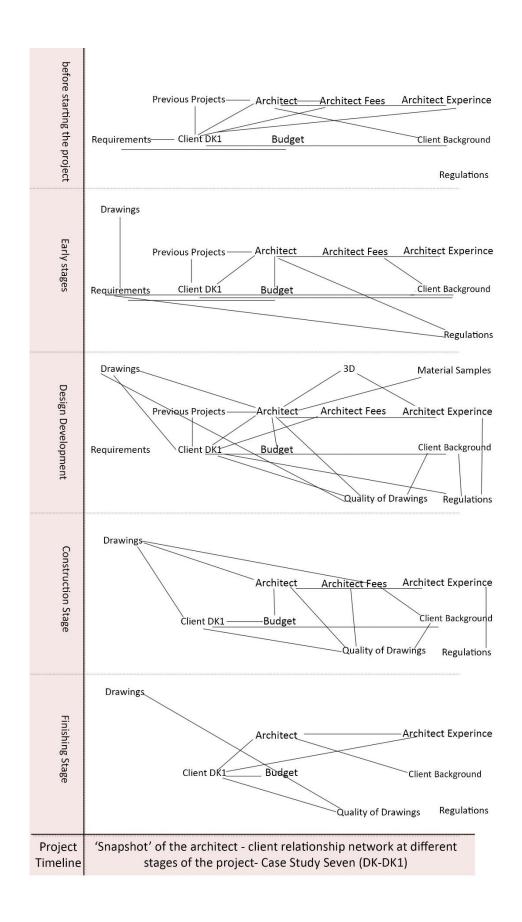


Figure 5-36: The Architect-Client Collective in Case Study Seven at the Different Stages - Source: Researcher

5.5. Chapter Conclusions and Remarks

This chapter discussed the architect-client relationship as a type of network comprised of a variety of actors and networks. In order to wholly understand such a relationship, it was important to examine the different actors closely that multiply and change their effects, depending on the shift in their agencies within their relational effect. Such a relational effect demonstrates the fact that networks are complex, a multiplicity of actors being involved. Further, although this multiplicity could have extended in many ways, the research focused on the actors were found to wield significant effects on the relationship network. Notably, the relational effect also shows that networks are dynamic, constantly undergoing never-ending changes with the change of actors and agencies. The relationship network goes through a continuous loop of re/forming, and this is what keeps the relationship alive. The architect-client relationship is not straightforward, possessing many aspects to investigate.

Over the course of this chapter, the role of a variety actors was followed, such actors being human, non-human, and non-material actors. Their roles in the relationship, as well as the change of their agencies, were followed also, the role of the mediators also having similarly been discussed in terms of them mediating the relationship between the architect and client. However, it is important to note that this also was not done in a straightforward way, and not in the same way in each case study.

In each case study, the network was translated in a different way each time in a way that reveals the complexity of the process and the relationship. It was found that the mediator that was most helpful within the relationships were the visual tools, since they facilitate the interactions between architects and clients. Indeed, in some cases, the use of a certain visual tool influenced the design and relationship, such as in Case Study Two.

The mediators in the relationship network played important roles in sustaining the relationship: not only did they connect the architect and the client, but in some cases, they actually strengthened the relationship: for example, the use of 3Ds in Case Study Three facilitated this. Similarly, it is important for architects in practice to acknowledge the influential role of their previous projects in their practice, as they were found to play many roles in the architect-client relationship from the early stages. It was also found that although similar actors in different case studies were found (due to the different roles they play), they created different relations and, accordingly, different sequences of events. This could be considered a key advantage of utilising ANT within this research, as it helped in revealing the different actors that are

commonly overlooked and misunderstood in terms of their role within the architect-client relationship.

When taking into account all the networks for the seven case studies, it was previous projects, the contractor, and the client family members that were found to be those that impacted the networks the most; conversely, the architect fees impacted the networks the least. Here, the research findings of this chapter do not only aim to reveal the actors who might/mightn't impact the networks, but also to show the unpredictability of the process. Further, although a generous amount of seven cases have been investigated in this chapter, it should still acknowledged that further analysis of other cases could uncover different effects of the involved actors and various changes in networks—and, if other additional actors were, indeed, to be investigated, they would reveal different network changes. This is another key advantage of ANT use: it helps in comprehending the vagueness and unpredictability of actors, as well as their associations and the diversity of produced networks, as we proceed in investigating the design process of the different cases. Here, we can see that the ANT core principles used over the course of this research helped in identifying the different actors (human, nonhuman, and non-material) that create and impact the relationship. These also aided in addressing the messiness of the relationship within each case study, which in turn reflected the special nature of the Jordanian context.

The following chapter will discuss the architect – client relationships as part of bigger networks, which would contextualize this research within in its wider context of architectural research.

Chapter Six

Zoom out: The architect – client relationship as part of a bigger network

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6. Chapter Six: Zoom Out—The Architect-Client Relationships as Part of a Bigger Network

6.1. Introduction

The architect-client relationship takes the form of a network—as discussed in chapter five. This relationship is also an actor in a range of bigger networks (e.g., the architectural practice network; the architectural education network) and, thus, this relationship impacts the architectural product, process of design, and a wider/bigger network. Simultaneously, it is also impacted by other factors (e.g., architectural education; public awareness of the politics of the architect-client relationship). Indeed, the study of the architect-client relationship cannot be completed in isolation from the aspects that impact—and have been impacted—by this relationship and its outcomes; hence, the scale of the architect-client relationship study could be zoomed out to wider lens than that that of just one architectural project.

Bearing in mind the above, this chapter aims to answer the research question: What benefits derive from studying the architect-client relationship in architectural practice and architectural education? Such an answer can be obtained by showing the connection between different areas of architectural practice through architect-client relationship politics studies.

Hence, this chapter is structured into three main sections: the first discusses the relationship between the architect-client relationship and architectural practice in the Jordanian context; the second examines the architect-client relationship in residential projects specifically; and the third explores the importance of public awareness and education for the enhancement of the architect-client relationship in Jordan. This latter section will do so by through looking at the role of official bodies—as well as the pedagogies in schools of architecture—in Jordan.

6.2. The Architect-Client Relationship and Architectural Practice⁵²

As explained in Dana Cuff's book *Architecture: The Story of Practice*, there is a list of key components that provide a frame to understanding architectural practice; these include—but not limited to—: the changes in the profession; the professional knowledge and values; the role of education; the work itself; the workplace; the clients; and the other design team members (Cuff, 1992). Indeed, the understanding of such key issues helps significantly in the understanding—then enhancing—of the practice of architecture.

Over the course of the following subsections, the changes of the profession in Jordan impacting the architect-client relationship, the understanding of the architect's value and roles, and the potentials that could be achieved through architect-client relationships, are discussed.

6.2.1. Changes in Architectural Practice in Jordan

As emphasised in Chapter One, architecture (as a profession) has become more and more interdisciplinary internationally as new bodies of knowledge have been applied and new technologies have been introduced to practice (Jaradat, 2012). It is this diversification of the construction industry into different specialisms, as well as the overlapping of professional interests, that have also resulted in the development of new definitions for the role of the architect.

Such changes within the profession can be viewed clearly through observations of architect-client interactions, which have large-scale impacts on the relationship since they impact the trust between the architect and the client (e.g., when clients underestimate architect's efforts). Notably, considering the case studies of this research are residential projects, these interactions are more important, intensive, and personal. Indeed, the architects interviewed for this research confirmed that more than 75% of their projects are residential projects, and so understanding the changing role of the architect within this type of project may help us to understand the wider situation of the profession within Jordan.

When it comes to Jordan, increasing numbers of graduates from different schools of architecture are facing increased competition within the job market—and this, of course, makes

⁵² Part of this section has been published in the conference proceedings of SDBE 2017 (Harahsheh, 2017) and Generosity Conference 2018 (Harahsheh, 2018).

it harder for new graduates to find a place within the profession. This increase in the number of graduate architects is also associated with an economic crisis due to wider regional instability, which has also resulted in growing unemployment rates amongst Jordanian junior architects. This is because the existing local market is not currently able to absorb such high numbers of graduates. In the same vein, the profession has also had to adapt to the pressure of additional competition both from home and abroad, in turn translating into clients expecting architects to provide a greater range of services for less money. It is also worthy to note that the growth of housing developers raises questions concerning the necessity for—and role of—the profession in a changing social and economic environment. Indeed, many now ask whether we still need architects in the era of computer modelling and design software, and the question of why 'I' should hire this architect is being asked more and more frequently.

6.2.2. The Understanding of the Architect's Roles and Value in Society

The client's understanding and appreciation of the architect's profession are closely connected to their experience of their relationship with their architect (Frimpong & Dansoh, 2016), and, similarly, the architect's value in society is directly connected to what the architects do for their clients—as well as for society in general. Further, this also connects to the respect clients hold for the architect (Samuel, 2018) based on the trust the client has for the architect and the personal relationship they develop through the project, their confidence in the technical skills, and their confidence in the architect's efforts to deliver the project within time and budget with the best possible standards, taking into consideration the public good. This all is connected to the actual architect-client interactions through the course of their relationship.

Another point to mention here regards the importance of an architect's role in caring about professional responsibilities (e.g., sustainability; the rights of the public; the relationship between the building and the context, etc.), as this role of the architect is conducted during the design process by applying best possible design bearing in mind the client's needs, the environment, and the public good. The belief that architects have a collective ethical responsibility for the public good (Samuel, 2018) has, indeed, impacted the way society values the architect profession.

Furthermore, clients' understanding of the architect's role and value vary, from understanding the architect's role to be limited, to preparing drawings for planning permission, to understanding the added value that architects can bring to the project and the built environment.

This issue was clearly noticed during the different clients' comments throughout the interviews, as these reflected the diversity of understandings of the architect's role, what is expected from an architect in a project, and the way the clients feel they should interact with their architects. Here, high appreciation would result in a positive attitude that would, in turn, help to strengthen the relationship and positively impact the process of design and the outcome.

