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An approach to compatible new buildings in historic urban environments: Case study in the Arabian Gulf region

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Résumé

Cette thèse contribue à l'état actuel des connaissances sur la compatibilité des nouveaux bâtiments avec les environnements urbains historiques. Elle suit un mode classique de présentation : Introduction, Revue de Littérature, Méthodologie, Résultats, Discussion et Conclusion. Le problème étudié est le manque d'orientation pour intégrer les processus de développement et de sauvegarde dans les contextes établis. La littérature récente révèle que les règles de préservation, aussi appelées normes et lignes directrices, ne peuvent pas garantir une relation compatible entre une intervention et son milieu. La pensée contemporaine dans le domaine de la conservation et de la gestion du patrimoine invite donc l'exploration d'autres moyens pour lier la nouvelle architecture à l'ancienne.

Ainsi, le présent projet de recherche explore une approche alternative aux règles de préservation en vue d'atteindre le but de nouveaux bâtiments compatibles et d'améliorer la prise de décision fondée sur les valeurs. Pour produire des résultats spécifiques et convaincants, un cas a été sélectionné. Celui-ci est une ville dans la région du Golfe Arabe : la Ville de Koweït. Le résultat principal est le développement d'une approche, mise en œuvre en posant des questions approfondies sur le lieu, la conception et la construction des nouveaux bâtiments. Les questions suggérées dans la thèse mettent l'accent sur les valeurs patrimoniales et les choix de conception afin de permettre un changement réfléchi au sein des environnements urbains historiques. Elles aident aussi à évaluer les nouvelles propositions de projets au cas par cas. Pour démontrer comment cette approche pourrait être présentée et utilisée par les requérants et les évaluateurs, un modèle théorique est proposé. Ce modèle a ensuite été discuté avec des professionnels locaux et internationaux qui ont identifié ses forces et ses limites.

En conclusion, l'ensemble des résultats montre que la mise à disposition de règles et / ou de questions approfondies n'est pas une solution satisfaisante puisqu'il y a d'autres enjeux importants qui devraient être abordés: comment appliquer l'orientation efficacement une fois qu'elle a été créée, comment développer la compétence liée à la prise de décision fondée sur les valeurs et comment insérer la conservation du

patrimoine dans la mentalité du gouvernement local et des communautés. Lorsque ces enjeux seront traités, le patrimoine pourra devenir partie intégrante du processus de planification, ce qui est le but ultime. Enfin, cinq axes de recherche sont recommandés pour poursuivre l'exploration des idées introduites dans cette étude.

Mots clés : approche alternative ; compatibilité ; conception ; contexte ; environnement urbain historique ; évaluation ; nouveau bâtiment ; patrimoine ; règles de préservation ; prise de décision fondée sur les valeurs.

Abstract

This thesis contributes to the current state of knowledge on the compatibility of new buildings with historic urban environments. It follows a classic mode of presentation: Introduction, Literature Review, Methodology, Research Findings, Discussion and Conclusion. The problem under study is insufficient guidance to integrate the processes of development and safeguarding in established contexts. Recent literature reveals that preservation rules, also known as standards and design guidelines, cannot guarantee a compatible relationship between an intervention and its surroundings. Contemporary thinking in the field of heritage conservation and management, therefore, urges the exploration of other means for relating new architecture to old.

Accordingly, the present research project explores an alternative approach to preservation rules with a view to achieving the goal of compatible new buildings and improving values-based decision-making. To generate specific and convincing results, a case study was selected. The latter is a city in the Arabian Gulf region: Kuwait City. The main research finding is the development of an approach, implemented by asking probing questions about the location, design and construction of new buildings. The questions suggested in the thesis put emphasis on heritage values and design options to enable thoughtful change in historic urban environments. They also help assess new project proposals on a case-by-case basis. To demonstrate how this approach might be presented to, and used by, applicants and evaluators, a theoretical model is proposed. This model was later discussed with local and international practitioners who identified its strengths and limitations.

In conclusion, the overall research findings show that the provision of rules and/or probing questions is not a satisfactory solution because there are other important issues that must be addressed: how to effectively apply guidance once it has been created, how to develop the skill of values-based decision-making and how to embed heritage conservation in the mentality of local government and communities. When actions will be taken to deal with these issues, heritage could become a part of the planning process,

which is the ultimate goal. Lastly, five research directions are recommended to further explore the ideas introduced in this study.

Keywords: alternative approach; assessment; compatibility; context; design; heritage; historic urban environment; new building; preservation rules; values-based decision-making.

موجز

تُساهم هذه الأطروحة في زيادة المعرفة المعاصرة بخصوص توافق المباني الجديدة مع المناطق المعمارية التراثية. إنها تتبع أسلوب النمط الكلاسيكي لعرض الأفكار: مقدمة، مراجعة الدراسات المعنية، جمع وتحليل المعلومات، نتائج، مناقشة وخاتمة. فهي تتناول مشكلة نقص التوجيه لدمج عمليات التنمية والحماية في المناطق المعنية. الدراسات الأخيرة تشير إلى أن قوانين الحفاظ، المعروفة أيضاً بالمعايير والمبادئ التوجيهية للتصميم، لا تستطيع أن تضمن وجود علاقة توافق بين التدخل المعماري والمكان المحيط به. لذا التفكير المعاصر في مجال الحفاظ على التراث وإدارته يُشجع على إيجاد وسائل أُخرى لربط العمارة الجديدة بالقديمة.

وفقاً لذلك، مشروع البحث الحالي يبحث عن نهج بديل لقوانين الحفاظ بغاية تحقيق هدف التوافق المعماري وتحسين القرارات القائمة على القيم. للحصول على نتائج دقيقة ومقنعة، تم إختيار ودرس حالة وهي مدينة في منطقة الخليج العربي: مدينة الكويت. النتيجة الرئيسية للبحث هي تكوين نهج يُمكن تطبيقه بطرح أسئلة إستفسارية عن موقع وتصميم وبناء المباني الجديدة. والأسئلة المقترحة في الأطروحة تركز على القيم التراثية وخيارات التصميم للحصول على تغيير مدروس في المناطق المعنية. كما أنها تساعد على تقييم مقترحات المشاريع الجديدة. لإظهار كيف يمكن أن يُقدم ويُستخدم هذا النهج من قبل المصممين والمقيمين، تم تكوين نموذج نظري. وقد نوقش هذا النموذج مع مهنيين محليين ودوليين حيث قاموا بتحديد نقاط قوته وقيوده.

وتُشير النتائج الإجمالية إلى أن توفير القوانين و/أو الأسئلة الإستفسارية ليس حلاً مرضياً لأنه يوجد مسائل أُخرى لابد من معالجتها: كيفية تطبيق التوجيه بشكل فعلي عندما يتم إنشاؤه، وكيفية تطوير مهارة أخذ القرارات القائمة على القيم، وكيفية إدخال المحافظة على التراث بعقلية الحكومة المحلية والمجتمع. عندما تُعالج تلك المسائل، يُمكن للتراث أن يصبح جزءاً من عملية التخطيط. فهذا هو الهدف النهائي. وأخيراً، يُنصح بأخذ خمس إتجاهات بحثية لمواصلة التحقق من الأفكار التي وردت في هذه الدراسة.

الكلمات الأساسية: نهج بديل ؛ تقييم ؛ توافق ؛ سياق ؛ تصميم ؛ تراث ؛ منطقة معمارية تراثية ؛ مبنى جديد ؛ قوانين الحفاظ ؛ إتخاذ القرارات القائمة على القيم.

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List of Abbreviations

AEC: *Al-Abdulhadi* Engineering Consultancy

AKTC: Aga Khan Trust for Culture

AVR: Accurate Visual Representation

CABE: Commission for Architecture and the Built Environment

CBK: Central Bank of Kuwait

EH: English Heritage

EIA: Environmental Impact Assessment

GCI: Getty Conservation Institute

HBPS: Historic Building Preservation Section

HIA: Heritage Impact Assessment

HOK: Hellmuth, Obata and Kassabaum

HPLO: Historic Preservation League of Oregon

HSR: Historic Structure Report

HUL: Historic Urban Landscape

HV: Heritage Village

IAIA: International Association of Impact Assessment

ICCROM: International Centre for the Study of the Preservation and Restoration of Cultural Property

ICOMOS: International Council on Monuments and Sites

IFHP: International Federation for Housing and Planning

IFLA: International Federation of Landscape Architects

INTBAU: International Network for Traditional Building, Architecture & Urbanism

ISoCaRP: International Society of City and Regional Planners

IUCN: International Union for Conservation of Nature

KEO: Kuwait Engineering Office

KIA: Kuwait Investment Authority

NCCAL: National Council for Culture, Arts and Letters

NEPA: National Environmental Policy Act

NPS: National Park Service

PACE: Pan Arab Consulting Engineers

PMC: Project Management and Control

OWHC: Organization of World Heritage Cities

QVA: Qualitative Visual Assessment

SOS: Statement of Significance

SPG LVMF: Special Planning Guidance London View Management Framework

UIA: International Union of Architects

UNESCO: United Nations Educational, Scientific and Cultural Organization

WB: World Bank

WHC: World Heritage Centre

Dedication

To conservators who embrace urban heritage
and wish to protect it by the means of new knowledge
for the benefit of current and future generations
whose interventions rise from memories or innovations

To architects who bring values, tradition and culture
in their choice of design elements and infrastructure
for the addition of new layers to patrimony
where context and creativity meet in harmony

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Last but not least, I would like to acknowledge the input of the fourteen interviewees (including the three international practitioners), the one hundred and fifty-five Kuwaiti citizens who participated in the survey and the members of the thesis jury.

CHAPTER I: INTRODUCTION

1.1. Research Topic

This thesis examines the design and assessment of new buildings[1] proposed in historic urban environments.[2] More specifically, it focuses on the exploration of an alternative approach to regulatory tools, also known as preservation rules/criteria. These usually appear in the form of standards[3] and/or design guidelines[4] that are intended to guide decision-makers who submit and review project proposals (i.e. applicants and evaluators). The purpose of this exploratory study is to develop an approach that helps search for compatibility and improve values-based decision-making.[5]

1.2. Statement of the Problem

1.2.1. Insufficient Guidance

The problem is insufficient guidance directed at the insertion of new buildings in historic urban environments. The extensive and ongoing dialogue in literature, including documents issued from the UNESCO World Heritage Centre (WHC), shows that the lack of clear guidance and policies controlling contemporary interventions has exposed

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[1] In literature, the expression "new construction" refers to additions and alterations to existing buildings as well as to infill development and new buildings in established contexts. For instance, Semes writes: "one of the most hotly contested battlegrounds in the debate between avant-garde modernists and new traditionalists concerns new construction in historic settings, whether additions to protected buildings or infill projects in historic districts" (Semes 2008: 1). For clarification, the present thesis primarily deals with new buildings.

[2] An urban environment is "the connective tissue and built elements" that "are woven together to form the urban fabric." It includes, for example, streets, buildings, parks and views (Benzel 1996: 98). A "historic" urban environment is one that has been recognized for its heritage value. "Urban environment" and "built environment" can be used interchangeably. "Built environment" also refers to "the human-made (versus natural) resources and infrastructure designed to support human activity, such as buildings, roads, parks, and other amenities" (Recommendation on the HUL 2011 – Appendix: Glossary of Definitions).

[3] "Prescriptive metrics for directing new construction […]. Standards are generally black and white, providing a measurable box in which new construction can take shape" (Joslin et al. 2011: 4 and 6).

[4] "Parameters describing the preferred look and feel of new construction […]. Guidelines are aspirational and descriptive; standards are prescriptive […]. Guidelines can be advisory or serve as approval criteria applicants must meet" (Joslin et al. 2011: 4 and 6).

[5] Decisions that are made based on the recognition of, and responsiveness to, heritage values (defined by the present researcher).

historic places and their heritage values to increasing pressures (Folin-Calabi 2008: 127; Van Oers ed. 2010: 7). For example, the Gazprom City project (i.e. the 396 meters in height RMJM Tower), currently known as the Okhta Center, was "linked with the reckless endangerment" of St. Petersburg's historic character, which has remained horizontal for 300 years (Lepik 2004: 26). The concern, however, is not contemporary architecture[6] or skyscraper typology, but rather its introduction in, and its adverse environmental impacts on, valued contexts. In other words, a team of designers might propose a beautiful and high-quality building that meets safety, access and energy efficiency standards to fill an empty space, but its location may be the wrong place.

In response to the lack of explicit and values-oriented guidance, UNESCO's World Heritage Committee has recently concluded that "the regulatory tools put in place are not always adequate to address the new challenges," such as the proposal of the RMJM Tower. Existing standard-setting instruments (i.e. Charters and UNESCO Recommendations), moreover, are "often weak and powerless in front of the forces of change that dominate the world and its urban scenes today and in the foreseeable future" (A New International Instrument 2010: 2). Consequently, "new principles, approaches and tools have to be identified to cope with the new challenges" and to "provide the World Heritage Committee with the relevant tools," which would help "facilitate the evaluation of proposals for change" in historic urban environments (A New International Instrument 2010: 2 and 2011: 5-15). This international request urges the exploration of new avenues of thinking to guide decision-makers when they intend to intervene in valued contexts.

In view of that request, the Recommendation on the Historic Urban Landscape (HUL) has been written and recently adopted by the UNESCO General Conference in 2011 to complement former standard-setting instruments and "to speak" not only to cities inscribed on the World Heritage List, but also "to all living historic cities" (Van Oers ed. 2010: 8 and 16). Nevertheless, as it currently stands, the new Recommendation has not fully satisfied its stated purpose, which is to provide clear advice for achieving a

[6] "Today's articulation of contemporary is expressed in terms of iconic architecture, signature architecture, and the self-conscious design of the Heritage of the future" (ICOMOS 2010: 7). Some authors compare this type of architecture to objects of art that cast away the past, call attention, shock, offend and challenge existing fabric (Bennett 2006: 51).

"harmonious integration between the historic urban fabric and contemporary interventions" (Intergovernmental Meeting of Experts 2011: 9). In fact, the meaning of "harmonious" in the document is undefined and an example of specific guidance that demonstrates how the HUL approach[7] and its tools can be applied in a given context is absent. Furthermore, this Recommendation, which will acquire "universal value," according to UNESCO, cannot really "encompass the diversity of approaches and value systems of the different cultures" (A New International Instrument 2010: 3), because it is difficult to establish a worldwide approach that all cultures and regions can agree to and rigorously apply or adapt to their specific contexts without showing some evidence of its successful implementation through, for instance, case studies.

Without examples, decision-makers (e.g. designers) could interpret general guidance in many ways, some of which may be inappropriate for certain design challenges or may violate the traditions that governed local buildings and landscapes. For this reason, a balance between explicit site-specific guidance and general guidance might better direct judgment about the goodness and quality of an intervention in relation to its identified location than broad norms and approaches that seek to cover a wide variety of particular design situations. Every society, moreover, has characteristics, behaviours, morals, beliefs, activities, economic conditions, climate, topography and pace of development that differ from other cities and geographic regions. Hence, to effectively deal with new development, guidance for achieving "harmonious integration" should derive from, and conform to, the local level. Still, there are some obstacles facing the creation and adoption of policies to control new development locally and nationally.

First, the ambiguity and inconsistency of information in major literature on the problem causes the misunderstanding of compatibility/harmony. When a key concept is not defined in a straightforward manner or in clear and simple terminology, confusion

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[7] The rationale behind HUL is that "a landscape approach, where all is layered and interrelated […] seems more appropriate to deal with the management of change in complex historic urban environments" than other approaches (Van Oers ed. 2010: 12), because its application would help "to reach decisions about the advisability of particular interventions […] and to facilitate the planning, negotiation and implementation of activities across a whole landscape" (Recommendation on the HUL 2011: 1 and 6). It is supplemented with an "Action Plan" that consists of six steps: mapping, participatory planning, assessment of vulnerability, integration of heritage values, prioritization of actions, and partnerships.

prevails and leaves too much space for misinterpretations and, thus, for misguided decisions. Secondly, the lack of consensus on principles and design development goals among local government, architects, planners, conservators and clients/project owners allows personal interests to take precedence over existing regulations. Without mutual agreement and understanding, moreover, decision-makers will struggle to balance contemporary urban needs and economic vitality with the conservation of historic places. Consequently, long-term planning for these places will likely remain marginal. Thirdly, the scarcity of experts or the lack of governmental support or willpower to effectively oversee the application of principles and goals, if any, makes the effort to develop and implement policy pointless. Fourthly, the increasing dependence on technology, either computer modelling programs or contemporary methods of construction, continues to challenge local building cultures[8] and may result in the loss of historic character. Although promoting a view of urbanism that responds to building cultures can have a positive influence on new development, the challenge is to convince decision-makers to acknowledge, and work with, these cultures. Fifthly, the diversity of opinions with regard to identifying, and responding to, heritage significance is overwhelming. As a result, the diversity of opinions on whether new buildings should look like, or differ from, historic buildings in situ is confusing.

For example, in terms of the last mentioned obstacle, Semes, an architect and professor of architecture, explains that "proposals for new buildings that visibly depart from the character of their historic surroundings often arouse intense feelings" (Semes 2009: 28), because they challenge the conservation of the place. More precisely, they may adversely affect its heritage values. Advocates of the traditional outlook fear that new forms will result in the loss of those values, whereas advocates of the modernist outlook "see preservationists as obstructing progress, of being 'afraid of the future'" (Semes 2009: 28). Accordingly, the divergence between these two camps seems to be architectural style. Yet, the choice of a design response should extend beyond the mere question of whether to work with traditional and/or modernist styles, because what is

[8] "The body of knowledge, rules, procedures, technical skills and craftsmanship that characterize the design and construction practices of a particular community, place, or period in history […]. The term is therefore independent of style and fashion, though possibly influenced by them, and they by it" (Semes 2009: 25 and 43).

worthy to conserve and transmit to future generations is more significant than what the human eye can see. In fact, when decision-makers are faced with the challenge of adding a building to a valued place, the gap between the choice of design elements (e.g. materials, colours, shape, mass) and the justification of that choice in relation to the significance of the place is precisely where insufficient guidance lies.

1.2.2. A Worldwide Phenomenon

The problem is evident not only in properties inscribed on the World Heritage List, but also in any historic city that has national or regional importance (Van Oers and Pereira Roders 2012: 2). When development is proposed in World Heritage properties, however, the World Heritage Committee can intervene to express its concerns about potential threats to heritage values. This was the case, for example, with the proposal of the high-rise development in the Wien-Mitte project site, in the buffer zone of the historic centre of Vienna in 2002. The proposal caused the writing of the Vienna Memorandum in 2005, as part of an international conference on "World Heritage and Contemporary Architecture" (Cameron 2008: 10). Cameron, an international expert and Chairperson of the 32nd Session of the World Heritage Committee in 2008, gives other examples of cases that were later discussed: the Jahan-Nama commercial complex that includes a 58 meters in height tower located 760 meters from Meidan Emam in Iran, a high-rise development around 800 meters from Cologne Cathedral in Germany, several developments near the Tower of London in the United Kingdom, and the RMJM Tower at the edge of the historic centre of St. Petersburg in Russia (Cameron 2008: 28). The World Heritage Committee has seen and discussed other examples of high-rise and/or new construction in Beijing, Kathmandu, Riga, Potsdam, Avila and Antigua Guatemala (Van Oers 2006: 5).

Properties that are not inscribed on the World Heritage List have also experienced threats to heritage values. For example, Arabian historic districts have been jeopardized, because many designers have not critically evaluated the appropriateness of form, materials and layout with regard to Arabian morphologies, cultures, values and climates (Elsheshtawy ed. 2008; Hawker 2008; Jayussi et al. eds. 2008). The

recruitment of famous foreign architects who have little knowledge of, or care for, local values and patterns of development, continues to challenge the conservation of these districts. Designers are not exclusively to blame, however, since Arabian cities are controlled by a "small number of decision-makers" who "usually try to impress their societies by constructing monumental buildings" that are not always compatible with their surroundings (Akbar 1987: 108). Arabian governments often desire to transform their cities into tourist destinations and centres for investment; hence, the conservation of site-specific qualities and attributes becomes a complex design challenge. To governments in general, architectural status symbols "create what is believed to be an image of progress" (Van Oers 2009), but to conservation communities this form of progress particularly in historic places is worrisome, because it may cause the fragmentation and deterioration of urban heritage and, consequently, threaten to diminish heritage values.

1.2.3. A Perpetual Phenomenon

How to add contemporary architecture to historic fabric is "an issue as old as the second building ever constructed by human beings" (Semes 2009: 25). In fact, whatever context it enters, no new building stands alone because "each work places itself in relationship to those that have come before" (Semes 2009: 79), but this relationship became a concern with the introduction of modern structures in heritage settings.

Before the advent of the International Style in the 1920s, which later became known as the Modern Style, new buildings were destined to be compatible with their surroundings, because "context [was] an essential source of design inspiration" (Brolin 1980: 138). Local communities were members of the same group of users who designed all kinds of buildings according to the social, cultural, physical, natural, economic, religious and political aspects of their geographic region (Rapoport 1987: 10-15). Architectural design was a process that reached back in time to understand heritage values (Zyscovich and Porter 2008: 11).

With the emergence of modernism, however, design was approached from a new ideology. In essence, modernist-trained architects followed three universal principles:

function is the main source of inspiration; new construction technologies that arose from industrial design and structural engineering must be used; historical references, particularly ornament, must be banned (Tyler et al. 2009: 96). Until the 1960s, architects who designed "in the new mode" believed that their work had to express no other period but its own time; thus, precedents were not looked upon favourably (Tyler et al. 2009: 103). Some architects even argued that buildings had to be modern to fulfill functional requirements when a traditional looking building could fulfill them as well (Brolin 1981 - online article). Brolin, an architectural critic, explains that this ideology "aggressively opposes integrating new buildings into existing architectural contexts;" hence, many interventions contrasted heavily with historic buildings in situ and some ignored their surroundings intentionally (Brolin 1980: 140). As a result of changes in ideologies, materials (e.g. concrete) and methods of construction (e.g. steel frame construction), cities worldwide witnessed an increase in the size and height of new buildings, which later invaded local vernaculars[9] and, consequently, adversely affected the character and significance of historic places.

In response to these changes, the movement for conserving historic urban environments was launched in the 1960s (Papageorgiou 1970: 16; Rodwell 2007: vii). Soon after, guiding principles written by international centres, mainly UNESCO and its advisory body on cultural matters ICOMOS, began to emerge in the form of Charters and Recommendations. Those, however, are not sufficiently developed to address current urban transformations and challenges in historic places (A New International Instrument 2011: 7). Van Oers, a programme specialist at the WHC, explains that "over the last few years the number as well as intensity of debates at the annual sessions of the World Heritage Committee have increased significantly, suggesting an inadequate framework to address matters of contemporary development within historic urban contexts" (Van Oers ed. 2010: 7). For this reason, the Recommendation on the HUL was created and adopted. This document, however, is not the solution to the problem,

[9] "Indigenous, made locally by inhabitants; made using local materials and traditional methods of construction and ornament; specific to a region or location" (Standards and Guidelines for the Conservation of Historic Places in Canada 2010: 256). Vernacular architecture "is traditionally understood as architecture without architects, and it has also tended to be architecture without planners" (Smith 2011: Editorial No.2).

but rather a starting point that may or may not be considered in national and local contexts. The recruitment of "star architects" or "international celebrity architects" in different parts of the world, for example, will likely continue to challenge the conservation of historic urban environments (Gersovitz 2006: 65; Macdonald 2011: 14). Consequently, the resulting new buildings will probably prolong what Soule, Director of Outreach and International Programs at the American Planning Association, calls the "no-context philosophy" (Soule 2006: 2010) or what Van Oers labels the "infection with the iconic" (Van Oers 2006: 5). Hence, the problem under study "is not a new phenomenon, but had been under debate in the urban conservation discipline for decades" (Van Oers ed. 2010: 8) and is still open for further exploration.

1.2.4. The Importance of Maintaining Compatibility

Managing change to accommodate contemporary architecture in historic contexts is an increasing concern for heritage conservation scholars and practitioners, particularly in a time when design development decisions are made without reference to heritage values. Such decisions often result in interventions that threaten historic character and significance. Recent literature shows that there is still a need for additional guidance, particularly to maintain compatibility in the environment. In fact, the concept of compatibility is tied to that of conservation. Luxen, former Secretary-General of ICOMOS, clarifies that "the concept of conservation represents an insistence on harmony […] while the protection of this harmony is perceived as a major aspect of sustainable human development" (Luxen 2004: 2).

Historic urban environments, moreover, represent tangible evidence from the past that enriches human experience and educates contemporary and future generations about, for example, values, traditions, belief systems and collective memory among other substantial matters. They provide the opportunity to learn from history and to better comprehend economic, political, social, cultural and natural relationships in established contexts. Hayden, an American author, professor, architect and urban historian, explains that historic contexts tell the "story of how places are planned, designed, built, inhabited, appropriated, celebrated, despoiled, and discarded. Cultural

identity, social history, and urban design are here intertwined" (Hayden 1995: 15). For these reasons, the protection of valued places from environmentally insensitive new development is a local, a national and an international responsibility. One way to assist the conservation and management of these places in order to maintain compatibility is to improve values-based decision-making.

1.2.5. Decision-Makers Involved

Decision-makers who address the problem range from the global to the local level. International decision-makers are the UNESCO General Conference, the World Heritage Committee, the three Advisory Bodies to the World Heritage Committee ICOMOS, ICCROM and IUCN, as well as professional organizations such as the World Bank (WB), the Aga Khan Trust for Culture (AKTC), the International Union of Architects (UIA), the International Federation of Landscape Architects (IFLA), the International Federation for Housing and Planning (IFHP), the International Society of City and Regional Planners (ISoCaRP), the Getty Conservation Institute (GCI), the Organization of World Heritage Cities (OWHC) and the International Association of Impact Assessment (IAIA). Professionals in these organizations are urban conservators, administrators and managers who are consulted during meetings organized by the World Heritage Committee to receive expert input on prospects for urban heritage conservation and management (A New International Instrument 2010: 4).

Other kinds of meetings can provide expert input with a view to disseminating findings to the WHC. For example, the Round Tables in Montreal, mainly those on "Heritage and the Conservation of Historic Urban Landscapes: the Vienna Memorandum" (Cameron ed. 2006) and "World Heritage: Defining and Protecting 'Important Views'" (Cameron ed. 2008) brought together a range of professionals who critically discussed the issue of contemporary architecture in historic places. The outcome of the Historic Urban Landscapes Workshop at the 16th General Assembly of ICOMOS in Quebec City in October of 2008, furthermore, contributed to the international discourse. Experts at that workshop urged the exploration of a common methodology and language to cope with the same issue.

At the national and local levels, decision-makers are governing authorities, legislators, municipalities, ministries, policy-makers, conservators, project managers, architects, planners, urban designers, developers, investors, clients/project owners and concerned citizens who may involve themselves in design review processes. Each decision-maker plays a role. For example, clients specify the requirements and program of a building project. Architects decide how to design the building. Municipal authorities evaluate the project proposal and determine whether the building should be constructed with or without modifications.

1.2.6. Recent Efforts and Solutions

From an international standpoint, the World Heritage Committee and ICOMOS have been dealing with the problem by establishing conservation and management guiding principles, in the form of Charters and Recommendations. While these documents "remain valid," because they have set the stage for urban heritage conservation, they do not sufficiently deal with the insertion of new buildings in established contexts (A New International Instrument 2011: 7). This observation explains why the Committee called for the organization of a symposium to discuss and articulate issues of concern during the 27th session in Paris, in 2003. That discussion exposed the need for the establishment of new guidance and approaches to provide direction to decision-makers while conserving the heritage values of properties inscribed on the World Heritage List.

In 2005, a conference took place in Vienna and concluded that the last Recommendation Concerning the Safeguarding and Contemporary Role of Historic areas, adopted in 1976, "should be complemented by a new Recommendation taking into consideration that over the last thirty years the concepts of historic urban area conservation have evolved" (Van Oers ed. 2010: 9). Following the emergence of the Vienna Memorandum the same year, an exchange of best practices, ideas, tools, approaches, impact assessment studies, case studies and outcomes was formally requested to assist decision-makers, including the World Heritage Committee, in developing the new Recommendation. At the 29th session in Durban, it was suggested

that the UNESCO General Conference should give special attention in the new standard-setting instrument "to the need to link contemporary architecture to the urban historic context" (World Heritage Cities Program). This suggestion, which highlights the importance of maintaining compatibility, is item 8 of Decision 29 COM 5D.

In subsequent years, five regional expert meetings (i.e. in Jerusalem 2006, Saint Petersburg 2007, Olinda 2007, Zanzibar 2009 and Rio de Janeiro 2009), and three planning meetings held at UNESCO Headquarters (i.e. in September 2006, November 2008 and February 2010) have strived to prepare for the Recommendation. Definitions of HUL, approaches (e.g. holistic landscape approach), tools (e.g. buffer zones) and methodologies (e.g. zoning with cultural mapping) were suggested. Nevertheless, how these suggestions can be used to inform the design and/or assessment of proposed new buildings is not sufficiently explained, in spite of Decision 29 COM 5D.

On October 16th 2009, the UNESCO General Conference adopted a Resolution to authorize the writing of the Recommendation on the HUL (Resolution 35C/42), which "would not be specific to World Heritage cities, but broadened to all historic cities" (A New International Instrument 2010: 4). The final results of the regional expert and planning meetings have been used to guide the writing process. Although the document was adopted in November of 2011, further research is encouraged to strengthen the network of capacity-building and knowledge-sharing as well as the centralization of information and the application of the HUL approach at the local and national levels (Van Oers and Pereira Roders 2012: 7). For instance, an ongoing doctoral research project at Eindhoven University of Technology, the Netherlands, is focusing on "the implementation of the HUL approach, with the development of an assessment framework to facilitate the identification of the guidelines in existing policy, and its comparison to those recommended by the HUL approach […]. Next, the framework will be applied in two case studies, Amsterdam (the Netherlands) and Edinburgh (Scotland, UK), to reveal the differences between existing policy and management practices and the HUL approach" (Veldpaus 2012: 1). This example shows that applied research, in particular, is needed to investigate the applicability of existing and new knowledge.

1.3. Overview of the Current State of Knowledge

Until recently, the main concerns of the international discourse with the problem were to define views and to identify tools to protect these views from new development. In 2008, Cameron declared that "the World Heritage Committee is taking seriously the requirement from the Operational Guidelines to protect important views and settings around World Heritage Sites" (Cameron 2008: 28). The act of intervening in historic contexts, therefore, was perceived as a visual challenge. In fact, **Chapter II: Literature review** will show that standard-setting instruments and other UNESCO documents place a lot of emphasis on visual relationships (e.g. Recommendation 1972: Items 23 and 42; Recommendation 1976: Item 5; Vienna Memorandum 2005: paragraph 25). The international discourse, furthermore, has paid too much attention to the reformulation of definitions and too little on the practices needed to accommodate change in historic contexts. For example, the World Heritage Committee has embraced the concept of HUL, but how this concept, which is defined as both an approach and a physical urban area in the 2011 Recommendation, can be applied to accommodate new architectural layers is not sufficiently explained. For this reason, Smith, an architect-planner and one of the co-authors of the Recommendation on the HUL, argues that it is now "up to ICOMOS to decide whether to produce its own document, as a companion to the UNESCO Recommendation," because he judges that it would be useful "to develop something intermediate between theory and practice" (Smith 2012: Editorial No.6).

Still, every standard-setting instrument has established important guiding principles that reflect conservation thought at a given historical time. For this reason, each one should be seen in its respective context. When examined together, however, it becomes obvious to scholars and practitioners that these documents have inconsistently dealt with the problem, because they communicate contradictory ideas (Hardy ed. 2008). For example, the 1964 Venice Charter insists that "any extra work […] must be distinct from the architectural composition and must bear a contemporary stamp" (Article 9); hence, it emphasizes distinction instead of compatibility. Semes, moreover, argues that the Charter encourages designers to change the character of historic places and withholds traditional architecture from informing contemporary practice,

particularly because "any extra work" has to be clearly visible (Semes 2009: 137 and 152). On the other hand, the 1983 Appleton Charter states that "new work should be identifiable on close inspection or to the trained eye, but should not impair the aesthetic integrity or coherence of the whole" (p.6). Put differently, it advises that distinction should not be readily evident. As a result, it is hard for an architect who is designing a new building to decide which document has validity for his/her design challenge.

Recent literature, moreover, shows that the experience of historic places should inform decision-making (Cameron 2006: 83). Smith explains that this experience is embedded in the "cultural framework" and the "ritual understanding" of a historic place (Smith 2006: 70). From his perspective, therefore, compatibility transcends the mere visual aspect of an intervention, as portrayed in many standard-setting instruments. Since this perspective is now widely acknowledged, emphasis in literature is currently being placed on the recognition of heritage values in decision-making. Folin-Calabi, an associate expert at the WHC, clarifies that the issue of concern has gone beyond what the Vienna Memorandum calls "the contextualization of new buildings" to become an issue of "harmonization of the contemporary architectural expressions with the values of the historic context" (Folin-Calabi 2008: 131). The international discourse led to the conclusion that what needs to be protected from new development in historic places are not the views from and towards historic buildings in situ per se, but rather the values, the sense of place and the experience manifested in views and other intangible qualities (Cameron 2008: 233-234). This explains why "the emphasis today is on continuity – of relationships, values and management" (Van Oers ed. 2010: 12).

Contemporary thinking in the field of heritage conservation and management, moreover, is challenging conventional wisdom, which embraces the idea that preservation rules hold the answer for thoughtful change in historic contexts. **Chapter II: Literature Review** will show that rules, particularly prescriptive ones, are not the solution to the problem (although a number of respected scholars and practitioners support the need for rules), because compatibility is not primarily tied to the fulfillment of standards and/or design guidelines. In relation to this argument, Smith clarifies that "future directions are not necessarily going to be established through the old hierarchies. Rules are not going to be dictated by the theorists to the practitioners. Community-

based decision making and creative local and regional perspectives will become more common" (Smith 2012: Editorial No.8). Furthermore, the effectiveness of standards in dealing with the problem has been questioned in different geo-cultural contexts. For instance, Lessard, the former president of the Heritage Council of Montreal, explains that "*la règlementation normative de zonage et les changements ad hoc arbitraires ont cédé la place à une approche discrétionnaire bien encadrée, avec des critères d'évaluation fondés sur la connaissance des lieux, le recours à des comités et de la consultation publique*" in the context of the city of Montreal (Lessard 2012: 3). Hence, scientific research that investigates the effectiveness/appropriateness of existing regulatory tools as well as "creative local and regional perspectives" would be beneficial and would most probably add to contemporary literature on the problem.

1.4. Purpose of the Study

The present research project explores an alternative approach to preservation rules given that recent sources of literature encourage rethinking conventional wisdom, which is focused on quantitative measures and protection. Semes, for example, calls "for a reconsideration of current orthodoxy in relating new architecture to old" (Semes 2008: 6). For this reason, the identification and development of an approach that is qualitative, less restrictive than rules, more directed at the opportunities available for compatible designs and at the values, skills and practices of the locality than at what the expert believes looks best in historic contexts could contribute to the current state of knowledge. Although such an approach might be risky, scholars recommend exploring that risky side, operating "outside the standard social norms" (Smith 2012: Editorial No.8) and looking at work within historic contexts "not [as] a constraint but an opportunity" that adds "a rich new layer" or "an additional richness" to existing layers (Macdonald 2011: 15; Smith 2011: 50).

Hence, the purpose of the study is to develop an approach that helps search for compatibility and acknowledge heritage values by means of explicit guidance capable of integrating the processes of development and safeguarding in historic urban environments. It is noteworthy that evidence from UNESCO and ICOMOS supports the

need for "the reconciliation of development and conservation" with up-to-date guidance "for local communities and decision-makers, including the World Heritage Committee" (Van Oers ed. 2010: 8).

1.5. General Research Question and Thesis Statement

The purpose of the study is best reflected in the following general research question:

What is an alternative approach to preservation rules for establishing a compatible relationship between a new building and its historic urban environment?

In this thesis, the adopted idea is that it is better to inspire qualitative thought, which may result in a range of creative yet compatible design responses, than to impose rigid directives and a list of criteria on decision-makers. When reflection is encouraged through positive language, it might lead to project proposals that start with the recognition of heritage values and end with architectural outcomes that speak for the place and its people. Here, conservation is understood not only in terms of protecting values, but also in terms of enabling change that adds value to the locality. Therefore, the thesis statement is:

Guidance on compatibility should encourage qualitative thought about design opportunities that enhance historic urban environments.

This statement sets the stage for the research project and represents the argument that will be demonstrated and verified. For clarification, "enhance" means to conserve the values of, and add value to, a place. For example, a project that improves the access to, or the economic vitality of, a place while avoiding adverse environmental impacts, is a project that adds value.