Within Case Study Four (RL-RL1), the client's understanding and appreciation for the architect's role was directly connected to their relationship, as well as the architect's efforts in fulfilling the changeable requirements of the client; indeed, although RL1 could be regarded as a very demanding client, RL tried to be very supportive, trying her best to meet her client's requirements. These efforts were highly appreciated by the client, as RL1 stated,

'The architect was very cooperative and understanding.' (RL1)

Furthermore, although the architect's role is not usually limited to transferring the client's requirements into a 'drawing', in this case study, the client limited the architect's role to 'draw' his requirements before then amending the drawings according to his changeable decisions.

Similarly, in Case Study Six (KB-KB2), when it came to understand the architect's value and impact on the overall project, it is important to highlight KB2's statement:

'I did not interfere in the structure and the columns, because I do not know what is correct and what is not; but for the layout, the furniture, and relations, I had much input. I knew these by experience: I have lived in four different houses, so I knew what I want and what I prefer.' (KB2)

This was notably stated in a friendly way, with a sense of respect and understanding for the architect's role in the project; however, it also reveals an underlying underestimation of what the architect does. As we can see here, the client stated that when it comes to 'the layout, the furniture, and relations' (i.e., the plan design), he can interfere and change as much as he likes, as he is familiar with these aspects; meanwhile, when it comes to 'structure and columns' (i.e., the structural design), he would not interfere and would do what the engineer suggests.

Meanwhile, in Case Study Seven (DK-DK1), we have a situation where the understanding of the architect's role is an essential aspect of the relationship: since DK1's experience as a contractor and developer gave him the chance to work with many architects, he was also able to understand what they do and, in turn, form a supportive understanding of the architect's

value. Simultaneously, DK found, through her experience, that clients from an engineering background tend to understand and value the architect's work better.

Indeed, all the interviewed architects confirmed their role extends to more than 'preparing the drawings'; similarly, they also confirmed that they have a moral duty to apply the 'best practice' choices in their designs, also articulating an understanding that clients vary in their appreciation of the architect's role. Further, they also confirmed that clients need to understand the efforts that the architect is making in their projects in order to value them and maintain the relationship; they also stated that any misunderstanding of what the architect is doing will result in distress in the relationship. Further, as mentioned previously, the knowledge gap that is sometimes present can affect the client's understanding of the design, as well as its inherent complexity. Indeed, due to their lack of experience in architecture, some clients do not immediately appreciate the efforts behind the design, one clear example here being when it comes to architect fees: if the client does not understand what the architect is doing, the issue of fees will become a point of dissension. The Architects confirmed this by saying,

'Clients who underestimate the architects' efforts would just want to pay the minimal fees.' (KB)

They also stated,

'When you start talking about the fees, he would say, "What have you done? It is only paper!" He won't appreciate the efforts behind it.' (DK)

On the other hand, the architects also emphasised the importance of being appreciated, as it is important for the facilitation of a smooth, valued relationship; in this regard, the architects claimed that when there is appreciation, the client then understands the value of what they are doing (KB; RL).

Hence, in order to examine the client's understanding of the architect's value and role, the clients were asked if they would hire an architect if it was not compulsory, their responses to which uncovering a range of issues related to their understanding to the architect's role. What should the architect provide, and what should they expect from their architects? What is the difference between the architect, the civil engineer, and the contractor roles? These questions helped to form a picture of the clients' understanding of the role of the architect. Saying this, the interviewed clients did all round showcase a positive appreciation for the architect's role, all responding that they would approach an architect regardless of whether it was compulsory or not. For example, Client AS1 of Case Study Two (AS-AS1) stated,

'No way I would do the house without the input from the architect. The architect would add so much to the project [and] the project image.' (ASI)

Saying this⁵³, when the architects were asked what they thought the clients would do if hiring an architect was not compulsory, a vast amount of them acknowledged that this would largely be related to the client's background, education, and how they value their investment in their house. Indeed, the architects are unfortunately aware of the fact that not all clients appreciate what the architect does, or the importance of their role. In this regard, Architect KB—who has more than thirty years of experience—explained her view by stating,

'I think there are still people who underestimate the value that the architects add to their projects. They might replace the architect with a contractor!' (KB)

Meanwhile, Architect RB found client appreciation for the architect's role varied between different types of projects—even within the umbrella of residential projects. Here, they highlighted the idea that when it comes to villa projects, clients would be looking for the best possible design due to the high importance of the project for the client, as well as the variety they will be looking for. Here, Architect RB explains,

'In apartment buildings, the architect's role is seen as part of the process; there is a need for an architect to finish the drawings and to start building. In villas and houses, it is different; the client would search for a good architect who can deliver a high-quality project. It is also connected to the area that he is building in: the more prestigious the area is, the better the architect that the client would be looking for.' (RB)

In this regard, Architect DK connected the client's appreciation of the architect's role to their educational background and experience—although she also admitted that it is hard to make a generalisation in this regard. For her, it was about understanding the difference between a good and bad architect. Here, she highlighted the importance of the client's understanding concerning the fact that not all scholars' architects are the same, stating,

'Clients vary in appreciating that: some would say as the proverb, "Ask a good baker to bake your bread, even if he ate half

⁵³ It is important to address that in this research; it is impossible to make generalization with the general position with regard the value of the architects. That because the method of selecting those case studies, and the number of the sample.

of it"—which means "give the job to the one who can do it rightly".' (DK)

Indeed, in (Angral, 2019), it was found that more than a third of respondents answered yes to the question of whether a good contractor could replace an architect, such a finding also supporting the studies of (Frimpong & Dansoh, 2016, 2018), which suggested that clients are unwilling to fully employ architects when they may not be mandatory—which is important to draw attention to this issue in terms of it not being limited to the Jordanian context.

6.2.3. Architects Go Beyond in their Relationship with Clients

Whilst architects are doing 'their job' of design, they also provide other services for their clients—oftentimes unintentionally, some of which not always being tangible⁵⁴ (Kugyte & Šliburytė, 2005; A. A. Oluwatayo, 2016); however, these efforts impact the design, the relationship, and the project in many ways, and, through their interactions with their clients, the efforts the architects pay could be observed. Such efforts are an integral aspect of the relationship considering they impact the trust built, as well as the appreciation that the client have for the architects after the project's completion. Architect RL shares her opinion on this matter by stating,

'Some clients would understand the necessity for a good architect; others would believe they can do the project themselves. They would say, "The architect supervision is not needed; I would supervise my own project myself. I do not need an architect who would only take more money from me." (RL)

Hence, in the following subsections, the different roles the architect does are discussed, including educating clients, keeping the project within the budget, and making efforts in design and site supervision. Such roles support the argument of the importance of the architect's role in the residential project, as well as the wider environment.

⁵⁴ In this research, those intangible efforts of the architects are understood as developing many design ideas that the architect do not show the client but actually use them to develop the design of the project.

6.2.3.1. Educating Clients:

As discussed previously in Chapter Four, with every design interaction, a learning-teaching process occurs. This could be seen as part of the 'extra' services architects provide alongside the design, as confirmed by Architect RB:

'The role of the architect goes beyond the traditional role of design, to educating the client and raising the level of his standards and appreciation of architectural culture.' (RB)

Indeed, educating clients is seen as part of an architect's everyday practice, being considered as part of the relationship as well as an outcome of it. In the same way clients' efforts to overcome their knowledge gap are appreciated, architects' efforts should be appreciated, too.

6.2.3.2. Keeping the Project within Budget:

Whilst project management is a different job to that of the architect, some architects also undertake some aspects of project management in order to fulfil their perceived responsibility toward their clients, an example of such being managing the budget in order to stay within the initial figures the client set for his project. Here, Architect RL clarifies her role by stating,

'When I know that my client has a bank loan, I try to stick to the budget so he won't be deeply in debt.' (RL)

Such efforts are appreciated by the majority of clients, as this would help in building the trust between them; it would also reassure the client that all the design decisions have been made for their own good.

6.2.3.3. Efforts in the Design and Preparing of the Drawings:

Although design is the architect's predominant role and drawing is the output of their actions, the extent to which they produce drawings and details for each project will vary: whilst some will provide one design solution for a project, others will provide more. Further, in terms of the amount of drawings provided, one architect will provide the basic drawings required for planning permission (i.e., plans; sections; elevations), whilst another will provide detailed drawings, 3D views, and construction details in addition to this.

It was noted that architects make more effort in terms of design and preparing drawings within residential projects than in other projects, likely due to the fact that residential projects are

associated with high client involvement, as well as high project importance for the client. Indeed, the client's involvement requires extra effort on the architect's part in terms of altering the design, providing more drawings and design options, and allocating more time for meetings and alterations. For example, Architect AS recalls from his practice that,

'We did three proposals for the same plan. This played an important role in the decision-making.' (AS)

Indeed, these efforts are highly appreciated by the majority of clients, since it shows the quality of the architectural office team—and, accordingly, more appreciation and trust has been invested into the relationship. Indeed, Client AS2 of Case Study Three (AS-AS2) confirmed this by saying,

'They [the architects] ensure that their client makes his decision according to knowledge. We were discussing ideas on drawings with 3D views for each proposal, [and] no other office would give you this many 3D proposals: it is costly and takes a lot of time.' (AS2)

As we can see, this highlighted the importance of the efforts paid from the architects in preparing the designs and drawings in the general appreciation of the architects' value from the clients' point of view.

6.2.3.4. Site Supervision:

Site supervision is only compulsory at the structural stage within Jordan: by law, clients should have their architects' supervision during the structural stage, and, after that, it is not required. Hence, in order to cut the costs, many clients do not contract their architects to supervise these stages, and, as a result, many modifications can occur to the design on-site without the architect's consultation. Indeed, the majority of the interviewed architects confirmed that in many cases, they offer their clients full site supervision for low fees—and sometimes even for free—in an attempt to ensure the quality of the design's implementation. This could be seen as a reflection of the architect's moral value, as well as their commitment to their profession.

6.2.4. Promoting Sustainability through Architect-Client Interactions

One part of the perception of the architects' value within society is to show the way in which architects play an essential role in addressing large-scale social and environmental problems—

one of which being the issue of sustainability, which is of great importance currently. It was claimed by the majority of the architects that ensuring sustainability is the core of an architects' job, and that its implementation forms part of everyday good practice. For example, Architect RB stated,

'This the core of the architect's job; this is what the architect should do. The architect should enhance the quality of the client requirements. Introducing sustainable principles is one way to do that.' (RB)

Dealing with the subject from this point of view—as well as redefining the traditional professional role of the architect from conveying client's requirements into actively shaping them—is very important when it comes to introducing new concepts and practices; indeed, in many cases, the clients know their basic requirements in terms of spaces, function, and areas, but more often than not, they will not ask for special building performance parameters. This could be for several related reasons: the initial relatively high cost of implementation, for instance, or a lack of understanding of 'payback time' (the idea that technology will pay itself back in reduced energy bills and eventually lead to long-term savings). In some cases, it may be because of the lack of knowledge of government incentives for the housing sector. As we can see here, clients require assistance in terms of the architect's knowledge and experience in order to bring their requirements together in the best possible way in terms of design, cost, and comfort—including the implementation of sustainable design strategies (e.g., solar panels; solar heating systems). Indeed, several architects (AS, RB, RW, and FB) claimed that even if the client is not aware of these, it is part of their professional practice to pay attention to environmental issues. In this case, the architects are presented with two options: work to meet the minimum standard by applying the clients' requirements (only without enhancing them); or work to enhance the client's requirements and refine them. It could be argued over what is required more.

In this regard, some architects (KB and RL) claimed that the implementation of sustainable principles into design is a shared responsibility between the architect and client; however, Architect RB claimed that many design solutions can be included without consulting the client as part of an architect's 'know-how': the architect should provide high-quality solutions, including consideration of environmental/bioclimatic issues, without the need to consult with the client. Although it should be part of an architect's 'know-how', not educating the client risks leaving the client's behaviour unchanged—which could impact the overall performance, since they won't know how to use the technology in their homes. This supports the findings of

the UCL 2016 research project, which examined eight residential projects for architects in London at the conceptual design stage by interviewing architects and observing the architect-client meetings. Indeed, as we can see here, this research emphasises the importance of the relationship, as well as the architect's role in influencing the clients and their choices in regard to implementing sustainability principles (Murtagh *et al.*, 2016).

6.3. The Architect-Client Relationships in Residential Projects

Within the existing literature, the architect-client relationships in the residential projects is described as a 'difficult' and 'uncertain' (Chen, 2008; Frimpong & Dansoh, 2018; Siva & London, 2012), and the knowledge and understanding of the importance of a collective relationship with the architect does not always match what happens in actual practice (Bhurruth & Withers, 2016). In the same vein, research by (Vennström & Erik Eriksson, 2010) showcases the fact that clients tend to make project decisions that do not reflect the understanding of importance of having a collaborative relationship with their architects in order to achieve a successful project, tending instead to have a short-term outlook on projects. They would also easily and frequently change their architects for the project. Meanwhile, other studies concerning the architect-client relationship within residential projects in different contexts (Cuff, 1992; Gorse & Emmitt, 2009) have highlighted problems related to client dissatisfaction of the design and the process. Here, research by (A. A. Oluwatayo et al., 2014) in particular shows that the architects understand the fact that clients are primarily concerned with the technical service they are provided with, so they do not direct enough effort to relationship management or, indeed, any other aspects of the project relationship.

Although many architects stated that they enjoyed working in residential projects considering the unique nature of each project, they also addressed that it is also a difficult sector in their line of work: here, Architect AS highlighted that residential projects are time-consuming due to the high involvement of the client, such involvement also having the potential to turn into 'headache' when the client is either hesitant or very demanding. This was, indeed, highlighted by some of the other architects (RB, RW, BH, and DK), and reflects Pressman's experience: 'Ever since I launched my own practice, I had been solemnly admonished by my mentors to avoid work in [the] residential domain. Specific reasons were never forthcoming: only a kind of "it's too terrible to tell", in combination with a not-so-vague smirk.' (Pressman, 2006, p. 16)

Indeed, the time-consuming nature of residential projects was also highlighted by Architect RL, claiming that the 'time for money' balance is not right in residential projects, as such projects require more effort than, for example, a commercial project, whilst the financial return of a commercial project is much better than a residential project. Another highlighted issue here concerns delays in payments and not paying fees on time, which is particularly common in residential projects clients—as highlighted by the architects.

6.4. Back to Square One: Educating Architects and Clients

As discussed in the previous chapters, many of the problems associated with the architect-client relationship are connected to a lack of knowledge amongst both the architect and the client; hence, in order to alleviate these issues, clients need to be educated about what is expected from them in their relationship with their architects, whilst architects need to learn and practice the skills required to help them in their relationships with their clients. Indeed, when bearing this in mind, it becomes clear that lots of effort is needed in terms of preparing the next generation of architects. Hence, this section will look at the politics of architect-client relationships within the pedagogies of architecture, as well as the efforts made to educate clients.

6.4.1. Architect-Client Relationships and Architectural Education⁵⁵

Understanding recent developments in architectural education is one of the key factors in establishing the present state of practice in Jordan, and so this section closely examines the present state of architectural education within several Jordanian universities, as well as the politics of the architect-client relationship present here.

Indeed, changes within the profession require continuous development, as well as the updating of architectural pedagogy; the regular review of syllabuses in universities can ensure they meet the necessities of the market, as well as that they provide graduates with the required knowledge and skills for this career path. Indeed, both students and clients differ today from those even in the recent past, and, in turn, these changes in the client's understanding and behaviour require

⁵⁵ Part of this section is to be published as a book chapter in Thresholds in Architectural Education ,This book is still under publishing as part of the E-FIADE project.

more effort and experience from architects. Years of experience and working on different types and scales of projects has provided senior architects with an advantage when dealing with clients, as new graduates now require a base knowledge of professional ethics, law, and responsibilities in order to communicate effectively with clients. In some cases, junior architects entering the professional sector find it very difficult to relate their educational background to their actual practice (Saxena, Arora, & Shrivastava, 2017), and yet this base knowledge of architect-client politics can be taught through different modules, projects, and field training during their years of study. In this regard, (Nicol & Pilling, 2000a) state,

'As a result of changes in society, technological advances and the rapid growth in information, those entering a profession are likely to have to update their knowledge and skills many times over a lifetime. All this is calling on architects to become more skilled in the human dimensions of professional practice and more adaptable, flexible and versatile over the span of their professional careers. Architectural education must respond to these changes: it must enable students to develop the skills, strategies and attitudes needed for professional practice and it must lay the foundation for continuous learning throughout life.'

Indeed, by developing and updating pedagogical models with new applications of technology in the field of practice, as well as exploring the politics of the architect-client relationship, the employability of new graduates could be improved, offering a potential competitive advantage over more senior architects. Saying this, when academics, architects, policymakers, and clients were questioned concerning the architect-client relationship, there was a consensus amongst participants concerning newly graduated architects' ability and confidence to deal with clients, it being repetitively claimed that young architects do not have enough knowledge or experience when dealing with clients. It was also claimed that recent radical changes within the architectural profession (with the introduction of different BIM applications) require new and different patterns of skills, knowledge, and experience that should be included in undergraduate syllabuses.

6.4.1.1. Current Pedagogy in Selected Architectural Departments in Jordan⁵⁶:

The rapid expansion of architectural education within Jordan over the course of the last decade is notable: in 2005, there were three public universities and three private universities with Architecture departments, all with around 300 annual graduates; meanwhile, in 2018, Jordan has 18 universities with Architecture departments, seven of which being public universities and eleven being private universities, more than 1,100 students graduating annually. This has resulted in an increase in the number of qualified architects from 4,600 in 2005 to 13,903 in 2018, with a further 4,278 students currently enrolled at university, according to the Jordanian Engineers Association (JEA, 2017, 2018a).

Indeed, the syllabuses of architecture schools within Jordan require detailed research in terms of their contemporary relevance in order to establish whether they need updating. In a contribution to the book Thresholds in Architectural Education⁵⁷, I have briefly examined the syllabuses of ten schools of architecture from an architect-client relationship perspective. Here, some existing modules addressing elements of the architect-client politics were examined, potential modules that could include these aspects also being identified. This analysis showcased that six universities had one or two direct modules covering the politics of the architect-client relationship, whilst four no longer had any relevant training. As a result of this, the architect-client relationship is currently being studied in modules concerned with the general aspects of architectural practice, legislation, contracts, and specifications. Notably, existing syllabuses do not cover the politics of the architect-client relationship in a comprehensive way: there is no theoretical discussion concerning subjects such as professional ethics or social responsibility, and the lack of modules covering such subjects requires urgent attention. In the short-term, this could be achieved by the inclusion of pre-existing modules, and in the longer-term, new modules could be added to syllabuses as part of scheduled development and revision sessions. Please see **Table 6-1** for a summary of the examination of the study plan.

 $^{^{56}}$ This part is produced without official contact with the universities mentioned. Data were collected from the university's websites.

⁵⁷ This chapter is accepted for publishing, but the book is still under publication.

Table 6-1: Summery of the Modules in Ten Jordanian Universities from Architect-Client Politics' Study Point of View - Source: Researcher

University	Total Credit	Architect-Client Interaction is Directly Studied		Potential Modules	
	Hours	Credit Hours	Modules	Credit Hours	Modules
	174	0	0	15	5
	167	3	1	17	6
	166	6	2	10	3
	169	6	2	13	5
	168	0	0	4	1
	168	0	0	7	2
	165	3	1	9	3
	167	3	1	5	1
	165	0	0	11	3
	165	3	1	10	3

After speaking to a range of different architects and academics, it was noted that students in Jordan do not currently have direct contact with real clients throughout the course of their studies, their only chance to actually interact with clients being through the compulsory tenweek period of field training. From my own and peers' experience, field training requires improved monitoring from the university, since some architectural firms and construction companies do not engage trainee students in client meetings, restricting them to drafting and presentation tasks—and, although the design is the core of all the architectural modules in the universities, the way that design is presented to the student require a radical change. Further, due to the fact that projects are presented to the student without any reference to a client, students are developing their design solution based on a ready brief that they have been handed.

6.4.1.2. The Importance of Communication Skills in Architectural Education

Architectural design occurs in a social environment, within which lots of social interactions occur—and this social envelope of design is also present within architectural education, whereby students interact with their mentors, lecturers, colleagues, and examiners. These social interactions require different patterns of communication skills that the students develop throughout their studies, which help them in their future practice with their clients. Nevertheless, it is important to highlight that whilst studying, students mostly interact and clarify their designs to other architects (i.e., mentors, lecturers, colleagues, and examiners), and so there is a need to interact with clients or people from outside the architectural community in order to develop their verbalisation of their designs.