1.6. Research Objectives

In light of the research question and thesis statement, two objectives are put forth. The first one is to define compatibility in order to advance the understanding of this concept. The second one is to identify a values-based approach that promotes reflection during the design and assessment of new buildings.

A preliminary analysis of the most relevant literature on the problem has shown that the concept of compatibility evolves with human perceptions across space and time. In other words, its understanding is different from one geo-cultural context to another and from one historical moment to the next. It has also shown that every context has particular heritage values, traditional knowledge, preservation rules and decision-making processes. For these reasons, case study research should guide inquiry and help fulfill the research objectives.

For clarification, "the foremost concern of case study research is to generate knowledge of the particular […] Cases can be chosen and studied because they are thought to be instrumentally useful in furthering understanding of a particular problem, issue, concept" (Schwandt 2001: 23), such as the current problem under study and the concept of compatibility.

Also, a case study can bring "specific" and "convincing" research findings (Roy 2009: 200), which would better contribute to the advancement of knowledge (e.g. in terms of the implementation of guidance at the local level) than findings that seek to cover issues and concepts that vary in meaning from one geo-cultural context to another. Working with a case, therefore, will result in a better execution of the research objectives, which will then support the response to the general research question.

Furthermore, it would be beneficial to work with a case study given that the research is applied as opposed to pure or basic. Applied research "strives to improve our understanding of a problem, with the intent of contributing to the solution […]. Its primary focus is on collecting and generating data to further our understanding of real-world problems" (Qualitative Research: Defining and Designing 2012: 2). Put simply, it strives to demonstrate how practical problems could be dealt with through the applicability of research findings.

1.7. Presentation of Research Findings

To report the results of the research project and show how they relate to each other, a theoretical model is proposed and included at the end of **Chapter IV: Research Findings**. In essence, this model:

1. Brings final order to the general knowledge gained from **Chapter II: Literature Review** and to the particular knowledge gained from the case study;
2. Presents the answers to the specific and subsidiary research questions (view section 1.9. of **Chapter I: Introduction**);
3. Demonstrates how the alternative approach to preservation rules might be presented to, and used by, decision-makers in concert with a new review process as well as a new framework for design and assessment. Hence, it shows how applicants and evaluators may search for compatibility and acknowledge heritage values;
4. Brings out the questioning, principles and themes that should frame new development in historic urban environments. It seeks to provide an example of explicit, concise and consistent guidance that might add to the body of literature on the problem and the case study;
5. Facilitates follow-up interviews as well as interviews with external auditors who are asked to read the model and shed some light on the strengths and weaknesses of the alternative approach. The case study, therefore, serves to support the dialogue with local practitioners as well as the broader dialogue with international experts in **Chapter V: Discussion**. The outcomes of these interviews provide an opportunity to enhance the internal and external validity of the research findings, to explore the practical application and effectiveness of the theoretical model in and beyond the case study, and to reflect on the general research question and thesis statement.

1.8. Strategy of Inquiry: Case study Research

1.8.1. Choice of Geographic Region

The case study is a historic city in the Arabian Gulf region, also known as the Arabian Peninsula, which is joined to Iraq on its northeastern side, Jordan to its

northwestern side and is surrounded on its other sides by the sea. It is important to mention that Arabs call this entire geographic region, including the body of water between Iraq, Iran and the Arab States, *Al-Khaleej Al-Araby*, which means "The Arabian Gulf" in Arabic. The Arab States are Kuwait, Bahrain, Qatar, United Arab Emirates, Saudi Arabia and Oman (**Figure 1** p.19). Yemen, although it shares a small border with the Arabian Sea, mainly borders the Gulf of Aden and the Red Sea. The Peninsula is subdivided into four geographic regions, each of which offers particular cultures, customs, resources, materials and topography (Hawker 2008: 104).

For example, traditional buildings in the United Arab Emirates were made of palm fronds and trunks, because materials such as timber were not available in situ, or others such as stone were rare and expensive. Cities, such as Abu Dhabi and Dubai, had a flat topography, which accepted courtyard housing. Mecca in Saudi Arabia, on the other hand, is located in a valley between rocky hills containing basalt, granite and limestone, which provided the necessary materials for masonry construction. Since the mountainous character of Mecca prevented inhabitants from building central courtyards in their houses, they built three to four storey buildings with *mashrabiyahs* (i.e. windows that looked like lattice screens made of wooden rods) to obtain natural light and ventilation (Morris 1994: 375).

The Arabian Gulf region provides an example for the problem under study, because new development is causing dramatic architectural and urban transformations in, and outside of, historic areas. Traditionally, Arabian cities were characterized by organic growth, horizontal compositions, compact urban neighbourhoods, narrow and pedestrian friendly thoroughfares, and inward-looking buildings that responded to the harsh climate and the cultural needs of residents. With oil money, however, European architectural standards and planning rules were introduced in these cities, which became the recipients of planned growth, skyward extrusion, large urban layouts, vehicular transportation and outward-looking buildings that lack contextuality. As a result of socio-economic and technological change, some local vernaculars have disappeared. For example, the courtyard house is a "tradition" that has been swept aside and rejected due to modernization and technological innovations, which have substituted the thermal comfort provided by courtyards with air-conditioning (Edwards et al. 2006: 83).

Figure 1: Arab States (source: researcher).

After the demolition of courtyard houses and the abandonment of building cultures, many Arabian cities were transformed into global centers that possess few developments that distinguish them as Arabian. They have become places in which "the terms taller, bigger, exclusive and more technologically advanced come with any new development" (Koolhaas 2007: xiv). The excess of oil money has fed the desire for international-style buildings, which, in consequence, has enhanced the sense of the possible as opposed to the sense of place. Surviving historic buildings often find themselves in the midst of high-tech structures that pose like narcissistic status symbols for the world to see, photograph, admire and envy. Although some of those buildings possess spectacular architectural and structural qualities, **Chapter IV: Research Findings** will show that they do little to fulfill the environmental and cultural needs of local communities or to connect with existing urban fabric. In fact, their chief purpose is to attract tourism and international capital.

The choice of the Arabian Gulf region is also influenced by insufficient attention to, and participation of, Arab States in international and regional meetings that deal with

architectural interventions in historic urban environments (Alraouf 2005: 1-9). Although recent research has been undertaken to describe the problem in Arabian cities (e.g. Elsheshtawy ed. 2008; Jayyusi et al. ed. 2008), how to approach the problem is often overlooked. Some Arabians, however, may not perceive change in their urban environment as a problem, but rather as a solution to the destitute quality of life of their ancestors prior to the discovery of oil.

The paradox of how to be modern while remaining faithful to local roots is of prime concern for architectural and urban conservation practices in the region. On the one hand, traditional materials such as mud brick, coral sea rock and palm frond are limited. On the other hand, contemporary structural systems and material choices such as glass, reinforced concrete and steel provide limitless and irresistible design possibilities, which, when executed in historic locations, may cause adverse impacts and compromise heritage values.

1.8.2. Criteria for Selection

According to the criteria set forth by the present researcher to carry out the research project in a feasible and manageable manner, the city (case study) should:

- Be historic (i.e. the first human settlement of Arabians in the country) to maximize the chances of identifying historic urban fabric, heritage values and character-defining elements;
- Be sufficiently documented in photographs, maps and written text to allow the collection of information on its traditional and contemporary architecture as well as its urban morphology;
- Be personally and professionally experienced by the researcher to facilitate the access to information in situ (e.g. privately owned documents);
- Carry tangible evidence of historic or formally recognized heritage buildings and sites;
- Include examples of new buildings (e.g. high-rise development) that are being constructed in areas that contain historic or formally recognized heritage buildings;

- Not necessarily contain properties inscribed on the World Heritage List given that the international discourse encourages research beyond the limits of World Heritage cities or sites as explained, for example, in Van Oers ed. 2010.

  The only State Party in the Arabian Gulf region that does not have a property on the World Heritage List is Kuwait, unlike Oman, Saudi Arabia, Bahrain, Qatar and the UAE (UNESCO World Heritage Center 1992-2013).

Because of these criteria, Kuwait City (i.e. the capital of Kuwait) was selected.

1.8.3. Case Study: a Brief History

Kuwait City, called "Old Kuwait Town" before the 1950s, is located at the upper edge of the Arabian Gulf (**Figure 2** p.22). It was not a pre-Islamic city that later adopted Islam such as Cairo, Damascus, Baghdad, Jerusalem, Mecca and others. It was built from scratch, centuries after Islam. At the very beginning, Kuwait was named *Qurain*. Johannes Van Keuklen, a 17th century Dutch cartographer, included *Qurain* on a map for the first time in 1753 CE (The Initials in Kuwait History 2011). This date, however, does not mark the discovery of the country. Archeologists believe that Kuwait, and more specifically one of its nine islands, had been populated for over 8000 years (Greenwood Press 2004: 39). In 326 BCE, Alexander the Great positioned some of his troops on one of Kuwait's largest islands and established the Greek city of *Ikaros* (Greenwood Press 2004: 39), also known as *Ikariues* (The Origin of Kuwait 2011), where a temple was built to honor the Gods. This island is now called *Failaka*.

"Kuwait" is a minor of the word *kout*, which means "fort" in Arabic. *Barrak*, the *Amir* (i.e. prince) of *Bani Khalid* (i.e. an Arabian tribe that emigrated from Saudi Arabia) built a fort in 1698 CE and named it *Al-Kout*, a name that was later transformed into *Al-Kuwait* (i.e. the Kuwait), which is now used to designate the country (The Origin of Kuwait 2011). Yet, the date of the first human settlement in Old Kuwait Town is unclear. Some information sources state that the first tribe who moved there was *Bani Khalid* in 1670 CE (Lewcock 1978: 7). Other sources assert differently. For instance, an archival source explains that the *Utub* tribe of the *Al-Sabah* family (i.e. Kuwait's ruling family until today) had moved there as early as 1613 CE (The Origin of Kuwait 2011),

whereas another source states that this family left central Arabia to escape famine and settled in Old Kuwait Town in 1710 CE (Hawker 2008: 109).

Figure 2: Kuwait City (source: © 2012 Google, DigitalGlobe and GeoEye). Note: the researcher has added the information in yellow and blue.

At present, the city's historic urban fabric is quickly disappearing due to the lack of formal preservation policies, governmental support and willpower to effectively oversee the conservation of historic districts and the management of change. Ali, a heritage advisor at Kuwait Municipality and a former restoration architect, argues that "the major obstacle to the survival of the few remaining historical buildings in Kuwait Town is the lack of history-conscious policy regulating planning and development" (Ali 1988: 3). She explains that "governmental planning" and "unrestricted private development" threaten significant buildings and "without a formal preservation policy […] almost all the historical structures will be gone" (Ali 1988: 7). The only official document that discusses new buildings in historic areas is the Law of Antiquities, which was adopted in 1960. It states that "new buildings shall be specified as to be harmonious with the existing historic environment" (Princely Decree 1960: Article 15); yet, nothing explains the nature of these specifications or the meaning of "harmonious."

To recognize heritage values in design development decisions today is difficult, particularly because Kuwait City is no longer an environment for Kuwaitis to live, but rather to shop and work (Mahgoub 2005). Yet, the question is not how to bring Kuwaitis back to the city, or to make them reside in courtyard houses instead of current forms of living, or to prevent the construction of new buildings in historic areas, or to effectively enforce existing building and zoning regulations. The question is rather what can be investigated to conserve the remaining traces of the historic urban environment and its heritage values for the benefit of present and future generations while accommodating the desire and need to be modern. Thus, what will be investigated in the present research project is the general research question in the context of Kuwait City.

1.9. Specific and Subsidiary Research Questions

Since the case study has been selected, the specific question is:

What is an alternative approach to preservation rules for establishing a compatible relationship between a new building and its historic urban environment in Kuwait City?

Because an understanding of **1)** heritage significance, **2)** compatibility and **3)** decision-making would help generate "specific" and "convincing" research findings (Roy 2009: 200), the following subsidiary questions are put forward:

1) What are the heritage values and character-defining elements of the historic urban environment of Kuwait City?

2) What makes a new building compatible with its surroundings in Kuwait City?

3) How are new buildings proposed in Kuwaiti historic areas currently reviewed?

The answers to these questions would result in a deeper understanding of the problem under study by exposing the concepts, issues and processes that are associated with new development in a given geo-cultural context. This particular knowledge will be combined with the general knowledge that will be gained from **Chapter II: Literature Review** to compose a theoretical model, as explained in section 1.7. of **Chapter I: Introduction**. That model will demonstrate how the alternative approach to preservation rules might be presented to, and used by, decision-makers in **Chapter IV: Research Findings**. Next, the model will be discussed with local and international practitioners; the outcomes of these interviews will then return the reflection back to the initial research question and thesis statement in **Chapter V: Discussion**.

1.10. Contributions to the Advancement of Knowledge

The process of carrying out the research project, which starts with a critical review of the state of knowledge and results in discussions about the potential of an approach in guiding decision-makers, intends to add to the literature in the fields of architecture, planning as well as urban heritage conservation and management. This process aims at being the main contribution to the advancement of knowledge.

In terms of individual achievements, the research project:

1. Provides a general as well as a specific definition of compatibility (i.e. in the context of the case study);
2. Identifies Kuwaiti heritage values and character-defining elements, which are nonexistent in local literature;
3. Identifies then develops a values-based approach to compatible design;
4. Suggests a common framework for design and assessment;
5. Suggests a new review process for project proposals as well as a governance structure that would oversee the application of the approach during the assessment phase, hypothetically speaking;
6. Intends to fill the knowledge gap between current conservation theory and the practical realities of a local context. It provides a theoretical model that combines

existing knowledge with new research findings. This model demonstrates how to balance new development with urban heritage conservation while bringing out the questioning, themes and principles that should frame new development;

7. Proposes five principles that might contribute to the national, regional and international discourse on the conservation and management of historic urban environments.

The thesis, as a final product, might be of interest to diverse target groups. These are local decision-makers, mainly the Municipal Council, Kuwait Municipality, the Ministries, the National Council for Culture Arts and Letters (NCCAL), architects, urban designers, planners, project managers, policy-makers/regulators, clients/project owners, owners of historic properties and concerned communities as well as international decision-makers, mainly UNESCO's World Heritage Committee and ICOMOS. Additionally, readers who seek information on the topic and wish to learn from the successes and limitations of the research project might find the content material of the following chapters useful.

1.11. Thesis Structure

The thesis follows a classic mode of presentation.[10] Each middle chapter begins with an introductory section and ends with a summary of the salient points. The intent is to show the overall organization of ideas and to clarify what has been covered.

Chapter I: Introduction states the topic, the problem, the purpose of the study, the thesis statement and the research objectives and questions. It also places the research project in the framework of existing knowledge, explains the presentation of research findings, justifies the selection of the case study and lists the contributions of the research project to the advancement of knowledge.

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[10] Guide de présentation et d'évaluation des mémoires de maitrise et des thèses de doctorat (Université de Montréal: Faculté des Études Supérieures et Postdoctorales, 2009) 7.

Chapter II: Literature Review analyses major scientific sources on the problem, including UNESCO World Heritage and ICOMOS documents, scholarly publications as well as policies that deal with new development in established contexts. It investigates how the goal of compatible new buildings might be achieved from the perspective of these various sources. Most importantly, it shows the relevance of the general research question.

Chapter III: Methodology presents the theoretical framework and the overall methodology of the research project, followed by the specific methodology of the case study. Data collection and analysis methods are selected to generate knowledge about Kuwait City with a view to fulfilling the research objectives and finding the evidence that will help answer the three subsidiary research questions and, then, the specific and general ones. Ethical considerations with human subjects as well as internal and external validity strategies are also explained.

Chapter IV: Research Findings applies the methods and shows the processes of data collection and analysis. It examines and organises findings about the case study, then makes interpretations to construct meaning. The definition of compatibility in the local context, the heritage values and character-defining elements of the historic urban environment, the review system of project proposals and an alternative approach to preservation rules are all described. These findings are then presented in a theoretical model, which includes the knowledge gained from the literature review.

Chapter V: Discussion investigates the effectiveness and applicability of the suggested approach through follow-up interviews with local practitioners and external auditing with Canadian and American experts. As a result, the practical application of the theoretical model in Kuwait City is explored and the extent to which research findings may be generalized to the broader context of historic urban environments is determined. Next, a return to the initial research question and thesis statement brings the research project to an end.

Chapter VI: Conclusion summarizes the lessons learned from each chapter. It reiterates the contributions of the research project to the advancement of knowledge and specifies its limitations. Closing remarks about the research topic, the literature review, the case study and the major research findings are included. Lastly, five research directions that emanate from the experience of conducting the study are recommended to show possible avenues for thinking and learning.

CHAPTER II: LITERATURE REVIEW

Introduction

The review critically analyses major scientific literature on guidance directed at the insertion of new buildings in established contexts to provide the background to, and justification for, the research project. Its main intentions are to show the relevance of the initial research question and to formulate a general definition of compatibility. There are three sections in the review; each one studies a category of literature that explains how the goal of compatible new buildings might be achieved. This structure represents the three sequential stages in the process of gathering and evaluating information on the research problem from several points of views, which express conservation thought at different historical moments. Lastly, a summary highlights the areas of inconsistency in, and the lessons learned from, the current state of knowledge.

Section I weaves the description, analysis and interpretation of significant UNESCO World Heritage and ICOMOS documents. Scholarly assessment, particularly the arguments of architects and conservators, is incorporated to support the analysis. The purpose of this section is to trace how internationally accepted norms and principles have evolved and whether this evolution has produced explicit and consistent guidance that could orient architectural and conservation practices with regard to designing compatible new buildings and/or assessing project proposals. For this reason, six Charters and three UNESCO Recommendations are reviewed in a chronological order. For clarification, Charters "have moral rather than legal authority" and they institute "principles and codes of good conduct" usually in the form of Articles "that professionals set for themselves to serve as guidelines for their practices," whereas Recommendations institute "norms" in the form of Items, which "are considered public international law […] subject to meticulous preparations and consultations between states to ensure the widest possible consensus" (Luxen 2004: 4). Although each standard-setting instrument is reviewed separately, similarities and differences are pointed out. The transition is made to the Vienna Memorandum, which is evaluated in

greater detail because it launched the HUL initiative in 2005 and was specifically written to address the issue of contemporary architecture in historic contexts. Next, the Jerusalem Statement, the St. Petersburg Report and the Olinda Report, which are the results of three UNESCO regional expert meetings that were organized in preparation for a new standard-setting instrument on the issue, are briefly discussed. Lastly, the content material of the Recommendation on the HUL is appraised.

Section II elaborates on the concepts and themes that emerge from **Section I** by reviewing scholarly publications about the design of new buildings, the assessment of project proposals as well as policy-making advice for new development. It defines compatibility from several perspectives, shows conflicting opinions on architectural design options, evaluates means for distinguishing a new building from existing ones, investigates the appropriateness and effectiveness of criteria in establishing harmonious relationships, and describes the main ingredients of a "good" policy with particular attention to the statement of significance and the environmental impact assessment study. Information is structured thematically to compare points of views and to reveal the interconnections among the consulted sources including, but not limited to, fourteen journal articles, thirty-seven books and four proceedings (a few reports and policies are mentioned to support the argumentation). In this section, Semes, Smith and Stovel are considered the most significant authors not only because they challenge conventional ideas, but also because they believe contemporary practice can lead to new conservation theory as much as previous theory led to practice.

Section III uses the knowledge gained from **Sections I** and **II** to review policies from different regions in order to illustrate the range of approaches and regulatory tools available for the design and assessment of new buildings. Since the general research question seeks to identify an alternative approach to preservation rules/criteria, it would be beneficial to examine actual conservation and management policies in order to enrich the understanding and evaluation of existing solutions. This section is organized per geographic location, because its objectives are to describe, study and interpret how each country or city deals with new development. To accomplish these objectives, relevant

policies from the United States (1998), England (2001, 2007, 2010), Australia (2005) and Canada (2010) have been selected. In total, six policies are reviewed in no particular order of importance or preference. The selection is based on their popularity in the international discourse, their differing positions on design options as well as on the diversity of their content material in terms of guidance, length, format and tonality.

2.1. SECTION I: UNESCO World Heritage and ICOMOS Literature: Guidance in International Norms and Principles

2.1.1. Overview of Charters

2.1.1.1. Venice, 1964

The "International Charter for the Conservation and Restoration of Monuments and Sites" (Venice Charter), adopted by ICOMOS and later by UNESCO's General Conference, has sixteen principles that guide the preservation and restoration of historic buildings. The concept of historic building or monument refers not only to "the single architectural work but also [to its] urban or rural setting" (Article 1). The principles relate to the recognition of cultural significance (Article 1), the use of all sciences and techniques to safeguard historic buildings (Article 2), the intention behind the conservation of these buildings and their proper maintenance (Articles 3 and 4), the admission of a socially appropriate new use (Article 5), the alteration of a traditional setting (Article 6), the displacement of a building, its parts or its integral art work (Articles 7 and 8), the restoration and consolidation of a building (Articles 9 and 10), its historical evolution (Article 11), the replacement of missing parts and additions (Articles 12 and 13), the integrity and presentation of historic sites (Article 14), the excavation of archeological sites (Article 15) and, finally, the documentation of every stage of conservation (Article 16). The Articles/principles were drafted specifically for preservation and restoration treatments, but some of them have been used to guide the insertion of new buildings in historic contexts (Hardy ed. 2008).

Article 6, which states "wherever the traditional setting exists, it must be kept. No new construction, […] which would alter the relations of mass and color must be allowed," conveys the impression that compatible buildings are those that respond solely to the physical integrity of the traditional setting, expressed through the "relations of mass and color." It seems as though other types of relationships such as the link to local craftsmanship, the distance between old and new, the solid to void ratio, the relevance to culture and to existing functions, the orientation of the new construction in relation to sun angles and wind, or the responsiveness of the design to heritage values are not important. Since emphasis is placed on "mass and color," Article 6 can be misused to justify the insertion of highly contrasting and environmentally insensitive conveniences in historic places. For example, a parking facility may conform to existing mass and color; nevertheless, it may detract the attention away from historic buildings in situ and adversely affect the access to these buildings if it is poorly designed and located. It may also cause the fragmentation of urban heritage and generate traffic and pollution as well as other harmful environmental effects that would compromise the heritage values and historic character of the place of intervention.

Article 9 was purposefully drafted to guide the restoration of buildings and monuments, but it was later "misused to justify contrasting modern additions, alterations and new buildings in historic places worldwide and to validate modernist interventions in traditional buildings and places;" as a result, the designs of modernist architects were privileged over those proposed by local skills (Hardy ed. 2008: xvii). The Article affirms that "any extra work which is indispensable must be distinct from the architectural composition and must bear a contemporary stamp" without defining the meaning of "distinct" or clarifying the level of distinction that would be appropriate, visually speaking for example. It is unclear whether distinction is a matter of working with a different architectural style or that of using different materials or proportions, for instance, since the principle does not identify where the balance between differentiation and compatibility should occur in "the contemporary stamp."

The lack of definitions causes a problem because terminologies such as "distinct" and "stamp" that are open for all kinds of interpretations are not what designers "wish to see in such documents" (Nypan and Helseth 2008: 50). As a

consequence, some architects have pushed the principle of distinction to the maximum in order to introduce environmentally and culturally challenging interventions in historic places, as discussed in the proceedings of the INTBAU's[11] "Venice Charter Revisited" conference, held in 2006 (Hardy ed. 2008: xvii). According to Semes, who was one of the participants, the Charter's open-ended words and requirements "have provided a convenient rationalization for the imposition of discordant new forms and materials in historic settings, resulting in the destruction of historic character" (Semes 2009 - Planetizen). The author concludes that "loss of continuity and integrity in historical character, therefore, becomes the inevitable consequence of the preservation activity itself" and results "in a growing collection of isolated and decontextualized fragments throughout the world" (Semes 2009: 152 and 136). Although modernist ideology was founded on the rupture from traditional local architecture, which caused a problem for urban heritage conservation in the first place, the Charter seems to embrace the same ideology and, thus, to contradict the raison-d'être of conservation. Put differently, a "contemporary stamp" that prioritizes the spirit of the time over the spirit of the place is itself a modernist preoccupation.

Furthermore, one may argue that structures built in different periods will age differently and will become naturally distinct with the passage of time. Hence, an obvious "stamp" between old and new is probably not the most crucial requirement when intervening in historic buildings and places. Additionally, architectural styles or forms should not be the primary indicators of distinction, because there are more subtle, yet effective, means to differentiate the new work from the existing fabric without disrupting the sense of continuity or confusing or deceiving observers who might think that what they are observing is heritage. For instance, Semes believes the "contemporary stamp might be simply the date of construction carved into one of the stones or noted on a bronze plaque" (Semes 2009: 185).

Still, rather than placing the emphasis on the compatibility of the new work with the architectural composition and values of the historic building and its urban or rural context, Article 9 places it on the dissimilarity between the appearance of the new with

[11] INTBAU: International Network for Traditional Building, Architecture & Urbanism, registered in the UK.

that of the old. Since distinction is favored, it seems that the Charter is withholding historic designs from informing current ones in spite of Article 10, which permits the use of "traditional techniques." In relation to this point, Semes judges that "the effect of these charter provisions has been to cut off historic buildings from the building cultures that produced them" (Semes 2009: 136). This is probably because the Charter was written at a time, he explains, when "it appeared certain that historic architecture would never again inform contemporary practice" (Semes 2009: 137), although nowadays it is widely acknowledged that "contemporary design is a diverse and contested area that includes both avant-garde shape-making and the recovery of historic styles" (Semes 2009 - Planetizen). In other words, contemporary architecture is not limited to modernist design. It is also new traditional design.

Article 12 asserts that "replacements of missing parts," which could apply to a new building that fills an empty space, "must integrate harmoniously with the whole, but at the same time must be distinguishable from the original," probably to avoid confusing observers who are unable to distinguish the new from the old, and must "not falsify the artistic or historic evidence" of the place of intervention. Yet, the principle does not explain what constitutes a "distinguishable" yet "harmonious" replacement, because it does not define these words or give an example of attributes or qualities that could be used in architectural design to achieve such integrations. It is left to decision-makers to understand and apply this principle. Some architects, for example, consider it "cheeky," because it is largely open for interpretation (Nypan and Helseth 2008: 49). As for falsification, Semes argues that there is no such thing as false architecture or false history or false historical development (Semes 2008: 5). He explains that interventions are either "appropriate or inappropriate – they either conform with our ideas […] or they do not" (Semes 2008: 704). He suggests that scholars and practitioners "should worry less about authenticity" or falsification, and "instead concern [themselves] with [the] appropriateness" of contemporary architecture in relation to local building cultures (Semes 2009: 166).

Article 13 states that "additions cannot be allowed except in so far as they do not detract from the interesting parts of the building, its traditional setting, the balance of its composition and its relation with its surroundings." Emphasis is placed on elements that

can be seen and judged "interesting." Hence, it seems that compatibility is a matter of establishing visual relationships between existing and new fabric. Yet, adding new architecture to old is not only about protecting views and tangible elements, but also about responding to the realities of the locality, such as cultural frameworks and rituals (Smith 2006: 70; Cameron 2008: 233-234).

As for reconstruction, Article 15 states that it should "be ruled out 'a priori.'" Since reconstruction is here undesirable, one may deduce that a new building should not mimic the design of historic buildings in situ. Consequently, this deduction suggests that reinterpretation and contrast are more suitable/compatible design options than reproduction/imitation. Nevertheless, Stovel, a heritage conservation expert with an architectural background, argues that reproducing an existing design would be appropriate if the historic place has a noticeably unified architectural character (Stovel 1991: 29-Section D). Macdonald, the head of Field Projects at the Getty Conservation Institute and an architect by training, clarifies that every design challenge or conservation work is "case specific." Hence, the options available for the designer must not be ruled out, because "the historic environment can, in fact, accommodate a rich variety of interpretations and expressions. A vernacular or traditional response may be as valid as a more contemporary response" (Macdonald 2011:15).

Finally, Article 16 recommends documenting "every stage of the work of […] integration," which entails that all interventions, including new buildings, must be documented during construction to monitor change and to keep a record of the historic place for future consultation. Since this principle does not favor an un-justified architectural response or conservation attitude as in Articles 6, 9 or 15, one may argue that it is the clearest and the most unbiased principle with regard to inserting new buildings in valued contexts.

2.1.1.2. Deschambault, 1982

The "Charter for the Preservation of Quebec's Heritage" (Deschambault Declaration), adopted by ICOMOS Canada, communicates ten main principles in the form of ten capitalized Articles, which contain sub-Articles. Those relate to the

responsibility of citizens towards the protection of their national heritage (Article I), the proper use and conservation of this heritage for the benefit of current and future generations (Article II), the complete understanding of heritage, including all its historical periods and its significance at all levels (Articles III and IV), the protection, maintenance and development of cultural properties (Article V), the importance of protecting heritage over other legislation and the rest of the environment (Article VI), the consultation and participation of the public in actions of preservation or development (Article VII), the use of heritage material in a way that is socially and environmentally compatible with existing conditions (Article VIII), the respect of the rights of local populations when attributing a new use to heritage (Article IX) and, finally, the dissemination of knowledge through educational authorities and systems (Article X). Evidently, some principles are applicable to new buildings.

Article II-B confirms that laws and regulations "must further the preservation and development of national heritage. This action must start at the municipal level," suggesting that policies on new development, for example, must derive from local legislation and must correspond to municipal rules and procedures rather than to foreign or international standards, which may be insensitive to local historic character and heritage values.

Article II-D adds that the elements of the national heritage "must be treated as integral wholes," implying that a historic place, for example, must be understood as a unified piece as opposed to fragments. In relation to this principle, Semes argues that the concept of a historic place "implies a view of urbanism in which the fabric and character of the whole takes precedence over individual structures" (Semes 2009: 33). One may also recall Lynch, an urban planner, who clarifies that paths, edges, nodes, landmarks and districts are the individual parts that knit together a whole (Lynch 1960: 108). Article II-D, therefore, furthers the understanding of compatibility between a single architectural work and its context as a whole (i.e. as a synchronization of individual parts/elements).

Article V-B asserts that the conservation ethic should not ban change, but should rather manage it to improve the development, accessibility as well as the usefulness of cultural properties for the benefit of local populations. This principle entails that new

buildings should strive to enhance historic places for the benefit of resident communities. Additionally, Article V-C insists that new design must "conserve as much as possible" the "original" character of the national heritage. This Article, therefore, stresses the importance of architectural continuity, as opposed to Article 9 of the Venice Charter, which states that "any new work" must be distinct.

Article VI-D directly addresses new additions and buildings. It states that those must be "creative works in their own right, have to be integrated and harmonized with the surrounding context in regard to tonality, texture, proportions, pattern of filled and empty spaces, and overall composition." As opposed to Article 12 of the Venice Charter, which does not offer guidance for achieving distinct yet harmonious integrations, the Deschambault Declaration provides practitioners with some indicators. Those, however, refer only to tangible attributes and do not include intangible qualities.

In terms of surveys, Article VI-D stresses the importance of "archeological analysis of all ground where new construction is planned" to uncover and conserve earlier traces of civilization. The documentation of a historic place, therefore, should precede design development decisions and should include not only structures at ground level, but also remains that lie underneath it.

The consultation and participation of the public, including non-specialists in design and conservation, in any action that may affect a historic place, as indicated in Article VII-B, must be compulsory to ensure the preservation and development of that place. The opinions of the public with regard to new construction can help designers and governing authorities in making sound decisions and in introducing new functions that "are useful to society and that are compatible with the structure and nature of the buildings" in situ (Article VIII-A). Therefore, compatibility extends beyond tangible attributes such as "tonality, texture, […] overall composition" (as it was implied in Article VI-D) to include functions. In other words, understanding the functions of a historic place is essential to determine a compatible new use.

Articles VIII-A and VIII-C explain that the new use should add "economic and social" vitality to, and "ensure the preservation of all the important characteristics" of, the historic place. Those "characteristics" may refer to heritage values and character-defining elements. Article IX-A adds that the new use should also give priority to local

inhabitants and occupations rather than to "museums and tourist centres." Consequently, one may deduce that national heritage is embodied not only in historic fabric and associations, but also in the life and needs of its resident communities.

Finally, Articles X-B and X-C encourage the transmission of local knowledge, procedures and craftsmanship to "ensure that traditions are passed on" to "artisans, technicians and professionals." Additionally, "heritage practitioners and specialists" should communicate "their knowledge to the general public." Hence, unlike the Venice Charter, the Deschambault Declaration emphasizes continuity (of building cultures) rather than differentiation.

2.1.1.3. Appleton, 1983

The "Appleton Charter for the Protection and Enhancement of the Built Environment," adopted by ICOMOS Canada, highlights that "any given project" regardless of its different scales and activities should have "a clearly stated goal" to guide decision-making processes (p.1). This idea is of prime importance when addressing the issue of adding new architecture to old, because there must be a common understanding and an agreement among clients/project owners, architects, urban planners, conservators, owners of historic properties and governing authorities about their objectives for historic places. One may argue that setting objectives, as a first step, can orient decision-makers and help them in balancing conservation with development.

In the Charter, "levels of intervention" refer to preservation, period restoration, rehabilitation, period reconstruction and redevelopment, whereas "scales of intervention" refer to building elements, buildings, groups of buildings, buildings and settings, and sites (p.2-3). "Redevelopment," which is the applicable level of intervention for new buildings, means the "insertion of contemporary structures or additions sympathetic to the setting" (p.3). Here, "sympathetic" refers to compatibility, although this concept is not defined. The Charter, moreover, confirms that "the appropriate level of intervention can only be chosen after careful consideration of […] cultural significance, condition and integrity of the fabric, contextual value, appropriate

use of […] resources" (p.2). The comprehensive understanding and analysis of the place, therefore, must precede the design of new interventions.

There are eight principles in the Charter on protection, artifactual value, setting, relocation, enhancement, use, additions and environmental control. The principle on setting adds to Article II-D of the Deschambault Declaration. It asserts that "any element of the built environment is inseparable from the history to which it bears witness, and from the setting in which it occurs. Consequently, all interventions must deal with the whole as well as with the parts" (p.5). This principle implies that any new work will inherently have a relationship with its surroundings, whether it is a friendly one or not, because every building is placed in relation to existing buildings and landscapes (Semes 2009: 79). Hence, it is the understanding of a place in its entirety and in its constituent parts that forms the basis for compatible relationships.

The principles on enhancement, use and additions explain that interventions "are characteristic of measures in support of enhancement of the heritage resource" (p.5). Consequently, if a new use is proposed, that use should respond and add value to "existing and original traditional patterns of movement and layout" (p.5). Decision-makers, therefore, must take into account the access to, and circulation in, a historic place before determining the function of a new building. Although a new use may require "new volumes, materials and finishes," these must "echo contemporary ideas but respect and enhance the spirit of the original" (p.5). This principle entails that a designer does not necessarily have to choose modern materials but could choose traditional ones instead as long as the methods of construction and techniques, for example, "echo" or conform to current construction practices and ideas. Hence, the "contemporary stamp" of the Venice Charter can be interpreted as the current way of constructing buildings as opposed to being the style or appearance of the intervention itself. The Appleton Charter, however, does not explain the meaning of "respect," which is a vague word that weakens the principle. In terms of environmental control and other servicing, furthermore, the Charter states that they "should […] not set in motion processes of deterioration" (p.5), which could be interpreted to mean that sustainable design elements, such as photovoltaic panels and wind turbines that are often used in new development nowadays, must not adversely affect historic character.

As for architectural practice, the Charter recommends the documentation of a historic resource to better understand and interpret its significance as well as the documentation of any activity on site. Additionally, work that requires the re-creation of earlier forms must be achieved "without conjecture" (p.6), thus implying that reconstruction is permissible as long as the reconstructed work accurately mimics the original. In terms of "distinguishability" (p.6), the Charter explains that "new work should be identifiable on close inspection or to the trained eye, but should not impair the aesthetic integrity or coherence of the whole" (p.6). Here, distinction means that a new building may look historic from a certain, undetermined, distance as long as it looks different up close. Although distinction is defined, the definition leaves too much space for differing interpretations. The "close inspection," for instance, could be interpreted as the date of construction carved on the main entrance of a new building whereas "trained eye" implies that only specialists, such as craftsmen or preservationists, would be able to tell the difference between new and existing types of mortar for example. Yet, the average observer, such as a tourist who does not necessarily have any knowledge about mortar and its use in historical or recent construction, might still be unable to distinguish the new work from the old. Consequently, he/she might believe that what is being observed is a heritage building as opposed to a contemporary one. For this reason, the rationale behind "close inspection" is not clearly justified given that a tourist will unlikely seek clarifications from a preservationist or craftsman who might not even be available on site. Also, "close inspection" ignores contrast as a potential design option for differentiating the new from the old whether from close or long distances.