Indeed, communication skills not only describe the ability to present work to others: after all, it is a two-way interactive process (Nicol & Pilling, 2000a), not just being about the effective description of the design and decisions, but also being about listening to clients, understanding their requirements, and negotiating and facilitating the processes of design (Nicol & Pilling, 2000b). Indeed, the majority of the frustration architects and clients experience during the design stage stems from a failure to engage with the client with the process of design (Lawson & Pilling, 1996).

Notably, the majority of the interviewees agreed that architect-client interactions are essential for contemporary architectural practice, communication skills being seen as the core of such interactions. In this regard, Architect RB stated,

'Communication skills have an essential role in our practice: it is the core of the relation with the client. I know some architects that are not so creative, but they have loads of projects and clients due to their excellent communication skills. It should be developed through the years of the study.' (RB)

Indeed, the importance of communication skills for architects was highlighted in the interviews with the architects: according to Architect DK, good communication skills require different types of personal skills. Here, they stated,

'Communication skills are very important for architects: mostly, clients prefer easy-going architects. Good communication between the architect and the client is more important than being outstanding.' (DK)

Indeed, good communication skills are also a marketing tool for the architect, as well as a way to develop good, long-lasting relationships with clients; further, considering it is important for

architects to develop their design skills, it is also very important for them to have good communication skills so that they can actually understand clients' requirements and explain and justify their decisions. This is particularly important within the Jordanian context, whereby both clients and architects undertake repeated sessions of negotiations during the design stage—especially in residential projects. This means architects must communicate their designs to the end user, who will be—in the majority of cases—experiencing the architectural design process for the first time.

Indeed, design projects are central for the architectural education process (Nicol & Pilling, 2000a; Saxena *et al.*, 2017), and the design studios are the best place to practice the politics of architect-client relationships: this is because they include many forms of communication, including verbal, visual, and written. According to (Nicol & Pilling, 2000a, p. 12):

'If we want students to learn to communicate their ideas to clients and users, or to learn to negotiate a brief, then we need to set learning tasks that encourage them actively to engage in communication or brief-building activities.'

Design skills and communication skills are both essential pillars of architectural education and practice (Saxena *et al.*, 2017), and, although they are both integral to one another, some architects emphasised the importance of good communication skills, stating that this is more important than being an outstanding designer: for example, Architect RW stated,

'A good architect needs to "verbalise" his design. There are so many architects who are not top designers, but they do lots of projects because they are very good at marketing themselves with the clients.' (RW)

Communication skills could be developed through practice, and design studios are the perfect avenue for students to develop these, as they have the potential to be developed to include live projects (including real clients and real interactions with them). Indeed, the introduction of live projects to students within their senior years (fourth and fifth) will provide them with a great advantage in their future practice, since this would allow them to experience all aspects of actual practice in terms of client, budget, timeframe, site limitations, legislation, and permission procedures. Meanwhile, when applying this to the context of Jordan, there are now several NGOs and civil society institutions that could benefit from developing such projects.

Another issue concerning developing students' communication skills is that of developing their design communication with non-architects and the public: in this regard, in her book *Architecture: The Story of Practice*, Dana Cuff suggests that the inward focus of the design

studio results in students becoming isolated from the outside world, knowing only how to talk to other architects (Cuff, 1992). Indeed, this lends the way to a lack of integration between technical and theoretical studies and practical knowledge—especially in design—, and this is considered to be a major weakness of Jordanian architectural study programmes in general. Indeed, the issue of a lack of core skills in young graduates of architecture is another issue that requires investigation, and may also require a new way of thinking within architectural education. As mentioned by (Nicol & Pilling, 2000a), assessment (Juries) are the most significant influence on learning and students' development: if part of a student's work assessment focuses on the student's communication skills with non-architects (i.e., clients, users, local community members, and other engineers), this would help in boosting their communication skills. Urban planning and design modules also provide a good opportunity to train students to communicate their ideas to local communities, and this can be done through presentations of hypothetical design projects, whereby members of the local community could be invited to discuss with the students their plans and ideas. This would have a dual role, as it would encourage a culture of public engagement, as well as developing the social responsibility of the future architects. Simultaneously, community members can learn about the different roles architects can fulfil in society, as well as help develop an understanding of how design can play a major role in addressing broader issues (e.g., climate change).

Another example here is the development of project briefs, where in most cases, they are given to the students, rather than developed with them. The analysis of this brief is done by the students in a form of private research, and, thus, not enough consideration is given to developing the student's 'interactive skills' (e.g., listening to clients; questioning; clarifying ideas; explaining approaches in design). This is a huge flaw here, as these skills are essential in order for architects to delve into a client's aspirations, values, and concerns.

6.4.1.3. Training After Graduation:

Professional practice is a continuous process of learning, and is not limited to professional architectural education; instead, it continues till after a student becomes a member of the profession after graduation (Yorgancioglu, 2014)—and architect-client relationship politics is one of the core issues that the junior architects develop in the early years of their careers.

The opinions of the interviewed architects regarding training junior architects to deal with clients varied considerably: here, some stated that although they received a wealth of support

upon their starting of their professional life from their seniors, they did not give the juniors that worked with them an equal chance as they had experienced. One of the architects said,

'I was very lucky to work with a supportive senior architect: he used to involve me in meetings with clients and take me to site visits. I gained a great experience that later shaped my career and gave me the ability to be effectively involved with clients and other designers. Later, I was known in the company as I have good communication skills with clients: they kept sending me to all meetings. Other colleagues who did not get the chance have to wait many years to get involved with the clients.'

On the other hand, when asked about the exposure that junior architects have in his/her office, as well as if they attend clients' meetings, he/she replied,

'Not always. When we go to a site or something, they do, but other times, I prefer not to engage them.'

This incident is reminiscent of a story told in Dana Cuff's book, whereby Henry, a lead architect in one of the architectural offices, was treating the young architects in his office in the same way that he was treated when he was young: he did not attend a client meeting for fifteen years, and he mentioned that he did not want to give those young architects the advantage of meeting clients, as it had taken him so long to gain this opportunity (Cuff, 1992, p. 160).

Indeed, there are a range of different reasons that may lead to some architects not giving their junior architects the chance to get involved with client meetings⁵⁸: in some cases, the relationship between the senior architect and the junior architect is an employer-employee one, whereby the employer does not want the employee to get involved in the financial offers or the negotiation of design fees.

In this regard, the interviewed architects were also asked for recommendations in terms of developing architectural education from a practice point of view—and, as may be expected at this point, high emphasis was placed on communication skills as the core of architectural practice. Here, Architect DK suggested,

'I think we need to pay more attention to communication skills in architectural education. The only training that students have is during reviews. There is a need to design modules that

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⁵⁸ Please refer to section 4.5.3 page 169.

teach social intelligence and communication skills for architecture students.' (DK)

6.4.2. Public Awareness and Client Education

The public's understanding of the architect's role in enhancing the built environment is an important factor that could enhance the relationship: indeed, when the client understands and values the effort made by the architect, they in turn tend to trust and respect them more. Furthermore, when the client has a basic knowledge of the architecture and construction involved here, this would be reflected in their communications with their architects, in turn leading to better communication around the evolving design.

6.4.2.1. The Role of the Jordanian Engineering Association (JEA):

The challenge the public face in knowing about architects and their services is well-documented in a variety of studies conducted in various contexts (Dansoh & Frimpong, 2016; A. Oluwatayo *et al.*, 2014; Siva & London, 2012): although clients know about architects and the value they can provide for their projects, they face difficulties in finding and reaching them (Frimpong & Dansoh, 2016), and, as a result, it has been consistently documented that many clients rely on the referral of family and friends to locate their architects (Frimpong & Dansoh, 2016). Indeed, such findings complement the findings of this research, whereby the majority of the clients found their architects through either family connections or word of mouth of their family and friends—which, as has been established, is oftentimes problematic (as discussed in Chapter Four). Such an issue requires attention from official bodies that have roles in architectural practice—especially in small-scale projects, whereby clients require knowledge and support when it comes to engaging an architect.

The Royal Institution of British Architects (RIBA) notably has a range of publications targeting clients in order to educate them with regard to the politics of the architect-client relationship, such publications including *Client & Architect: Developing the Essential Relationship*, the target audience here being both architects and clients. In the introduction of this publication, Stephen Hodder states, 'To grasp the huge opportunities of today and tomorrow, to show our worth architects need to find the keys to the hearts and minds of clients.' (RIBA, 2015a). Another publication listed here is *Working With an Architect for your Home*—directed to

clients (RIBA, 2017) in order to clarify the role and benefits of employing architects in residential projects.

Bearing in mind the difference between the housing sector in Jordan and the UK, it is very important to have such publications prepared for clients in Jordan: this is because the majority of them are first experienced in the construction industry, so more knowledge and support is needed here. In this section, the roles played by the Jordanian Engineers' Association (JEA) and Housing And Urban Development Corporation (HUDC) are discussed.

The Jordanian Engineers Association (JEA) is the official body for Jordanian engineers⁵⁹ and architects, regulating work and enhancing the profession of engineering, protecting the rights of its members, and 'contribut[ing] to the planning and development of engineering. JEA also endeavours to improve the professional and scientific level of engineers' (JEA, 2018a). Here, JEA's role in organising architectural practice in Jordan is not comprehensive⁶⁰ in the sense of providing a solid backup for its members: the membership of JEA is compulsory for all Jordanian engineers and architects, and the membership of the Jordanian architectural offices committee is compulsory for architects. As an official body that is concerned with the architectural profession, it is expected to have a role in protecting the benefits for both architects and the general public.

As has been uncovered in this study, architects' understandings of the potential role of JEA vary between 'hope' for an effective role in terms of marketing architects and managing the quality of the profession, and the understanding that JEA's role is limited to overseeing the profession and standardising the service. According to Architect DK, JEA's role is organisational in order to ensure that things are going in the right direction in terms of contracts and manageable issues—and they do not have any role when it comes to managing relationships with clients, except in the case of a serious conflict occurring around financial issues. Here, Architect DK remarks,

'JEA has an organising role: they care about the building codes and legislations. If any problem happened with the client, they might interfere: they will check the contract and would

⁵⁹ Architects in Jordan are considered engineers as their degree is in architectural engineering.

⁶⁰ The region in the middle east is going through dramatic changes. The instability of the region creates a huge stress on the real estate market in the whole region. Nevertheless, it could be a chance for the Jordanian architectural firms to expand their footprint in the whole region. This requires organized efforts that need an official body to follow up and control.

evaluate the work done. For example, it was noticed that some clients won't pay the last payment for the architect. To solve this issue, the JEA ask the client to bring a paper from all the engineers who worked for him that they got all their money before giving the last permission.' (DK)

Further, when the idea of having a client consultation office in the JEA was raised in the interviews, clients were then in a position where they could ask about the architecture services providers for their different projects; but when this was discussed with the interviewed architects, many doubts were raised—mostly concerning whether the JEA is responsible for or is qualified enough for such a role, whether we really need the JEA to fulfil such a role, and even whether the JEA would be neutral when dealing with different architects and offices. Indeed, the current situation of powers in the JEA⁶¹ could impact decisions and recommendations. In this regard, Architect RL raised her concerns, remarking,

'I doubt they would be neutral: we are a small country with 2000 offices in Amman, so they would send clients to their family members or friends.' (RL)

For clients, choosing an architect was a matter of luck in their perception: the majority of the interviewed clients confirmed it depended on what people told them. They would either follow the advice of a friend or family member, or would come across the architect's work and decide to work with them accordingly. None of the interviewed clients relied on the JEA in terms of knowing the architect: for example, Client KB1 stated,

'When I chose this architect, I depended on word of mouth: I was living outside Jordan and did not know the market here, so I depended on what people told me. It took me time until I decided on this architect. I think having an advisory group in the JEA would be a good idea that help people who are not familiar with the market.' (KB1)

Notably, when the role of the JEA with regard to educating clients about the construction and building industry was investigated, no publications were found. However, papers should be in a simple language, accurate, and target the wider range of clients. Exemplar papers to look at here are (CABE, 2003) and RIBA publications (RIBA, 2015a, 2015b, 2017).

 $^{^{61}}$ The white and green parties are the main players in the JEA, they reflect two different political views as well.

It is important to mention here that there is a booklet published by the Housing and Urban Development Corporation (HUDC)⁶² in 2001 in one edition as part of a project funded by the USAID. This booklet introduces the procedure of building and designing for citizens in a very simple manner, and the current officials of the HUDC have been approached and asked about the development of this booklet. Surprisingly, they did not have a complete copy of it, one of the architects employed at HUDC not even being aware of the booklet. One of the HUDC officials stated,

'The aim of the Citizen's Guide to Construction was to bridge the knowledge gap when the citizen wants to build his own house. By reading this booklet, he could know what to do and when to do. This guide has been prepared in 2001-2002 by an enterprise that the HUDC got. But it was not developed after that: we even do not have any copies from it now—not even an electronic copy.' (HUDC).

Notably, Architect Rula Al Asir, the vice president of the architectural committee in the JEA in 2017, clarified the current roles of the JEA by stating,

'The main role of JEA is to regulate the profession and the professional relationship between the engineers (to include architects) with their clients and between different engineering offices. And to protect the rights of its members in case of any clashes with clients (whether they are individuals or companies).' (RA)

of land, and he could build according to his own budget and preferences. (HUDC)

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⁶² The HUDC is the umbrella for the housing sector in Jordan. In both public and cooperation with the private sector. Their intervention in the private sector is to enable and help citizens to have their homes. The HUDC used to build units both houses and apartments and then it changed its policy to give the citizen a piece

6.5. Chapter Conclusion and Remarks

This chapter examined the position of the architect-client relationship within architectural practice and architectural education in Jordan, and it has also been well-established that appreciating the architect's role and effort is essential in the domain of architectural practice. Indeed, it was made clear over the course of the interviews that architects often make more effort in residential projects in Jordan. It was also found that the architect's expected role within society extends beyond the physical environment or a purely technical role, many architects providing far more than the general definition of their job describes—especially when it comes to residential projects, as they not only provide creative design solutions, but also work to educate their clients architecturally, improve understanding of functional requirements and building standards, and promote the use of sustainable design principles. In many cases, they also offer free supervision of construction to ensure the quality of their work.

Furthermore, although changes in architectural practice are perceived worldwide, in Jordan, the consequences of changes are often more immediate: this is because much of the work remains one of residential projects, for which there is increasing demand due to the increase of population. Hence, there is, in turn, a greater pressure on a large number of small offices to assimilate new skills and ways of working across a greater number of projects than is the case in more developed contexts, in which there is more scope for increasing specialisation by larger practices working in discrete sectors.

As for architectural education, changes in society, the construction industry, and the profession have led to an urgent necessity to re-examine the way in which architects are being educated, as well as the way in which architectural education is structured in the 21st century, in order to combine theoretical studies with practice-based modules. Indeed, as can be seen here, the architect-client relationship underlines many aspects, and is impacted by many factors. Similarly, the politics of architect-client relationships are complex, as there are different actors and networks that form this relationship. This could be one of the reasons that it is not clearly included in many of the university syllabuses examined.

Notably, the lack of architects' communication skills is considered to be one of the core problems leading to breakdowns in relationships, this lack of skill clearly also impacting the career and performance of young architects particularly. This research has shown that a lack of communication skills in young architects is due to a lack of experience during their years of study.

Indeed, shedding light on this issue is essential in terms of developing more resilient models of architectural education for the future: here, both short- and long-term actions are required, and, in the context of Jordan specifically, a dialogue is required between architectural practice and education. From the perspective of the architectural profession, architectural education must recognise the real-world context in which practitioners work, their responsibility towards wider society. It is also important to re-examine the study plans and syllabuses of architectural schools from the point view of clients' needs and aspirations, as well as the way in which these syllabuses are designed to achieve better learning outcomes for future architects.

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Chapter Seven Conclusions and future research

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7. Chapter Seven: Conclusions and Future Research

7.1. Research Overview

This thesis has so far examined the architect-client relationship in the context of residential projects in Jordan through the examination of seven case studies that shed light on different aspects of this relationship. Both within-case (Chapter Three) and cross-case (Chapter Four, Five, and Six) analysis was conducted, which helped to identify a range of similarities and differences amongst the case studies—which, in turn, aided in generating a detailed understanding of the relationship.

Although the architect-client relationship has already been looked at by a variety of scholars in the last couple of decades, this research looked at it through a different lens, accordingly forming new connections and bringing together different aspects of architectural practice research into the context of Jordan. Here, this research investigated the relationship by looking at real case studies with the understanding that the design could only be fully grasped by understanding the process of making (rather than looking at and evaluating according to the 'end product' alone); In other words, I looked at the architectural project from a relationship perspective—not from an object perspective.

Additionally, this thesis has revealed the 'hidden elements' of the relationship, as well as the overlooked aspects of the ways in which this relationship impacts the whole architectural profession. It has also uncovered how any distress in the relationship can have sequential impacts on the whole architectural practice, built environment, and the value of the architect. Indeed, one aspect that sets this research aside from any other is its focus on the context of Jordan that has its specific character, as, for example, the role of family members, networking, relying on previous projects, and efforts in bridging the knowledge gap are significant. The research findings related to these aspects in particular may hold lessons for unique aspects of practice in other contexts.

Furthermore, this research investigated the architect-client relationship across a range of scales, from the evolution of the plans of individual houses, to the analysis of programme content across architectural education in Jordan. Indeed, the research methods and conclusions here could be used to investigate the architect-client relationship in other projects and other contexts. However, it should always be kept in mind that the findings presented here begin with the specific context of Jordan.

This research developed an understanding of the relationship from an inside-outside perspective: here, we have looked at the patterns of communications (Chapter Four) between architects and clients, and we have followed the development of the relationship in terms of the trust and client learning through their interactions. In addition, I showed the aspects of the relationship that underline social and professional perspectives of the relationship. Meanwhile, in the second stage of discussion and analysis, I used the core principles of ANT to look at the different actors of the architect-client relationship (Chapter Five), which were followed in terms of roles and agency through all the case studies and stages of the projects. Furthermore, the ANT approach helped in coming to the conclusion that each actor within the network impacts the entire network, as the agency here would be distributed differently. Finally, in the third stage, we examined the architect-client relationship from a distance to see it as part of a bigger network (Chapter Six), which helped in localising the relationship and its aspects within the wider context of the architectural research.

7.2. Originality of this Research

Considering this research build upon previous researches and knowledge, its originality could be seen in terms of different levels:

In the field of the architect-client relationships research: This research examined clients as individuals—not as a group—, working to emphasise the idea that every case is different, and that many lessons could be learnt from each different case study. Here, it surveyed the architect-client relationship at the micro scale, also highlighting that the clients themselves can't be regarded as just a single actor, but actually as network in and of themselves. The architectural design process is also looked at through the lens of relationship rather than the perspective of the project been designed. Further, it is important to highlight the research understanding of the architect-client relationship within the design context: it is not only interactions around the design, but actually a relationship is developed between architects and clients that develops, goes in peaks, and is challenged.

In the field on ANT research: Some researchers of architectural design have used ANT, mainly in order to study the role of non-human actors on the design (process/product) (Houdart, 2008; Loukissas, 2012; Yaneva, 2009b, 2009a, 2013), as discussed earlier; however, in such studies, they did not look at the role of the client (or the user, as if they were hidden actors in the design network). Bearing this in mind, this research used ANT in the field of architect-client relationship and design, which mainly helped in making the role of the client and objects more explicit. Indeed, ANT use helped in understanding the relationship from inside by understanding the roles of the actors that create, sustain, and challenge the relationship. Indeed, this research primarily used ANT as a method of understanding the case studies, also showing the unpredictably of the network. Here, it can shed light on 'neglected' actors in the relationship—particularly those that cannot speak for themselves (e.g., tools; experience; previous projects).

In the field of architectural practice research in Jordan: Although there is some research in architectural practice in Jordan, generally speaking, Jordanian architectural practice is still understudied, many aspects still being open to investigation. In terms of this research, we looked at the architect-client relationship in the field of residential projects in Amman/Jordan—the first research that in this area. Further, since this research aimed at shedding the light on this essential relationship, it has already created some sort of impact—which will be

discussed later in this chapter. This research also touched on architectural education within Jordan, highlighting the need for more detailed research in this area.