In terms of materials and techniques, the Charter explains that they "should respect traditional practice unless modern substitutes for which a firm scientific basis exists […]" (p.6). As for patina, it should not be falsified (p.6). In relation to Article 12 of the Venice Charter, Semes clarifies that "truth or falsehood are qualities that we may attribute to historical accounts or interpretations but not to buildings," and thus to patina, "which may only be judged good or bad, appropriate or inappropriate" (Semes 2009: 154). Finally, the Charter ends with an argument on integrity, which is seen not only as a matter of "aesthetics" (p.6), but also of "structures" and "technologies,"

including “performance” (p.7). Hence, it seems that methods of construction play an important role in achieving the goal of compatible new buildings.

2.1.1.4. Washington, 1987

The “Charter for the Conservation of Historic Towns and Urban Areas” (Washington Charter), adopted by ICOMOS, addresses the natural and man-made environments of historic places defined as “historic urban areas, large and small, including cities, towns and historic centers or quarters” (p.1). It complements the Venice Charter by expanding its guidance beyond historic buildings and monuments with their rural or urban settings to include the “protection, conservation and restoration of […] towns and areas as well as their development and harmonious adaptation to contemporary life” (p.1). There are four principles on policy-making, historic character, public involvement and conservation.

First, the Charter asserts that, to be effective, planning policies must embrace the conservation of historic places, particularly the preservation of historic character. This character is composed of morphological attributes, mainly “urban patterns as defined by lots and streets.” It also includes architectural attributes in terms of “appearance, interior and exterior, of buildings as defined by scale, size, style, construction, materials, colour and decoration” as well as qualities such as “various functions,” “relationships between buildings and green and open spaces” and “between the town or urban area and its surrounding setting, both natural and man-made” (p.1-2).

The Charter clarifies that these indicators (e.g. “scale”) must be understood and followed to maintain the “authenticity” of the historic place (p.2). Yet, it is unclear which authenticity attribute or quality is the most important to retain. It is also unclear whether the indicators suffice for establishing compatibility. Additionally, though the second principle asserts that “spiritual elements” (p.1) express historic character, the Charter does not identify these elements and, consequently, it remains difficult for the reader to link spirituality to, or find it in, the above-mentioned material elements or indicators (e.g. “lots,” “streets,” “scale,” “size”). In fact, one may argue that heritage

values also express historic character and significance, although a reference to values is nonexistent.

The third principle relates to Article IX-A of the Deschambault Declaration. It encourages the organization of information programs to support the participation and involvement of resident communities in conservation work (p.2). Finally, the last principle on conservation asserts that "rigidity should be avoided since individual cases may present specific problems" (p.2), which implies that prescriptive preservation rules (i.e. standards) can be too general and inadequate when dealing with specific design challenges. For this reason, decision-makers should analyse each design challenge on a case-by-case basis and avoid the application of general and strict norms. The idea of distinguishing the new from the old as a requirement in preservation rules, moreover, is not mentioned. Hence, unlike the Venice Charter, the Washington Charter does not favor a particular conservation attitude or design response.

As for methods and instruments, the Charter supports the creation of conservation plans to ensure "a harmonious relationship between the historic urban areas and the town as a whole" (p.2). It explains that an intervention may occur only after "thoroughly" documenting the area, including its "history" and "archeological findings" (p.2-3). It adds that "new functions and activities should be compatible with" the character of the historic place (p.2). If new buildings, moreover, are proposed, they must respect "the existing spatial layout," particularly "in terms of scale and lot size" (p.2). If contemporary elements will be introduced, they must be "in harmony with the surroundings" (p.2). Hence, unlike the Venice and Appleton Charters, the Washington Charter places emphasis on compatibility/harmony, which is mentioned five times, rather than on distinction, which is never discussed. Yet, due to the lack of a clear definition of harmony, it seems that compatible new buildings are those that maintain existing "scale and lot size" (p.2).

Finally, the Charter warns decision-makers of adverse environmental effects, including traffic, parking, motorways, pollution and vibrations, which must be controlled to "safeguard the heritage," "security and well-being of the residents" (p.3). Accordingly, it seems that the Charter recommends undertaking an environmental impact assessment study to avoid or reduce negative effects.

2.1.1.5. Burra, 1999

The "Australia ICOMOS Charter for Places of Cultural Significance" (Burra Charter), written and adopted by Australia ICOMOS in 1979, then revised in 1981, 1988 and 1999, offers conservation principles, processes and practices with additional explanatory notes for the benefit of advisers, decision-makers, workers, owners, managers and custodians. Its purpose is to support the conservation and management of natural, indigenous and historic places (p.1). The Charter explains that such places have "cultural significance," which encompasses "aesthetic, historic, scientific, social or spiritual value for past, present or future generations," and which is embodied in "fabric, setting, use, associations, meanings, records, related places and related objects" (Article 1.2). The Charter states that the term is synonymous with "heritage significance" and "cultural heritage value" (p.2 - explanatory notes) and its meaning and understanding may change with the historical evolution of the place.

To care for a place while retaining its cultural significance, the Charter advocates "a cautious approach" to change (Article 3). This approach suggests that interventions should be the minimum necessary and reversible to ensure the retention of values and their tangible embodiments (Article 15.2). In contrast to the Venice, Appleton and Washington Charters and to the Deschambault Declaration, the Burra Charter shifts the emphasis from the protection of physical appearance or historic character to the identification and conservation of values, "without unwarranted emphasis on any one value at the expense of others" (Article 5). With this Charter, the perception of cultural heritage has clearly evolved from appearance/aesthetics to values.

Some conservation principles provide guidance for new construction. For instance, before making decisions and creating policies to conserve and manage a place, "all the knowledge, skills and disciplines" that are available for the collection and analysis of information should be explored to understand the cultural significance of that place (Article 4.1). Similar to the Appleton Charter, moreover, the use of "traditional techniques and materials" is preferred, but "modern techniques and materials" can be appropriate (Article 4.2) if they are "supported by firm scientific evidence or by a body of experience" (p.3 – explanatory notes).

The use of an intervention, furthermore, must be "compatible" with its surroundings (Article 7), which means that it must conform to "the cultural significance of a place" and have "no, or minimal, impact on [it]" (Article 1.11). Compatibility, therefore, requires the recognition and protection of existing values.

Also, new structures that "would adversely affect the setting or relationships are not appropriate" (Article 8). This principle implies that harmful environmental impacts should be identified prior to making final development decisions. It seems that achieving compatibility involves impact assessment studies, which is an interpretation that was mentioned earlier in the analysis of the Washington Charter.

In terms of conservation processes, reconstruction is considered a conservation treatment that returns "a place to a known earlier state [by introducing] new material into the fabric" (Articles 1.8 and 14); yet, the Charter explains that it is "appropriate only where a place is incomplete through damage or alteration, and only where there is sufficient evidence […]" (Article 20.1) and it "should be identifiable on close inspection or through additional interpretation" (Article 20.2). In consequence, one may argue that the use of signage to differentiate the reproduced work from the original could be a form of "additional interpretation."

The Charter adds that all periods and aspects of cultural significance must be respected if change is required, the amount of which "should be guided by the cultural significance" and "appropriate interpretation" of the place (Articles 15.1 and 15.4). Yet, it is unclear whose decision has validity when determining the acceptable amount of change or when interpreting what is appropriate. New work, furthermore, must not "detract from [the] interpretation and appreciation" of the place (Article 22.1). Consequently, one may deduce that the views from or towards historic buildings are not worth protecting if they do not contribute to the understanding of the place. In other words, what merits protection is not necessarily what observers see, but rather what they experience in, and how they associate with, a place.

Explanatory notes add that "new work may be sympathetic," which is a term that refers to compatibility, "if its siting, bulk, form, scale, character, colour, texture and material are similar to the existing fabric, but imitation should be avoided" (p.7). Unlike the Appleton and Washington Charters, but similar to the Venice Charter, the Burra

Charter embraces a particular conservation attitude. It advocates the reinterpretation of historical features in contemporary architectural design over their reproduction. However, the list of physical attributes (e.g. "bulk, form, scale"), which does not include intangible qualities (e.g. cultures, functions), reduces compatibility to visual appearance and contradicts the Burra Charter's initial focus on values.

Although the Appleton Charter states that any new work should be identifiable upon close inspection, the Burra Charter affirms that it should be "readily identifiable" (Article 22.2); however, if the new work is a reconstruction, it "should be identifiable on close inspection" (Article 20.2). The difference between the treatment of new work and that of reconstruction in the Charter is unclear. The rationale behind obvious distinction is vague given that it is recommended to use attributes that "are similar to the existing fabric" (p.7).

As for conservation practice, the Charter suggests assessing cultural significance and writing a statement of that significance not only to help understand a place (Article 26.2), but also to help identify, and if necessary modify, the impacts of a proposed change on that significance (Article 27.1). It advises regular review of the statement to keep it up-to-date and to document not only the work that will cause change, as explained in the Venice Charter, but also the "fabric, use, associations and meanings" of the place for the benefit of the public (Articles 27.2 and 31.2). Only individuals who have "specific responsibility" and "appropriate knowledge and skills" can direct and supervise change (Articles 29, 30 and 31).

Additionally, the Burra Charter recommends documenting decisions for future reference. Here, emphasis is placed on competence, which is a matter that was not sufficiently discussed in previous Charters.

2.1.1.6. New Zealand, 2010

The "ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value," written and adopted by the New Zealand National Committee of ICOMOS in 1993, then revised in 2010, offers guidance to all individuals involved in the conservation work from communities to governing authorities. Mostly, it provides

support for decision-makers in statutory and regulatory processes (p.1). The ideas of the New Zealand Charter are very similar to those of the Burra Charter, although the latter is not referenced. Likewise, the Charter shifts the emphasis from protecting the physicality of a historic place to identifying, understanding, conserving and revealing its "cultural heritage value," defined as the "tangible or intangible values, associated with human activity" (p.9). This emphasis shows that compatibility involves the recognition and preservation of values. The Charter explains that values can be "archeological, architectural, landscape, monumental, scientific, technological" (p.11) as well as "commemorative, historical, social, spiritual, symbolic and traditional" (p.10).

There are twelve conservation principles in the Charter. They relate to understanding cultural heritage value and indigenous heritage, planning for conservation, respecting surviving evidence and knowledge, embracing minimum intervention, conducting physical investigation, attributing a compatible use, conserving the setting, controlling relocation, encouraging documentation and, finally, retaining the integral components to cultural heritage value. Although new construction is not discussed, some principles offer general guidance that is applicable to all kinds of interventions.

For instance, the New Zealand Charter, like the Burra Charter, insists that all values must be conserved without favoring one at the expense of others. Moreover, it explains that a "compatible use" is "consistent with the cultural heritage value of a place" and "has little or no adverse impact on its authenticity and integrity" (p.9). Although the term "consistent" is ambiguous, it is understood that compatibility requires the control and reduction of harmful environmental effects. Though the terms "authenticity" and "integrity" are defined in the Charter (p.1-2), it is unknown which concept has more validity than the other when discussing compatibility, particularly because the two terms are always used together in the Charter as though one automatically engages the other. One may argue that the definition of "compatible use" in the Burra Charter is better, because it is more effective to evaluate the effects of a new use on the significance (i.e. values) of a place than on its authenticity/truthfulness and integrity/intactness.

As for conservation processes, "traditional skills and practices that are relevant to [projects] should be applied and promoted" (p.6) and "traditional methods and materials should be given preference in conservation work" (p.7). Existing craftsmanship and building cultures, therefore, should inform contemporary architecture.

Four "degrees of intervention for conservation purposes" are identified (p.6). Those are limited to preservation, restoration, reconstruction and adaptation. Although new construction that stands on its own without being connected to an existing historic building can equally contribute to the conservation and development of historic places, it is not mentioned or considered a "degree of intervention." In terms of reconstruction, original materials that have been lost must be replaced with new ones, because the Charter does not consider the replica of a former structure as a conservation process (p.6); however, this position is not sufficiently explained.

As for adaptation, the Charter advises that any addition "should be substantially reversible" and "compatible with the original form and fabric of the place, and should avoid inappropriate or incompatible contrasts of form, scale, mass, colour, and material" and avoid dominating or obscuring the original "form" and "fabric" or adversely affecting the place (p.8). This principle carries obvious inconsistencies. For instance, it asserts that the addition itself should be reversible, not just its function/use or environmental impacts. This could be interpreted to mean that demolition fulfills the requirement of reversibility; yet, demolition would cause some of the unwanted adverse impacts discussed in the Charter.

Also, while the Burra Charter associates the idea of "obscuring" to the "interpretation and appreciation" of a place, the New Zealand Charter links it to "fabric" and to "form, scale, mass, colour, and material" (p.8), which are indicators that reduce historic places to objects that are viewed from the outside rather than appreciated and experienced from the inside out. The initial idea of conserving cultural heritage value, which includes intangible values, is lost in this random list of material elements. Consequently, compatibility is, again, reduced to a matter of appearance and aesthetics.

Expressions such as "inappropriate or incompatible contrasts," moreover, are vague and may negatively affect design development decisions, because what is

considered an appropriate or a compatible level of contrast is not clarified in the Charter. This use of ambiguous terminology is also noticeable in UNESCO Recommendations.

2.1.2. Overview of UNESCO Recommendations

2.1.2.1. Preservation of Cultural Property Endangered by Public or Private Works, 1968

The "Recommendation Concerning the Preservation of Cultural Property Endangered by Public or Private Works," adopted by UNESCO's General Conference, provides guidance for Member States on the protection of cultural properties from, for example, threats caused by industrial and urban developments (p.1) or urban expansion and renewal projects (p.2). To give effect to the Recommendation, Member States should apply it to their respective territories and disseminate it to authorities or services responsible for public or private works, to conservation bodies as well as to organizations that plan educational programs and tourism. For clarification, the definition of "cultural property" includes historic sites, structures, features, groups of traditional structures, quarters in urban or rural built-up areas, archeological remains and the setting of the property (p.2).

Unlike the section on "general principles" (p.2-3), the section on "preservation and salvage measures" (p.3-7) may be used more directly to control new development in historic places. The measures relate to legislation, finance, administration, procedures, penalties, repairs, awards, advice and educational programs. Under administrative measures, Item 21 explains that several variants of a proposed project must be prepared and compared to one another in order to adopt the variant that is "the most advantageous solution, both economically and from the point of view of preserving" the cultural property. Hence, one may argue that policies that encourage reflection about design alternatives for the same project can help applicants explore different design responses with a view to selecting the best response (i.e. the most compatible one). In fact, in relation to compatibility, the preamble states that "it is urgent to harmonize the preservation of the cultural heritage with the changes which

follow from social and economic development, making serious efforts to meet both requirements" (p.1). Interventions, therefore, should couple preservation with development; yet, the meaning of "harmonize" is not explained or mentioned elsewhere in the Recommendation. It is left to Member States and readers to interpret its meaning without further guidance.

Under procedures, Item 24 suggests zoning as a means for protecting cultural properties. Item 24b adds that "appropriate regulations" should be adopted to preserve the "setting and character" of a "historical zone" through "the imposition of controls" on "the type and design of new structures which can be introduced." Additionally, "posters and illuminated announcements" that may accompany new development should be "forbidden." First, it is unclear whether "appropriate regulations" and "controls" refer to prescriptive rules, descriptive/illustrative rules or a combination of both, because the expression "appropriate" is vague. Secondly, the position of the Recommendation on what constitutes a compatible "type and design" is not provided. Lastly, since heritage values and functions are not mentioned, the suggested indicators, such as "setting," "character" and publicity panels, convey the impression that preservation means the protection of appearance. Nevertheless, since the Recommendation was written and adopted shortly after the Venice Charter in 1964, it is not a surprise that the view of cultural heritage, at the time, was an aesthetic one.

2.1.2.2. Protection, at National Level, of the Cultural and Natural Heritage, 1972

The "Recommendation Concerning the Protection, at National level, of the Cultural and Natural Heritage," adopted by UNESCO's General Conference the same year as the World Heritage Convention (Van Oers ed. 2010: 107), supplements and extends the guidance laid down in the 1968 Recommendation. More specifically, it informs Member States that national policy, organizations, protective measures, educational and cultural actions as well as international co-operation should be organized and adopted to secure the protection, conservation and presentation of cultural and natural heritage. That heritage constitutes "a source of […] harmonious

development for present and future civilization" and "forms an harmonious whole, the components of which are indissociable" (p.1).

Although harmony is not defined, it is understood that it is an environmental quality that should be protected from adverse effects. Item 24 explains that "the harmony established by time and man between a monument and its surroundings is of the greatest importance and should not, as a general rule, be disturbed or destroyed," suggesting that this quality evolves with human perceptions and takes meaning across space and time. Therefore, one possible interpretation is that harmony can only be defined in relation to the architectural perception of the moment and the location. Yet, Item 5 seems to substitute the concept of harmony with homogeneity when stating that "the cultural or natural heritage should be considered in its entirety as a homogeneous whole." The use of the term "homogeneous" in this sentence is misleading, because it conveys the impression that harmony is only expressed in places that possess a standardized appearance, although it may exist in heterogeneous places that possess a picturesque diversity of architectural styles.

Item 9 associates harmony with use when asserting that individual components should be given a function "compatible with the cultural or natural character of the item in question." Though the meaning of a compatible use is not defined, Item 22 later explains that a "suitable function" is one that retains "cultural value." Still, other values, such as those that were later described in the Burra and New Zealand Charters, may be equally important to retain.

As for new construction or "large-scale projects," Items 16 and 17 urge the co-operation and involvement of all interest groups in decision-making with a view to dividing and executing protective measures on the basis of their specialization or staff availability. For clarification, protective measures include "all necessary scientific, technical and administrative, legal and financial" means that ensure the protection of the cultural and natural heritage in each State, as explained in Item 18.

In terms of the architectural design of interventions, Item 23 states that "any new work done on the cultural heritage should aim at preserving its traditional appearance, and protecting it from any new construction […] which might impair the relations of mass or colour." The emphasis on "mass or colour" recalls Article 6 of the Venice

Charter; however, the emphasis on the preservation of "traditional appearance" diverges from Article 9 of that Charter, which asserts that any new work must be readily distinguishable from the original character.

Item 36 explains that "modern conveniences" must not "drastically alter the real characteristic features of ancient dwellings." Nothing else in the Item indicates what is considered drastic or what is the meaning of "real," although it is somewhat understood by the word "features" that what merits protection from such conveniences is visual integrity. In fact, the idea of protecting visual integrity is discussed in Item 42, which confirms that "no new building should be erected […] on any property situated on or in the vicinity of a protected site, if it is likely to affect its appearance." Item 45 adds that "bill-posting, neon signs and other kinds of advertisement" must be controlled. Reference to further aspects of cultural and natural heritage, other than appearance, is not mentioned.

In terms of impacts, Item 25 states that the "harmful effects of the technological developments characteristic of modern civilization" including "shocks, vibrations" and "pollution" should be avoided. Hence, it seems that environmental impact assessment studies should support proposals for new construction, as was implied later in the Washington and Burra Charters. It is noteworthy that environmental impact assessment, as a tool, was introduced just before the 1972 Recommendation, in the years 1969-1970 (Noble 2006: 10).

2.1.2.3. Safeguarding and Contemporary Role of Historic Areas, 1976

The "Recommendation Concerning the Safeguarding and Contemporary Role of Historic Areas" was adopted by UNESCO's General Conference "in response to growing concerns about modern town planning and the impact on old town centres and traditional villages" (Van Oers ed. 2010: 107). It extends the guidance provided in the previous Recommendations by stressing the continuity of human activities such as traditional living patterns, trades and crafts. Member States, moreover, are requested to adopt comprehensive national, regional and local policies and safeguarding measures (i.e. legal, administrative, technical, economic and social means) as well as to advance

research education and international co-operation in order to safeguard historic areas and their surroundings (p.1-2). Those areas include vernacular buildings, groups of structures and open spaces, historic towns, old urban quarters, villages and homogeneous monumental groups (p.1). Safeguarding, furthermore, means "the identification, protection, conservation, restoration, renovation, maintenance and revitalization of historic or traditional areas and their environment," both natural and man-made (p.2).

Rather than using the expression "harmonious" or "homogeneous" whole, as in the 1972 Recommendation, Item 3 states that historic areas and their surroundings "should be considered in their totality as a coherent whole." Coherence must be protected from "unsuitable use, unnecessary additions and misguided or insensitive changes" in order to maintain "the harmony and aesthetic feeling produced by the linking or the contrasting of the various parts" (Item 4). The Item suggests that both similar and contrasting forms can be coherent and harmonious, unlike the 1972 Recommendation, which limits harmony to homogeneity.

Nevertheless, words such as "unsuitable," "unnecessary" or "irrational" (p.1) are too broad and their meaning is not readily evident. To be understood and applied by professionals and the general public alike, norms must have clear and simple words. Yet, standard-setting instruments, including some of the Charters that were reviewed earlier in **Section I**, tend to employ unspecific language. For this reason, Luxen argues that "with regard to terminology and scope, confusion frequently prevails in this area" and "many people criticize these texts for seeking a common denominator and often for being too general" (Luxen 2004: 2-4). If the norm/Item or principle/Article is unclear, it will fail to safeguard historic areas and their surroundings.

As for new construction, Item 5 asserts that "architects and town-planners should be careful to ensure that views from and to monuments and historic areas are not spoilt" and that these areas "are integrated harmoniously into contemporary life." Similar to the 1972 Recommendation, emphasis is placed on the protection of visual integrity. The concept of harmonious integration, moreover, is still not defined, although some guidance is provided in Item 28 to achieve such integration.

Item 28 explains that "regulations for and control over new buildings" must "ensure that their architecture adapts harmoniously to the spatial organization […] of historic buildings." It also advises to link the architectural heritage to its urban context and to analyse its "dominant features," which are "heights, colours, materials and forms […] facades and roofs […] relationship between the volume of buildings and the spatial volume […] proportions […] position." Furthermore, "particular attention should be given to the size of the lots," because "any reorganization of the lots may cause a change of mass which could be deleterious to the harmony of the whole." Although indicators are provided to guide the analysis of the urban context and to achieve harmony, it is unclear how these indicators, which are limited to physical attributes, could contribute to the preservation and enhancement of the values and human activities that were discussed at the outset. Also, in the sentence, harmony suddenly becomes a matter of maintaining existing "mass."

In terms of new functions, Item 33 explains that they "should be compatible with the economic and social context of the town, region or country where they are introduced," suggesting that a compatible use extends beyond the needs of the place of intervention to take on wider economic and social needs. Hence, Item 33 highlights the importance of the surroundings when planning new work and selecting a new use.

On the whole, this Recommendation does not sufficiently address historic areas in their wider setting or provide sufficient guidance to cope with cases of urban development, such as the high-rise project that was proposed at the Wien-Mitte railway station in the historic center of Vienna. The challenges of contemporary architecture to urban heritage conservation were not "fully recognized" when the Recommendation was adopted over three decades ago (Van Oers ed. 2010: 8).

For this reason, the WHC organized an international conference in Vienna, in 2005, "to discuss how to properly regulate the need for modernization of historic urban environments, while at the same time preserving the values embedded in inherited urban landscapes" (Van Oers ed. 2010: 8). At the conference, a Memorandum was written.

2.1.3. Vienna Memorandum, 2005

The "Vienna Memorandum on World Heritage and Contemporary Architecture – Managing the Historic Urban Landscape" is neither a Charter nor a Recommendation. It is a "transitional document" (Smith 2006: 67) containing a total of thirty-two paragraphs that constitute a useful basis for rethinking guidance in previous standard-setting instruments and for reflecting on the issue of contemporary architecture in "the built historic environment, including […] new constructions" (paragraph 9). The Memorandum does not prohibit change; on the contrary, it accepts change and considers that new development can be a useful addition that contributes to the economic, recreational and socio-cultural vitality of historic urban landscapes (paragraph 31). Although it only refers to cities "already inscribed or proposed for inscription on the UNESCO World Heritage List" and those that have "World Heritage monuments and sites" (paragraph 6), its ideas and "integrated approach linking contemporary architecture, sustainable urban development and landscape integrity" (paragraph 5) have been revised in subsequent years and extended to all living historic cities.

More specifically, the Memorandum represents "a consensus product" of its time that was "established with the involvement of various professional entities," such as UNESCO/WHC, ICCROM and ICOMOS, "to serve as a catalyst for opening up the debate" on contemporary architecture in historic contexts internationally, and for receiving expert input on prospects for urban heritage conservation and management, including new approaches (Van Oers ed. 2010: 8). In fact, it is the raison-d'être of the recently adopted Recommendation on the HUL. Though the concept of HUL has been refined in the new Recommendation, its definition in the Memorandum (paragraph 7) uses, to a large extent, the same words that define a "historic area" in Item 1a of the 1976 Recommendation. The difference between the two terminologies (i.e. HUL and historic area), therefore, is unclear, probably because the HUL initiative was briefly introduced towards the end of the Memorandum's drafting process. Yet, it is somewhat understood that it is based on the principle of historic layering and goes beyond groups of buildings to include their wider socio-cultural and natural surroundings.

There are guidelines for conservation management (paragraphs 18 to 21) and for urban development (paragraphs 22 to 26). In terms of conservation management, the Memorandum recommends adopting a "culturally and historic sensitive approach" (paragraph 18) to guide design development decisions and to protect a historic urban area from projects that threaten to undermine its cultural significance. Although "a deep understanding of the history, culture and architecture of place, as opposed to object buildings only, is crucial to development" (paragraph 19) and "a comprehensive survey and analysis of the historic urban landscape" is important to understand "values and significance," the suggested indicators in the Memorandum relate to "historic fabric" and "building stock" (paragraphs 18 and 20). These indicators convey the impression that the protection of "context," which is discussed in paragraph 20, means the protection of appearance/visual integrity.

Similar to the Venice Charter, the Memorandum holds a particular position towards new work, because it states that "contemporary architecture […] should avoid all forms of pseudo-historical design, as they constitute a denial of both the historical and the contemporary alike. One historical view should not supplant others" (paragraph 21). The guideline has noticeable contradictions. Adam, Director of ADAM Architecture in the UK, argues that the statement "'contemporary architecture should avoid […] pseudo-historical design' is precisely a case of one historical view supplanting others" (Adam 2010: 82). Furthermore, if "pseudo-historical" means "false historical design," which might be interpreted to mean reproduction or reconstruction, the author explains that "logically, it is simply not possible to be falsely historical," because any intervention that occurs "will become a historical event," which "cannot be false and, even if the attempt is to falsify," the intervention is still "a relevant piece of history" (Adam 2010: 82). In his opinion, paragraph 21 suggests that "UNESCO is in effect promoting a policy for a deliberate change of character in old towns and cities," which contradicts "the basic principles of conservation" (Adam 2010: 85). Hence, one may find that "it is simple and clear language that is often missing" in such documents and "there is an unfortunate tendency to develop a specific jargon and concepts," such as pseudo-historicism, "whose definitions are not obvious to all, especially given language differences" (Luxen 2004: 5).

In terms of guidelines for urban development, attention is placed on excellence in design and execution "sensitive to the cultural-historic context" (paragraph 22). Nevertheless, "scales," mainly "building volumes and heights" (paragraph 22), which are the suggested attributes, do not necessarily reflect the culture and value of historic places. Moreover, these attributes, alone, cannot contribute to the assessment of the qualitative impact of project proposals "on important historic elements" (paragraph 22) or to the preservation of "Outstanding Universal Value," which is the basis for inscription on the World Heritage List (paragraph 3).

Subsequent guidelines also focus on architectural design elements such as "townscapes, roofscapes, main visual axes, building plots and types" (paragraph 25). While these visual elements are important, Cameron argues that "what is missing is the socio-cultural context, the way people live in these places, the traditional use of public space" (Cameron 2006: 2). Historic urban areas, moreover, are here reduced to "fixed objects that are observed and measured scientifically" (Cameron 2006: 4). Also, though the Memorandum urges the mitigation of "direct impacts" and "negative effects" (paragraphs 21 and 24), these impacts or effects "cannot be measured in purely visual terms," according to Smith, but rather "within the cultural framework" of the historic urban area (Smith 2006: 70).

Another guideline for urban development states that "as a general principle, proportion and design must fit into the particular type of historic pattern and architecture" (paragraph 26). In relation to paragraph 21, Adam asks, "How can this [general principle] not be one form of pseudo-historical design?" (Adam 2010: 85). The author's question reveals the contradiction between the two paragraphs. Moreover, it is stated in paragraph 26 that "special care should be taken to ensure that […] contemporary architecture […] is complementary to values," although the meaning of "complementary" is not readily evident. Emphasis in the guideline, moreover, is placed on "values," yet the suggested indicators, such as "townscapes, roofscapes […] types" (paragraph 25) pertain to physical attributes, which are not necessarily character-defining elements that embody values. Also, these attributes are not enough to understand a historic urban area or to design an intervention that responds to that area. In relation to this argument, Soule explains that "the elements of reading a place include

climate, customs," but the Memorandum does not mention indicators that go beyond aesthetic and visual elements (Soule 2010: 76).

The section on "ways and means" provides some practical advice to assist the evaluation of project proposals. It suggests investigating "the contextualization of contemporary architecture" and conducting "Cultural or Visual Impact Assessment studies" prior to making design development decisions (paragraph 29). The term "contextualization" is introduced for the first time in the UNESCO World Heritage and ICOMOS vocabulary, but, since it is not defined, it seems that "the argument for contextualism," according to Smith, "never strays far from [the] object-based worldview" of the Memorandum, which is evident in the guidelines for conservation management and urban development (Smith 2006: 68). Additionally, it is unclear why it is written "Cultural or Visual […] studies," because these studies have different meanings and will produce two different types of assessments. Hence, it is unclear which study has more validity than the other.

In the section on "recommendations," the Memorandum explicitly invites the formulation of a new standard-setting instrument "with special reference to the contextualization of contemporary architecture" (paragraph 32 C). The concept of "contextualization" may refer to how well an intervention fits into its context. This means that further research is needed to explore new principles, tools and approaches with a view to providing direction for the design of context-specific interventions as well as direction for the evaluation of these interventions in relation to their immediate location/site and their broader context (i.e. urban landscape).

On the whole, the strengths of the Memorandum reside in its request for the protection of values in conservation policies (paragraph 3) and for public consultation and mutual understanding among different stakeholders and experts (paragraphs 15 and 28). Its main contribution to the advancement of knowledge is its capacity to open productive discussions on related concepts, such as compatibility. In fact, "dialogue is the true value of the Vienna Memorandum" (Cameron 2006: 83). Rossler, an expert from the WHC, confirms that "what is needed now is to continue the dialogue and to encourage international research, as there were clear gaps in the discussions in Vienna" (Rossler 2006: 32). To fill the gaps and reduce the breadth of the Memorandum's

guidance, experts have concluded that "there's a strong need for clarity and certainty" in "new, internationally accepted guidelines" (Van Oers ed. 2010: 13).

In 2005, the General Assembly of States Parties to the World Heritage Convention adopted the "Declaration on the Conservation of Historic Urban Landscapes" based on the Vienna Memorandum. In subsequent years, regional expert and planning meetings were organized to develop a revised theoretical framework, to refine the definition of HUL and to suggest ideas as potential content material for a new Recommendation.

2.1.4. Overview of Documents Resulting from Three UNESCO Regional Expert Meetings

2.1.4.1. Jerusalem Statement, 2006

The "Statement of the Workshop on New Approaches to Urban Conservation," written as part of the Jerusalem networking event in 2006, recognizes the Vienna Memorandum as a useful "work-in-progress" that helps in finding local solutions for "global problems" (p.1).

In terms of suggestions for the new standard-setting instrument, it recommends refining the definition of HUL by including "natural elements, intangible dimensions, and cultural diversity" (p.2). Furthermore, cultural mapping, documentation, assessment of significance, buffer zones and environmental impact assessment studies, including visual, social and economic impacts, must inform policies, define strategies and unite conservation with sustainable development. Public involvement in both conservation planning and implementation, moreover, must be supported and encouraged. Additionally, academic networking and research on HUL, including "criteria for their evaluation and management methodologies" in "different world-regional contexts" are needed (p.2). Finally, research findings must be disseminated to "decision makers, professionals, cultural and educational institutions, and local communities" (p.2).

The statement, however, does not provide specific guidance for establishing compatibility or for contextualizing contemporary architecture in historic contexts, although the Memorandum has confirmed that "special reference" must be given to

"contextualization" (Vienna Memorandum: paragraph 32 C) to help write the new Recommendation. Taken as a whole, the suggestions of the statement are brief and lack explanations that would make tools, such as cultural mapping, more understandable to local professionals who are not necessarily experts in conservation practices.

2.1.4.2. St. Petersburg Report, 2007

The "Summary Report of the Regional Conference of Countries of Eastern and Central Europe on Management and Preservation of Historic Centers of Cities inscribed on the World Heritage List," prepared by Rodwell and Van Oers, is the result of various discussions that occurred in St. Petersburg in 2007. The conference coincided with the "controversy" over the RMJM Tower, which was proposed a few hundred meters across the river Neva (p.6). Nevertheless, the main purpose of the conference was not to prevent the construction of the high-rise project, but rather to facilitate the application of a "holistic approach to the management of historic cities in a diversity of geo-cultural contexts," as part of the request to work towards a new Recommendation (p.2).

The report suggests refining the definition of HUL, exploring "impacts on values," improving existing tools for the assessment of impacts and investigating the relationship between local and international protective measures (p.7). It also suggests addressing buffer zones, morphological surveys, hierarchical visual analysis as well as design alternatives for project proposals in urban policies, particularly to assist the identification of threats to important "viewpoints" and to "genus loci," which is the spirit of place (p.8-9).

Additionally, a zoning approach is recommended. More specifically, it is a mapping methodology that groups "indicators" under the social, cultural, economic and ecological factors of a historic city (p.9). Each factor is subdivided into a tangible and an intangible aspect. For example, "buildings" are indicators of the "cultural-tangible" factor, whereas "views" are indicators of the "cultural-intangible" one. This methodology, however, cannot be easily implemented, because it is difficult to reach consensus over the distribution of indicators as well as zones. For instance, one may argue that "buildings" fit in all four factors. Also, it is unclear whether zoning, as a

general approach or a legal planning tool, constitutes an effective framework for making environmentally sensitive decisions or for achieving what the Vienna Memorandum calls "the contextualization of contemporary architecture."

The conference led to two main conclusions. First, HUL constitutes a type of cultural landscape (p.6). Secondly, a landscape approach can "better" protect the Outstanding Universal Value of a historic city than the concepts of "authenticity" and "integrity" (p.7). The link between this approach and authenticity or integrity, however, has yet to be explored.

2.1.4.3. Olinda Report, 2007

The "Olinda Report of the Regional Conference Historic Urban Landscapes in the Americas," written in 2007, explains that preservation processes should address "climate change, pollution, ecosystem degradation, resource scarcity and transportation challenges" to contribute to the debate on HUL (p.1).

The "broad approach," which is most probably the "holistic landscape approach" discussed in the St. Petersburg Report, was judged "appropriate to deal with the management of change in complex urban environments that are characterized by highly dynamic processes" (p.2). It was also acknowledged that "issues of integrity and authenticity in historic urban landscapes remain unclear;" therefore, they merit further investigation (p.3).

Participants concluded that "outcomes" and "a sharing of methodologies and case studies" are desired (p.3). In fact, one may argue that case study research can contribute to the understanding and demonstration of "the contextualization of contemporary architecture" in a given historic context (Vienna Memorandum: paragraph 32 C) and, consequently, to the writing of the Recommendation on the HUL. Yet, the concept of contextualization itself has been entirely dropped in the new standard-setting instrument.

2.1.5. Recommendation on the Historic Urban Landscape, 2011

The exchange of information and experiences on the issue of new development in historic contexts not only during regional expert and planning meetings, but also during seminars and forums, such as the Round Table held in Montreal in 2006 (Cameron ed. 2006), was used to guide the writing of the Recommendation on the HUL. This standard-setting instrument, adopted by UNESCO's General Conference on November 10th 2011, identifies HUL as both an approach to urban heritage conservation and "an urban area understood as the result of a historic layering of cultural and natural values and attributes" (Item 8). With this definition, historic places, which were previously seen as aesthetic objects and final results in the Venice Charter, are currently perceived as living organisms that experience a continuous succession of layers. The strengths of the Recommendation are expressed in its cohesive definition of HUL and in its insistence on capacity-building, research, dissemination of findings, communication as well as international cooperation (Items 25 to 30).

Nevertheless, the HUL approach, previously referred to as the "culturally and historic sensitive approach" in the Vienna Memorandum, the "holistic" or "landscape approach" in the St. Petersburg Report and the "broad approach" in the Olinda Report, does not guide the design or assessment of new buildings per se. Instead, it guides the identification, safeguarding and management of historic areas (Item 5). To accomplish these objectives, it suggests tools under Item 24. "Civic engagement tools" intend to protect historic areas and to facilitate dialogue and negotiation among diverse interest groups. Public forums, online discussion websites and workshops might be some examples. "Knowledge and planning tools" refer to documentation, mapping and impact assessments that are intended to conserve natural and cultural resources. "Regulatory systems" refer to legislative and regulatory measures, which might include zoning ordinances. Lastly, "financial tools" support income-generating developments without threatening to damage historic settings. Those might be public-private partnerships or donations.