7.3. Concluding Remarks

When it comes to put the research concluding remarks on the table, it is perhaps important to look at the journey of this research again, from its onset until today: the research started as a form of Post-Occupancy Evaluation study (POE) from the perspective of client satisfaction of the design; however, it has ended up as a study investigating how architects and clients communicate, as well as how their relationship shapes the design and profession. This journey influenced the research in different ways, as it looked at many aspects that created the focus of the research.

Furthermore, since the residential projects in Jordan make up a large percentage of the everyday workload of Jordanian architects, this makes the outcomes of this research relevant and applicable for the majority of architects in Jordan.

Scholars discussing communication problems between architects and clients concluded that it could be categorised into social and technical problems, the former requiring a social-oriented approach (Coughlan & Macredie, 2002; Norouzi *et al.*, 2014, 2015b)—and, indeed, this research agrees partially with these studies, as it evidenced that the relationship is multi faced—one social, the other technical/professional. However, it also emphasises that communication problems involve other actors as well as architects and clients, and these communication problems could be identified through understanding how the relationship network changes at any stage.

Further, guided by the research initial questions (which were answered through the journey of the research), the findings of the case studies created some sort of outlined concluding remarks looking at the relationship from different perspectives: the significance of the relationship; the cultural aspects of the relationships; the social perspective of the relationship; the professional perspective of the relationship; and the architect and client in terms of a 'wider lens' perspective of the relationship.

7.3.1. Significance of the Architect-Client Relationships

This research emphasises the importance of the architect-client relationships at different scales: from the single project scale, to the architectural profession and built environment scale. Here, this research emphasised the importance of the architect-client relationships within residential projects and in all stages.

One of the most important overarching ideas concerning this relationship and its importance focuses on the central idea of the project's importance for the client: the perception of the project as 'the house of my life' in the majority of the case studies (namely One, Two, Four, Five, and Six) clarifies the importance of the relationship for the clients—and, as for the architects, their relationship with their clients is the core of their everyday practice that they need to invest in to ensure the survival of their profession. Indeed, the understanding of this relationship's importance and its priority for both architects and clients justifies the importance for research in this area.

Furthermore, the importance of the relationship lies not only in an ongoing project, but also in impacting the profession in general, whereby a client's experience with a single architect can shape their perception of the whole profession. Indeed, this could have consequences on the architect's reputation in the market (either positive or negative), as well as the general understanding of the value the architect can bring to the built environment. In addition to this, the clients reflected on their experience of other people who may be impacted by this experience and made their own perception depending on what they have heard (as clarified earlier in Chapter Four). Indeed, this showcased the fact that there often is an enduring focus on negative aspects of the profession, which impacts the architect's value in society, as well as the understanding of the architect's ability to make a positive impact to societal problems. Hence, effort should be directed toward moving the understanding of the architect's role beyond a statutory requirement to attain planning approval, to that of a design consultant who should be engaged across design and construction to guarantee design quality and the interests of society. As has been seen over the course of this research, when architects make an effort to educate their clients and make the language/drawing used understandable, this results in an appreciated relationship. Further, the impact of the architect's efforts in educating their clients has gone beyond the immediate benefit of the project, as it has helped build their reputation and building trust.

Finally, this understanding of the significance of the relationship can shed the light on the importance of related research, and, as this relationship is a pillar of practice, the research in this area would result in a better practice.

7.3.2. Cultural Aspects Related to the Context

This research revealed a range of cultural related issues linked with the architect client relationships in the context of Jordan. Such issues are seen to have an impact on the relationship, the project, and practice in general.

For example, family connections and word of mouth were found to have the highest impact during the beginning of the relationship—especially when the client chose their architects—, such a finding being highly connected to the local culture (as Chapter Four clarified).

Further, another culture-related issue here concerns male-female interactions in the context of design: some clients prefer a female architect (as in Case Study Six, as an example).

The nature of the architect-client meetings is another area that culture impact could be perceived: for example, no minutes of meetings for the meetings was used in all the case studies, which is related to the informal way in which the architects manage their relationship with their clients within residential projects, which, in turn, often results in turning their business relationship into a friendship.

Finally, another area of note here concerns when clients involve so many people in discussions around their house design; this was noted by the architects interviewed in this research.

7.3.3. A Multi-Faced Relationship

The architect-client relationship was found to be dynamic and in a continues state of reforming; indeed, the understanding of the architect-client relationship as a multi-faced relationship—essential for developing practice. Accordingly, different measures should also be taken into consideration at different levels: for example, in the architectural education field, this understanding should be central when preparing the next generation of architects through different modules and training opportunities; and, on this note, there have been calls for different schools of architecture to develop their pedagogies to include a more 'client-oriented' approach in the teaching. This could be achieved by developing the communication skills

required for architects, as well as other notably aspects of the practice (e.g., brief generating; presentations; managing client relationships).

7.3.3.1. Social Perspective of the Relationship:

Through this research, it was found that this relationship is social in nature—which supports the findings of previous studies (Barrett & Stanley, 1999; Bertelsen & Emmitt, 2005b; Cuff, 1992; Dansoh & Frimpong, 2016; Siva & London, 2012)). Architect-client interactions—as well as the nature of the project as a residential project—impacted the general social envelope of the relationship within the case studies, and, through the discussion chapters, it was clear that the social aspect of the architect-client relationship is crucial to its existence and development from the beginning of the relationship (i.e., during architect selection) to the final stages (i.e., as the clients turn into friends). As we can see here, the social envelope has not only influenced the pace of the relationship, but also the communication tools used, the nature of the meetings, and the way both the architect and the client talk about their experience after the event.

Notably, this social aspect impacts the relationship before it has been established: for example, by the way clients choose their architects and get in touch with them. This, in turn, results in a need to take the 'chemistry' factor into consideration, which is important from the sense that when the architect and the client have a common ground in relation to the way they deal with each other—in turn reducing the sources of tension in the relationship. A client may be searching for professional standard of service, and also want to experience a positive relationship with their architects—which supports the findings of (Dansoh & Frimpong, 2016). Indeed, the social aspect of the process of architect selection is an opportunity for architects to broaden their understanding of their own profession: after all, in a market like Jordan, architects need to invest in their marketing to survive within such a competitive market. This marketing strategy should take into consideration in terms of the way clients choose their architect, which was found to be highly related to the general cultural aspects of relationships in Jordan (word of mouth being highly important here). Architects need to invest in better relationships with their current clients in order to find new clients.

This lead smoothly to the second idea of the important role that clients play in marketing their architects in the context of Jordan: this is related to wider cultural aspects, where people value what they hear about other people's experiences as much as they value their own experience.

Because of this, architects need to pay attention to the role their relationships with their clients play in their current and future presence in the market—which, of course, requires more effort from the architects, as it adds more importance to their 'clientship' skills. The role of the architect in managing the process is important and, for that, they need to be aware of the role of the culture, such cultural issues requiring further research in different contexts (as culture and context influence the relationship, and accordingly, no generalisations should be made from one context to another). Moreover, the role of connections and networking is essential in an architect's career, the growing role of social media also being connected to this idea, whereby the presence of the architect's work on social media platforms (especially Facebook) is an important tool that could be used to market the architect and, in turn, reach more clients.

This research also highlighted the importance of the architect's communication skills, as this field requires good communication skills and a flexible personality in order to maintain good relationships with clients and contractors. Although an architect's role is essential in any project, these aspects of the profession require more effort in terms of tolerating all types of clients and contractors—and, with this in mind, it is also of high importance to highlight that architects require more than their design skills for their profession in order to survive in today's market. Now, architects require a good grasp of communication skills, which can impact their future relationships with their clients, contractors, and other engineers in construction. Indeed, communication of the design is growing in importance today, since it clarifies the importance of the architect's role for the public. This also draws attention to architectural education again, which needs to be include more emphasis on developing the student's interpersonal skills (e.g., negotiating the brief; communicating design decisions)—as discussed in Chapter Six.

Within the architect-client relationships studied in this research, trust is seen as a pillar in any relationship—which could also be perceived when looking at the case studies and the patterns of the way in which the architect and client talked about their trust in the relationship. Indeed, the trust here was challenged many times as a result of the role of different actors in the relationship. Hence, it is important to emphasise that any breakdown in trust is what ultimately devalues architecture—which could result in changing it from a profession (the value that architects bring to their societies through their everyday good practice) into a service (an exchange of information for money).

7.3.3.2. Professional Perspective of the Relationship:

There is no doubt that the architect-client relationship is a professional/technical relationship, since the aim of their interactions is the production of the project design that they are both concerned about; here, we can see that their roles are seen as inseparable, their input being essential for the project at every stage. Despite this well-known fact, however, it was found in this research that their relationship is not always balanced—which is considered part of the way the relationship evolves through their interactions through the stages of the project, resulting in a change of power relations between them.

The architect's relationship with residential projects could be seen as a love-hate relationship as a result of the following aspects of the architect-client relationship: the extent of client involvement; financial aspects, the amount of time required; the lower financial return compared to other projects; and the fact that the majority of clients are laymen, and each project also requires the education of the client starting from scratch. In this regard, the interviewed architects indeed claimed that residential projects are the hardest to execute, many highlighting that they enjoy them, yet in terms of business, it consumes so much time with so little income compared to that of other projects. This also related to the fee structure in Jordan, whereby fees are estimated per square metre—meaning the fees of a 200 m² villa are one tenth of the fees of 2000 m² of commercial building, whilst (as many architects confirmed) the effort required to design the 200 m² villa would be triple the effort required for the 2000 m² commercial building. This supports the argument of (Angral, 2019), who found that because residential project clients come in all shapes and sizes (and often with many requirements), architects do not want to work for them as a result of their demanding nature.

Another aspect of the architect-client relationship in residential projects is when a client enters a relationship with the architect, as they are usually uncertain about what is required from them, and sometimes are not ready in terms of knowledge to have an effective relationship with their architect. Hence, client learning prior to the project is important in order to allow for a better relationship with the architect—this, in turn, highlighting again the important missing role of JEA, HUDC, and other official bodies in the housing sector in Jordan. The need for a real role for the JEA is challenged with the question of whether people would approach a formal body like JEA for advice on how to choose their architect—such a question requiring further investigation. Indeed, the interviewed clients agreed on their need for prior knowledge before starting the project, the architects in some cases reporting that they found it to be a hard job

explaining (in simple terms) what they do to their clients—especially when the client has no previous knowledge or experience in architecture whatsoever.