It is up to local and national stakeholders to adapt these tools to their respective context and to adapt urban heritage conservation policies or to create new ones with

special reference to "the harmonious integration of contemporary interventions into the historic urban fabric" (Item 22). Although the suggested tools are meant to "ensure that contemporary interventions are harmoniously integrated with heritage in a historic setting and take into account regional contexts" (Item 12), the Recommendation does not sufficiently explain how the HUL approach and its tools can guide policy-making with a view to achieving "harmonious integration" (Item 22) or to reaching "decisions about the advisability of particular interventions" (Appendix).

Instead of complementing previous standard setting-instruments, as suggested in Item 7, the Recommendation seems to linger on former suggestions such as "great attention should be paid to the harmony […] of the various parts," found in the 1976 Recommendation (Item 4 of that Recommendation). Harmony or compatibility is a key term in the conservation profession (Luxen 2004) and, consequently, in the international debate over the issue of new buildings in valued contexts; yet, the meaning of harmony is unresolved in previous Charters and UNESCO Recommendations as well as in the Vienna Memorandum, and this is still the case in the recently adopted standard-setting instrument. The lack of a clear definition causes a problem, particularly when giving policy-making advice to achieve harmony (Items 21 to 23).

The Items fail to communicate explicit and detailed guidelines for design and assessment that could be adapted by countries and/or cities with a view to contextualizing contemporary architecture in historic places, which was the initial purpose of the Recommendation. Furthermore, it is unclear how the HUL approach can unite environmental, cultural and social objectives in the design and execution of new buildings for example. Also, it is not sufficiently explained how one can determine the extent of a historic urban landscape when dealing with interventions given that a landscape, as opposed to an area, has no limits and is not delimited by boundaries.

Although the Recommendation speaks to historic cities worldwide, not a single intervention challenge is provided for demonstration purposes, probably because Recommendations do not cite case studies. Nevertheless, the attachment of "detailed and clear commentaries," according to Luxen, "would make [these texts] more understandable" at the local and national levels (Luxen 2004: 5). While it is impractical to develop specific guidelines for each historic context, it is equally impractical to set

forth universal guidance without examples, because cities, nations and regions operate differently, administratively speaking for example, and have different design challenges. For this reason, it would be beneficial to disseminate a document along with the Recommendation that shows how the approach and its tools could be implemented in a given context to guide "harmonious integration." Though the approach was tested in different geo-cultural regions, for example in Central Asia and East Africa, results have not been fully revealed (Van Oers and Pereira Roders 2012: 1-8); therefore, its success in raising compatible buildings is still uncertain.

For the above reasons, one may argue that additional guidance is needed. In fact, ICOMOS mentioned that "in any case, the 'landscape approach' alone is not enough" when it reviewed the first draft of the Recommendation in January of 2011 (ICOMOS 2011: 10). Van Oers and Pereira Roders, the co-editors of the Journal of Cultural Heritage Management and Sustainable Development, moreover, have recently confirmed that "there still is a need for further refinement. Important aspects concern the follow-up support process with the dissemination of theory and (best) practice to local authorities" (Van Oers and Pereira Roders 2012: 8). More specifically, scientific research is required to address the implementation of the HUL approach in local policies and management practices (Veldpaus 2012: 1-2) and "to develop something intermediate between theory and practice" (Smith 2012: Editorial No.6).

Hence, the debate on the issue of contemporary architecture in historic urban environments is not over. Since solutions and outcomes have not been exhausted, the concepts and themes that came to light from the review of international norms and principles in **Section I** merit further investigation.

2.2. SECTION II: Scholarly Publications: Emergent Concepts and Themes

2.2.1. Concept of Compatibility

2.2.1.1. Definitions: Compatibility, Harmony and Harmonious Integration

In order to design an intervention that relates to its context, an understanding of the concept of compatibility is necessary. Generally speaking, "compatibility" is the character or state of something that is compatible, in agreement with something else; "compatible" means to exist at the same time, to work with something else, to reconcile (Online Dictionary French-Larousse 2008). Its origin from Latin is "*compatibilis*" or "*compati*," which literally means "to be in sympathy with" or "to suffer with." Consequently, a compatible building is a sympathetic one that strives to become a component of its surroundings. "Sympathetic" is generally understood to stand for something that is responsive, friendly or sensitive. Although comprehensible, this definition is too broad, because it is extracted from a dictionary, which does not directly relate the concept to the design and construction of new buildings. Hence, further clarification from scholars and practitioners in the field of architecture or heritage conservation would be particularly useful to complement it.

In his "Architectural Compatibility Guide," Sinkfield, an architect, explains that the concept means: "capable of existing together in harmony, or to be consistent. Architectural compatibility results from designing and building facilities in harmony with their natural and man-made surroundings and environment" (Sinkfield ed. 2007: 4). The concept, thus, refers to how well a new building fits into its context, which is both human (e.g. urban, social, cultural) and natural. The author adds that establishing a "visual thread" that ties existing and new fabric together is one way of achieving the goal of compatible facilities or buildings (Sinkfield ed. 2007: 11). Nevertheless, the word "harmony," which is often used interchangeably with "compatibility" in many sources of literature, including the ones reviewed in **Section I**, is not explained in the author's definition. Consequently, the meaning of "compatibility" is still unclear. Understanding "harmony" would help clarify it.

"Harmony" is a concept that is usually associated with music. It is commonly understood to refer to the quality of a whole and results from the agreement of parts or elements (Online Dictionary French-Larousse 2008). It comes from the Latin "*harmonia*," which stands for "concord," and from the Greek "*harmoniã*" or "*harmos*," which means "articulation" or "joint." Hence, a harmonious building is one that reaches or expresses agreement with individual parts or elements and becomes a part of the

whole. In that sense, the new building and the existing components balance each other to create a unity, which, for example, is pleasing to the eye or to the human experience as a musical piece is pleasing to the ear or to the soul. To return to, and clarify, Sinkfield's definition, one may argue that "concord" results from understanding and responding to the "natural and man-made surroundings and environment" during the design and construction of new buildings.

"Harmony," furthermore, is sometimes combined with the term "integration." For instance, in **Section I**, the 1976 Recommendation uses the expression "integrated harmoniously" (Item 5) and the 2011 Recommendation uses "harmonious integration" (Item 22). Generally speaking, "integration" means to introduce something to an ensemble, to make it belong, to ensure that it is in harmony with other elements (Online Dictionary French-Larousse 2008). Benzel, a professor emeritus of architecture, clarifies that the words "integrate" and "integrated" come from the Latin "*integrare,*" which means "to make whole, to renew, to refresh." More specifically, "integrate" signifies "to bring together or to incorporate parts into a whole" while "integrated" signifies "combining or coordinating separate elements to provide a harmonious whole" (Benzel 1996: 8). Hence, "integration" is the synchronization of individual parts (e.g. structures) and elements (e.g. materials) that either join an established whole (e.g. an existing urban settlement) or come together to form a new whole (e.g. a new urban settlement), which ought to be harmonious. Accordingly, the expression "harmonious integration" in the 2011 Recommendation may refer to a new building that joins and agrees with the parts and elements of the whole (i.e. the historic urban landscape with its tangible and intangible aspects). As a result, both the concept of compatibility and that of integration refer to harmony. This explains why these words are used interchangeably in the literature (e.g. Semes 2009: 69 and 141). Accordingly, one may say a compatible building is a building that is in harmony with its surroundings or, put simply, it is a harmonious integration. Yet, how "agreement" between an individual building and the whole can be determined is still unclear.

In that respect, some authors argue that harmony cannot be defined or controlled, because its meaning is constantly evolving. For example, Semes explains that "harmony can be neither described nor prescribed by any series of merely verbal

desiderata, which is why design guidelines cannot produce beauty, although they may prevent the most egregious ugliness" (Semes 2009: 69). The author insists that "the relation between new and old architecture is always defined in terms of the perceptions, values, and interests operative in the architectural culture of the moment" (Semes 2009: 115). Therefore, the understanding of compatibility is different from one geo-cultural context to another as well as from one historical period to the next. To clarify this argument, one may give an example from the United Arab Emirates. Before the advent of oil money and socio-economic and technological change in the 1960s, a palm frond house was compatible with the climate and cultural needs of the Emirati community. Today, however, Emiratis would no longer live in a palm frond house, because their needs, "perceptions, values, and interests" – to return to Semes' argument – have changed. Hence, their understanding of compatible architecture has changed.

In general, Semes judges that a contemporary intervention is considered compatible or harmonious if it arises from the local building culture, but he emphasizes that "compatibility is not solely a question of architectural style" or physical attributes (Semes 2009: 166 and 171). In other words, the concept is not limited to what the human eye can see or to visual threads in the urban fabric. Nevertheless, many sources, including the Charters and Recommendations reviewed in **Section I**, convey the impression that it is exclusively about external appearance.

For instance, Irwin, an architect and preservationist, asserts that "reviewing the compatibility of new construction with an existing context, whether the existing context is a single building or a group of buildings, involves looking at the composition of the new construction in relation to the composition of existing construction" (Irwin 2003: xvii). Emphasis is placed on "looking" and "composition;" therefore, attention is given to the sense of vision. The author later adds that "a way to look at compatibility is to view it with regard to mass, scale, proportion, and size" (Irwin 2003: 71). These indicators are all tangible.

Some policies also associate compatibility with vision, such as the "Secretary of the Interior's Standards for the Treatment of Historic Properties." For clarification, these standards were originally written in 1977 to deal with the rehabilitation of individual structures, but they were later extended to the management of historic

districts and were most recently revised in 1995 (Semes 2009: 137). Standard n°9 states that "the new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing" (The Secretary of the Interior's Standards 1995). It implies that compatibility is exclusively about establishing a visual link between a new building and its surroundings since the suggested indicators are only visual design elements. It also confirms that the new must be different from the old; however, it does not specify the degree of distinction.

Another example can be found in the "Charleston Standards for the Treatment of Historic Properties" of 2005. The Charleston Standard n°7 is slightly different from Standard n°9 of The Secretary of Interior. It states that "the new work should be compatible with the historic materials, features, size, scale, proportion, and massing […]. The differentiation may or may not be stylistic, and may be as subtle as a change in building footprint, material, or other means" (Charleston Standards 2005). Some indicators are provided to achieve distinction, but those that concern compatibility still pertain to the same visual design elements.

Another example, which is specific to infill development, but applicable to new buildings, can be found in the "Urban Design Guidelines for Low-rise Infill Housing" of the city of Ottawa, which appeared in 2012. The guidelines explain that a "good infill" is one that recognizes "scale and visual patterns" and one that does not permit "the car to dominate the public realm" (Urban Design Guidelines 2012: 2). Moreover, it asserts that "good infill development can be met within any architectural style" (p.12) and is considered compatible "when the density, form, bulk, height, setbacks, and/or materials are able to co-exist in their surroundings. 'Compatible' does not mean 'the same as' and is not intended to preclude innovation and creativity" (p.28). This document highlights that a new building can be an imaginative work of art (and this call for creativity was not discussed in the sources reviewed in **Section I**, with the exception of Article VI-D of the 1982 Deschambault Declaration and Item 12 of the 2011 Recommendation on the HUL) and that compatibility is independent of style (though possibly influenced by it). Nevertheless, the indicators that are provided in the definition convey the impression that the quality of a new building and its relation to its surroundings are only measured and appreciated visually.

Architectural design, however, is not only a visual activity or outcome. Frank, an environment-behavior researcher, and Lepori, a practicing architect, explain that "architecture of the outside," which is associated with visual design elements, makes "vision the primary, even the only sense and a distant observer the primary condition," whereas architecture "from the inside out" makes the "wellbeing" of dwellers the primary objective (Frank and Lepori 2007: 33-34). In fact, "the word building refers us to the Indo-European base bhu for 'to dwell' and is related to our English 'to be'" (Seamon and Mugerauer eds. 1985: 223). Architectural design, therefore, is fundamentally about being, human behavior and experience.

Consequently, compatibility is not limited to the objects (e.g. buildings, additions) or indicators (e.g. form, façade, height, materials) that are observed from the outside, but extends to include the relationship of these objects and indicators with the context – "the natural and man-made surroundings and environment" to return to Sinkfield's definition (Sinkfield ed. 2007: 4) – and with the residents and visitors whose experiences and cultural practices are a part of the context.

2.2.1.2. Context: Determinants and Patterns

"Context" is derived from the Latin roots "*textus*," which means "fabric," and "*texere*," which means to "weave" (Benzel 1996: 15). Benzel clarifies that "*contextus*" in Latin, therefore, "indicates a whole entity made from interlacing parts that acknowledges the existence, through the act of weaving, of an orderly method, manner, or pattern for the whole" (Benzel 1996: 15). For this reason, a new part, such as a new building, cannot exist on its own, in isolation from the whole. In fact, to isolate a building from its context will deprive it of its meaning. Accordingly, the author explains that any space can be "read" (i.e. understood) apart from its context, but this disconnected visual reading will make that space appear removed from reality, because in reality it is "read" in context (Benzel 1996: 15). Alexander et al., architects, add that "when you build a thing you cannot merely build that thing in isolation, but must also repair the world around it, and within it, so that the larger world at that one place becomes more coherent, and more whole" (Alexander et al. 1999: xii). Design and

construction, therefore, deal with spaces inside, between and around buildings such as layouts, streets and green areas. Semes concludes that "no building, whether historic or new, can be evaluated simply as an isolated artifact but must always be viewed in the context of its physical as well as its historical milieu," because "ultimately buildings have meaning only in relation to other buildings across space and time" (Semes 2009: 86 and 113). One may simplify this point with the following statement: the compatibility of a new building with its surroundings should be judged in light of the spirit of the place and the spirit of the time.

Moreover, whether a context is the result of organic or planned growth, it is subject to determinants. For instance, climate, topography and available construction materials in situ are the geographic attributes of a settlement called "urban determinants" (Morris 1994: 10). Trade, political power, social relations, use/functions, religious beliefs, human activities and values are "man-made determinants" (Morris 1994: 12). It is the orchestration of determinants that creates patterns. For clarification, the difference between a determinant and a pattern is similar to that between vocabulary and language. For example, the vocabulary may be materials, columns, activities and values; the language is how these are put together.

There are different types of patterns. Brolin argues that a building "is always seen as part of an urban whole" (Brolin 1980: 13); thus, he places the emphasis on urban patterns. Yeang, an architect, adds climate, because it is the main driver of form, layout, building orientation and solid to void relationships (Richards ed. 2007: 8). Lynch, moreover, asserts that "social patterns are as important as urban patterns" in understanding a context (Lynch 1981: 101). Haider, an architect, highlights the importance of cultural patterns, because buildings "cannot be divorced from a culture's views of the grand scheme within which it exists" (Haider 1987: 75). In essence, these authors argue that architectural design is grounded in environmental realities. In relation to this argument, Rapoport, a design consultant, explains that architectural design needs to be understood as an environment between people and people, people and buildings, buildings and buildings, buildings and streets and so on (Rapoport 1987: 10-15).

As a result, the designer should understand the determinants, patterns of development and relationships that brought individual components together with a view

to establishing a connection between the past and the present. In view of this analysis, one may define compatibility as: "a quality that extends outward, beyond the place of intervention, into the landscape, as well as inward, into the layout and use of space. A building is judged compatible not only from the appearance of its façades, but also from its responsiveness to urban and man-made determinants and patterns of development as well as its relationship with individual components and the context as a whole. A compatible building is place-specific and time-specific" (defined by the present researcher). Still, the challenge is how to establish a connection between the past and the present without threatening to diminish heritage values and historic character.

2.2.2. Design Options for Establishing a Compatible Relationship

An approach to compatibility, called the "contextual design approach" or "contextualism" (Tyler et al. 2009: 103-104), which may also refer to the concept of "contextualization" in the Vienna Memorandum reviewed in **Section I**, can orient decision-makers in shaping the relationship between a new building and its context. It can be imitative, different or in-between. As a result, it offers three design options: reproduction/reconstruction, reinterpretation and contrast. Each one determines how closely an intervention will look and feel in comparison to historic structures in situ.

In the following three subsections, quotes extracted from the most relevant publications on the issue of contemporary architecture in historic settings will show the conflicting opinions of respected scholars and practitioners on the appropriateness and/or effectiveness of every option in relating the new to the existing. It is important to stress that the purpose is not to prove any author/source right or wrong; the purpose is to show the debate on design options while situating positions in their respective geo-cultural context and revealing the evolution and permanence of some positions over others. The options are illustrated with an example from Montreal in Canada at the end of each subsection (**Figure 3** p.74, **Figure 4** p.77 and **Figure 5** p.82). The researcher recognizes that the judgment as to whether these are good examples of compatible architecture or not is, to some degree, subjective.

2.2.2.1. Reproduction/Reconstruction

"Reproduction" is the exact replica of an original element (Online Dictionary French-Larousse 2008). The Latin "*producere*" (the English for "to produce") means "to bring forth." Given that the prefix "re" usually means "again," "to reproduce" is to bring forth again, to recreate. The design of the new building, therefore, is expected to faithfully imitate that of another building; the outcome, however, may or may not entirely match the design of the original. Some scholars and practitioners also call this option "historicizing reconstruction" (Papageorgiou 1970), "copy" (Wells-Thorpe 1998), "matching" (Tyler et al. 2009) and "literal replication" (Semes 2009).

Nevertheless, Fitch, an architect-preservationist, is critical with regard to wording. He divides this option into two categories depending on the location of the new building. If it is constructed on a different site than the original, then it is a "replication," which is synonymous with "duplication, repetition and copying" (Fitch 1982: 187). If it is constructed on the exact site of a demolished building and acts as a "surrogate," it is called a "reconstruction." An example of reproduction can be found in Ait Ben Haddou in Morocco, which is a World Heritage Site "in which vernacular traditional building forms and materials continue to be used for new construction" (Macdonald 2011: 14).

"To reconstruct" means to rebuild what has been destroyed by bringing it back to its original state (Online Dictionary French-Larousse 2008). The 2010 ICOMOS New Zealand Charter, which was reviewed in **Section I**, adds the need for documentation; accordingly, to reconstruct is "to build again as closely as possible to a documented earlier form" (p.9). This means that the new building is expected to accurately reproduce the design of a demolished and documented building, as it was at a specific historical moment, and to be constructed at the same site. An example of reconstruction is the Fortress of Louisburg, in Canada, built in the 1960s (Ricketts 2009: 236).

The dictum of Didron, a French art historian and archeologist, "it is better to maintain than to repair; better to repair than to restore; better to restore than to replace" (quoted by Stovel 1991: 6-Section B), or said differently, "better preserve than repair; better repair than restore; better restore than reconstruct" (quoted by Miller 2006: 35;

quoted by Bennett 2009: 157), has probably influenced the way certain European and North American cities view reconstruction. The ideas of Ruskin, an English art critic, may have also had a similar influence. He believes architecture is not about "raising the dead" (quoted by Ricketts 2009: 236); as a consequence,*"il condamne le pastiche et la reproduction des formes du passé"* (Choay 2007: 196) and advocates distinction.

The Canadian position, for example, changed in the mid-1990s. Originally, this design option was considered a conservation treatment. Dicaire, a special advisor at the National Capital Commission, explains that the 1980 Parks Canada Policy identified preservation, restoration and reconstruction as the three ways of conserving historic resources (Dicaire 2009: 188). Ricketts, from the Canadian Register of Historic Places in Parks Canada, clarifies that reconstruction was initially about accuracy (Ricketts 2009: 238). In other words, the new was expected to copy the original. This position, however, changed with the adoption of the 1994 "Cultural Resources Management Policy," after which reconstruction became an "interpretative option," "not a conservation activity" (Bennett 2009: 134). The policy asserts that a new building should "not be detailed in such a way as to be mistaken for a historic structure," but should "respect and be compatible with the historic character of the site" without explaining the meaning of "respect" and "compatible" (Cultural Resources Management 1994: 3.4.1.5 and 3.5.1.3). Currently, reconstruction, whether it draws a distinction between the new and the original or not, is rejected in the 2010 "Standards and Guidelines for the Conservation of Historic Places in Canada," reviewed in **Section III**.

Attitudes towards this option mainly began to change with the advent of modernism. Semes explains that "the modernist establishment – which controls the current definition of progress – proclaims that any traditional alternative represents a counter-progressive or even reactionary strategy that violates the obligation to embrace 'the architecture of our time'" and that some contemporary professionals such as architects, critics and preservationists believe imitation might falsify history (Semes 2008: 1). It is either the first or the second reason or both that explain(s) why this approach is now ruled out in North America in general. Macdonald adds that those who "abhor historicism" call this approach "pastiche," which is considered "a dirty word"

(Macdonald 2011: 15). This negative reaction could be a third reason that explains why reproduction/reconstruction is not looked upon favorably.

For example, Fitch dislikes this option, because "all attempts to reconstruct the past […] involves subjective hypothesis" and all reconstruction is "fake" and "it is all but impossible to produce permanently convincing fakes," because "time has its own merciless way of exposing them" (Fitch 1982: 47 and 189). Nevertheless, Semes argues that design itself is "subjective hypothesis" whether the intention is to "reconstruct the past" or "to construct the present and future" (Semes 2009: 167). In terms of conserving the quality of historic places, Ricketts affirms that this option is about the rebuilding of physical elements but what is missing is "the revival of traditions, languages and cultural practices" (Ricketts 2006: 239). For this particular reason, Cramer, a freelance architect, and Breitling, a freelance conservation expert, reject this option. They argue that "it has nothing to do with the aims of conservation" and although it could be a possibility, it "becomes questionable when there is no hope of achieving the quality or meaning of what has been lost" (Cramer and Breitling 2007: 40 and 126). They conclude that it is the antithesis of change, because it preserves a moment in time and conflicts with the reality of an evolving world (Cramer and Breitling 2007: 143). Also, Davison, a professor, states that "heritage is something that we must preserve or save rather than something to be created" (Davison 2008: 34). Still, one may point out that the architecture we build today could become the heritage of tomorrow; thus, heritage is created. Davison probably meant that heritage is not something to be re-created.

On the other hand, the "Management Guidelines for World Cultural Heritage Sites," which are still applicable in a present-day context, stress that the World Heritage Convention does not reject reconstruction. To be acceptable, though, it has to be based on a complete and detailed documentation of the original (Feilden and Jokilehto 1996: 6). Jokilehto, an architect-urban planner, clarifies that "official" statements in international guidelines and Charters do not encourage reconstruction (and this point was demonstrated in **Section I**, for example, in the 1964 Venice Charter), but "it can be tolerated under specific conditions" (Jokilehto 1998: 49).

For example, Stovel explains that "an imitative approach may be quite legitimate if the adjacent context is overwhelmingly homogeneous" (Stove 1991: 29-Section D).

Smith adds that in some cultures "façadism" is inappropriate but it could be quite appropriate in others (Smith 2006: 70). Semes, moreover, affirms that to design and build "in a historical style is not to pretend to be living in another time; nor is it an attempt to deceive," but it is rather "an exploration of a formal language that may have application in and relevance to any number of times and places" (Semes 2009: 149). Macdonald also supports this position and states that "in an urban settlement that continues to sustain traditional craft and building techniques and materials, it may be extremely important to promote the continuation of these practices;" therefore, in this case scenario, "a traditional response" may be "valid" (Macdonald 2011: 15 and then 13). Hence, this design option is honest architecture despite the argument of the sources reviewed in **Section I** on falsification (e.g. Venice Charter; Vienna Memorandum).

Speaking of honest or authentic architecture, one may recall the example of Japan, where this option is considered a ritual. Choay, a historian who writes about architectural and urban forms, explains that "*les Japonais qui, ne révérant pas comme nous [les Européens] les marques du temps sur leurs monuments, construisent périodiquement les répliques exactes de temples originels dont les précédentes copies sont alors détruites"* (Choay 2007: 22). Here, reproduction is precisely about "the revival of traditions, languages and cultural practices" – to return to Rickett's argument, which was mentioned earlier (Ricketts 2006: 239) In fact, this Japanese example has influenced the 1994 Nara document on Authenticity. Stovel, who co-authored the document, states: "All judgments about values attributed to cultural properties […] may differ from culture to culture, and even within the same culture. It is thus not possible to base judgments of values and authenticity within fixed criteria. On the contrary, the respect due to all cultures requires that heritage properties must be considered and judged within the cultural contexts to which they belong" (Article 11). Hence, despite frequently expressed disapproval of this design option in North American and European cultures, a reproduced/reconstructed building is authentic architecture in other cultures. For this reason, whether this option is appropriate or not and whether it ought to be faithful to the original or not are questions that should be answered in relation to the perceptions of the culture. One may recall what happened after World War II. Warsaw,

for example, approached reconstruction differently than did London. The first remained faithful to the original while the latter introduced new designs.

This option, moreover, could lend itself to some kind of significance for local communities. For example, in the Arabian Gulf region, the reconstruction of heritage areas to revive past memories has become popular (Torstrick 2009: 70). The idea is to provide current and future generations with the opportunity to physically see, appreciate and experience traditional Arabian buildings and morphologies, which were almost entirely demolished after the discovery of oil and the application of Western architectural and planning standards in the region. Reconstruction, therefore, is considered a means for regaining a lost heritage and a lost architectural identity. Furthermore, it may help to conserve local craftsmanship and practices. In other words, by reproducing a building, one learns how former communities have designed and built their environment and, consequently, learns about their building culture.

In terms of the falsification of history, or rather the misinterpretation of the historical events that have occurred in situ, interpretive material such as signage could help distinguish the new building from the original without deceiving observers into thinking that what they are observing and experiencing is cultural heritage as opposed to contemporary architecture. This point was explained in the analysis of the 1964 Venice Charter in **Section I**. Nevertheless, what stage of the original's history (date of construction) should the new building imitate is a question that demands reflection.

Figure 3: Reproduction (source: researcher, 2007-09-11). This is the Church of Le Gesù in Montreal, built in 1865. It was designed by Patrick C. Keely who has attempted

to replicate the design of the Church of the Gesù in Rome. This option, therefore, does not necessarily imply that the reproduced building will entirely match the original.

2.2.2.2. Reinterpretation

"To reinterpret" means to interpret again or in a new manner (Online Dictionary French-Larousse 2008). "To interpret" in Latin is "*interpretari*," which means "to explain" or "to understand;" thus, "to reinterpret" is to explain or to define something in a different way. The design of the new building, therefore, is expected to capture the essence of the historic context while picking up some of its attributes and/or qualities, which ought to be used in a different way. Unlike reproduction/reconstruction, which generally entails that the outcome will have a traditional outlook and feel, this option implies that it will have new/contemporary ones. There are many degrees of reinterpretation, depending on the amount of traditional elements used in design or construction. Some authors call it "harmonic integration" (Papageorgiou 1970), "blending in" (Brolin 1980), "background building" or "abstraction" (Ray ed. 1980), "synthesis" (Wells-Thorpe 1998), "in-between" (Cullinan 1998), "invention within a style" or "abstract reference" (Semes 2009). Tyler et al. call it "compatible," because they believe it can better create a sense of architectural continuity than the other options (Tyler et al. 2009: 107). An example is the addition to the Boston Public Library by McKim, Mead and White, in the United States, built in the 1970s (Brolin 1980: 66).

Generally speaking, this option is favored over reproduction/reconstruction in European and North American cultures for many reasons. For instance, Goldberger, an architectural critic, believes "what is needed" in historic places "is not the easy route of imitation, not the unforgivable arrogance of must-be-new modernism, but the difficult achievement of the in-between" (Goldberger 1980: 262-263). Carlhian, an architect, clarifies that it is not the random accumulation of attributes that would achieve the in-between, but rather the "careful analysis" of historic buildings in situ, "the accurate determination" of their essential attributes and "the weaving of these data" into a design concept (Carlhian 1980: 66-67). He mainly suggests working with "height," "surface covered" and "mass" (Carlhian 1980: 52). Loew adds "street alignment," "roofline,"

"rhythm" and "ornamentation" (Loew 1998: 80-81). Sinkfield includes "similar materials," "colors" and "dimensions" (Sinkfield 2007: 7).

These authors convey the impression that reinterpretation is mostly about working with physical attributes and, consequently, about the appearance of the new building. Brolin, who agrees that "some borrowing of forms or motifs" is necessary to create a "friendly relationship" (Brolin 1980: 140), also uses visual language to judge the success of this option. He writes "to my eye it still did not fit in comfortably […] the mind does not convince the eye […] I still have difficulty making the visual connection […] visual solutions must be sought" (Brolin 1977: 1-5) and "trust your eyes" (Brolin 1981 - online article). The ideas of the author in terms of attributes, furthermore, are inconsistent. For example, in 1977, he wrote that evoking the style of a historic building is "one of the most important factors for a successful fit," which "depends on a large extent on ornament" (Brolin 1977: 1). In 1980, he wrote that "ornament is the least important element in relating buildings to old" and that "establishing general similarities […] such as similar heights, […] materials, […] massing – alone can guarantee a friendly relationship" (Brolin 1980: 37). In 1981, he went back to the idea of ornament and stated that it can create "welcoming attachments" (Brolin 1981 - online article).

Other authors have discussed the weaknesses of reinterpretation. Stovel, for example, asserts that it can lead to "unconvincing two-dimensional pastiches" (Stovel 1991: 29-Section D). Wells-Thorpe states that the result "can end as a weak and muddled compromise in inexperienced hands" (Wells-Thorpe 1998: 1130). Cullinan, an architect, adds that it "insults both the past and the present, and enhances neither" (Cullinan 1998: 116). Cramer and Breitling conclude that the arbitrary accumulation of traditional elements might appear "lackluster" and "devoid of meaning," because the consideration of external appearance alone ignores "cultural and artistic values" that should be communicated in the new design (Cramer and Breitling 2007: 101 and 137).

Since this option combines precedents with new interpretations, one may argue that it is more challenging than reproduction/reconstruction, particularly because it brings into play the concept of creativity. Accordingly, if a designer chooses to work with too many traditional attributes, he/she might be accused of being uncreative, since creativity is generally associated with something that looks "different" (Brolin 1977).

On the other hand, if he/she uses a few attributes and portrays a high level of abstraction, he/she might be accused of ignoring the context. Choosing some attributes and/or qualities over others, furthermore, requires reflection and justification.

As a final note, many policies that control new construction in historic contexts encourage reinterpretation. For example, the 2005 Australian Guidelines and the 2010 Canadian Standards and Guidelines (particularly Standard n°9), which are reviewed in **Section III**, promote this option over imitative or contrasting new forms.

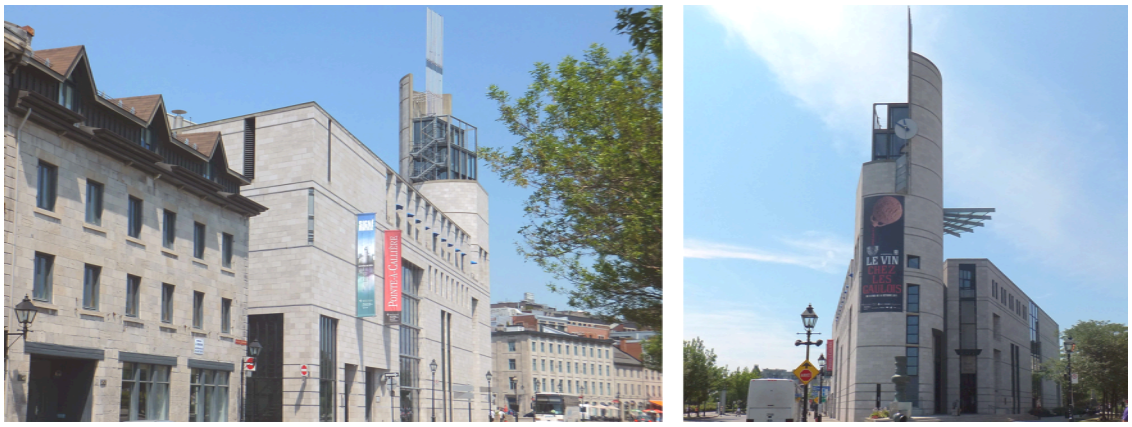

Figure 4: Reinterpretation (source: researcher, 2011-07-14). This is Pointe-à-Callière Museum of Archeology and History in Montreal. The Éperon, built in 1992, was designed by Dan Hanganu and Provencher Roy who were inspired by the shape of the Royal Insurance Company Building, which used to stand in the same location.

2.2.2.3. Contrast

"Contrast" is the opposition between two objects that are enhanced by their juxtaposition (Le Petit Larousse Illustré 1995: 266). In Latin, "*contra*" means "against" while "*stare*" means "to stand;" thus, "*contrastare*" makes objects stand out more when they are viewed and experienced together than when they are separately. The new building, therefore, is expected to follow a divergent architectural language and remain unmistakably new in its design and method of construction while adding value to the historic context. Like reinterpretation, there are many degrees of contrast. For clarification, modernist architects did not invent it. Hence, this option does not necessarily imply that architects must design in the modern or post-modern style, as

suggested by some authors. In fact, it precedes modern architecture by a number of centuries. Accordingly, Semes relates the example of "the Emperor Augustus [who] found Rome a city of brick and left it a city of marble" (Semes 2009: 223). This option is also called "standing out" (Brolin 1980), "focal point" or "contrasting" (Tyler et al. 2009) or "intentional opposition" (Semes 2009) and is usually associated with diversity.

Yet, some authors explain that it ought to be subtle. For this reason, they combine contrast with the concept of harmony and, therefore, prefer calling this design option "harmonic contrast" (Papageorgiou 1970) or "sympathetic contrast" (Ray ed. 1980). Their emphasis on harmony intends to prevent designers from automatically choosing to work with highly opposing forms, which may not always be in agreement with individual components and the context as a whole for every design challenge. An example of an undesirable form of contrast might be the Kunsthaus Graz Art Museum in the historic center of Graz, Austria, designed by Peter Cook and Colin Fournier, completed in 2003 (Macdonald 2011: 13). This view may stem from the location of the intervention in the midst of historic buildings, which have a unified, as opposed to a diversified, architectural character.

Another Museum, which has also received mixed opinions, is the Guggenheim in Bilbao by Frank Gehry, completed in 1997. Some see this building as an iconic landmark that may be located anywhere (Macdonald 2011: 14) while others consider it a good example of conservation through creativity that provides a sense of urban pride and helps keep the city alive by creating social cohesion, employment opportunities and public participation (Serageldin eds. 2001: 410). To the latter group, what is considered harmonic or sympathetic is the positive impact of the building on the lives of the community. In other words, a harmonic/sympathetic contrast enhances a historic context, not necessarily visually, but culturally, socially or economically speaking. It is also about balance. For instance, Gehry may have intended to achieve a balance between the historic character of Bilbao and the contemporary needs of the locality, but weighted in favor of the latter. He decided "to do for Bilbao what the Sydney Opera House did for Sydney" (quoted by Macdonald 2011: 14). This example brings to mind what English Heritage recently explained in its "Conservation Principles, Policies and Guidelines for the Sustainable Management of the Historic Environment:" decision-

makers should not "automatically" assume that "cultural or natural heritage values must prevail over all other public interests," because fulfilling community needs is as important as protecting values (Drury Paul and Anna McPherson 2008: 51).

Another controversial example is the John Hancock Tower in Boston, the United States, by Henry N. Cobb of the firm I.M. Pei, completed in the late 1970s and located across from Trinity Church, which was built in 1874-77. This 60 storey (i.e. 760 feet tall) skyscraper is considered "one of the most successful efforts of recent times to relate an entirely modern structure to its historical context – in spite of huge differences in scale, detail and texture." This view may stem from the use of reflective glass, which seems to dematerialize the façades, and the slenderness and siting of the tower on an angle in Copley Square (National Trust for Historic Preservation 1980: 106).

One may also suggest the Louvre Pyramid by I.M. Pei in Paris, France, completed in the late 1980s. For instance, Wells-Thorpe, an architect, argues that it is "an excellent example of harmony through contrast" (Wells-Thorpe 1998: 109). Choay clarifies that continuity and harmony can be achieved through contrast particularly in historic places that are valued for their diversity. She writes: *"La séduction d'une ville comme Paris lui vient de la diversité stylistique de ses architectures et de ses espaces. Ils ne doivent pas être figés par une conservation intransigeante, mais continués: ainsi la pyramide du Louvre"* (Choay 2007: 13).

Given this variety of examples from different geo-cultural contexts, it seems that the fine line that distinguishes inappropriate contrast from harmonic/sympathetic (appropriate) contrast is subjectivity, which is a point that will be discussed in subsection 2.2.3. of **Chapter II: Literature Review**. Evidently, there are mixed opinions about this design option. Architects, in particular, tend to prefer it to the other two. Conron explains that the integrity of a historic place is respected when a new building expresses its time as much as a historic building has expressed its own (Conron 1980: 138). Overby, a professor of art, asserts that all environments should have a past, a present and a future. He argues that "what goes best with good old architecture is, simply good new architecture" as "the value placed on the authenticity of historic monuments precludes imitation" (Overby 1980: 36). Cullinan prefers it to the first two options, because it enhances the present rather than using "watered down components

lifted from the past" (Cullinan 1998: 115-116). Bonnette, an architect-planner, affirms that the new should be "clearly contemporary aesthetically as well as technically," but this legibility does not necessarily entail using contrast the way Frank Gehry uses it in his designs, because "historic districts are no place for architectural acrobatics" (Bonnette 2001: 136). Thus, he does not consider the Guggenheim Museum in Bilbao a harmonic contrast. Sorkin, an architect, has the same point of view as Bonnette and believes that people should be able to tell the difference between new and old, otherwise the environment would be "lying" and the task of preserving it would be "both impossible and trivial" (Sorkin 2001: 61).

Stovel, however, believes that contrast could result in a "jarring note" (Stovel 1991: 29-Section D). Wells-Thorpe sees it as "the most interesting" option, but at the same time he believes it may produce "a disastrous result in the form of arrogant exhibitionism" (Wells-Thorpe 1998: 113). For this reason, Cantacuzino, the former secretary of the Royal Fine Art Commission in London, argues that "it is better to aim for harmony and to avoid too much contrast." He suggests maintaining the "scale," "color," "texture and general outline" of existing buildings (Cantacuzino 1998: 91). Cramer and Breitling also prefer "subtle differentiation rather than direct contrast" to smoothen the transition of history (Cramer and Breitling 2007: 100 and 138).

Brolin, on the other hand, completely dislikes this option, because "the result simply looks like two unrelated buildings that happen to bump into one another" (Brolin 1980: 45). The author explains that the architectural outcome would aggressively compete with existing buildings and threaten to diminish the heritage significance of the place. Moreover, to counter the argument about the relation between contrast and creativity, he affirms that "creativity cannot continue to flourish when it is based on a denial" (Brolin 1977: 3). Adam, an architect, also seems to dislike contrast, because he sees "nothing wrong and everything right about using obvious and understandable tradition in new design" and he believes a new building can be original, creative and interesting without looking noticeably different (Adam 1998: 37).

One may find this option to be as challenging as reinterpretation, because it may be difficult to differentiate between a new building that contrasts with, from one that ignores, its surroundings. On the one hand, it has the potential to produce creative and

diverse architectural expressions that may add to the appreciation and experience of historic contexts. Also, it can show the layers of different eras of intervention, which in return educate the public about the spirit of the time. On the other hand, it may struggle in conserving heritage values.

Speaking of time, Semes clarifies that contrast is often seen as "the difference expressed between 'our time' and 'that other time' which seems so exciting" not only to modernist or contemporary designers, but also to preservation authorities who accept contrast as a "promoter of avant-garde architectural experimentation" that could become "a landmark for the future" and avoid reducing a historic place "to a 'simulated architectural environment' or 'museum'" (Semes 2008: 1). This explains why American jurisdictions generally prefer contrast to the other two options.

Semes also points out that contrast is often used as the main driver of distinction when there are other ways to differentiate the new from the existing without introducing elements and parts that drastically change historic character. The author asks "why should a historic place not continue to evolve as it always has in the past, without the introduction of intentionally alienating forms? Why can't the construction history be documented by simply carving the date over the entrance or adding a bronze plaque explaining what parts of the building where built at different times?" (Semes 2008: 5). In fact, one may argue that the date of construction or the bronze plaque could be a form of "close inspection," which is a position put forth, for example, in the 1983 Appleton Charter (p.6) and the 1999 Burra Charter (Article 20.2), which were reviewed in **Section I**, as well as in the 2010 Canadian Standards and Guidelines (Standard n°9), which is reviewed in **Section III**.

Although many sources of literature associate contrast to the contemporary response/approach, contemporary does not equal contrast, because "new traditional design is now an undeniable fact of contemporary practice" (Semes 2008: 5). In other words, reproduction/reconstruction, reinterpretation and contrast are all contemporary architecture. In the end, the debate as to which option is the best is a matter of opinion, which changes from one location to another, from one historical moment to the next and which is subject to a number of influences and constraints.

Figure 5: Contrast (source: researcher, 2011-07-14). This is Stewart Museum, the Arsenal of the Fort Île Sainte-Hélène in Montreal. Éric Gauthier and André Lavoie designed the glass tower (addition), which was completed in 2011.

2.2.3. Determining the Best Response

An architectural outcome will not necessarily receive the same appreciation, because the success of each design option in achieving compatibility depends on human perceptions, which evolve. For example, Loew explains that Worskett (an architect) and Brolin have different opinions about the Royal College of Physicians in Regents Park, London. The first sees the building as a successful example of new meets old, because he was writing in 1969 when modern architecture was praised. The other believes the opposite, as he was writing in 1980 when post-modern thinking, which was somewhat the return of contextual design, was influential (Loew 1998: 80).

Additionally, some architectural critics acknowledge their bias when it comes to pointing out which building fits into its context and which one does not. For instance, Brolin affirms that his analysis of the case studies, which were selected to write his book, is "of course subjective" (Brolin 1980: 6). The author mentions the example of the 1977 conference sponsored by the National Trust for Historic Preservation, the Society of Architectural Historians and the Washington Chapter of the American Institute of Architects on fitting new architecture in historic places, where slides of

interventions were shown.[12] As expected, the audience could not agree which examples of compatibility were good, because opinions on what constitutes an appropriate response are diverse and subjective (Brolin 1980: 6).

For this reason, Tyler et al. affirm that "any discussion of contextual design," which also means compatible design, "must acknowledge the subjectivity of the issue" (Tyler et al. 2009: 111). For instance, a tourist may find the Guggenheim Museum a good example of compatible architecture while another tourist, who is implicated in the same discussion, may disagree. The same can be said about all the examples that were discussed or illustrated in subsection 2.2.2. of **Chapter II: Literature Review**. If judgment is only based on visual appearance, then compatibility, like beauty, is in the eye of the beholder. Nevertheless, subsection 2.2.1. of **Chapter II: Literature Review** has shown that compatibility is not limited to what the human eye can see. This is why the evaluators of project proposals, unlike tourists, have a big responsibility: they should not judge a building exclusively by its cover.

The decision as to which option is the best, furthermore, depends, to a large extent, on the perceptions, skills and sensitivity of applicants, particularly designers, towards existing fabric and values. For this reason, Fitch argues that design is "a matter of discretion and good taste" (Fitch 1982: 80). Edwards, an architectural critic and town planner, links "good taste" to a building that expresses the "urbane spirit" of its context, whereas bad taste, or what he refers to as "bad manners in architecture," is a building that ignores its context and reduces its significance (Edwards 1946: 121 and 175). Warren clarifies that the "reduction or enhancement" of significance "lies within the power of the designer" whose "constraint" is his/her "own sense of responsibility, respect for the established character of the environment and attitude to change" (Warren 1998: 11). The responsibility also lies within *"la détermination d'un maire […], d'un urbaniste ou d'un administrateur du patrimoine"* who can change the destiny of historic areas (Choay 2007: 158). The fact that heritage has become *"directement ou non, une part croissante du budget et du revenu des nations"* may also affect the nature and the scale of development in historic areas (Choay 2007: 169). One may add the interests,

[12] The proceedings of which were published in 1980 in Old and New Architecture: Design Relationship. This book is one of the sources of literature consulted in **Section II** of **Chapter II: Literature Review**.

vision and (in)sensitivity of the client/project owner as well as the cost of the new building, which also restrict the designer and influence his/her choice of a design option or choice of variation within an option (e.g. degree of contrast).

To prevent the opinion of one authority figure or one evaluator or one designer from overriding the conservation of historic areas, Brolin suggests involving and consulting the public, because, in his opinion, the professional's "view is all too often distorted by the demands of ego" and "non-architects generally have better judgment than do professionals when it comes to fitting new buildings with old" (Brolin 1981 - online article). Accordingly, the decision concerning "good taste" or compatible architecture should emanate from a collective discussion among authorities, designers, evaluators, project owners, owners of historic properties and communities.

Unlike the documents reviewed in **Section I**, which generally promote reinterpretation or contrast over reproduction/reconstruction, the analysis of scholarly publications in **Section II** shows that any design option can be the best response, from a conservation point of view, in so far as the architectural outcome results from the complete understanding of context. For this reason, Wells-Thorpe explains that "there is no one approach […] the correct response depends on the circumstances" of the place (Wells-Thorpe 1998: 113). In other words, each design challenge must be addressed on a case-by-case basis to select the "correct response." In relation to this argument, Cavaglieri suggests adopting a traditional/imitative approach if the historic place has a unified style, but if it has buildings with many heights and forms then the designer should probably use a different approach (Cavaglieri 1980: 42). The "Management Guidelines for World Cultural Heritage Sites," moreover, stress that it is not only the history and physical components of the place that must be understood, but also its traditions, cultural values, functions, current degree of integrity and constraints (Feilden and Jokilehto 1996: 82-94).

Smith concludes that "we cannot judge the new until we have understood the old" (Smith 2010: 51). Once the old has been studied and the constraints that face the designer have been acknowledged, the new can be determined and may vary from reproducing architectural forms and qualities, through reinterpreting those in a new manner, to using a new design concept and architectural language. Semes emphasizes

that "none of [these options] can be considered normative, nor can any be considered a falsification," because each one has the potential to preserve historic character and to respond to the local building culture (Semes 2009: 171). For this reason, none of them should be ruled out.

As a final note, one may argue that these options are conservation treatments, because the challenge of adding a new building to a historic urban environment while conserving its heritage values requires the same reflection as that of conserving an existing historic building and its values by the means of preservation, rehabilitation, restoration or a combination of these processes. Reproduction/reconstruction, reinterpretation and contrast, therefore, define a range of conservation treatments that should be considered in every project. It is the understanding of the place of intervention that should help determine the principal treatment that can best relate the new to the old. In this relationship, compatibility is more important than distinction.

2.2.4. Concept of Distinction

The term "distinct," as explained in the dictionary, comes from the Latin "*distinctus*," which means "to divide off" or "pick out" or "distinguish." It appears in the literature reviewed in **Section I** as well as in the three design options described in **Section II**. Accordingly, a new building must not only relate to its context but must also be distinguishable. Distinction, as a conservation principle, can be traced back to John Ruskin in the nineteenth century, given that he condemned the imitation of earlier forms (view subsection 2.2.2.1. of **Chapter II: Literature Review**).

Stovel explains that this principle is important for "legibility" purposes; yet, in his opinion, it could be achieved "in very modest ways, and need not mar or affect overall aesthetic coherence in strongly visible fashion" (Stovel 1991: 29-Section D). The author adds that contemporary design means to use "modern approaches to fenestration, layout and manipulation of forms," but it is not necessary to replace traditional materials with, for example, plastic, because "all traditional materials are still in use and may therefore be regarded as modern materials" (Stovel 1991: 29-Section D).

Put differently, distinction should not be limited to the use of a divergent architectural style nor to the use of alternatives to traditional materials.

For the above reason, the Historic Preservation League of Oregon (HPLO) has recently disagreed with Standard n°9 of the "Secretary of the Interior's Standards for the Treatment of Historic Properties" in its 2011 report on "Compatible Infill Design," which is applicable to new buildings. HPLO highlights that "style is discouraged from being the primary indicator of differentiation" and suggests working with "mechanical systems, construction methods, and signage" instead (Joslin et al. 2011: 9). Semes clarifies that if a new building is not "readily distinguishable by the public at large, interpretive materials should clarify the construction history of the site rather than expecting it to be self-evident from appearance alone" (Semes 2009: 170). Hence, distinction is not necessarily associated with the appearance of a new building in relation to historic ones. To avoid ambiguity, one may argue that regulators and policy-makers, whether they use preservation criteria or alternatives to criteria, should explain the meaning of distinction and how it might be achieved if they choose to incorporate this concept into their policies.

2.2.5. Appraising Project Proposals

2.2.5.1. Criteria versus No Criteria

The appropriateness and effectiveness of preservation rules in guiding the design and assessment of new construction are discussed in literature from multiple points of views. First of all, rules have different names. They are referred to as "regulations" (Loew 1998: 39), "design guidelines" (Carlhian 1980: 52), "design criteria" (Brolin 1980: 4), "design control criteria" (Wilson 1980:151), "preservation criteria" (Lu 1980: 187) or simply "criteria" (Bonnette 2001: 135). Many authors use these words interchangeably to avoid repetitions. For example, Lu, an urban planner and designer, replaces "regulations" and "preservation criteria" with "criteria" (Lu 1980: 187 and 199). Additionally, rules come in many forms. Stovel explains that "some are heavily illustrated; some rely entirely on words. Some are 'prescriptive,' defining desired results in precise terms; others are 'interpretive,' establishing a range within which acceptable

solutions may be found" (Stovel 1991: 27-Section D). He adds that rules are derived from principles, which "form the body of accepted wisdom defining appropriate means to respect defined values." Once principles "are translated into specific and measurable targets, they are described as standards" (Stovel 1991: 23-Section D). Put simply, standards are "prescriptive" criteria whereas design guidelines are "descriptive" (interpretive and non-prescriptive) criteria (Joslin et al. 2011: 4 and 6).

Some authors are convinced that criteria, in general, are essential to successfully insert architectural interventions in historic urban environments. For example, Feilden (a conservation architect) and Jokilehto argue that rules must control height and materials as well as cables, electric wires, signs and publicity panels (Feilden and Jokilehto 1996: 24-25). Bennett, the former director of policy at the National Historic Sites Directorate in Parks Canada, moreover, stresses that "we need strict rules and guidelines for developers or we are at the mercy of interpreters and consultants who have no points of reference" (Bennett 2006: 78). His argument suggests that rules provide a common ground, which is necessary to avoid arbitrary decisions. The author explains that some architects dislike rules, because they would argue that they are "an obstacle or impediment to creativity" (Bennett 2006: 53). HPLO shares Bennett's argument, to some extent, and states that "the most certain and equitable path to a desired design result is regulation;" nevertheless, rules "are most successful when combined with added rights and incentives," such as "advice, honorary awards programs, relaxing of certain zoning restrictions, and financial incentives" (Joslin et al. 2011: 6). Also, HPLO judges that rules must be "clear and illustrative" to "assist in the design and review" of new projects (Spencer-Hartle 2010: 11).

Other authors/sources highlight the limitations of criteria. For example, Lu recognizes that "without preservation criteria, the design relationship between old and new architecture is not defined; thus, there is no assurance that the new will not disrupt the old" (Lu 1980: 187). The author adds that criteria should be explicit and focus not only on the architectural aspects of a historic place in terms of materials, colors, scale, rhythm and other visual elements, but also on land use, setbacks, density, floor areas, signs, subdivisions and street plans. On the other hand, Lu confirms that criteria, alone, "will not assure fine design," because it is up to the designer to use criteria "creatively"

(Lu 1980: 190). For this reason, she disagrees with Bennett's idea of strict rules, because, in her opinion, "rigid regulations are relatively useless;" rules "should be as flexible as possible" (Lu 1980: 199). Carlhian, moreover, admits that criteria "can be useful as guides for architects and guideposts for design review board members whose task is to evaluate the appropriateness of the solutions presented," but they "can never substitute for the exercise of judgment by the architect" (Carlhian 1980: 52). Alderson, an architectural conservator and policy-maker, agrees with Carlhian's point of view and adds that criteria "cannot […] prevent out-of-scale development" and they "cannot make a less-creative architect more creative or be counted on to bring about outstanding design solutions" (Alderson 2006: 24 and 26). For these reasons, criteria function best as a reminder list, but they cannot guarantee good, or prevent bad, design.

Architects, for the most part, disapprove of criteria. For instance, Wells-Thorpe writes that "the success of the outcome depends upon the perceptions and sensitivity of the designer, which cannot be regulated" (Wells-Thorpe 1998: 102). Wilson explains that "no simple formulas […] can assure good design" and adds that criteria "stifle" creativity, which has led to the "picturesque diversity of style and character so much admired in European towns" (Wilson 1980: 151). His argument counteracts that of Bennett, cited above (Bennett 2006: 53). Stovel shares, to some extent, the same opinion as Wilson, because strict rules "may impose an unnatural homogeneity on historic districts characterized by diversity of expression" (Stovel 1991: 2-Section D). For this reason, the management guide that the author created to safeguard historic places does not "provide formula answers," instead, it encourages understanding "the relation between the choice of an appropriate approach and the applicable characteristics of its context" (Stovel 1991: 2-Section A). Warren, an architect and conservator, also argues that if rules were to be created to assist the assessment of project proposals they must permit "invention and creativity" (Warren 1998: 16). Hence, he believes rules should be non-prescriptive.

Although some policies use criteria as a checklist, this evaluation procedure is not looked upon favorably. For instance, Goldberger explains that architects "could just take one from column A and one from column B" (Goldberger 1980: 258). The author also argues that "there are no formulas or simple guidelines" that can magically produce

compatible architectural outcomes, because if there were, there would be no need for the debate, since they would have been found by now. More specifically, Goldberger stresses that "the making of architecture is never the following or the breaking of rules," because it is a "creative process that transcends such quantifiable things" (Goldberger 1980: 258). He concludes with "only a trained eye can know whether materials are most important in one case, scale in another, roofline in another […]" (Goldberger 1980: 265). Checklists,[13] therefore, cannot replace judgment.

Some authors question the effectiveness of criteria in guiding judgment. Cavaglieri argues that "it is difficult, perhaps impossible, to establish guidelines to judge what is suitable or unsuitable to historic surroundings" (Cavaglieri 1980: 48). Brolin asserts that sometimes buildings fulfill many criteria but still do not fit well, whereas others ignore some important ones, such as the criterion of height, yet somehow they succeed (Brolin 1980: 4). The author clarifies that "there are many variables […] to assume that a good fit will be guaranteed if only designers will follow a set of rigid design criteria" (Brolin 1980: 4); yet, he ends his book with the following affirmation: "you must convey what your criteria are for fitting new architecture with old" (Brolin 1980: 151). This train of thought might imply that decision-makers should follow specific criteria for the specific site in question or follow non-prescriptive criteria that would allow them to exercise their judgment when they design, or review the proposal of, a new building regardless of its location.

Other architects see criteria from a different perspective and argue that it is not whether criteria are effective or not but rather whether the issue that they are addressing is appropriate or not. Smith, for example, states that rules often focus on visual elements when the focus should be on cultural ones, because a historic place is "experienced from within, not observed from without" (Smith 2006: 70) and "it must be experienced […] within the cultural framework of those who have created it" (Smith 2010: 46). He argues that assessors can control interventions with "criteria pertaining to height, form, material and style" as long as these criteria reflect the realities of local inhabitants. He

[13] For example, the 2005 "Design in Context: Guidelines for Infill Development in the Historic Environment," which is an Australian policy, uses a checklist system to guide design and assessment. This policy is analysed in **Section III** of **Chapter II: Literature Review**.

gives the example of a tower (i.e. the criterion of height) and explains that if it "symbolizes a source of employment in an economically depressed and secularized town […] then it may be acceptable," which means appropriate, thus, compatible (Smith 2010: 51). Accordingly, the tower would be an example of harmonic/sympathetic contrast (view subsection 2.2.2.3. of **Chapter II: Literature Review**). The author's point of view suggests that a new building should be evaluated in terms of its meaning as perceived by local communities rather than simply in terms of its appearance.

By shifting the emphasis to culture, Smith is implying that criteria should be created in a local framework, which is an opinion shared by many authors. For instance, Loew explains that regulations must be developed locally and must "insist on the obligation to understand analysis rather than try to define particular rules to be followed" (Loew 1998: 39). The author clarifies that each case is different; therefore, "each case needs to be considered on its own merit" (Loew 1998: 80-81). He later adds that "motherhood statements" such as "there shall be a high standard of design" without explaining the meaning of "high standard" are ineffective (Loew 1998: 220). Soule, also, defends the idea of context when he states that guidelines should "be grounded in the locality, not imported from some other city" (Soule 2006: 141). Sinkfield shares the same point of view and elaborates on the idea of context. He argues that an "architectural character that has historically developed in response to the climate, natural setting and available building materials in the region can provide a useful model for establishing the overall architectural guidelines" (Sinkfield 2007: 12). The author stresses the importance of urban determinants when designing and evaluating an intervention; however, he excludes man-made determinants, which are equally important, as explained earlier in **Section II**.

Additionally, some authors question whether zoning criteria can effectively control the design and placement of new development. For clarification, zoning is a planning tool that divides a city (or a community) into a set of zones (or districts) in which land-uses are either allowed or prohibited (Burdette 2004: 5). It also addresses density, setbacks, floor areas, building heights, bulk, open spaces, light, noise and air (Sabbagh 1990: 34). Emerson, a practicing lawyer, argues that zoning is so pervasive that it is hard to imagine new buildings being constructed without it and adds that it is

usually governed by politics (Emerson 2007: 17). In fact, many authors assert that anyone can buy with money any kind of zoning he/she wants; hence, zoning criteria can be easily bent and negotiated. This explains why they are unsuccessful in shaping friendly relationships between existing fabric and new development (Haar and Kayden eds. 1989: 83; Babcock 1966: 123). Furthermore, it is hard to apply zoning over a historic place that grew organically and spontaneously. For this reason, Elliott, a practicing land-use and real estate consultant, suggests creating a special zoning ordinance with a list of specific criteria to manage new development in historic places, which he calls "special purpose districts" (Elliott 2008: 147). Smith, however, argues that "community-based design and planning" tends to be more successful in guiding values-based decision-making than zoning (Smith 2007: 71).

Criteria raise a number of other concerns. For example, Fulton, the former director of historical services at Parks Canada, questions the success of criteria in balancing "the tensions between development and conservation" and in restraining "huge architectural and financial ambition" (Fulton 2006: 4). Bumbaru, the policy director of Heritage Montreal, adds the issue of quantity. He explains that "too many guidelines is worse than not having any guidelines at all" (Bumbaru 2006: 76). The author adds that guidelines in different documents, for example in the Charters and Recommendations that were reviewed in **Section I**, can be used against each other. Hence, the debate on the effectiveness and appropriateness of criteria is endless.

In light of these various points of views, one may conclude that preservation rules/criteria can set benchmarks for applicants who seek predictability in decision-making and want to ensure that their project proposals will meet the expectations of evaluators. Nevertheless, the limitations of criteria seem to outweigh their strengths when dealing with the design and assessment of new construction. Put differently, criteria, alone, cannot achieve the goal of compatible buildings. Prescriptive ones (i.e. standards), in particular, may limit the opportunity to design creative yet thoughtful responses. In fact, if existing regulatory tools were appropriate and effective, there would be no need to adopt another UNESCO Recommendation to deal with architectural interventions or to encourage the making of new policies.

2.2.5.2. Fundamental Considerations in Policy-Making

2.2.5.2.1. General Contents

In general, literature shows that policies should encourage design variants. Ferebee, an urban designer, explains that "new architecture is not always designed with sensitivity to the existing environment. One issue is the seeming lack of alternatives" (Ferebee 1980: 267). On the one hand, the design of different variations for the same project challenges the creativity of the architect and forces him/her to look at different options (e.g. reproduction/reconstruction, reinterpretation and contrast). On the other hand, the assessment of different variations allows the design review committee to conduct a comparative analysis and to select the one that has the least negative effects and the most positive ones. In fact, Brolin argues that variants were put into practice a long time ago. He gives the example of Michelangelo who "went so far as to offer a choice of five different façades to one client" (Brolin 1981 - online article).

Additionally, a requirement on documentation should be included in policies for at least two reasons. Stovel explains that documentation permits "the identification of values to be maintained," afterwards "development options" (i.e. design options) can "be measured against these" (Stovel 1991: 7-Section D). Feilden and Jokilehto add that a historic place must be documented before, during and after any intervention work to keep a record of the place for future consultation and to monitor change (Feilden and Jokilehto 1996: 24).

As for language, Kerr, a policy-maker, emphasizes that a policy should be easy to read, not too long, and have "flexibility rather than standardization, […] relevance rather than bulk" and should avoid "density, complexity, fragmentation and esoteric jargon" (Kerr 2008: 323). Rodwell adds that it should be "consistent" (Rodwell 2007: 91). Cole, from English Heritage, too, affirms that "it is essential to agree on a clear […] terminology" (Cole 2008: 77). Macdonald, furthermore, stresses that policies or guidance in general, should be "objective" to secure "certainty […] consistency […] communication and consultation between government decision makers and the development sector on creating successful outcomes" (Macdonald 2011: 13). HPLO, also, states that rules must "employ simple understandable language, including

definitions and explanations" along with a description of "community goals" and "district-specific photographic examples from both the past and the present" for illustration purposes (Joslin et al. 2011: 2). Some authors, moreover, suggest involving and consulting the public in the identification of criteria, if those are deemed necessary to relate the new to the old (Stovel 1991: 10-Section B; Feilden and Jokilehto 1996: 96).

Principles or policy statements must be clearly mentioned to provide a context for the suggested guidance (e.g. criteria). Clark, former Head of the Historic Environment Management at English Heritage, explains that understanding the place of intervention, good stewardship, impact assessment, interdisciplinary collaboration, community involvement and monitoring are important principles (Clark 2008: 93). A statement of significance (SOS) is a tool that is frequently used to apply the first principle.

2.2.5.2.2. Statement of Significance (SOS)

The conservation and management of historic places are based on a detailed analysis of their significance (Feilden and Jokilehto 1996: 1). For this reason, Pinkerton, an international coordinator at Parks Canada, explains that "understanding the significance of a place is the key concept in developing an effective conservation and/or management plan" (Pinkerton 2008: 56). This understanding also helps develop policies, since management plans inform policy-making. The author adds that for World Heritage Sites, the concept of SOS was first introduced in the mid 1990s in the Operational Guidelines for the Implementation of the World Heritage Convention. The terminology changed between 2000 and 2005. Rather than being called "a statement of significance," it became "statement of World Heritage Values" and then "statement of Outstanding Universal Value." The current Operational Guidelines embrace the last terminology (Operational Guidelines for the Implementation of the World Heritage Convention 2012: 155).

The Canadian Register of Historic Places provides three steps for using this tool, which are to describe the historic place, to identify its heritage values and then to list the character-defining elements in which these values are embedded (Canadian Register of

Historic Places 2006). Mason, an associate professor in historic preservation, adds that the link between "physical resources" (e.g. character-defining elements) and heritage values needs to be explicit to facilitate the monitoring of how values are affected by new interventions. Hence, the author suggests mapping values onto the place and to clearly associate each resource with its value (Mason 2008: 120). Stovel explains that this mapping process is called "heritage zoning," which in historic districts is usually translated into zones of "great value-don't touch, of moderate value-touch with care, of no value-disregard or replace, as required" (Stovel 1991: 9-Section D). The author adds that to be effective, the assessment of significance "usually requires consensus within a community concerning values in question" (Stovel 1991: 19-Section D).

Some experts, however, argue that a SOS, alone, is not enough for integrating value assessments and for implementing them in the design and evaluation of, for example, new buildings. According to Gersovitz, a SOS should be followed by another statement "of how the proposed project changes, enhances, supports, damages the heritage character [and] when there are harmful results then the project should not go forward, without modification" (Gersovitz 2006: 65). Environmental impact assessment (EIA) is a tool that can help write this additional statement.

2.2.5.2.3. Environmental Impact Assessment (EIA)

EIA can be a tool, a methodology or a regulatory requirement (Noble 2006: 2). It was first introduced in the United States in the National Environmental Policy Act (NEPA) in 1969-1970 (Noble 2006: 10). In fact, the expression EIA is derived from NEPA (Noble 2006: 6). It was developed in response to the expanding industrial economy and environmental change witnessed in North America and Western Europe in the 1960s. On an international basis, EIA had been in use since the 1970s. Canada, for example, introduced it in 1973, but it was not formally legislated until 1995 (Noble 2006: 10).

The objectives of EIA are to identify, predict, evaluate and mitigate environmental effects. This process should precede and escort the decision on final design and construction. Although not every project requires an EIA study, it is advised

to conduct one if the project is proposed in a historic place (The Landscape Institute with the Institute of Environmental Management and Assessment 2002: 10). In general, Heritage Impact Assessment (HIA) is more useful than EIA in detecting and minimizing potential adverse impacts on "Outstanding Universal Value" (Guidance on Heritage Impact Assessments for Cultural World Heritage Properties 2010). It is also recommended to design and assess many variants for the same project with a view to selecting the variant that has the least negative impacts and the most positive ones.

In theory, impact assessment means the process, while the changes caused by a development are the effects; in practice, however, impacts and effects are used synonymously (The Landscape Institute with the Institute of Environmental Management and Assessment 2002: 3). Still, Noble, a professor of geography, draws a distinction between the two terminologies.[14] He clarifies that an effect is a measurable change that evolves, such as soil erosion, which then creates an impact. The latter is a judgement of value that describes the relative significance of the effect (Noble 2006: 29). Put differently, an effect is a scientific fact, whereas an impact is a qualitative statement. EIA, therefore, is both objective (i.e. proven cause effect relationship) and subjective (i.e. based on professional opinion). Impacts can be biophysical (e.g. air, soil, water), human (e.g. economic, demographic, social, cultural) or visual.

EIA is composed of eight chronological steps (Noble 2006: 68-142). Noble explains that it is usually the developer who is responsible for conducting them. The first step is screening, which identifies whether a proposed project requires an EIA study. The decision is based on the scale of the project and the importance of the site (e.g. if it is a historic place). Scoping determines the issues that should be addressed in the study. Project description explains the proposed project and its design variants, including the objectives of each one. The fourth step is baseline studies. It should provide a description of the site on top of which the proposed project will be constructed. The description of character-defining elements as well as historic and cultural associations should be included and can be supplemented with land-use maps and other historic or photographic data.

[14] For simplification, however, impacts and effects will be used synonymously in this doctoral thesis.

Afterwards, the actual assessment begins. Effects must be identified in terms of their nature (i.e. adverse, positive, direct, indirect, cumulative), duration (i.e. permanent, short-term), magnitude (i.e. size), direction (i.e. increasing, decreasing), spatial extent (i.e. on-site, off-site), degree of reversibility (i.e. reversible, irreversible), probability (i.e. likelihood to occur, uncertainty) and significance (i.e. local, regional or national). Mitigation is the sixth step, which specifically deals with adverse effects. This is when the discussion on how to avoid or minimize unwanted effects occurs.

Subsequently, findings must be presented to decision-makers. The presentation involves written text and images, including checklists, matrices, diagrams and GIS overlays. The method of presentation should depend on the purpose of the assessment. For example, photomontages and other forms of visualization, such as 3D modeling, are recommended for landscape and visual impact assessments (The Landscape Institute with the Institute of Environmental Management and Assessment 2002: 91).

The final step is follow-up during the construction phase of the project. It prevents negative effects from actually occurring and includes three steps: monitoring, auditing and ex-post evaluation. Monitoring means observing, measuring and recording for a period of time. Its objective is to detect if a change in earlier predictions has occurred. Auditing involves the comparison between the findings (from monitoring) and earlier predictions. Ex-post evaluation means gathering, organizing and evaluating the impacts that did happen. Remedies must then be found to cope with these impacts.

As a final note, EIA is not easily implemented, because it is often seen as a cost on economic interests. Some governments and professionals ignore the fact that the cost of dealing with unforeseen adverse effects after construction is higher than the one of environmental protection prior to construction (Herington 1988: 141). Put differently, they ignore the fact that the savings resulting from the prevention of adverse effects will eventually compensate for the short-term cost of the EIA study. Hence, to effectively embed EIA in policies, local government must see economic gain and environmental protection as one activity. Some existing policies that deal with new construction in established contexts have already embraced the concept of EIA, although they do not explicitly refer to its various steps.

2.3. SECTION III: Policies: Strengths and Limitations

2.3.1. United States

2.3.1.1. NPS-28: Cultural Resource Management Guideline – Chapter 8: Management of Historic and Prehistoric Structures, 1998

"Chapter 8: Management of Historic and Prehistoric Structures of the National Park Service (NPS): Cultural Resource Management Guideline" is the most relevant chapter of the American policy, although it is not specific to the design and assessment of new buildings. The policy, created in 1978, conforms to the "Secretary of the Interior's Standards for the Treatment of Historic Properties," which were partially discussed in **Section II**. It addresses historic structures, defined as "constructed work…consciously created to serve some human activity" (p.1), and provides guidance to cope with two concerns: the decrease of the rate of material loss and the maintenance of historic character. It contains three sections on research, planning and stewardship, which are the three consecutive ways for coping with the identified concerns.

Research "defines historical associations, integrity, character, and the causes of material deterioration" (p.1). The policy argues that research is "an ideal foundation for preservation work" (p. 6), because it proves that applicants understand the significance of a structure, including its "historical, aesthetic, technical, or scientific associations" (p.2) as well as its nature, performance, materials and systems (p.1). Research, therefore, provides the knowledge needed to adequately address management objectives and to select a treatment and use for the structure under study. Findings must be communicated in a historic structure report (HSR) that comprises three parts on developmental history, treatment and use and, finally, record of treatment (p.3-4). The policy stresses that "in no case should restoration, reconstruction, or extensive rehabilitation of any structure be undertaken without an approved HSR, Parts 1 and 2" (p.3). Part 1 should describe the people and events associated with the structure as well as its construction, modification, use, features, materials, spaces, significance and condition. Part 2 should justify the proposed treatment and use. Issues of environmental

impacts, human safety, fire protection, energy conservation, hazardous materials and accessibility must be included.

Ultimately, the purpose of an HSR is to "minimize loss of character-defining features and materials" and to encourage the "documentation" of the historic structure in order to "aid in interpretation […] and serve as an objective reference for repair or reconstruction in the event of damage or loss" (p.5-6). Here, reconstruction is not ruled out per se, but it is technically only permissible under special circumstances. Also, one may argue that the process of conducting Parts 1 and 2 of an HSR on the scale of historic urban environments, rather than on that of individual historic structures as suggested in the policy, can inform the design of new buildings and the selection of options/treatments (i.e. reproduction/reconstruction, reinterpretation or contrast), which were reviewed in **Section II**.

Planning "develops and evaluates proposals for use and treatment in terms of their likely effects" (p.1). There are four treatments that involve one or more actions, which are the preservation of existing materials, the replication of missing historic features, the addition of non-historic features and, finally, the removal of existing features and materials (p.6). The selection of a treatment is a decision that must "reflect the value" of the structure and the "knowledge of craft techniques and building materials" (p.6).

The policy explains that a "closely" related "concern" in planning is the "compatibility of new and old development" (p.6). It states that "new additions or development" should "complement the [adjacent] structures' visual and physical characteristics. […] A new structure or addition will be compatible if it maintains the overall pattern of development in the area and is visually unobtrusive in terms of scale, texture, and continuity of architectural style or tradition" (p.9). The policy, moreover, advocates the use of similar "proportions," "height," "width," "materials" and "color;" yet, it emphasizes that if "a new structure is a reconstruction, it should not duplicate or mimic a historic structure" in order for it to be compatible (p.9). Reconstruction, however, is defined in the policy as a new structure that is "identical in form, features, and details to a historic structure that no longer exists" (p.7) and one that "re-creates the appearance of the non-surviving structure in design, color, texture, and, where possible,

materials" (p.14). The policy's position on reconstruction, therefore, is confusing, because it is impossible to be "identical" to a historic structure and to "re-create" its "appearance" when it is not allowed to "duplicate or mimic" its design. Also, though reconstruction should be "clearly identified as a contemporary re-creation" (p.14), it is unclear where the distinction between the original and the new work should happen.

Finally, stewardship "entails activities ranging from craft training to the identification and mitigation of threats" (p.1). This step is mainly about the monitoring of deterioration or structural failure, the protection of the structure from adverse effects and the development of skills, knowledge and practices needed to support the conservation work (p.10).

In general, the policy contributes to the process of understanding a historic place through research and to the discussion on conservation treatments. It employs positive language to engage applicants in weighing the pros and cons of each treatment before making a design development decision. Nevertheless, its definition of compatibility focuses entirely on tangible attributes and exposes the contradiction in the definition of reconstruction.

2.3.2. England

2.3.2.1. Building in Context: New Development in Historic Areas, 2001

"Building in Context: New Development in Historic Areas," created in 2001 by the Commission for Architecture and the Built Environment (CABE) and English Heritage (EH), guides the insertion of new buildings in valued contexts in England. The policy contains five main sections on the need for advice, the right approach, the case studies and the appraisal of proposals. Its main purpose is to "stimulate a high standard of design when development takes place in historically sensitive contexts" (p.3). Moreover, it emphasizes that the issue of new construction in these contexts is not primarily a question of selecting a design option, but rather of achieving an intervention "of quality" (p.2). The policy describes "the right approach" to design (p. 3) and provides fifteen case studies that show how this approach can be applied. Each case explains the project, the site, the challenges, the solutions and the lessons learned.