As this research started with an attempted to map client satisfaction (as well as the architect's satisfaction) with the design, it was noted that the project's design itself was not the main influencer, but actually the process of getting there: the key factor was the networks that keep emerging, and the trust between different actors during the production and reproduction of the design.

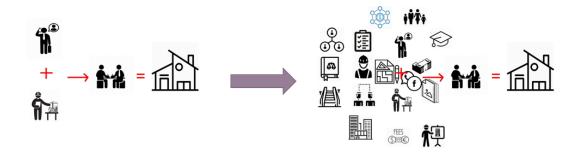
Further, it was found that the brief was dynamic: it kept developing through the design stages, and even after construction started. Indeed, this aspect of the brief is highly connected to the nature of the residential project, as well as their importance for the client—which is reflected in the interactions around the project.

Finally, the role of previous projects in architectural practice is an important aspect that this research has highlighted: the active role of previous projects in everyday practice is important, as the architects need to understand the essential role of their cumulative projects in acquiring new clients, building trust, and using them as models of design ideas. Saying this, if the architect aims to achieve an end result that they only want to show to other clients and put in their portfolio, that risks client satisfaction and meeting the client's needs—especially in residential projects.

7.3.4. It Is Not Only About the Architect and Client

Through the ANT principles use within this research, the clearest conclusion is that the architect-client relationship is not only about the roles of the architect and the client, but in fact many other actors, who are all involved in the creation and sustention of the relationship. The roles of these actors were discussed in Chapter Five. Further, the changes in the relationship could be traced by studying the changes in the networks of it, this relationship undergoing an important change when we move from the design stage to the construction stage. This could clearly be seen in the actors' diagrams, whereby the change in the agency of actors is at its greatest when the project moves from design into construction due to a variety of reasons: the intervention of the contractor is an important factor, the other point being that the role of the architect goes through a bottleneck at this stage, as in general practice, the architect will only supervise the structure stage, and their role is clearer in the design stage. Additionally, the role of visual materials is transformed at this stage, from communicating evolving ideas, to

contractual requirements to be executed. This means that both the architect and the client should be cautious, as this stage is critical to their entire relationship. The previous efforts of the architect and the client in building trust can pay off at this stage.



The discussion of the architect – client relationship in this research moves beyond the usual call for collaboration between them to an understanding that this relationship involve more actors than just the architect and the client.

Figure 7-1: The Understanding of the Architect-Client Relationships as this Research Illustrated - Source: Researcher

Although the actors/networks could have extended in many ways, the research centered on the actors found to have a significant impact on the relationship network. Further, the relational effect also shows that the networks are dynamic and undergo never-ending changes with the change of actors and agencies, this change of power and agency between architects and clients being an important aspect of the relationship. This research showed that this change of power is connected to the role of other actors in the relationship.

This research also highlighted an important aspect of the relationship network: the unpredictability of the result. In some case studies, the same actors' role resulted in different outcomes of the network: for example, personal relationship was of a high agency in both Case Studies One and Five, but resulted in tension in the relationship in the former whilst it enforced the trust in Case Study Five. This, again, highlighted the complexity of the network.

It was noted that the use of visual objects undergoes a cycle during the project: the role of some of objects extends beyond their physical presence as a medium for design communications, to maintaining other aspects of the relationship: for example, the presence of 3D visuals was found to be important for trust-building issues within the relationship. Material samples helped in design decisions and created many sessions of interactions and thus altered the relationship.

The relative importance of some actors this research revealed through the ANT methodology is important to highlight: for example, the role of the client's family members was revealed as a separate actor in the relationship, and, whilst other researches treat the client and their family as a single actor, this research suggests that their role differs from that of the main client—and, in some cases, it actually challenges the role of the client. This is very important—especially in residential projects—, as the role of the client's family members is widely seen. Indeed, this understanding of the multi-actor nature of the client may help improve communications in larger commercial projects with more complex procurement routes where competing priorities from different client actors are a common source of misunderstanding. In the same sense, the significance of the role of previous projects should be appreciated and understood by the architects, since it impacts their profession—not only in residential projects, but in all types of projects.

Finally, the language used provides a context for discussions of relationships, being the 'medium through which relationship activities are conducted' (Duck, 1998, p. 5). In this research—and due to the methods used—, the language the architect and the client used in their communications was not investigated in detail. Thus, this could be an opportunity for future research.

7.3.5. Wider Lens Perspective of the Relationship

Improvement of current architectural practice requires a fundamental understanding of the architect-client relationship in its context, as well as a better understanding of how this relationship is impacted by different actors in and around it. Indeed, the architectural profession is engaged in many debates currently about what architects do, what is/could/should be done by other people, and what the architect can do for society (e.g., (Samuel, 2018; Steve Parnell, 2010)). Such debates are not new and can be traced back many years, many researchers now discussing the architectural profession as a form service provision. Although this could be partially true when it comes to the basic role of the architects, the understanding of the architectural profession as service provision alone puts the architectural profession at a crossroads. Architects in their everyday practice consider many questions that influence society (regarding sustainability, architecture and context, aesthetic values, etc.), as well as providing a service in return for fees. This issue is crucial for the profession, and could be highlighted through the architect-client interactions, as it does impact the architect's value in the society.

Furthermore, the understanding of the centrality of the architect-client relationship in architectural practice highlights the different roles architects play in society, as well as how they could, through their practice, help in solving significant issues in the built environment. In a similar vein, architects have an essential role in influencing clients, enhancing standards in the built environment, and creating better housing conditions through their relationship with their clients in terms of design, finishing materials, sustainability, energy use, architectural language, etc. It is important here to highlight the change that developer-led housing may cause in the context of architect—client relationships and design; The gap/loop that is created between the architect and the user can impact the user satisfaction with the design.

As discussed earlier, this research calls for more 'education' for both the architects and the clients with regard to managing their relationship. This should be done at different levels—starting from the university's pedagogies, to the role of official bodies working with clients. Additional teaching about the architect-client relationship within the pedagogy of architecture schools is hence required in order to bridge the current gap.

It is essential to highlight that architects require proper payment in for their work, as well as to be valued by society in order for their profession to survive. If future clients can be educated about what they can expect from the design process, as well as the architect's ethical responsibilities to their clients and society at large, they will certainly be more likely to work with architects who take these issues seriously, and may also invest more time and effort into solving them than unscrupulous architects who will do the minimum required for the lowest fee. This can ensure the profession not only survives, but its role in shaping and protecting the built environment grows rather than declines as a result of increased competition.

Notably, one of the most critical issues that arose out of the interviews was the significant and urgent need for more attention to be given to the next generation of architects—that is, in terms of giving them better training and exposure during their first years in the profession.

Finally, the basic role of the architect of preparing the design is widely understood by architects and clients, but the appreciation of what the architect is doing varies between clients—in turn highlighting the need for more effort to be made in order to clarify the architect's value to society. Indeed, some studies showcase a lack of awareness amongst the public concerning how the professional architect works, and a lack of appreciation can impact both the relationship and the project—in turn posing a threat to the whole architectural profession (Dansoh & Frimpong, 2016; A. A. Oluwatayo, 2016; A. Oluwatayo *et al.*, 2014). Improving

the profession requires some changes in the culture and understanding of the architect's value within society, and so architects should be engaged in the decision-making process with regard to the built environment. Planning decisions cannot be made without input from architects as an essential actor in the planning policy for any city. Additionally, in the housing sector, architects could have a valuable input with regard to the guidelines for house design and construction: when architects are engaged at all these levels of decisions-making, it demonstrates the essential role they play for the good of the built environment—which can result in more appreciation for what they do.

7.4. Future Research

This research has examined the different areas of architectural practice within the context of Jordan, in turn opening new terrains for future researchers to explore. Personally, I started my PhD with some questions that I aimed to answer, and by answering them, I have only uncovered more questions to investigate within my own future research. I believe my future role as a lecturer in the University of Jordan will provide me with the space to develop this research area, and by that token, help to shape the future of the profession across Jordan by developing the curriculum in the University of Jordan—largely considered as the role model for other universities in Jordan.

This research could be expanded in a variety of ways, since this research examined seven case studies, its outcomes thus being tainted by what those case studies suggest in terms of the actors involved in the relationship network. Studying the relationship using the methods of this research for other case studies in Jordan will suggest other findings, and would, in turn, expand the understanding of the relationship, as it would reveal other actors/actor-networks at play here. Here, researchers could extend the network by including other actors, depending on their choice of case studies—and this would result in looking at the network in a different way. Further, studying the architect-client relationship in other contexts would be another way to expand this research by testing the methodological approach used in this research.

Notably, this research could wield implications that could ultimately benefit other sectors and research areas, if further research is done: for example, this research could be expanded toward analysing the modules structure related to the practice of architecture in different universities in Jordan—and, by that, try to develop them. It could also be expanded to be more useful for policymakers in the Jordanian housing sector by highlighting the importance of the end-user

involvement in the design of their future residential projects—particularly the emerging role of developers-led housing in Jordan.

Other areas that could utilise the methods and theoretical framework utilised in this research is the study of architect-client relationships in other projects in the context of Jordan (e.g., commercial projects), as well as the study of the architect-developer relationship in the context of developer-led housing projects in Jordan. Additionally, this research could form the basis for future research of the architect-client relationship, as well as the value of ANT in revealing different aspects of these relationships in professional contexts. The framework suggested in this research could be used to study other relationships within construction projects, and could also help in developing a more complete understanding of the challenges and opportunities these relationships entail.

Furthermore, one of the issues that could be investigated in further depth is the study of the impact of female/male relationships in Jordanian architectural practice—particularly the role of female architects in the profession and the obstacles that they face (and overcome) in their professional career, particularly when it comes to relationships with clients of different projects.

Furthermore, the role of language in the architect-client relationship in the context of Jordan is another issue that requires further investigation through the different methods and at different project stages than those employed in this research; further, such study would require following the relationship from the beginning through the cycle of the project—which also requires more time (and researchers) than the PhD can provide.