Sir Neil Cossons, Chairman of EH, and Sir Stuart Lipton, Chairman of CABE, assert that the case studies "are not all perfect. But they do represent the kind of intelligent and imaginative approach that can enrich historic environments" (p. 3). This approach, they argue, is the only lesson "of universal application" (p.36). In essence, the lesson is that the success of a design depends on the understanding of the context. The authors add that "as soon as the application of a simple formula is attempted a project is likely to fail, whether that formula consists of 'fitting in' or 'contrasting the new with the old'" (p.5). Here, one may argue that "contrasting the new with the old" is, in fact, a way of "fitting in" given that contrast is one of the design options associated with contextualism or contextualization, as explained in **Section II**. The policy also stresses that each design challenge should be dealt with on a case-by-case basis, because the way of achieving compatibility (or success according to CABE and EH) varies from one project to another (p.5).

As a result, there are no rules, but rather recommendations. These are: relate the project to geography, history and land, work with existing patterns of development, respect important views and the scale of surrounding buildings, use high quality materials and building methods and, finally, create new views and juxtapositions to add variety and texture to the setting (p.5). Nevertheless, these recommendations pertain mostly to visual attributes; hence, it seems that "context" in the policy means physical context. **Section II** has shown that the retention of visual continuity is not enough.

Conversation during design and assessment processes, furthermore, is encouraged, because "the best buildings arise from a creative dialogue between the planning authority, the client, the architect and the other key professionals involved" (p. 5). After this dialogue, the approval of a project proposal will be a subjective decision and a matter of opinion, since "people often disagree about what they like" (p.37). Put differently, the policy is implying that assessment is ultimately about liking or disliking a proposal. To cope with subjectivity, a point that was discussed in **Section II**, the policy suggests asking questions, for example, about urban relationship, density, impacts, views, materials, originality, contribution and harmony (p.37). However, it is unclear how questions can be incorporated into the assessment process and who would oversee the resulting discussions.

On the one hand, conciseness, simple and positive language, structured information, clear explanations, visual illustrations and dialogue constitute the strengths of the policy. On the other hand, the lack of a clear definition of compatibility/harmony as well as the lack of reference to heritage values and building cultures highlight its weaknesses. Furthermore, though it is mentioned that "English Heritage and CABE are asked to advise on many development proposals in historic areas" (p.3), the policy does not explain how these advisory bodies communicate their opinions to local planning authorities and how approval is granted. Such information can add to the understanding of the implementation phase and provide contextual information to the reader.

2.3.2.2. Guidance on Tall Buildings, 2007

"Guidance on Tall Buildings," written by CABE and EH, directs the insertion of high-rise construction in urban areas, which are not necessarily historic. Its main purpose is to help local planning authorities evaluate applications for tall buildings. The first "Guidance on Tall Buildings" was published in 2003. After receiving public consultation in January of 2007, it was published again in July of 2007. The policy is short and consists of six sections on the evaluation of tall building proposals, the planning policy, the planning applications, the evaluation criteria, the protection of design quality and, finally, the consultation with CABE and EH. Tall buildings are "considered as pieces of architecture in their own right, and as pieces of urban design sitting within a wider context" (p.2). They are interventions that are substantially taller than their neighbors and/or ones that significantly change the skyline (p.5). They must conform to existing local planning policies and must have "excellent architectural quality" and be "designed in full cognisance of […] likely impact on the immediate surroundings and the wider environment" (p.3).

The policy affirms that the main issue with high-rise development is the determination of an appropriate location and only a thorough urban design analysis can determine what is a suitable site. On the one hand, if tall buildings are "unsuitably sited, poorly designed and detailed, badly built or incompetently managed" (p.2) they can damage the qualities of the place. On the other hand, if they are built in the right

location, they "can make positive contributions to city life" by, for example, stimulating new investment (p.2). For these reasons, the policy explains to local planning authorities how to identify appropriate locations for tall buildings in their development plans.

Planning authorities are requested to engage local communities, to follow national and regional planning policies as well as to learn about the local environment (p.3). It is also recommended to apply sustainable design strategies, to identify urban constraints and opportunities, to consider the historic context of the wider urban area and to conduct a character appraisal of the immediate context including its "natural topography, urban grain, significant views of skylines, scale and height, streetscape, landmark buildings and […] their settings" (p.3). Afterwards, all data must be transported onto a map-based form where areas that are appropriate and inappropriate for tall buildings are clearly indicated. The policy points out that "in some places, historic environment considerations may be of such significance that no tall buildings will be appropriate" (p.3), suggesting that high-rise proposals in such environments will most likely be rejected. Hence, to mention in development plans that tall buildings in valued historic areas are undesirable will reduce "the scope of […] applications in the wrong places" (p.3), which will also reduce the scope of the assessment phase.

In terms of planning applications, the policy suggests that the greater the impact, scale and complexity of a tall building, the more detailed and comprehensive the proposal needs to be. Representational material, moreover, is required for all applications "to assess the architectural quality of a tall building or its effect on the immediate and wider context" (p.4). It is up to local planning authorities to indicate what visual material is required during pre-application discussions with applicants. In general, a representation showing the appearance of the building and all affected views is compulsory. A formal EIA study can be requested (p.4).

In terms of evaluation, the policy sets out some criteria, which are not listed in any order of importance, because their "relative importance will depend on the circumstances of the site and the project" (p.5). Applicants seeking planning permission for tall buildings must address eleven criteria on the relationship to context, effect on the historic context, effect on World Heritage sites, relationship to transport infrastructure, architectural quality of the tall building proposal, sustainable design and

construction, credibility of the design, contribution to public space and facilities, effect on the local environment, contribution made to the permeability of the site and the wider area and, finally, the provision of a well-designed environment (p.5 and 6). Additionally, applicants must address other issues, such as access and public safety. It seems that the design and assessment of tall buildings are mainly about respecting views and working with tangible attributes, such as scale, height and streetscape (p. 5).

In essence, the policy is about place making for tall buildings. Its value resides in its conciseness and recommendations to local planning authorities. However, it fails to explain how high-rise proposals can respond to socio-cultural contexts and to heritage values. Although the skyscraper typology was not conceived to respond to the locality, but rather to materialize universal modern principles on function and technology, the policy would be of greater use to decision-makers if it strived to link this typology to local cultures and values.

2.3.2.3. Supplementary Planning Guidance: London View Management Framework, 2010

"The Supplementary Planning Guidance" (SPG) of 2010[15] adds to the 2007 "London View Management Framework" (LVMF). The purpose of the policy is to protect important views from new development proposed in London. It contains four main sections on the conformity with local policies, the assessment process and consultation, the view management and the visual management guidance.

Qualitative Visual Assessment (QVA) is suggested to assess four types of views, which are panoramas, linear views, river prospects and townscape views. The policy identifies significant landmarks that must remain clearly visible from one or various indicated viewing locations, in spite of any new development proposal. For example, if a proposed project lies within a strategic view corridor and, consequently, would have an impact on the view of a major landmark building in London, the project application must include a QVA study.

[15] The revised version of the LVMF SPG was published in March 2012; however, its guidance in terms of protecting important views in relation to major landmark buildings is not different from the 2010 version. The difference lies in the management plans: there are now 27 designated views in London instead of 26.

The section on visual management guidance shows management plans for six London panoramas, three linear views, thirteen river prospects and four townscape views. In total, there are twenty-six management plans for twenty-six strategically important views in London. Each plan describes the conditions, attributes, composition, key features and landmarks of a designated view. The plans "set out the criteria for assessment and management of the impact of development" on the four types of views (p.15). More specifically, they help assess and manage new development proposed in the foreground, middle ground and background of every view.

On the one hand, planning authorities should use the management plans to prepare policies and to assess applications that could negatively affect a designated view. On the other hand, applicants should use the plans to design and to locate new development without adversely affecting a designated view. First, applicants must determine whether their project is likely to affect a designated view. Secondly, they must describe the view. Thirdly, they must describe the positive and negative impacts of the project on that view. To fulfill these requirements, applicants are requested to visit the viewing place rather than relying on digital information (p.9).

The policy explains that an accurate visual representation (AVR) can be used to show the location of the project, the degree to which it is visible and the details of its design by combining images of the project, including architectural drawings, with images of the view (p.9). New development, moreover, must have an excellent architectural quality and must contribute positively to the cityscape without becoming the dominant element of a designated view.

On the whole, the policy clearly describes the consultation process as well as the planning and evaluation processes in London (p.10-11), which provide the reader with contextual information. The management plans and the system for assessing views, however, are complicated. For example, it is unclear why some views are managed by QVA whereas others are managed by geometric definition. The policy, furthermore, seems to frame London in a series of pictures and to treat architectural design as a visual procedure. To work with views when adding new development to historic places, however, is not enough, because the protection of views is only one aspect of the management of change.

In fact, it is difficult to determine what constitutes an important view, because the definition of an important view is subjective and site-specific (Cameron 2008: 229). In relation to this argument, Smith explains that cultures define and interpret views differently. They can be seen from the eye/observation, the body/experience or the soul/imagination (Smith 2008: 208). For example, Turner, a professor, sees views as a combination of experiences and imagination, because he argues that the value of a view is in its sense of emotion and how this sense becomes part of the collective memory (Turner 2008: 40). Cole also points out that "views mean different things to different people and differ according to season, time of day or night" (Cole 2008: 77).

Tools that plot viewpoints, moreover, are very expensive (Cameron 2008: 231). Also, the accuracy of tools, such as the AVR can be questionable, because visualizations have the potential to falsify the effect of project proposals on their virtual surroundings (Moggridge 2010: 66).

2.3.3. Australia

2.3.3.1. Design in Context: Guidelines for Infill Development in the Historic Environment, 2005

"Design in Context: Guidelines for Infill Development in the Historic Environment," created in 1968 then revised in 2005, is formally "Heritage Council policy" on infill development in conservation areas in New South Wales, Australia (p.4). The policy refers to one standard-setting instrument, which is the Australian ICOMOS Charter for Places of Cultural Significance, reviewed in **Section I**. It also refers to important sources of literature, reviewed in **Sections II** and **III**, such as Brolin (1980), Warren et al. eds. (1998) and CABE/EH (2001). In fact, the policy adopts the same composition as "Building in Context: New Development in Historic Areas" by CABE and EH. It is concise and includes seven main sections on the guidelines, the legislative framework, the definitions, the design criteria, the assessment of new development in historic contexts, the case studies and the lessons learned.

The policy puts forward six design criteria, which are character, scale, form, siting, materials/colors and detailing (p.6). It explains that to work with these criteria is

"vital," because they allow infill or new buildings to "harmonize" with their surroundings, although it does not define harmony (p.6). It adds that these criteria "can result in a multitude of architectural outcomes," because "some designers may adopt a more traditional or vernacular approach, others may wish to explore a highly contemporary solution. Both are equally valid. It is the quality of the response that is the key" (p.3). This explanation conforms to that of CABE and EH and is repeated again at the end of the policy to stress that the appropriate solution is not found in the selection of design options, but rather in the making of design quality (p.38). Nevertheless, the policy states that a project should neither create "an iconic or individualistic building" nor "directly copy the architecture of existing buildings" (p.2). As a result, obvious contrast and imitation are undesirable, whereas the exploration of different degrees of reinterpretation is encouraged. Therefore, there is a contradiction in the policy between the statement on the suitability of both traditional and "highly contemporary solutions" (p.3) and that of the undesirability of imitative and contrasting forms (p.2).

The policy confirms that the same criteria must be used in the assessment of proposals (p.4). Yet, the criterion of character contains a series of sub-criteria, which complicate the policy. These are: underlying natural landform, distinctive landscape elements, date and style of the buildings, street and subdivision patterns, setbacks of the building, materials, building techniques and details, views, vistas and skylines (p.6), local culture, traditions, uses, consistency and repetition (p-14-16). The other five criteria (i.e. scale, form, siting, materials/colors and detailing) also have sub-criteria. In total, there are at least forty criteria.

A checklist, furthermore, is provided. It consists of a table with three columns: one for the six design criteria, one for the applicant and one for the assessor (p.14-16). Its purpose is to help decision-makers determine if a project proposal fulfills the criteria. The applicant must write his "confirmation" and the assessor must write his "comments" for every single criterion (p.14-16). Also, visual support, such as annotated drawings, photographs of models and photomontages, must be included in the proposal for demonstration purposes.

The strengths of the policy reside in its conciseness, positive language and common framework for design and assessment (i.e. the checklist system). Yet, there are

too many criteria and nothing indicates why the six criteria, cited at the beginning of the policy, are the main ones. It seems that the selection was random. Also, those pertain mostly to tangible and visual aspects. The idea of understanding and responding to culture, tradition and use is very briefly mentioned.

2.3.4. Canada

2.3.4.1. Standards and Guidelines for the Conservation of Historic Places in Canada, 2010

"The Standards and Guidelines for the Conservation of Historic Places in Canada," created in 2003 then revised in 2010, examine three conservation treatments: preservation, rehabilitation and restoration. Reconstruction "is not considered conservation and is therefore not addressed" (p. 15). The policy interprets guidance extracted from standard-setting instruments and other documents, several of which were reviewed in **Section I**, as well as from the NPS policy, which was partially reviewed in **Section III**. There are four sections in the policy on the conservation decision-making process, the conservation treatments, the standards and the guidelines. Standards one to nine concern all three treatments, whereas ten to twelve are only for rehabilitation and thirteen to fourteen are only for restoration.

Guidelines are provided to apply the standards. There are guidelines for cultural landscapes, archeological sites, buildings, engineering works and materials. Guidelines for "cultural landscapes, including heritage districts" (p.49-90) relate more to the purpose of **Chapter II: Literature Review** than the others. These guidelines are divided into eleven subsections on evidence of land use, evidence of traditional practices, land patterns, spatial organization, visual relationships, circulation, ecological features, vegetation, landforms, water features and built features. Each subsection has a "recommended" and a "not recommended" column. The recommended approaches and techniques that are consistent with the standards are on the left. The ones that are not are on the right.

The policy adopts a minimal intervention approach, which "means doing enough, but only enough to meet realistic objectives while protecting heritage values"

(p.26). This approach applies to conservation projects, which follow the three treatments mentioned above; however, it is difficult to apply it to a new building project, which is not a minimal intervention. In fact, very little guidance is offered to guide the insertion of new buildings in historic places, though "one of the most frequently encountered design problems in historic ensembles is the insertion of new structures into empty spaces" (Stovel 1991: 29-Section D). Only guideline n°15 mentions "infill buildings," for example, and links them to visual relationships. It states that to respect these relationships, the design "can include matching established proportions and densities, such as maintaining the overall ratio of open space to building mass in an urban heritage district" (p.69). Furthermore, it asserts that threats to visual relationships in the cultural landscape are forbidden, "such as constructing a new building as a focal point, when a character-defining vista was traditionally terminated by the sky" (p.69). Although the international discourse has shifted the attention away from the protection of views to the conservation of values and cultural associations (which may or may not be manifested in views), as pointed out in **Sections I** and **II**, the policy still uses visual literacy when discussing the insertion of new buildings in historic places. In fact, it encourages "visual impact assessments" rather than EIA or HIA, which are more appropriate for the conservation of values (p. 67).

As for content, some standards could apply to the design of new buildings, such as "conserve the heritage value of an historic place," "recognize each historic place as a physical record of its time, place and use" or "protect and preserve archeological resources in place" (p.22). Nevertheless, some terms are ambiguous, particularly in Standard n°9, which states: "Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable on close inspection. Document any intervention for future reference" (p.22). In a way, this standard has three sub-standards on compatibility, legibility and documentation. The last one is well justified "for future reference," whereas the first two are not. For this reason, Lefebvre, senior policy advisor at the National Historic Sites Directorate at Parks Canada, argues that "physical" and "visual" are difficult to interpret and the meaning of compatibility is not obvious (Lefebvre 2008: 92). The rationale that underlies "close inspection," moreover, is unclear. Similar to the 1983

Appleton Charter, reviewed in **Section I**, the policy implies that from a certain undetermined distance, the intervention can look identical to the original.

Another term that has received equal criticism is "subordinate" (Lefebvre 2008: 92), which appears in Standard n°11. The latter refers to new additions or related new construction in the context of rehabilitation, but it could apply to new buildings. It states: "Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place" (p.23). "Subordinate" has a negative connotation. It is usually understood to mean "placed in or occupying a lower class, rank, or position" (Merriam-Webster Online Dictionary 2011). Consequently, a designer might think that his/her design must be inferior in quality in comparison to historic buildings in situ. A new building, however, can have a better design and construction quality than historic ones, but it can still share a harmonious relationship with its surroundings. For this reason, one may argue that expressions such as 'should not take the attention away from historic buildings' or 'should not overshadow the cultural significance of existing buildings' are more suited than "subordinate," because they imply paying attention to building orientation and use, for example, rather than the reduction of design quality. Clear terminology is essential to avoid misinterpretations, as discussed in **Sections I** and **II**.

On the one hand, concepts such as "heritage value," "character-defining element," "conservation," "preservation," "restoration" and "rehabilitation" are clearly defined in the body and in the glossary of the policy to help the reader understand the content material. Valuable advice in terms of conservation treatments and a range of case studies for illustration purposes are also provided. On the other hand, a definition of compatibility is missing. The policy, furthermore, employs a language of control. Consequently, experienced designers, project managers and conservators, for example, might feel that their professional judgment is being suppressed. Positive language similar to that used in the American, Australian and English policies, reviewed in **Section III**, is more engaging than orders such as "do not remove," "do not move" or "do not create" (p.22). Additionally, one may argue that placing the emphasis on what the evaluator expects to see in, and understand from, a project proposal is more effective than placing it on what the applicant must or must not do. In fact, policies

cannot teach applicants how to design or how to construct. They can only guide applicants in making thoughtful design development decisions and inform them about the expectations of evaluators.

Another significant weakness in this policy lies in the guidelines for cultural landscapes, which are very repetitive. For instance, in terms of land use, the guideline states: "Understanding land use and how it contributed to the heritage value of the cultural landscape" (p.52), which is repeated again for traditional practices: "Understanding traditional practices and how […] of the cultural landscape;" which appears again for land patterns (p.60), spatial organization (p.64), visual relationships (p.68) and the rest of the guidelines. As a result, the policy is monotonous and long (i.e. it is 288 pages, 249 without the references and credits). Hence, professionals, such as developers who may have little time or determination to read a policy, might browse through the pages and miss important information.

Summary

Section I traced the evolution of guidance in standard-setting instruments and UNESCO documents from the 1964 Venice Charter to the 2011 Recommendation on the HUL. While historic places were previously viewed as aesthetic and static objects, they are currently understood as dynamic environments that welcome the addition of new layers and encounter changing values, conservation attitudes and design practices. Although each piece of literature offered valuable guidance at the time of its creation, it is the juxtaposition of the pieces in a present-day context that creates confusion, shows discrepancies and leaves too much space for differing interpretations. Additionally, when an Article or an Item fails to communicate a clear principle or norm, decision-makers can misuse that principle or norm to justify the insertion of culturally and environmentally insensitive new buildings in historic contexts. This category of literature, moreover, explains what to do, but not sufficiently how to apply what is recommended. For example, cultural mapping and buffer zones are suggested, but how these tools can assist the design of harmonious integrations is not explained. Although the Vienna Memorandum and the Recommendation on the HUL have the potential to

guide decision-makers in achieving the goal of compatible new buildings, because they place emphasis on the recognition of values and the collaboration of stakeholders and communities, their weaknesses prevail over their strengths. For instance, the use of ambiguous terminology (e.g. pseudo-historical design) and the inconsistency of ideas when discussing the protection of values through criteria pertaining to numerical dimensions (e.g. scale and building plots) can cause the misinterpretation and misuse of the suggested guidance at the national and local levels.

In **Section II,** the concepts and themes that have emerged from **Section I** were identified, organized and examined from the perspective of scholars and practitioners. The meanings of compatibility, harmony, harmonious integration as well as distinction were clarified. The determinants and patterns that shape a context, moreover, were discussed to build a general definition of compatibility. Additionally, the three design options associated with the contextual design approach were defined, described and evaluated. It was later argued that these options are conservation treatments, each of which has the potential to establish a compatible relationship between a new building and its historic urban environment. Nevertheless, each one has disadvantages. Reproduction/reconstruction preserves local craftsmanship, but it may mislead the understanding of historical events. Reinterpretation encourages the use of precedents in a new manner to maintain the sense of continuity, but it may end as a superficial link between the historic context and the new building. Finally, contrast enhances its surroundings, but it may undermine the character and significance of the place. The selection of the appropriate response or best option/treatment depends on the thorough analysis of the context in hand. In fact, the discussion on the effectiveness and appropriateness of criteria in achieving the goal of compatible buildings revealed that there is no magic formula. Yet, to assess the significance of the historic place, to assess the environmental impacts of a project proposal on that significance and to explore design alternatives can help decision-makers in achieving that goal. Finally, **Section II** explained that policies or guidance in general must be clear, concise and constructive to effectively guide thoughtful responses in historic contexts.

Section III reviewed American, English, Australian and Canadian policies based on the knowledge gained from **Sections I** and **II**. Guidance and tonality, in particular, have shown how each policy deals with new development. In essence, "Building in Context: New Development in Historic Areas" and "Design in Context: Guidelines for Infill Development in the Historic Environment" pay attention to architectural quality. It is implied that a building can be compatible if it has good design quality and execution whether it follows, reinterprets or contrasts with its surroundings. "Guidance on Tall Buildings" insists that a high-rise project must be appropriately located. From this perspective, compatibility is about establishing a spatial relationship between the existing and the new. Similarly, the "Supplementary Planning Guidance: London View Management Framework" is about place making for new development, but exclusively in relation to designated views in London. The "NPS-28: Cultural Resource Management Guideline – Chapter 8: Management of Historic and Prehistoric Structures" and the "Standards and Guidelines for the Conservation of Historic Places in Canada" imply that compatibility involves the selection of treatments and uses. The main limitation of these six policies resides in their regulatory frameworks, which pertain almost entirely to physical attributes and fall short when it comes to incorporating intangible dimensions such as the cultural relevance, or the responsiveness, of project proposals to heritage values in decision-making.

On the whole, the review of major literature on the research problem has revealed three main areas of inconsistency. These involve the meaning of compatibility, the strategies for relating the new to the old and the attributes and/or qualities that merit protection from new development proposed in historic urban environments. The most important finding is that each geo-cultural context has its own understanding of compatibility, which evolves with human perceptions, needs and values. Generally speaking, this concept is associated with the responsiveness to local urban and man-made determinants and patterns of development as much as with the establishment of visual ties in the urban fabric. Although criteria can guide the design and assessment of new buildings, standards in particular may suppress the professional judgment of decision-makers, lead to homogeneity in historic places that are valued for their

architectural diversity and inhibit creative, yet thoughtful, design responses that may enhance these places. Alternatives to criteria, therefore, should be explored. What is needed is a revised approach to design and assessment that is neither too rigid as to restrain creative thinking nor too flexible as to lead to out-of-context buildings. More specifically, the development of an approach that promotes reflection with a view to improving values-based decision-making and establishing compatible relationships would advance the current state of knowledge on the problem.

CHAPTER III: METHODOLOGY

Introduction

Sections I, **II** and **III** of the previous chapter revealed the broad spectrum of ideas on, and solutions to, the problem under study from a variety of viewpoints. Their main purpose was to show the relevance of the general research question. In order to bring an answer to that question, the current chapter explains the procedures of inquiry that will help generate the required data. First, the theoretical framework, which covers the present researcher's arguments and reasoning, is developed from the knowledge that was gained from the literature review. It begins with an overview of the research objectives and results in an understanding of the relationships among variables and indicators. Next, the overall methodology of the research project clarifies why inquiry should proceed in a particular way to deal with the problem. Following that, the specific methodology of the case study is determined. The latter governs the use of data collection and analysis methods that were actually applied to find the evidence that offers answers to the three subsidiary research questions and, then, to the specific and general ones. Ethical considerations with human subjects as well as internal and external validity strategies are also explained.

3.1. Theoretical Framework

As stated at the outset, the central concept to learn about is compatibility and the main idea to identify is a values-based approach that promotes reflection about design opportunities available for thoughtful change in historic urban environments. These two exploratory missions are the research objectives (view section 1.6. of **Chapter I: Introduction**). Hence, the proposed methodology must help fulfill these objectives.

In terms of understanding compatibility, subsection 2.2.1.1. of **Section II** began with a simple definition extracted from a dictionary, which was later complemented with scholarly writing and enhanced with the introduction of other concepts, such as

context, urban and man-made determinants, patterns of development and relationship. The analysis resulted in the formulation of a general definition of compatibility towards the end of subsection 2.2.1.2 of **Section II**. Still, the literature review has shown that the local meaning of that concept evolves with human perceptions. More specifically, it varies from one geo-cultural context to another and from one historical moment to the next. For this reason, case study research is beneficial given that it provides an opportunity to better understand this concept in a particular milieu and in a present-day context. The value of working with a case study was also explained in section 1.6. of **Chapter I: Introduction**.

In terms of the identification of a values-based approach, the review has shown that this endeavour could contribute to the current state of knowledge, particularly because the effectiveness of current regulatory approaches in establishing compatible relationships between historic urban environments and new buildings is doubtful. Although they can guarantee certainty in decision-making, provide specific points of reference for applicants who seek predictability (Bennett 2006: 78) and have the potential to control new development (Feilden and Jokilehto 1996: 24-25), they may also suppress architectural creativity and impose homogeneity in historic contexts that are appreciated for their architectural diversity (Wilson 1980: 151; Stovel 1991: 2-Section D; Warren 1998: 16). For these reasons, many of the consulted authors/sources concluded that preservation rules/criteria, alone, cannot guarantee compatible design or prevent unwanted development or replace creativity and professional judgement (e.g. Carlhian 1980: 52; Lu 1980: 190; Wells-Thorpe 1998: 102; Semes 2009: 69; Goldberger 1980: 258; Alderson 2006: 24-26).

The review has also shown that many of the suggested indicators in **Sections I**, **II** and **III** are tangible and/or visual design elements (e.g. materials, colours, mass, setbacks). There is insufficient guidance directed at the recognition of, and responsiveness to, heritage values in decision-making processes. Yet, to raise compatible buildings, applicants in particular must acknowledge and respond to heritage values, because the conservation of the old when introducing the new necessitates the retention of values. This retention is the basis of conservation, which groups "all the processes of understanding and caring for a place so as to safeguard its […] heritage

value […] to ensure that the place and its values are passed on to future generations" (ICOMOS New Zealand Charter 2010: 9). This explains why "anyone carrying out an intervention at an historic place must be mindful of its overall heritage value, using the documented character-defining elements as a starting point and guide" (Standards and Guidelines for the Conservation of Historic Places in Canada 2010: viii). In light of this explanation, one may deduce that it is mainly the lack of reference to values in design development decisions that obstructs the goal of achieving compatible new buildings. Hence, the identification and development of an approach that aims at improving values-based decision-making would be beneficial.

Furthermore, the common thread that ties all the consulted authors/sources together is the argument on the inseparability of new work from its context. Some have explicitly argued that the applicant who is proposing change must not ignore the immediate and surrounding context, because an intervention is always seen, experienced and judged in relation to its location (e.g. Brolin 1980: 13; Rapoport 1987: 10-15; Benzel 1996: 15; Wells-Thorpe 1998: 113; Alexander et al. 1999: xii; Semes 2009: 86 and 113; Macdonald 2011: 13). The review has also shown that how well a building fits into its context depends on the accomplishment of three consecutive steps: **A)** understanding the old before designing the new, **B)** responding to the old while designing the new, and **C)** responding to the old while constructing the new. How well these steps are executed depends, to an extent, on the guidance that is provided.

As a matter of fact, the need for some guidance is based on an important assumption: decision-makers (e.g. designers, heritage advisors, project managers) cannot practice without having a theoretical grounding that includes an understanding of requirements. On the one hand, the design and assessment of new buildings must meet the requirements of the client/project owner in terms of, for example, program and function. On the other hand, design and assessment must meet the requirements of the city authority in terms of, for instance, zoning regulations, building codes and heritage policies. At the same time, both applicants and evaluators need some guidance to help them decide whether the new building retains heritage values and fits into its context.

Accordingly, guidance is the independent (i.e. explanatory/predictor) variable that explains variation in the dependent (i.e. outcome/response) variables, which are **A**,

B and **C**. Put simply, the degree to which a new building responds to its context depends on guidance. Nevertheless, subsection 2.2.3. of **Chapter II: Literature Review** has revealed that guidance, alone, is insufficient, because there are other influences and constraints that affect the architectural outcome such as the subjectivity of the meaning of compatibility, or the perception and skills of the designer, or his/her sense of responsibility and attitude to change, or the demands and budget of the client/project owner. These also affect the choice of the design option (i.e. reproduction/reconstruction, reinterpretation and contrast).

To effectively work with these constraints, one may argue that guidance should, as Leow puts it, encourage decision-makers "to understand analysis rather than try to define particular rules to be followed" (Loew 1998: 39) or should, as Stovel puts it, encourage the understanding of "the relation between the choice of [a design option] and the applicable characteristics of its context" (Stovel 1991: 2-Section A). In other words, if guidance is positive, less restrictive than rules and more focused on heritage values and the opportunities available for creative and compatible new designs, then the applicant, in particular, might be persuaded to work with his/her constraints without compromising the significance of the place.

For illustration purposes, the relationships between the independent variable and the dependent ones (**A**, **B** and **C**) are established in **Figure 6** on p.117.

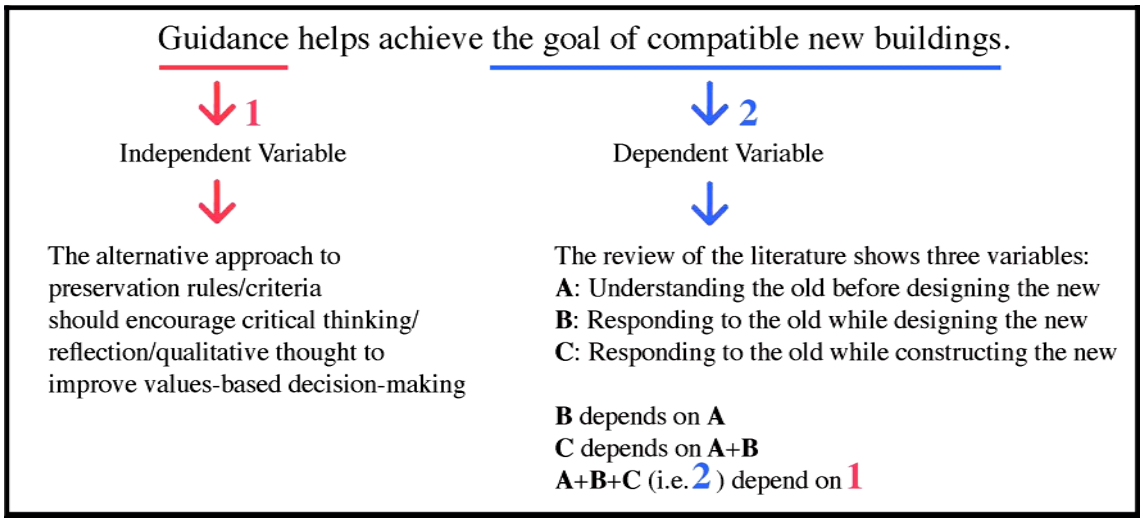

Figure 6: The establishment of relationships between the independent variable and the dependent variables (source: researcher).

Furthermore, **Table I** on p.118 joins each dependent variable with its indicators, which are extracted from **Sections I**, **II** and **III** of **Chapter II: Literature Review**.

DEPENDENT VARIABLES	INDICATORS
A. Understanding the old before designing the new	heritage values/significance, traditions, cultural frameworks, rituals, character-defining elements/features, historic character, patterns, urban and man-made determinants, context as a whole/overall composition, fabric, individual parts/elements/components, condition and historical evolution of the place, events, people associated with the place/existing buildings, local building cultures, archaeological remains.
B. Responding to the old while designing the new	materials, colours, scale, size, mass/bulk, height, form/shape, ornament/detailing, tonality, texture, proportions, dimensions, volume, new use/functions, activities, lots, street alignment, character, style, façades, circulation, rhythm, surface covered, visual/physical integrity, land use, setbacks, density, floor area, subdivisions, landscape elements (e.g. vegetation, ecological features), topography/land, climate, relationships (e.g. between buildings and green spaces, between solid and void), siting, building stock, building plots and types/typology, building footprint/layout, townscapes, roofscapes, visual axes/important views/vistas/skylines, accessibility, energy conservation, fire protection, design alternatives, predicting environmental impacts/effects.
C. Responding to the old while constructing the new (realizing the design - construction phase)	method of construction/building method, structure/structural integrity/structural appearance and performance, techniques/craftsmanship/practices, ex-post evaluation (e.g. monitoring impacts), displacements, bill-posting, neon signs, interpretive materials, advertisement, electric wires, cables, human safety, documentation (before, during and after construction).

Table I: Dependent variables and indicators (source: researcher). Note: the indicators are not arranged in a particular order of importance or preference.

The three dependent variables are the three consecutive steps in the process of establishing compatibility, as discussed in the literature. These variables (steps) vary from one policy/jurisdiction to another, because the choice of indicators varies. It is the choice and use of indicators from variables **A**, **B** and **C** that produce different design responses for fitting a new building into its context. For example, **Section III** of **Chapter II: Literature Review** shows that the English policy "Building in Context: New Development in Historic Areas" recommends working with land, patterns of development, important views, high quality materials and texture, whereas the Australian one "Design in Context: Guidelines for Infill Development in the Historic Environment" recommends working with character, scale, form, siting, materials/colors and detailing. Countries and cities have their own understanding of compatibility, which influences the choice of indicators and, as a result, explains the variation in variables **A**, **B** and **C**. Also, they have particular positions on design options. For example, Canada rules out reproduction/reconstruction whereas Japan embraces it (view subsection 2.2.2.1. of **Section II**). Hence, to measure how well an intervention responds to its surroundings is a context-specific activity, because the perceptions, interests and values of the decision-makers associated with one place differ from those of other places.

Nevertheless, the problem of insufficient guidance directed at the insertion of new buildings in historic urban environments affects many places (Van Oers ed. 2010; Recommendation on the HUL 2011; Van Oers and Pereira Roders 2012) and may well affect England, Australia, Canada and Japan as much as Kuwait (view section 1.8. of **Chapter I: Introduction**). For this reason, the general research question can be asked in any city. Hence, its answer (i.e. an alternative approach to criteria) may be beneficial and applicable to all cities, because that approach is a type of guidance, which is an independent variable. This means that it may be integrated into any policy framework as a substitute to standards or design guidelines without necessarily affecting the local understanding of compatibility or the local preference of indicators.

Table I, moreover, helps determine what knowledge needs to be generated in order to fulfill the research objectives and respond to the general research question. Therefore, it guides the overall methodology of the research project, which may be applicable to any geo-cultural context (i.e. to any case study other than Kuwait City).

3.2. Overall Methodology of the Research Project

Section 1.4. of **Chapter I: Introduction** clarified that the research project is exploratory. More specifically, it seeks to explore, identify and develop a shift from regulation to something else. It also seeks to define and understand compatibility since **Chapter II: Literature Review** has shown that this concept merits further clarification. Creswell, a professor of educational psychology and writer on types of qualitative, quantitative and mixed methods design, affirms that "if a concept or phenomenon needs to be understood because little research has been done on it, then it merits a qualitative approach. Qualitative research is exploratory" (Creswell 2009: 17). In light of this affirmation and the purpose of the present study, one may argue that the research project is qualitative.

To understand the perceptions, personal interests, values and practices of decision-makers with a view to fulfilling the two research objectives, qualitative data needs to be collected because it "can provide rich insight into human behaviour" as well as provide "contextual information" (Guba and Lincoln 1994: 106). The research findings that will emerge from the process of carrying out the study, therefore, will be largely "descriptive," which means that they will be "reported in words […] or pictures, rather than in numbers (Fraenkel & Wallen, 1990; Locke et al., 1987; Marshall & Rossman, 1989; Merriam, 1988)" (Creswell 2009: 195). Qualitative research, moreover, usually employs the following strategies of inquiry: phenomenology, grounded theory, ethnography, case study and narrative, whereas quantitative research tends to use statistical surveys and experiments (Creswell 2009: 17). Sections 1.6. and 1.8. of **Chapter I: Introduction** have explained the benefits of case study research, which, according to Creswell, is a qualitative strategy of inquiry/approach to inquiry, also known as a research methodology (Creswell 2009: 11).

Schwandt, a professor of education, clarifies that "methodology" means "a theory of how inquiry should proceed. It involves analysis of the assumptions, principles and procedures in a particular approach to inquiry (that, in turn, governs the use of particular methods)." The author adds that a methodology clarifies "how to frame a problem in such a way that it can be investigated using particular designs and

procedures; […] and how to develop the logic linking problem - data generation - analysis - argument" (Schwandt 2001: 161). Hence, it is the approach to inquiry, such as case study research, that guides the choice of data collection and analysis methods.

There are three main methods used to generate qualitative data: "interviewing (listening, talking, conversing, and recording), observation (watching and video-taping), and document analysis (reading and photographing)" (Schwandt 2001: 159). Creswell adds that "it is useful to consider the full range of possibilities of data collection" (Creswell 2009: 15). For this reason, qualitative researchers usually gather multiple forms of data rather than rely on a single source (Creswell 2009: 175). Those possibilities, which are called data collection methods or tools, include focus/discussion groups, surveys, mind maps/drawings and, also, case studies (Breux 2010). Hence, authors recommend constructing meaning from what will be seen, heard and/or understood from participants as well as from different sources.

The above data collection methods may help fulfill the research objectives and find the evidence that offers an answer to the general research question. Nevertheless, to determine which method would be more successful than the others, the strengths and weaknesses (pros and cons) of each one must first be understood. Put differently, since a "methodology is the theory or analysis of methods, not what you actually do in a particular study" (Maxwell 1996: 115), the potential of each method in generating the required data should be examined before explaining the research process.

In terms of **interviewing**, participants are usually recruited and asked open-ended and/or close-ended questions during a one-on-one/face-to-face meeting with the researcher or through an online or a telephone conversation. For instance, interviews may be conducted with applicants and evaluators. This method may clarify some of the issues and concepts that were raised in the literature (e.g. constraints, variables and indicators from **Table I**, effectiveness or appropriateness or applicability of criteria) and help bring out new issues that were not thought off before. This method, therefore, is exploratory and descriptive. One may add that it is also efficient in the sense that answers in relation to compatibility or the problem under study can be received directly. Misunderstandings or misinterpretations can also be resolved directly. On the other hand, there could be bias in the type of questions asked (i.e. the researcher might be

looking for desirable answers). For this reason, the generated data must be compared with the results from other sources (e.g. document analysis) to ensure their internal validity. Also, the interviews should be tape recorded (unless the participants refuse) because the researcher's notes might lack important information that was said.

Observation usually entails observing participants (Schwandt 2001). Hence, in the framework of the research project, data may be collected by observing applicants and evaluators in their workplace. This method is either participatory, which means that the researcher engages in discussions with these decision-makers, or non-participatory, which means that the researcher only observes without interacting with anyone. This method is "ideal for capturing 'naturally occurring' discourse" (Qualitative Research: Defining and Designing 2012: 15). In other words, it generates accurate data since participants cannot fake their job responsibilities or how they make decisions or how they practice in their workplace. It provides an opportunity to document and to better understand the processes of preparing and evaluating a project proposal. The researcher, moreover, should record the observation and/or take notes, which may be descriptive (e.g. describe the design and assessment of the project) and/or interpretive (e.g. interpret what was observed and/or understood from interactions with decision-makers). However, it is difficult to apply this method, particularly in architectural offices, consulting firms or design committee meetings that are not typically open to the public.

Document analysis means the collection of data from different sources of literature such as books and journal articles, including photographs. For instance, it may be beneficial to collect further information about the concept of compatibility in local literature (e.g. sources pertaining to a case study). This method is considered reliable, because scholarly publications and archives in particular tend to offer accurate data (Breux 2010). It is also an "unobtrusive" method that can be easily applied at any time, particularly to access public documents, for example, from libraries or online databases (Creswell 2009: 180-181). On the other hand, the saturation of information is long (Breux 2010), which means that many documents will have to be consulted in order to find the necessary information. This method may also require the researcher to look for information in "hard-to-find places" (Creswell 2009: 180), such as in consulting firms or municipalities and other government buildings, which may have restricted access.

Focus groups are organized sessions that bring together participants with a view to understanding, for instance, their attitudes, experiences, emotions and opinions about a particular subject matter or theme. The researcher is expected to be neutral, to animate the discussion and to ask simple and open-ended questions that would allow each participant to express himself/herself without feeling the pressure, particularly if he/she does not know the other participants in the group. In the context of the research project, participants may be decision-makers and/or citizens who may be asked, for example, to explain their understanding of compatibility. This method is efficient, because data may be collected within an hour or two depending on the length of the discussion, as opposed to document analysis, for which the saturation of information is long (Breux 2010). The answers or comments of one participant, furthermore, may encourage other participants to join the discussion and to bring out themes or concepts that the researcher did not think off before. On the other hand, it may be difficult to schedule a focus group since participants will likely have different availabilities. A participant, moreover, may dominate the discussion and influence the others, who, consequently, might feel compelled to share his/her point of view; therefore, data may be unreliable. Also, this method raises anonymity issues. Unlike an interviewee, whose anonymity can be easily guaranteed since the interview is a one-on-one discussion with the researcher, a participant in a focus group may struggle to remain anonymous. As a result, it may be difficult to recruit decision-makers whose participation is crucial. Moreover, the discussion should be tape recorded (unless one of the participants refuses) to keep a record of what was said and to facilitate the transcription of data.

A **survey** is mostly used in quantitative research (Creswell 2009: 146), but it can be designed to generate qualitative rather than statistical information. The researcher is expected to determine a sample of the population and to ask the same close-ended questions with multiple-choice answers and/or open-ended questions in, for example, a standardized questionnaire. The latter should be comprehensible to any individual regardless of his/her age or professional background. The survey is usually conducted in the presence of the researcher who would distribute questionnaires personally. Anonymity is generally guaranteed, because the researcher is not expected to know the participants: the selection should be random to avoid sampling bias. If, however, a

participant wants to be informed about the results of the survey in the future, he/she would have to give the researcher his/her contact information, which should remain confidential. This method is efficient, because data about compatibility or positions on design options, for example, can be gathered from each participant within a few minutes, particularly if the survey is conducted in the presence of the researcher. Though answers are usually reliable, it is still possible to encounter some questionnaires that were filled randomly or in a hurry.

As for **mind drawings**, participants are typically asked to draw a map or an object to help clarify their personal understandings or representations. In the context of the research project, decision-makers and/or citizens may be asked to draw what they believe a compatible new building in an established context looks like. This method usually offers reliable data, because a person's understanding of a concept does not change quickly (e.g. he/she is likely to produce the same drawing about compatibility if he/she is asked to do the same exercise later). Nevertheless, this method might intimidate a participant who may have little drawing experience and difficulties in transferring his/her mental image to paper. This method, furthermore, relies exclusively on the sense of vision, which would inevitably reduce compatibility to a matter of tangible or visual design elements, which cannot, alone, relate the new to the old, as explained in **Chapter II: Literature Review**.

Case studies are a strategy of inquiry/approach to inquiry/research methodology as well as a data collection method for qualitative research (Creswell 2009: 11-17). For example, a case study may be a location (e.g. a historic urban environment), a situation (e.g. the submission and evaluation of a project proposal), an object (e.g. a building) or an individual (e.g. an architect). When working with a case study, the researcher is expected "to generate knowledge of the particular" and to "pursue understanding of issues intrinsic to the case" with a view to "furthering understanding of a particular problem, issue, concept, and so on" (Schwandt 2001: 23). For this reason, case studies are considered "instrumentally useful" (Schwandt 2001: 23). To work with a case study means that "researchers collect detailed information using a variety of data collection procedures over a sustained period of time" (Creswell 2009: 227). Some of these procedures/methods may be, for example, interviewing, observation, document analysis,

surveys, focus groups or other. The main challenge of case study research, however, is the transferability of "issues intrinsic to the case." This means that some research findings, such as the heritage values of the case under study, cannot be extended or generalized to other cases, which have different values.

In light of these pros and cons, one may find that there are some methods that would be more successful than others in carrying out the research project. Still, there are seven criteria that should be considered before making the final selection (Breux 2010). These are: reactivity (i.e. the influence that the method will have on the data, for example on the answers and attitude/behavior of the participants), flexibility (i.e. how easy it is to apply the method), validity (i.e. how reliable/true/accurate will the resulting data be), fidelity (i.e. the ability of the method to faithfully report the data, for example, in words), saturation (i.e. when the collected data begins to repeat itself), triangulation (i.e. the need to use one or two additional methods to verify the validity of the data that has been collected) and ethics (i.e. whether the method will harm participants, for instance, emotionally or professionally).

Table II on p.126 helps make the final selection. It evaluates each method according to the seven criteria. At the same time, it speculates on the potential of each method to fulfill the two research objectives, which constitute the eighth criterion. Speculation usually precedes the data collection process since "qualitative research begins with assumptions" (Creswell 2012: 44). In other words, qualitative researchers cannot know decisively which method will be successful in generating the required data until they actually start the collection process (Creswell 2009: 175).

In view of **Table II**, it seems that all the methods, except for mind drawing, could help fulfill both research objectives. Nevertheless, since surveys and focus groups are likely to produce the same kind of data, only one of them should be selected. One may argue that the results of a survey would be more reliable than those of a focus group. In a survey, the participant is not subject to the influences/points of views of other participants, which is why the validity of a survey is higher than that of a focus group. Furthermore, it is more difficult to organize a focus group and to bring together participants who may have different time schedules than to ask random individuals to fill a questionnaire, which is why a survey is more flexible than a focus group.

Likewise, interviewing and observation are likely to offer the same kind of data. One may find that interviews would be more manageable than observation, because it is difficult to observe and to engage with decision-makers in their workplace while they are practicing. Hence, the methods that ought to be selected to carry out the research project are most probably interviewing, document analysis, survey and case study.

Methods/ **Criteria**	Reactivity	Flexibility	Validity **and** Fidelity	Triangu-lation	Saturation	Ethics	**1)** Potential to define compatibility **2)** Potential to identify an approach that promotes reflection
Interviews	Average (due to potential bias in the questions)	Flexible	High	Important	Fast	Need consent	Might be very useful for 1&2
Observa-tion (parti-cipatory and non-participa-tory)	None	Low flexibility (in the workplace, such as consulting firms)	High	Not important if partici-patory; Important if non-participa-tory	Fast if participa-tory; Slow if non-participa-tory	Need consent	Might be very useful for 1&2 if participatory; Might be useful for 1&2 if non-participatory
Document analysis	None	Very flexible	High	Not very important	Slow	Bibliographic references	Might be useful for 1&2
Focus group	Average	Low flexi-bility (due to # time schedules)	Average V but high F	Important	Fast if one group	Need consent	Might be very useful for 1, but somewhat useful for 2
Survey	Average	Flexible	High	Important	Slow	Need consent	Might be very useful for 1, but somewhat useful for 2
Mind drawing	Low	Flexible	Low V but high F	Very important	Fast	Need consent	Might be useful for 1 but not for 2
Case study	None if no partici-pants are involved	Flexible	High	Important	Slow	References and consent if participants are involved	Might be very useful for 1&2

Table II: The evaluation of data collection methods in light of the research project and objectives (source: researcher). It is based on speculation, which helps select methods.

Authors recommend analysing data as it is being collected, because "data collection and data analysis must be a simultaneous process in qualitative research" (Creswell 2009: 198-199). The choice of data analysis methods should "enable [the researcher] to answer [his/her] research questions" (Maxwell 1996: 109). There are many methods or processes that could be employed. For example, the data resulting from interviewing may be transcribed and analysed thematically in order to create patterns of meaning. That of document analysis may be organized, for example, chronologically or thematically depending on the nature of the data (e.g. if the data is mostly about historical events then a chronological organizational pattern may be more beneficial than a thematic one). The data from the survey, furthermore, may be classified into a table/chart in order to view the results simultaneously and to draw the connections, which would then help the researcher make interpretations and construct meaning. In terms of the case study, the data resulting from the use of different methods may be described, organized, analysed and then interpreted and communicated, for example, in a written report, which would be integrated into the thesis. That report or any other kind of presentation technique is expected to present the outcome of the study as faithfully as possible to maintain fidelity throughout the thesis.

In fact, according to the Loflands, professors of sociology, "the final stage of analysis, after data collection has ceased, becomes a period for bringing final order" to research findings (Lofland and Lofland 1984: 164). In other words, when the collection, analysis and interpretation of data from interviewing and document analysis as well as from the survey and the case study cease, it becomes time to organize the findings. Ely et al., professors/teachers of education, add that "qualitative research writing rests both on how we make meaning and how we communicate our understandings" (Ely et al. 1997: 112). For this reason, authors recommend composing a "final report" or a "polished product" (Creswell 2009: 191) with a view to bringing "final order" and to communicating "personal understandings" to the reader as well as to participants who might be recruited for follow-up interviews as part of the methodology.

Additionally, the process of carrying out the research project "involves emerging questions and procedures," which means that "the initial plan for research cannot be tightly prescribed, and all the phases of the process may change or shift after the

researcher enters the field and begins to collect data" (Creswell 2009: 4 and 175). This explains why the order for applying the data collection methods as well as the selection of data analysis methods cannot be firmly determined until the researcher "enters the field," because the "research design will evolve" accordingly (Maxwell 1996: 99). As a result, "there is no right or wrong way of conducting a qualitative research project" (Qualitative Research: Defining and Designing 2012: 1).

Qualitative research also involves "data typically collected in the participant's setting, data analysis inductively building from particulars to general themes. […] Qualitative researchers seek to understand the context or setting of the participants through visiting this context and gathering information personally. They also interpret what they find, an interpretation shaped by [their] own experiences and background" (Creswell 2009: 4 and 8-9). Accordingly, the research process will be mainly inductive, which means that the researcher will construct meaning from the data as it emerges from the analysis without having particular expectations or knowing in advance what the emergent ideas, issues, themes or patterns might be. Furthermore, "qualitative research is a form of interpretive inquiry," which means that the researcher is expected to report multiple perspectives (e.g. those of the interviewees and survey participants), identify the issues or concepts involved, "build patterns and themes from the bottom up" and then make interpretations (Creswell 2009: 175 and 176).

To further the understanding of "the context or setting of the participants" (Creswell 2009: 8-9), a site should be selected. In fact, "the idea behind qualitative research is to purposefully select participants or sites […] that will best help the researcher understand the problem" (Creswell 2009: 178). The selection of a site that has the potential to recruit decision-makers would, through interviewing, generate data about the submission and assessment of project proposals. More explicitly, the interaction with local practitioners who are associated with new developments in situ helps the researcher understand how applicants and evaluators in a particular geo-cultural context relate a new building to its surroundings, which, subsequently, facilitates the understanding of compatibility within that "real-life context" (Qualitative Research: Defining and Designing 2012: 14). It then contributes to the identification of

an alternative approach to criteria and its development in a theoretical model (view section 1.7. of **Chapter I: Introduction**).

3.3. Specific Methodology of the Case Study

Since the strategy of inquiry is case study research, the interviews and the survey are conducted within the context of the case study, which is Kuwait City (view the criteria for selection in subsection 1.8.2. of **Chapter I: Introduction**). Document analysis, moreover, is employed to produce a detailed description of that city. Additionally, a site that contains heritage and contemporary buildings is selected to deepen the understanding of the problem and to recruit interviewees, particularly applicants who are associated with the design of the new buildings. Hence, on-site observation is exercised.

To determine in which order these four methods should be applied, the researcher had to "enter the field" by collecting preliminary data from the literature. This entry has shown that the questions that should be asked to interviewees and survey participants can only be formulated once an in-depth understanding of the case study is gained and a site is selected. Hence, data collection methods were applied in the following order, as shown in **Chapter IV: Research Findings**: 1) document analysis, 2) on-site observation, 3) interviewing and 4) survey, although the last two were actually conducted simultaneously.

In the next subsections, each data collection and analysis method is evaluated to point out its strengths and weaknesses. The research process is explained alongside.

3.3.1. Data Collection Methods

3.3.1.1. Document Analysis: Gathering Data from the Literature

Scholarly publications, archives, masters and doctoral theses, historical as well as contemporary maps and photographs, architectural drawings, Master Plan reviews,

preservation studies and religious text[16] can be reviewed to clarify the problem in Kuwait City. More specifically, document analysis can provide a description of the city before and after its modern transformation in the 1950s as well as show its various stages of development and its layers of architectural and morphological transformations throughout the years. The intention is to understand the historical evolution, cultural framework, heritage significance, determinants and patterns of the city. The gathered data helps the researcher identify heritage values and character-defining elements, suggest a definition of compatibility in the Kuwaiti context and uncover existing regulations that control new construction in historic areas. Document analysis, therefore, helps bring answers to the three subsidiary research questions.

Although this method usually generates reliable data (Breux 2010), some of the consulted documents may be inaccurate. For instance, in the early stages of data collection, a journal article that states "there are no strong surviving architectonic forms that can provide an early image of Kuwait" (Anderson and Al-Bader 2006: 137) was found although Kuwait Municipality has identified around one hundred and twenty historic buildings in Kuwait City (Ali 2009: 9-10). In other words, not everything that is written is necessarily true. To overcome this obstacle, research findings have to be reviewed in relation to one another and against those extracted from other sources (e.g. face-to-face interviews). This method, moreover, requires the researcher to look for information in "hard-to-find places" (Creswell 2009: 180), such as in Kuwait Municipality and the National Council for Culture, Arts and Letters (NCCAL). The researcher, therefore, needs to travel to Kuwait City in order to gather information personally from these places.

3.3.1.2. On-Site Observation: Selecting a Site

The selection of a site in Kuwait City that contains both heritage and contemporary buildings not only clarifies the research problem as it relates to the city,

[16] Traditionally, the *Qur'an* (i.e. the holy book of Islam) and the *Sunna* (i.e. the tradition of the prophet Mohammad) were interpreted by Schools of Islamic Law to establish urban and architectural design guidelines, which have shaped Arabian morphologies in many different ways (Hakim 1986: 19).

but also helps recruit a manageable number of interviewees who are associated with new construction in situ. This means that the researcher has to visit Kuwait City, select a site that best represents the problem and gather information that clarifies "the context or setting of the participants" (Creswell 2009: 8-9). Document analysis (i.e. the first method) and on-site observation have determined the questions that were asked to interviewees, as shown in **Appendix 1** on p.xxiii.

This method resolves issues that relate to the scale of buildings and the distance between them, which are often difficult to measure from two-dimensional images that flatten reality. Also, it provides up-to-date information and allows the researcher to get in touch with character-defining elements and their associated heritage values. Additionally, it provides an opportunity to evaluate new buildings and to apply the knowledge that was gained from **Chapter II: Literature Review**. The intention is to determine whether the new buildings are compatible with the site and its surroundings not only from what is understood from interviewees, but also from the analysis of different sources of literature on the problem. Ultimately, a better understanding of the meaning of compatibility would result. On the other hand, the application of this method is difficult, because the site is in Kuwait City whereas the researcher is in Montreal. This geographic distance is inconvenient, because it prevents the researcher from having direct access to the site at any time.

3.3.1.3. Face-to-Face Interviews: Involving Applicants and Evaluators

There are two types of face-to-face interviews that are conducted in Kuwait City. One type involves applicants who have participated in the design of the new buildings in situ. The main purpose is to understand the decisions that were made for each project (i.e. how designers have related new architecture to old and what influenced the choice and use of indicators such as form and materials). Interviewing clients/project owners, architects, project managers and structural engineers can help

identify with each project from beginning (i.e. concept) to end (i.e. final design).[17] At the same time, opinions about the problem in Kuwait City can be gathered. Some questions are specific, others open-ended to allow participants to share their views (Creswell 2009: 8). When the site was selected and the quantity of the new buildings became obvious, the researcher was able to identify the interviewees, as explained in section 4.3. of **Chapter IV: Research Findings**.

The other type of face-to-face interviews involves evaluators who have a legal role in the conservation of historic areas and the assessment of projects proposed in these areas. The intentions are to gather opinions about the new buildings in situ, to understand the problem from the perspective of evaluators, to understand the process of reviewing proposals in Kuwait City and to verify whether criteria are appropriate and effective, because only by questioning existing regulatory tools could a better approach be found. Again, some questions are specific whereas others open-ended. Document analysis and informal discussions with individuals in Kuwait Municipality have helped identify the interviewees and their location.

When the researcher finished the collection, analysis and interpretation of data from document analysis, on-site observation, the interviews and the survey, follow-up-interviews with participants were conducted in Kuwait City, as shown in section 5.1. of **Chapter V: Discussion**. The intentions are to present and discuss research findings, to receive comments and concerns about the suggested alternative approach as well as to enhance the internal validity of the research project. Creswell explains that "taking the final report or specific descriptions or themes back to participants" can determine "whether these participants feel that they are accurate" or appropriate or effective or applicable (Creswell 2009: 191). The theoretical model, which was composed to present and demonstrate research findings, was that "final report" that helped gather the opinions of the interviewees.

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[17] In Kuwait City, there are no developers per se for each project; there are contractors who send their pre-qualifications to design consultants once the building permit has been issued from Kuwait Municipality (Personal Interview n°9). This explains why developers are not included in the list of interviewees. The design consultant (i.e. a designer/architect who usually serves as client representative and project manager) is responsible for preparing and submitting project proposals to Kuwait Municipality and for selecting contractors with the client/project owner. Technically, the project manager is the applicant, but the proposal includes the client's requirements and shows the effort of a team of designers (e.g. architects, engineers). Therefore, they are all applicants.

On the one hand, interviewing offers contextual information and explains how applicants and evaluators make decisions. This method is also practical, because these professionals cannot be observed in their workplace. Moreover, it usually provides reliable information and gives participants an opportunity to expand on issues and themes that the researcher may not see in documents for example. Additionally, it allows the researcher to have control over the line of questioning (Creswell 2009: 179).

Nevertheless, face-to-face interviews require the presence of the researcher and that of participants in Kuwait City; therefore, the application of this method is difficult. Furthermore, there can be bias in the selection of interviewees as well as self-report bias in the type of questions asked. This means that triangulation is necessary. Additionally, participants may not understand English; therefore, questions must be translated from English to Arabic and then the answers from Arabic to English. Moreover, participants are not pre-identified, because their identification depends on the quantity of new buildings in situ. It also depends on their availability and willingness to share information. This method, therefore, is risky. If a participant refuses to collaborate, the researcher has to extract the required information elsewhere or from a different participant. That information might be inaccurate. If participants refuse to be tape-recorded, it would be difficult to listen and to write down answers at the same time. Also, some participants might be intimidated by the questions. Hence, the researcher has to create a relationship of trust to overcome this obstacle.

3.3.1.4. Longitudinal Survey: Involving Citizens

A survey can clarify the meaning of compatibility from the perspective of a sample of the population. This method also allows the verification of previous interpretations on heritage values and character-defining elements. Furthermore, it facilitates the collection of opinions about new buildings in Kuwait City. Document analysis and on-site observation have determined the questions that were asked, as shown in **Appendix 2** on p.xxviii.

Only Kuwaiti citizens are involved in the survey, because the intention is to understand compatibility from the point of view of the indigenous population as

opposed to that of expatriates who most likely have different interpretations. Kuwaitis are recognized mainly from their language (i.e. Kuwaiti Arabic), then their clothing, which is not always traditional. However, because Kuwaitis living in Kuwait City represent only 5.86 percent of the city's total population (Third Kuwait Master Plan Review 2005: 10), the survey also includes Kuwaitis who typically live in the five suburbs that surround the city, which are *Shuwaikh*, *Shamiya*, *Abdullah Al-Salem*, *Mansourya*, *Dasma* and *Bnaid Al-Gar*.

A standardized questionnaire with multiple-choice answers and a space for additional comments is used to conduct the survey. Participants are asked to circle only one answer to each question and to write any information they judge important to mention in the blank space. Adolescents (ages 13 to 16), university students/young working force (17 to 25), mature working force (26 to 65) and senior citizens (66 to 80) are asked to participate. The aim is to gather the opinions of different generations in order to avoid bias, given that the meaning of compatibility from the perspective of a professional is as important as that from the perspective of an adolescent. However, since age is not an indicator (view **Table I** on p.118), the number of participants from generation to generation does not have to be equal. The only number that would affect the analysis and interpretation of data is the total number of participants (i.e. the sample), which is determined when information is saturated (i.e. when participants keep on selecting the same multiple-choice answers for the majority of the questions). This explains why the survey is longitudinal (i.e. it is conducted in stages).

Participants are selected randomly, because "a random sample […] is considered the best way to avoid the risk of sampling bias" (Al-Sanafi 2001: 224). They are asked to complete the questionnaire immediately after receiving it to avoid any loss. Completion does not exceed ten minutes, because an individual would most likely refuse to participate if the questionnaire is too long.

This method has many advantages. Kuwaitis form the most reliable source of information concerning matters of compatibility and architectural identity. It helps interpret these phenomena in terms of the meanings Kuwaitis bring to them. Also, it determines whether the researcher's interpretations on heritage values and compatibility from document analysis conform to, or diverge from, the perceptions of the public.

Furthermore, allowing participants to add additional information in the blank space introduces important issues or themes that the researcher may not see in documents or hear during the face-to-face interviews.

On the other hand, the sample of the Kuwaiti population is not pre-determined and the saturation of information is long. Also, some participants might answer the questionnaire in a random manner or in a hurry, which, consequently, might comprise the overall interpretation of the results. Some of them, moreover, do not speak English; hence, the questionnaire has to be written in both English and Arabic, then the answers in Arabic must be translated. Also, results must be counted more than once to make sure that the classification chart (which guides the analysis) is accurate. Finally, finding Kuwaitis who are willing to participate in a survey is difficult: since the distribution of questionnaires without a referral from a staff member or a co-worker is culturally unacceptable and unlikely to receive any cooperation from Kuwaitis,[18] the researcher cannot conduct the survey in homes or commercial places such as malls, but only in institutions and other facilities. As a result, the process of asking for referrals and distributing written consent forms and questionnaires is lengthy.

3.3.2. Data Analysis Methods

3.3.2.1. Chronological Organization of Data from Document Analysis

Data is analysed as it is being collected, since "analysis and data collection run concurrently for most of the time" in qualitative research (Lofland and Lofland 1984: 131) Information is organized chronologically to draw the distinction between Old Kuwait Town (i.e. the city before the 1950s) and Kuwait City (i.e. after the impact of oil in the 1950s), as shown in section 4.1. of **Chapter IV: Research Findings**.

First, the researcher presents a section on the urban determinants (e.g. climate, topography, materials), man-made determinants (e.g. trade, social relationships, functions, religion and human activities), patterns of development and cultural framework of Old Kuwait Town. The intention is to reconstruct an early image of the

[18] This information is based on the researcher's personal experience in Kuwait City.

case study's morphology and vernacular typology with a view to understanding the forces that have shaped its traditional urban environment. Then, the researcher interprets all this information to establish heritage values. Additionally, the character-defining elements in which these values are embedded are identified. A preliminary definition of compatibility in the traditional Kuwaiti context is also suggested.

Secondly, a section on the modern transformation of Kuwait City after the 1950s is presented to explain how local forces have lost their role in shaping the urban environment at the expense of imported ideas, materials and planning tools. Next, the researcher interprets how heritage values, character-defining elements and the concept of compatibility have been affected by socio-economic and technological change. Also, the values of the city in a present-day context are identified.

This organizational pattern helps clarify the transition from Old Kuwait Town to Kuwait City and show how buildings were traditionally designed and evaluated in comparison to the current situation.

3.3.2.2. Photographic Documentation of the Selected Site

Information about the selected site is gathered from different sources (e.g. documentary evidence). Pictures were also taken whenever the researcher was able to visit Kuwait City to document the different stages of development. That visual information facilitates the evaluation of the new buildings. Il also facilitates the interviews, because it is used to show participants the ongoing urban transformation in situ in case they did not visit the area since Kuwait Municipality approved the final designs. The pictures, therefore, support the discussions with applicants and evaluators.

3.3.2.3. Thematic Analysis of Interview Answers

The answers of the interviewees are described and thematically analysed. For clarification, "a theme captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the

data set […]. Researcher judgement is necessary to determine what a theme is" (Braun and Clarke 2006: 82).

After the identification of themes, the researcher can reconstruct the meaning of compatibility from the perspective of interviewees, give details about decision-making processes in Kuwait City, expose conflicting interests and suggest a new review process for engaging and reconciling decision-makers when they assess project proposals. As a result, thematic analysis is a step forward towards the identification of an alternative approach to criteria.

An important limitation, however, "is that proper analysis of text is time consuming" and involves "transcribing, coding, and interpreting the data. If research is done in a foreign language, add the extra step of translation to the analysis process" (Qualitative Research: Defining and Designing 2012: 25). Hence, the process of transcribing interviews, translating answers from Arabic to English, searching the data for recurrent ideas, joining ideas together, discerning themes, naming these themes and making interpretations requires many revisions, not only to ensure that significant information is not left out, but also to produce an honest and a coherent narrative from the answers of all the interviewees. That narrative must also include contrary data (e.g. answers that contradict some of the researcher's initial interpretations from document analysis). In fact, "discussing contrary information adds to the credibility of an account" (Creswell 2009: 191).

3.3.2.4. Classification of Survey Results

Once the sample of the Kuwaiti population is identified following the saturation of information, results can be classified and represented in a chart with six columns. Next, these results as well as the additional information provided by the participants in the blank spaces of the questionnaire can be analysed and interpreted.

Viewing clusters of data simultaneously helps gain a closer insight into compatibility, Kuwaiti culture and architectural identity. Also, it helps verify the reliability of the consulted sources of literature by comparing the results of document analysis with those of the survey. **Table III** on p.138 is a fraction of the proposed chart.

Multiple-choice answers/ Number of participants	Between 13 and 16 years old N° ?	Between 17 and 25 years old N° ?	Between 26 and 65 years old N° ?	Between 66 and 80 years old N° ?	**Total number of participants** **N° ? → Sample**
Q1					
a					
b					
Q2					
a					
b					
c					
Q3					
a					
b					
c					

Table III: Proposed chart for the classification of survey results (source: researcher).

This method either enhances the researcher's interpretations from document analysis or provides contrary data that conflict with those interpretations. The latter case scenario is not inconvenient because, again, "discussing contrary information adds to the credibility of an account" (Creswell 2009: 191).

Nevertheless, some participants might answer questions randomly or in a rushed manner, which means that some results risk being deceptive. Still, concluding remarks about the survey can be made based on the researcher's best judgement, because the research is qualitative and the sample is random (Creswell 2009: 17).

3.4. Ethical Considerations

Ethical issues must be anticipated before the recruitment process, because "the close personal interactions required by the methodology may produce special and often sticky problems of confidentiality and anonymity" (Guba and Lincoln 1994: 115). To cope with these "sticky problems," Creswell explains that a written consent form, which is often "completed for college/university institutional review board purposes," should

be handed to participants and "should indicate that participating in the study is voluntary and that it would not place" anyone "at undue risk" (Creswell 2012: 57). Additionally, the author asserts that researchers "must not pressure participants into signing consent forms" and must explicitly tell them "that they do not have to sign" anything (Creswell 2012: 58). Also, he recommends learning "about cultural, religious, gender, and other differences that need to be respected" (Creswell 2012: 58).

In the context of the present research project, three consent forms, written in French, English and Arabic[19] each were requested by the *Comité plurifacultaire d'éthique de la recherche* (CPÉR) of the University of Montréal. In total, nine consent forms were required and approved in July of 2010. Each one explains the purpose of the study, the participation process, the timeframe, the dissemination of results, the procedure for opting out as well as matters of confidentiality, anonymity, advantages and disadvantages. More specifically, the forms clarify that if a participant cannot or refuses to answer a question and experiences discomfort, he/she can inform the researcher verbally during the interview or the survey. In that case, the researcher would respect his/her decision and move to the next question. Additionally, each participant is informed that he/she can opt out of the interview or the survey if he/she chooses not to proceed; in that case, his/her previous answers (if any) and the interview or the survey questionnaire itself will no longer be used in the thesis. However, if a participant proceeds with the interview or the survey and decides to answer all the questions, then he/she agrees that the research project does not affect him/her physically, emotionally or professionally.

The consent form for the interviews, in particular, explains: "Because your professional practice within your work environment might indirectly identify you, the confidentiality of your name cannot be guaranteed. In other words, agreeing to be interviewed entails that you also permit the researcher to mention your name, your profession and the organization for which you work in the doctoral thesis. These will be the only three pieces of information linked to your identity." Although every

[19] The Committee demanded one written consent form for the interviews and two separate ones for the survey: one for adults and one for adolescents. Each consent form had to be written in French and in the languages that will be used to conduct the interviews and the survey.

interviewee has agreed to these terms when he/she was recruited six months prior to the interview, the researcher later decided not to mention any names in the thesis, because the process of interviewing has raised some sensitive issues that may potentially harm a few participants professionally if they were to be identified in the future. In fact, "the ethical issues especially arise during data collection with respect for the site and the participants" (Creswell 2012: 65), which is why qualitative researchers cannot be entirely sure whether the generated data will harm participants until the data collection methods are actually applied. Further clarification about ethics is discussed in the following subsections.

3.4.1. Face-to-Face Interviews

Professional credentials (e.g. the principal architect of X project in Kuwait City) might indirectly identify interviewees. For this reason, the consent form explains that anonymity cannot be guaranteed. In other words, the reader can identify the applicants who are associated with the new buildings that pertain to the selected site in Kuwait City on the Internet or in journal articles.

For example, the Kuwait Investment Authority (KIA) Headquarters Building is a new skyscraper that is currently being constructed in the *Al-Sharq* area of Kuwait City. Information about the principal architect Raj Patel and the firm KEO International Consultants can be found in the following sources:

"Boldly Traditional: The New KIA Headquarters in Kuwait." Architecture Plus 18 (2006): 24-29. 28 Oct. 2011 <http://www.keoic.com/press/pdfs/a+mag.pdf>.

"KIA Headquarters Building." World Architecture News. 2007. 15 May 2012 <http://www.worldarchitecturenews.com/index.php?fuseaction=wanappln.projectview&upload_id=1428>.

This information was shared with the *Comité plurifacultaire d'éthique de la recherche* (CPÉR) through online communication with ethics consultants from the *Faculté des sciences de l'éducation* of the University of Montreal.

Accordingly, the Committee permitted the mentioning of names in the doctoral thesis and provided the researcher with an ethics certificate. However, during the interviews, some participants discussed sensitive topics, which were not anticipated beforehand. These topics may have negative impacts on a few interviewees or cause them unwanted tension in their place of work in the future. To protect everyone from potential risks, names have been removed.

Hence, when discussing the results of the interviews in **Chapter IV: Research Findings**, data is associated with either the "applicant group" or the "evaluator group." Only professional credentials (e.g. a heritage advisor at Kuwait Municipality) are used to identify each interviewee in his/her respective group. Answers as well as direct quotes are attributed to the group. This strategy makes the association of sensitive issues with a particular individual difficult. At the same time, the credibility of the thematic analysis is not affected, because the outcomes of the interviews are more important than knowing exactly who said what.

3.4.2. Longitudinal Survey

The two consent forms explain that Kuwaiti citizens are requested to mention their age in the questionnaire. The purpose is to make sure that different generations have participated in the survey. Names and contact information, however, are needless.

When a participant is a university student/young professional (i.e. ages 17 to 25), a mature professional (i.e. 26 to 65) or a senior citizen (i.e. 66 to 80), the researcher has personally given him/her a written consent form and a questionnaire. A contact sheet was also distributed in case he/she has asked for a copy of the survey's results. Only the researcher has access to the list of names and contact information. Participants were asked to complete the questionnaire (mandatory), sign the consent form (optional), fill the contact sheet (optional) and return the documents within ten to fifteen minutes.

In the particular case of adolescents (i.e. ages 13 to 16), the researcher has contacted two schools to avoid bias by selecting one school. The choice of schools was based on the high percentage of Kuwaiti students (as opposed to non-Kuwaitis). Each director was handed a written consent form and a questionnaire and was asked whether

he/she would allow his/her students to participate in the survey and whether the permission of the parents is essential. Upon reading these documents, the directors judged that the survey is harmless; for this reason, the administrations were responsible for distributing questionnaires during class hours and for contacting the researcher when they were filled and ready for pickup. The researcher, therefore, did not interact with adolescents and their parents.

3.5. Validity Strategies

3.5.1. Internal Validity

In sections 4.3. and 4.4. of **Chapter IV: Research Findings**, data generated from document analysis is compared with those from the interviews and the survey to enhance the credibility of the study. In other words, triangulation is employed.

Also, follow-up interviews or "member-checking" (Creswell 2009: 191) were conducted in Kuwait City. Since Creswell recommends presenting "parts of the polished product" to participants (Creswell 2009: 191), the researcher composed a theoretical model and asked the participants to read it prior to the interviews. Their comments and concerns have supported the evaluation of the overall results of the study in **Chapter V: Discussion**. More specifically, the model or "the polished product" has provided an opportunity to identify the strengths and weaknesses of the suggested approach to design and assessment, to explore its practical application in Kuwait City and to "check for alternative explanations and negative evidence" (Maxwell 1996: 113).