Another possibility is to consider several case studies and attend architect-client meetings. Further, one could attempt to study the politics of the relationship, as well as the language used, in more depth. This will be my next step after the PhD.

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9. Appendixes

Appendix one: ethical approval, consent forms and information sheets.

Appendix three: abstracts for the conferences participated in.

9.1. Appendix One: Ethical approval, consent forms and information sheets

- 1. Research ethical approval letter
- 2. Constant Form. For participants
- 3. Constant form for using the visual images
- 4. Architect's information sheet
- 5. Clients and officials' information sheet.



Downloaded: 08/06/2017 Approved: 07/06/2017

Ahlam Harahsheh

Registration number: 150252935

School of Architecture

Programme: Architecture (PhD/Architecture FT) - ARCR131

Dear Ahlam

PROJECT TITLE: Building a Dialogue: Architect Client Interactions

APPLICATION: Reference Number 013632

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 07/06/2017 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 013632 (dated 06/06/2017).
- Participant information sheet 1031768 version 1 (06/06/2017).
- Participant information sheet 1029534 version 3 (06/06/2017).
- Participant consent form 1031761 version 1 (06/06/2017).
- Participant consent form 1029535 version 1 (12/04/2017).

If during the course of the project you need to <u>deviate significantly from the above-approved documentation</u> please inform me since written approval will be required.

Yours sincerely

Cheryl Armitage Ethics Administrator School of Architecture



Sheffield School of Architecture

Participant Consent Form

Title of Research Project:			
Building a Dialogue: Architect – Client Interactions Name of Researcher: Ahlam Sa'ud Harahsheh			
Participant Identification Number for this project: Please initial box			
1. I confirm that I have read and understand the information sheet/letter, dated [/ /] explaining the above research project and I have had the opportunity to ask questions about the project.			
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular			
question or questions, I am free to decline. 3. I understand that my responses will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research.			
4. I agree for the data collected from me to be used in future research			
5. I agree to take part in the above research project.			
Name of Participant Date Signature (or legal representative)			
Lead Researcher Date Signature To be signed and dated in presence of the participant			
Copies:			
Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the letter/pre-written script/information sheet and any other written information provided to the participants. A copy of the signed and dated consent form should be placed in the project's main record (e.g. a site file), which must be kept in a secure location.			

Please note:

- 1 If the interview will do entirely via Skype or telephone, I'll send you Participant Consent Form by email, so please full, scan, and resend it to me.
- 2 If you wish to make a complaint, please contact the University Registrar and Secretary: registrar@sheffield.ac.uk, Tel: 0114 222 1100, Fax: 0114 222 1103

Sheffield School of Architecture



Visual Material Usage Consent Form

Title of Research Project:			
Building a Dialogue: Architect – Client Interactions Name of Researcher: Ahlam Sa'ud Harahsheh			
Participant Identification Number box	for this project:	Please initial	
I confirm that I have read and understand the information sheet/letter , dated [/ /] explaining the above research project and I have had the opportunity to ask questions about the project.			
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline.			
3. I understand that my responses will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the			
report or reports that result from the research. 4. I give the researcher the approval to use the drawings, images, photographs, 3Ds Of the project in her research and in future publications			
I agree for the data collected from me to be used in future research I agree to take part in the above research project.			
Name of Participant Da (or legal representative)	te	Signature	
Lead Researcher Da To be signed and dated in presence of		Signature	
Copies:			
Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the letter/pre-written script/information sheet and any other written information provided to the participants. A copy of the signed and dated consent form should be placed in the project's main record (e.g. a site file), which must be kept in a secure location.			



The University of Sheffield Sheffield School of Architecture

Architect Information Sheet

Dear Sir/ Madam:

My Name is **Ahlam Harahsheh**; I am a PhD researcher at Sheffield School of Architecture – University of Sheffield – United Kingdom. My research Project title is "**Building a Dialogue: Architect – Client Interactions**".

You have been approached as an architect, identified due to your expertise, experience or knowledge in the residential projects. I would like to conduct a short semi-structured interview with you to enable me to study architect — client communications in the early stages of design of a housing project. And I would like to have one (or more) of your projects as a case study (studies). I will be the most grateful if you accept my invitation to take part in this research. It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep (and be asked to sign a consent form) and you can still withdraw at any time. You do not have to give a reason. The interview will take approximately 30-50 minutes and audio will be recorded with your permission. The place of the interview will be decided at your convenience in person or by telephone.

Research overview

This research aims to investigate the design of residential units for client occupiers in Jordan, and to study the housing sector and architectural practice from a new angle; exploring the relationship between early design stages communications and user satisfaction of the design in residential projects.

The aim of this research is to map and analyse architect – client communication in the early design stages, miscommunication sequences (if any) in terms of cost, time and client satisfaction of the design and approaches for improvements. Furthermore, this research aims to examine user/client satisfaction with their own residential units' design, and the relationship between these degrees of satisfaction with architect- client communications in the early stages of design. This may help discover what actions can be performed in the early design stages to avoid dissatisfaction later on.

Actual study

The research will be done in two parallel phases as following:

Phase One: this phase is sort of POE (post occupancy evaluation) study for the owner's satisfaction with their house design (house layout mainly), amendments that they have made during and after the construction, and to investigate how could the design meet their requirements better. The interviews will look for issues that affect user satisfaction and investigate whether they are related to the communication between architect and client in the early design stages. In this phase an analysis will be conducted of the available drawings; early sketches, planning permission plan, working drawings and current layouts.

Phase Two is an observation of actual practice in the early design stages of different residential projects. In addition to observation, an analysis of client's briefs (if available), analysing the visual methods used (drawings, diagrams, 3Ds), semi structured interviews and/ or pre-interview questionnaires with architects and clients.

What is required from the architect?

in the beginning, the researcher will conduct a semi structured interview with the architect to discuss the politics of architect - client relationship and its effect on the design process and the architectural practice.

<u>For Phase one:</u> architect is required to Identify the potential case studies; as many projects that meet the following criteria's: residential project (house, Villa, apartment building), preferably completed and occupied (or in the finishing stage), has as much as possible of the following drawings (initial sketches, proposal drawings, development drawings, agreed-on drawings, planning permission drawings and as built drawings).and for a client/ owner who would corporate on having 30 min interview.

<u>For Phase two:</u> Researcher will be in Amman for a relatively short period of time, if possible to attend any meetings between the architect and any of his/her clients (for a residential project). The researcher will observe the meeting and the issues discussed without interfering or participating in the design. After the meeting researcher will ask both client and architect for a short semi structured interview about some of her observations if they welcome to do so.

the researcher respect that some architectural firms have a restricted policy with regard sharing their designs. please be aware that this research will be covered by official approval of the University of Sheffield Research Ethics Committee (UREC). and all data collected will be treated as confidential and will not be shared with any third party.

What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that an outcome of the research will be a range of practice guidelines aimed at construction professionals working in the housing sector. Recommendations are expected to focus on: saving cost/time, maintaining and improving design quality, emerging concepts in the design process, and user/ client comfort. Recommendations will also be made for architectural education to enhance the preparation of the next generation of Jordanian architects to function better in interdisciplinary project structures. This may help in developing architectural practice in the Middle East region as a whole.

Will my taking part in this project be kept confidential?

All information that I collect about you during the research will be kept strictly confidential and you will not be able to be identified in any reports or publications. The data will be anonymised and will refer to participants as (Architect A, Architect B... etc Or Client A-1, Client B-2... etc). I will only keep the primary data collected until the completion of my PhD research and transcripts of the interview will not include any identifying data unless you have given your consent to be named. I will store all data in a passcode protected folder within my computer. I can provide you with a copy of my transcript on request.

Finally, Many thanks for your participation in this study.



The University of Sheffield

Sheffield School of Architecture

Participant Information Sheet

Dear Sir/ Madam:

My Name is **Ahlam Harahsheh**; I am a PhD researcher at Sheffield School of Architecture – University of Sheffield – United Kingdom. My research Project title is "**Building a Dialogue: Architect – Client Interactions**".

You are being invited to take part in this research project. This research aims to investigate the design of residential units for client occupiers in Jordan, and to study the housing sector and architectural practice from a new angle; exploring the relationship between early design stages communications and user satisfaction in housing projects.

Before you decide whether you wish to participate it is important for you to understand why the research is being done and what it will involve. Please ask if there is anything that is not clear or if you would like more information about the research. Take time to decide whether or not you wish to take part. Thank you for reading this.

About the Research

In her influential book, "Architecture: the story of practice", Dana Cuff stated: "If we are to offer sound advice about how architectural practice ought to function, we must know more about how it functions now". This summarizes what this research is about: to fill a gap in Jordanian architectural practice research in order to develop the profession and practice of architecture in Jordan and the Middle East.

The main contribution to existing research is the documentation of empirical examples of architect — client interactions in the early design stages in Jordan, and to evaluate the strengths and weaknesses of the architect — client relationship through post occupancy evaluation (POE) of selected case studies. This will contribute to understanding of this relationship and its implications.

What is the work plan of you participation in the project?

You have been approached as an expert in the housing sector in Jordan or as a house owner, identified due to your expertise, experience or knowledge. I would like to conduct a short semi-structured interview with you to enable me to study architect – client communications in the early stages of design of a housing project. I will be the most grateful if you accept my invitation to take part in this research. It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep (and be asked to sign a consent form) and you can still withdraw at any time. You do not have to give a reason. The interview will take approximately 30-50 minutes and audio will be recorded with your permission. The place of the interview will be decided at your convenience in person or by telephone.

Please note if you have been interviewed for a case study, your counterpart in the relationship will be also been interviewed (if you are an architect, your client will be interviewed as well, and if you are a client, your architect will be also interviewed), that will help the researcher to have a full picture of the design and the communication around it.

What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that an outcome of the research will be a range of practice guidelines aimed at construction professionals working in the housing sector. Recommendations are expected to focus on: saving cost/time, maintaining and improving design quality, emerging concepts in the design process, and user/ client comfort. Recommendations will also be made for architectural education to enhance the preparation of the next generation of Jordanian architects to function better in interdisciplinary project structures. This may help in developing architectural practice in the Middle East region as a whole.

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