These two internal validity strategies (i.e. triangulation and member-checking) help defend the credibility of research findings, confirm the relationships among variables and indicators (view section 3.1. of **Chapter III: Methodology**), verify whether the suggested approach is appropriate, effective and applicable, and deal with major validity threats: potential bias in the selection of some participants as well as self-report bias in the type of questions asked during the interviews and in the survey questionnaire.

3.5.2. External Validity

External validity is also called generalization or generalizability (Schwandt 2001: 105). It "refers to the wider relevance or resonance of one's inquiry beyond the specific context in which it was conducted" (Schwandt 2001: 106). Creswell explains that the intent of qualitative research "is not to generalize findings to individuals, sites, or places outside of those under study," because "the value of qualitative research lies in the particular description and themes developed in context of a specific site. Particularity rather than generalizability […] is the hallmark of qualitative research" (Creswell 2009: 192-193). Accordingly, the knowledge generated to answer the three subsidiary research questions, which are exclusively about Kuwait City (view section 1.9. of **Chapter I: Introduction**), is only useful and applicable to that city. Put differently, the heritage values, the character-defining elements, the local meaning of compatibility and the local review process of project proposals cannot be generalized to other cities.

Nevertheless, the alternative approach to criteria that was developed as a result of working with the case study is generalizable, because it can be applicable to other cities. In fact, section 3.1. of **Chapter III: Methodology** as well as **Chapter II: Literature Review** have shown that the research problem is not specific to Kuwait City; it affects many cities in different geo-cultural contexts. Put simply, the general research question can be asked in any context; its answer, therefore, can be generalized.

To explore the usefulness and applicability of that approach beyond the case study and to return the reflection back to the initial research question and thesis statement (view section 1.5. of **Chapter I: Introduction**), three external auditors/international experts were identified, recruited and asked to comment on the theoretical model. They were also asked whether they mind having their names mentioned in the thesis; however, to avoid unforeseen negative impacts, only their professional credentials have been kept. Hence, answers and direct quotes in **Chapter V: Discussion** are not associated with a particular individual. This external validity strategy (i.e. external auditing) reveals whether the approach makes sense to

professionals outside the case study. It also helps determine exactly which parts of the theoretical model can be transferred to cases other than Kuwait City.

The other external validity strategy that was employed is the provision of thick descriptions. More specifically, the researcher has attempted to thoroughly describe the problem (view subsections 1.2.1. to 1.2.6. of **Chapter I: Introduction**), the case study and the research findings with a view to giving future researchers and students who wish to transfer information onto their work a "reliable framework for comparison" (Creswell 2009: 200). This explains why **Chapter IV: Research Findings** is a dense chapter about the case study and the findings.

Summary

The theoretical framework was developed from the knowledge that was gained from **Chapter II: Literature Review**. The independent and dependent variables as well as the indicators were extracted from the literature and then their relationships were established in **Figure 6** on p.117 and **Table I** on p.118. Next, the overall methodology of the research project was explained. Qualitative data collection methods were identified and evaluated in **Table II** on p.126 in order to determine which method should be selected to carry out the study. Given the pros and cons of each method, it was found that interviewing, document analysis, a survey and a case study have the potential to fulfill the two research objectives. Yet, since case study research is the strategy of inquiry, the methods were applied to generate specific knowledge about Kuwait City, as shown in **Chapter IV: Research Findings**. First, document analysis and on-site observation were exercised. Data was organized, described, analysed and interpreted. A site containing both heritage and new buildings was selected and documented. Afterwards, the researcher identified, recruited and interviewed applicants and evaluators who are associated with the design and assessment of the new buildings. At the same time, a survey with a sample of the Kuwaiti population was gradually conducted. Interview answers were thematically analysed. In the resulting analytic narrative, only professional credentials are mentioned to avoid unforseen negative impacts; answers and direct quotes are attributed to either the applicant group or the

evaluator group. As for the survey, results were classified in a chart that facilitates their analysis and interpretation. Participants were selected randomly and have remained largely anonymous. Triangulation and member-checking, moreover, were used to ensure the internal validity of the study. To ensure its external validity, interviews with international experts were conducted. Also, the problem, the case study and the research findings were described in detail.

CHAPTER IV: RESEARCH FINDINGS

Introduction

Research findings generated from each data collection method and its associated data analysis method, which were selected and evaluated in the previous chapter, are organized in a distinct section. First, information drawn from relevant sources of literature on the case study is examined and arranged in a chronological organizational pattern that shows the transition from the traditional to the contemporary Kuwait City. The main intention is to establish the heritage values and character-defining elements of the historic urban environment and to understand their importance in a present-day context. Secondly, a site in Kuwait City is selected and described. Heritage and new buildings in situ as well as the surrounding urban context are portrayed in words and photographs. Thirdly, the answers of the eleven interviewees who were recruited are thematically analysed. Fourthly, the results of the longitudinal survey that was conducted with a sample of the Kuwaiti population, which comprises 155 participants, are classified and interpreted. Each of these four sections begins with an opening piece that further explains the presentation of research findings. Next, an alternative approach to criteria is identified and justified. To develop that approach and demonstrate how it might be presented to, and used by, applicants and evaluators, a theoretical model is proposed and included at the end of this chapter.

4.1. Document Analysis and Chronological Organization of Information

Local heritage values and character-defining elements are not yet identified through formal recognition by an authority or by nomination.[20] For this reason, the

[20] There is a Register of Heritage Buildings that was created in 1988 by the Historic Building Preservation Section (HBPS) of Kuwait Municipality, mainly by Evangelia Simos Ali who is currently a heritage advisor. It was published again in 2009 under the title Kuwait Historical Preservation Study: Old Kuwait

present researcher proposes to establish those values and elements by collecting, describing, analysing and interpreting information sources available on the evolution and physical condition of the historic urban environment as well as on the building culture and lifestyle of the Kuwaiti community. A definition of heritage value[21] is adopted for guidance. The consulted sources include five articles, twenty-two books, three proceedings, three government publications, four Ph.D. theses, one Masters thesis, one Master Plan review, one discussion website, online archives as well as the *Qur'an*.

First, Old Kuwait Town (i.e. Kuwait City before the 1950s) is placed in a physical context and, then, in a cultural-religious one. Here, culture and religion are attached, because literature shows that Islam is not just a faith, but also a way of living. In reality, the physical and cultural-religious contexts are inseparable, but they are here discussed in separate subsections to show the role of determinants, on the one hand, and that of Islamic design guidelines, on the other hand, in shaping the urban morphology and vernacular typology of Old Kuwait Town. The first subsection concludes with the detection of historic, scientific, aesthetic and social values. The second one ends with cultural and religious (spiritual) ones. The character-defining elements in which these values are embodied are also identified. Then, the concept of compatibility in the traditional Kuwaiti context is defined.

For clarification, a heritage value is usually generated from, and acknowledged by, the whole community, not a single person (Standards and Guidelines for the Conservation of Historic Places in Canada 2010: viii). To establish values is a process that brings together local government, including citizens and diverse interest groups. Nevertheless, since document analysis excludes the interaction with human subjects, data can only be collected, described, analysed and interpreted from what is written, as

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Town (Ali 2009). The buildings that were identified as being heritage were built before the 1950s. In essence, the book lists the owners of those buildings (e.g. Ministry of Islamic Affairs, Ministry of Finance, private owners) and contains maps, which show the urban context around the buildings in 1951 and then in 1988. It does not mention heritage values or character-defining elements.

[21] **Heritage value:** "the aesthetic, historic, scientific, cultural, social or spiritual importance or significance for past, present or future generations. The heritage value of a historic place is embodied in its character-defining materials, forms, location, spatial configurations, uses and cultural associations or meanings." Values may be "singular or multiple," "subjective, wide-ranging and can overlap," and "can be differently assigned by different groups and may even change over time." (Standards and Guidelines for the Conservation of Historic Places in Canada 2010: 254 and viii). This definition is selected for its clarity and conciseness.

opposed to from what is heard and understood from Kuwaitis. Hence, the researcher's interpretations on values and character-defining elements will likely be imprecise. For this reason, research findings from document analysis will have to be compared with the outcomes of the interviews and the survey in order to ensure their internal validity.

Secondly, in the next subsection, the impact of oil on the physical and cultural-religious contexts of Old Kuwait Town and, consequently, on its heritage values and character-defining elements is explained. At the same time, the explanation shows how determinants and Islamic design guidelines have lost their role in shaping the urban environment at the expense of imported ideas, materials and planning tools in the 1950s. Also, the current values of the modernized Kuwait City and the current understanding of compatibility are identified. Lastly, the characteristics of a potential alternative approach to criteria are described based on the knowledge gained from the literature.

4.1.1. Old Kuwait Town Pre-1950s

4.1.1.1. Physical Context: Determinants

Before the exportation of oil in the late 1940s, the Kuwaiti urban environment was the result of urban determinants such as climate, topography and materials in situ as well as man-made determinants, such as fishing and pearling (i.e. marine activities and trade). It was mostly climate that influenced the initial morphology of Old Kuwait Town, which consisted of narrow thoroughfares and densely packed courtyard houses that were facing the harbour to capture the cool breeze (Hawker 2008: 110).

In general, the climate is hot and dry in summer and moderate in winter. Summer begins in April and lasts until October. July and August are the most humid months. The temperature usually ranges from 107 to 115 degrees Fahrenheit (Torstrick and Faier 2009: 6) and the solar radiation is about 2.5 times the world average (T.R. 1979: 34). The absence of clouds results in a powerful and long solar radiation that heats the ground and exposed spaces. Rainfall is limited and varies between 2.9 and 3.9 inches a year (Torstrick and Faier 2009: 8).

This desert setting dictated much of the residents' coastal lifestyle (Alsuwayeh 1985: 51) and controlled Kuwaiti vernacular architecture, which was primarily a

protection from heat, sandstorms and solar radiation (Gardiner 1983: 68). More specifically, buildings were clustered, inward-oriented and initially located near the seafront in response to the hot desert climate; thoroughfares were narrow to protect pedestrians from dust and sun (**Figure 7** p.149). Hence, the design of the urban environment addressed summer more than winter (Karaman and Egli 1981: 4).

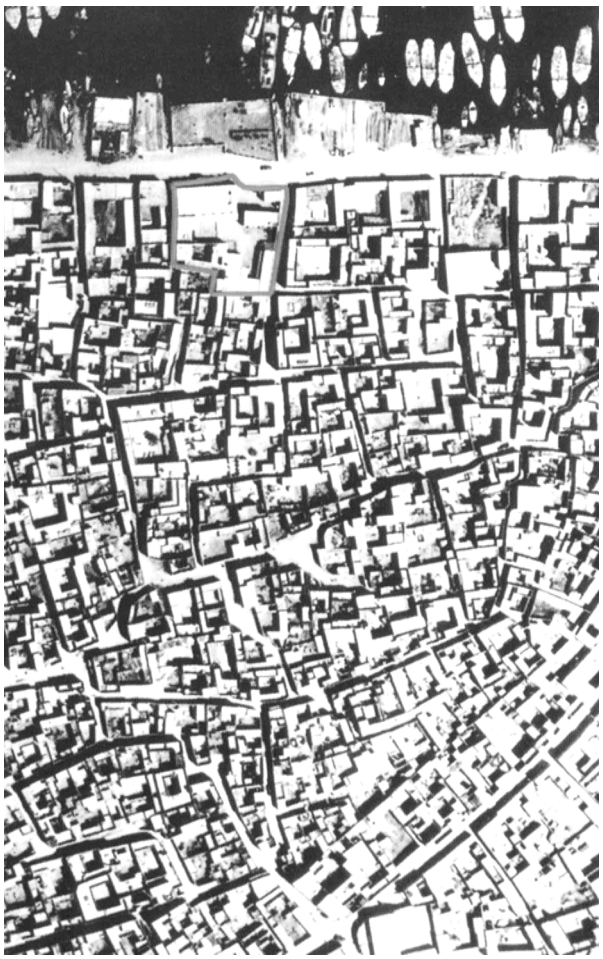

Figure 7: First aerial plan of Old Kuwait Town in 1951 (source: Al-Beeshi et al., eds., 2010: 4). Note: the oval-shaped objects on the top are dhows.

Function was "regarded as a variable and not as essential to the construction of a building" (Akbar 1987: 112). For this reason, houses, baths, forts and mosques embraced the same courtyard typology. The latter, however, was not invented in Old Kuwait Town. In fact, it predates Islam by approximately three thousand years (Hakim 1986: 137). It originated with the cities of the Sumerian civilization in Mesopotamia, today known as Iraq (Morris 1994: 8-9).

According to Sumerian cosmology, the universe consisted of Heaven (*An*) and Earth (*Ki*) that were united until the God of Air (*Enlil*) separated them (Edwards et al. 2006: 106). In response to this unfortunate event, the Sumerians created courtyard architecture to reunite them. The use of this typology in a densely packed manner with narrow thoroughfares is commonly known as "the Mesopotamian model," which appeared in two cities, *Erbil* and *Ur* (Hakim 1986: 95; Morris 1994: 8-9). These cities grew organically, which means that their road system was the result of the patterning of courtyard buildings rather than that of defined planning. The traditional architecture and morphology of the northwestern Gulf, where Old Kuwait Town is located, was a historic continuation of the Mesopotamian model (Lewcock 1978: 47). This model was adopted because it worked well with the hot climate, flat topography and construction materials in situ. According to Al-Mutawa, a contemporary Kuwaiti architect, it is "the ultimate design for the desert climate, proven through the ages" (Al-Mutawa 1981: 23).

Kuwaiti architecture was largely about simplicity and humility (Al-Quraini 1979: 14). Decoration was very minimal and usually consisted of layers of plaster (Hawker 2008: 86). Houses were mostly built of mud brick or coral sea rock that was taken from the seashore and whitewashed with gypsum plaster (Hawker 2008: 45-47). Construction materials consisted of palm frond and trunks, *sarooj* (i.e. mud mixed with hay and manure), *juss* (i.e. limestone mortar mix for binding bricks or stones together), mud plaster, mud brick, ashes and coral shaped into building blocks (Al-Quraini 1979: 19-20; Torstrick and Faier 2009: 72). Roofs were flat and made of *chandles* (i.e. round wooden poles), *manqour* (i.e. reed matts), mud and ashes, whereas floors were covered with mud and tiles that were imported from neighbouring countries (Al-Mutawa 1994: 18). These materials have low thermal conductivity, thereby preventing the build-up of heat in the building during summer. Mud brick, for instance, has a high capacity for heat retention as it absorbs daily solar heat rather than immediately transmitting it into interior spaces, and then it radiates heat at night. Also, walls were 30 to 130 cm thick to maximize heat absorption (Karaman and Egli 1981: 5).

The method of construction started by delimiting the lot by placing stones at the four corners then drawing lines on the ground (Al-Quraini 1979: 29). This explains why buildings had a box-like structure. Sun dried mud bricks were made from mud right

next to the construction site. Basements, moreover, did not exist and the foundations of walls were around a meter or a meter and a half deep (Goodwin 1997: 36). The human body was used to measure distances, with units including the double arm span, the lower arm from fingertip to elbow and the spread hand (Hawker 2008: 104). The conventional measurement was the cubit. One cubit equals eighteen inches (Al-Quraini 1979: 29). The materials in situ and the method of construction have limited the height of walls, the width of openings and the span of floors and roofs (Morris 1994: 12). For these reasons, buildings were one storey in height. If more space was needed to accommodate new family members, rooms were added laterally as opposed to building upward (Torstrick and Faier 2009: 73). Also, houses had the same height to prevent overlooking into courtyards and roofs on top of which families would sleep during hot summer nights. Parapets protected their privacy while they slept. Kuwaitis, furthermore, used passive cooling strategies such as the *badgir* (**Figure 8** p.151), which is a wind tower and an idea imported from Southern Iran (Hawker 2008: xvii). Courtyards are also natural sources of ventilation and cooling: trees provide shade whereas water areas such as fountains humidify air before it reaches the surrounding rooms.

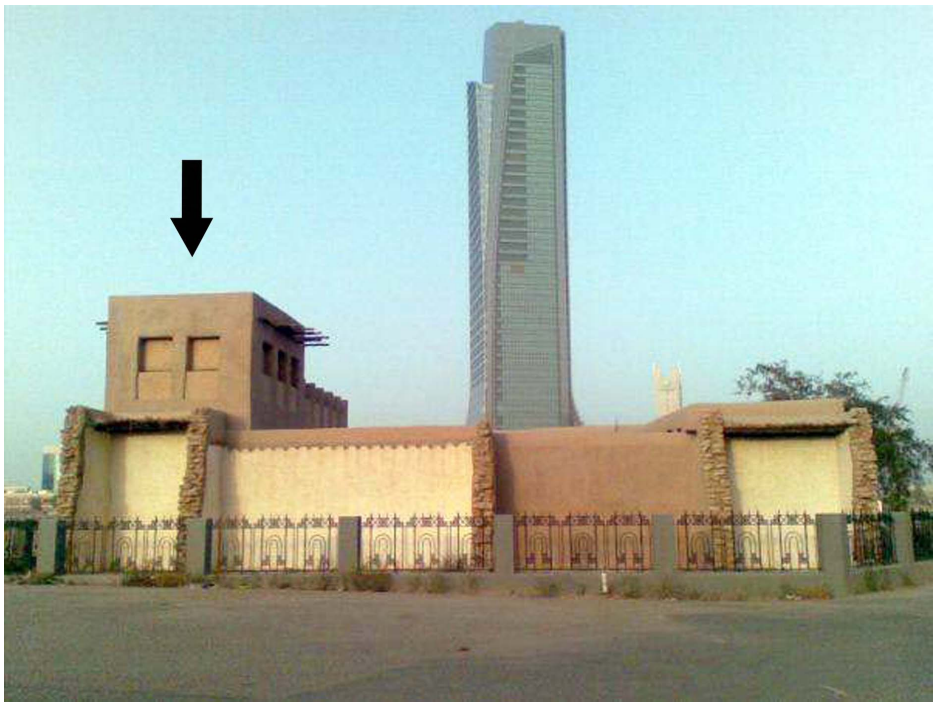

Figure 8: *Badgir* of one of the heritage buildings in Kuwait City. The *Al-Babtain Waqf* Culture Tower is in the background (source: researcher, 2011-01-18).

Houses along the seafront had a *dacha* (i.e. bench) attached to the façade facing the shoreline (**Figure 9** p.152). Men would sit there to watch the dhows and to socialize (Hawker 2008: 110). The scale and condition of these houses depended on wealth. Wealthy families employed a master mason, whereas poor families built their houses themselves. Architects did not exist before the 1950s (Hawker 2008: 85). Owners of dhows, ship captains and pearl merchants lived in big houses that had up to five courtyards. For example, *Bayt Al-Bader*, which means "the house of Al- Bader" (**Figure 10** p.153) was built between 1837 and 1847 at the western end of the seafront and had five courtyards: the men's reception court called *hawsh al-diwanniyah*, the private court for women called *hawsh al-harim*, the business court, the kitchen court and the animal (livestock) court (Lewcock 1978: 116). On the other hand, boat builders, laborers, artisans, repairers, pearl divers, sailors and fishermen lived in houses that had one central courtyard, which was multifunctional (Lewcock 1978: 117). Kuwaitis who were living on the inland of town, moreover, were *Bedoon* (Lewcock 1978: 2). *Bedoon* is derived from the Arabic term *bedu*, which means "the dweller of the desert" or "nomad" (Alenazy 2007: 4). They lived in brown or black tents (Vale 2008: 264) or in houses made of palm frond, given that it is a temporary material.

Figure 9: *Dacha* attached to the façade (facing the harbor) of *Al-As'oussi Diwan*, which is a heritage building in Kuwait City (source: researcher, 2011-01-18).

Figure 10: *Hawsh al-harim* in *Bayt Al-Bader*, which is a heritage building in Kuwait City (source: researcher, 2011-01-18).

To protect the privacy of female inhabitants, access to the men's reception court and the business court were from the main street facing the harbor, whereas access to the women's court was from the back of the house. Houses usually included a *liwan* (i.e. colonnade), water spouts at roof level for drainage, wooden doors, a cistern in the courtyard(s) and a *dahleez* (i.e. corridor) that usually had an "L" shape following the entrance(s) to give residents, particularly women and children, enough time to clear the courtyard, if they wanted, before male visitors reached it (Al-Quraini 1979: 17). Bedrooms were arranged around the courtyard(s) to receive ventilation and daylight. Also, windows facing the streets were rare, unglazed and covered with bars or shutters, as shown in **Figure 9** on p.152. They were strategically located and almost nonexistent on east and west façades to minimize the penetration of heat within interior spaces.

Though zoning as a planning tool did not exist, zoning as a concept did, because zones of economic activity were clearly separated from residential ones (Jayyusi et al. eds. 2008: 59). More specifically, domestic privacy led to a clear separation between the public zone, which was the *tijarah* (i.e. business district), and the private zones, which consisted of *fareej* (i.e. quarters) where Kuwaitis gathered according to their tribal

affiliation. There were many tribes such as the *Utub*, *Awazim*, *Rashaidah*, *Bani Khalid*, *Ajman*, *Dawasir*, *Anaizah* and *Dhafir* (Hawker 2008: 109). Quarters were grouped into two residential wings, which comprised the greater part of Old Kuwait Town. The western wing *Jibla* developed before the eastern wing *Sharq* (Al-Quraini 1979: 63). Inside each quarter, irregular streets ended in cul-de-sacs on the one hand (Jayyusi et al. eds. 2008: 62) and, on the other hand, they led to a single *darb* (i.e. thoroughfare) that connected the quarter to the business district. That district was located between the two residential wings and had two functional centres: the *souq* (i.e. market) that ran perpendicular to the coastline through the centre of town where overseas goods were received, and *Shat Al Safat* (i.e. *Al Safat* square) where trade between men from the desert (i.e. *Bedoon*) and townspeople took place (Al-Quraini 1979: 63).

Pearling was the main reason for population growth, because it attracted sailors and merchants from abroad, mainly from Iran (Hawker 2008: 166). When the Danish explorer Niebuhr visited Old Kuwait Town in 1756, he explained that the population was about ten thousand people (Lewcock 1978: 12). In 1859, it grew to twenty thousand. In 1905, it was around twenty-five thousand (Lewcock 1978: 13). In 1914, there were thirty-five thousand people who were living in around thirty-five hundred houses (Lewcock 1978: 14). By 1920, the population was approximately fifty thousand (Hawker 2008: 110). The mud fortification walls, which were constructed in 1760, 1811 and 1920 for defensive purposes (Al-Sanafi 2001: 41), reflect the expansion of the population over the centuries (**Figure 11** p.154).

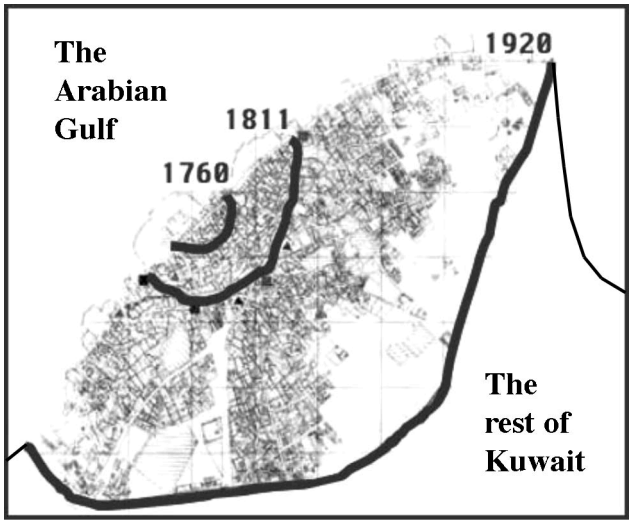

Figure 11: Fortification walls and expansion of the population (source: researcher).

In conclusion, this subsection has discussed information that helps in establishing some of the heritage values and character-defining elements of the urban environment of Old Kuwait Town. The historic value is mainly the adoption of the Mesopotamian model; it is embodied in the spatial configuration of Old Kuwait Town with its clustered courtyard buildings and narrow thoroughfares. The scientific value is the response to climate; it is set in passive cooling strategies (e.g. courtyards, wind towers) and thermally resistant materials (e.g. mud brick). The aesthetic value is simplicity; it is exemplified in the façades and box-like structure of buildings. The social value is order in the household; it is represented in the courtyard, which orders the location of access and interior spaces (e.g. bedrooms, colonnades, corridors), the relationship between functions (e.g. men's reception, business reception, women's reception, kitchen and livestock) and the relations between people (i.e. inhabitants and guests). Also, the social value extends outward where marine activities and trade influenced the construction of courtyard houses near the seafront. It is embodied in the location of these houses with their *dacha*. Evidently, the courtyard is a character-defining element that embodies many values, given that values "can overlap" (Standards and Guidelines for the Conservation of Historic Places in Canada 2010: viii). Still, the identification of cultural and religious values requires an understanding of Islamic design guidelines, which are explained in the following subsection.

4.1.1.2. Cultural-Religious Context: Islamic Design Guidelines

The Prophet Mohammad[22] proclaimed Islam[23] in 610 CE in Mecca, in Saudi Arabia (Jayyusi et al., eds. 2008: 72). In 622 CE, He settled in Medina, which is another city in Saudi Arabia, where He established the foundation of Muslim living (Hakim 1986: 15). 622 CE represents year 1 of the Islamic calendar. Islam addresses Muslims and non-Muslims and strives to create a unit of people who share the same moral

[22] Arabic words and names are sometimes given several different spellings in Western writing. The name of the Prophet appears as M**o**hamm**a**d, M**u**hamm**a**d or M**o**hamm**e**d (Greenwood Press 2004: xii). The researcher judges that the first spelling is the closest to its Arabic pronunciation.

[23] The word "*Islam*" in Arabic comes from "*Silm*," which means peace. It is commonly understood by Muslims to mean the total surrender to God (Mortada 2003: 1).

beliefs. The foundation of Muslim living is *Iman* (i.e. faith), whose essence is *Tawhid*, which means the belief in the existence and unity of God (Mortada 2003: 18). Accordingly, Islamic design guidelines are based on the unity of the *umma* (i.e. community) on earth. This explains why the urban environment of Old Kuwait Town is horizontal and unified (by being densely packed and homogeneous). More specifically, a city or town in Islam is perceived as a unit of cellular growth composed of positive spaces such as the rooms in a building as well as negative spaces such as the courtyards and thoroughfares, which are open to the sky (Al-Bayati 1983: 38).

Yet, the *Qur'an*[24] (i.e. the recitation) and the *Sunna*[25] (i.e. the tradition of the Prophet that encloses His sayings, known as *Hadith*) indirectly discuss regulations pertaining to urban and architectural design. The only religious text that includes a precise measurement is the following *Hadith*: "If you are in disagreement about the width of a street, make this of seven cubits" (Hakim 1988: 146; Jayyusi et al. 2008: 56; Morris 1994: 388). This width (i.e. seven cubits, the equivalent of 3.2 meters) was determined by the Prophet to allow the passage of traffic.

Rather than reciting a list of regulations, religious text emphasizes key concepts such as the protection of privacy, the respect of the *jar* (i.e. neighbour) and "beauty without arrogance," which means modesty (Hakim 1986: 22; Jayyusi et al., eds. 2008: 78). These concepts, in particular, justify the preference of living in an inward-looking house, austere externally, with minimum windows facing the streets. They also explain why the residents of Old Kuwait Town searched for "simplicity and humility" and tried "to avoid waste through the frivolous use of resources" (Al-Quraini 1979: 14).

The three concepts on privacy, prevention of harm (respect of others) and modesty appear in various verses of the *Qur'an* and in many *Hadith*, some of which are translated by the researcher below:

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[24] The word "*Qur'an*" in Arabic comes from "*Quira'a*," which means to read. Literally, the *Qur'an* is the book to be read (Mortada 2003: 4). In fact, the first word of the *Qur'an*'s revelation to the Prophet Mohammad was an order to read, then to learn and to seek knowledge.

[25] The word "*Sunna*" in Arabic means the method (Mortada 2003: 4). Hence, a *Sunni* is a Muslim who follows the Prophet's *Sunna*.

From the *Qur'an*

"To those who believe, do not enter houses other than your own unless you are granted permission and you have saluted the inhabitants. That is best for you to remember" *Ayah* (i.e. verse) 26:27 from *Sourat Al-Nour* (i.e. Chapter The Light). The suggested concept is the respect of domestic privacy.

From the *Hadith*

"He who has the slightest particle of arrogance in his heart will not enter paradise." A man said "A man likes to have good clothes and good shoes." The Prophet – peace be upon Him – said "God is beautiful and He loves beauty"(Oral Tradition). The suggested concept is beauty without arrogance.

"A person who does not have his neighbours' trust and honesty will not enter paradise" (Oral Tradition). The suggested concept is the respect of neighbours.

The jurisdictional decisions made by a *kadi* (i.e. judge) specialized in *fiqh* (i.e. jurisprudence, science of religious law in Islam) have enriched Islamic morphologies[26] and domestic architecture (Morris 1994: 375). In Old Kuwait Town, it was *Ibn Fayruz* who was the judge during the reign of the first *Sabah* ruler (Abu Hakima 1965: 59). The judge, assisted by his *ulamma* (i.e. religious scholars), interpreted the meaning of concepts in the *Qur'an* and the *Sunna* and then developed guidelines accordingly. Guidelines addressed location, restriction of uses causing harm (e.g. smoke, offensive odor, noise), overlooking (e.g. door and window disposition), walls between neighbours (e.g. rights of ownership) and drainage of water. They primarily concerned the individual family house and its access system. Morris, a lecturer on the history of town planning, claims that domestic privacy was the most important guideline (Morris 1994: 379), whereas Hakim, an architect and historian, argues that it was the avoidance of harm (Hakim 1986: 22). The judge, furthermore, decided what construction activities would cause harm and what was allowed or forbidden in a given zone (Akbar 1987: 109). Decisions from one city to another, however, were not consistent, because a judge

[26] Islamic morphologies are not homogeneous due to topography, location, physical and cultural conditions, historical and political circumstances as well as differing religious interpretations.

adhered to a *Madhab* (i.e. School of Islamic Law) and each School understood religious text differently. The urban environment of an Islamic city or town, therefore, was an interaction between determinants (view subsection 4.4.1.1. of **Chapter IV: Research Findings**) and *fiqh* pertaining to a School of Islamic Law.

Still, all Schools had to conform to *Al-Shari'a* (i.e. divine Islamic Law). The word "*Al-Shari'a*" comes from the word "*Al-Shari'*," which means "road" in Arabic. Accordingly, *Al-Shari'a* is the road that leads to God (Al-Quraini 1979: 14). Although its origin is divine, its objective is human (Mortada 2003: 2). It "covers all the aspects of the public and private, communal and personal lives of the Muslims," including family law, law of inheritance, of property, of contracts and criminal law (Morris 1994: 374). There are four sources of law in the following order of importance: the *Qur'an* and the *Sunna* are the macro laws that form *Al-Shari'a*, whereas *Ijma'* (i.e. the consensus of the community) and *Quiyas* (i.e. the use of human reason in decision-making) are the micro laws (Hakim 1986: 16). Since the Prophet did not write the *Sunna*, but rather cited it orally, it was *Mohammad Ibn-Idris al-Shafi'i* who established it as the second source of law after the *Qur'an* (Hakim 1986: 16). If a problem, such as the construction of a new building in an established quarter, arose and the answer was neither in the *Qur'an* nor in the *Sunna*, then a consensus of the community (*Ijma'*) would be the third alternative to help resolve the issue. If some members of the community were missing, then reasoning (*Quiyas*) would be the last solution.

Several Schools were established after the death of the Prophet to interpret *Al-Shari'a* and apply it to all aspects of Muslim living, including design guidelines. Only five of them have survived until today: the *Maliki*, the *Hanafi*, the *Shafi'i*, the *Hanbali* and the *Jaffari* (Hakim 1986: 15). The first four Schools are *Sunni* (i.e. a branch of Islam that follows the *Sunna* of the Prophet) whereas the fifth is *Shi'i* (another branch). It was most probably the *Maliki* School that influenced the urban environment of Old Kuwait Town, because the migration of Arabians from Saudi Arabia, where the *Maliki* School originated, to found Old Kuwait Town in the 17th century is a historical fact that justifies this assumption (Abu Hakima 1965: 181). This School was attributed to *Malik ben Anas Al-Asbahi,* who was an *Imam* (i.e. worship leader) and a judge born and raised in Medina (Hakim 1986: 17). *Malik* developed guidelines in 622 CE (i.e. the same year

when the Prophet established the foundation of Muslim living). Those guidelines became largely recognized in 912 CE (Hakim 1986: 18-19).

The *Maliki* School stresses that residents must avoid creating direct visual corridors (Jayyusi et al., eds., 2008: 59). Generally speaking, the location of windows and main entrances must be carefully designed in relation to the width and level of streets to prevent bystanders from looking inside homes. When the width of a street is less than seven cubits (i.e. the only measurement provided by the Prophet), doors must not face one another to keep neighbours from peeking into the *skifa*, which is the entry hall to a house (Hakim 1986: 34). Semi-private spaces in the house (e.g. entry hall) must be specified by the use of a different material or a separation marked by a wall, a curtain or a door. Members of the community, moreover, must respect the property of others and avoid harm to neighbours when building new units. Additionally, streets must be clean at all times; placing sources of unpleasant smells and noisy activities, particularly near the mosque, must be avoided.

The above guidelines, however, had a quasi-legal status, which means that they "did not rely on prescriptive standards" (Hakim 1986: 138) and they did not have a "formally codified mandatory nature" (Morris 1994: 369). They functioned as "performance criteria:" they were "intent-oriented," based on the "qualitative" interpretation of religious text and "responsive" to site conditions (Al-Hatloul 1981: 257, Jayyusi et al., eds. 2008: 85). In fact, the Islamic city is characterised by the looseness of its structure and the absence of municipal institutions (Hourani and Stern eds. 1969: 26). For these reasons, Islamic design guidelines are not rules per se, but rather principles. Mortada, an educator of Islamic principles and an architectural critic, explains that Islam is "a tradition of values rather than a set of specific technical rules" (Mortada 2003: xiv); hence, there was no need for explicit building codes or administrative bodies to plan and regulate the urban environment. The author clarifies that "the logic of Islamic principles does not confine man's creativity," whereas "the logic of modern regulations," such as zoning, "obliges man to behave according to pre-determined clichés. The first depends on the restraint of the self, but the second depends on the restraint of the law" (Mortada 2003: 56). For this reason, the religious beliefs and

practices of the Kuwaiti community were self-policing criteria derived from Islamic principles, which influenced the spatial and social composition of Old Kuwait Town.

Islamic principles, therefore, played an important role in shaping the traditional Kuwaiti urban environment, which was horizontal (i.e. reflecting the concept of unity), simple (i.e. the concept of beauty without arrogance) and fundamentally about human behaviour (i.e. respecting domestic privacy, preventing harm to neighbours and clearly separating public space from private). As a result, the religious value was omnipresent. It is mostly embodied in the location of positive spaces (e.g. buildings, rooms) in relation to negative spaces (e.g. thoroughfares, courtyards). Since Islam governs Muslim living, this religious value is also a cultural one. In fact, subsection 4.1.1.1. of **Chapter IV: Research Findings** explained that the entrance to a house was followed by a corridor for privacy purposes. Windows facing the streets were rare to prevent bystanders from looking into homes. The business district formed its own entity to avoid tradesmen from disturbing private zones. Thus, faith and way of life were fused.

Lastly, one may argue that the cultural landscape of Old Kuwait Town resides in the relationship between the desert environment (urban determinants) and the practices of Kuwaitis who followed Islamic teaching (man-made determinants including *fiqh*). Compatibility, moreover, primarily involved climate responsive design and adherence to Islamic principles. Accordingly, **Table IV** on p.160-162 shows the components of Old Kuwait Town and their responses to climate and religion as well as their traditional use (public or private). Evidently, the courtyard typology was dominant. In essence, **Table IV** provides a base for understanding the Town's physical structure, which is the observable evidence of the cultural landscape, and for understanding compatibility as it was understood before the emergence of Kuwait City in the 1950s.

Public Domain	Reaction to Climate	Reaction to Religion
The ***masjed*** (mosque), with related buildings such as the ***madrassa*** (in Arabic, this word translates as "school" but at the time it was a college for advanced teaching in religion).	Mosques were modest. They followed the courtyard typology and included water areas, which cool and humidify air before it reaches the surrounding spaces.	The mosque is a public prayer home and a meeting place for all Muslims; therefore, it is the most important building in Islam. Water areas are used for ablution before prayer.

The ***darb*** (thoroughfare).	Streets were narrow and surrounded by buildings for protection from heat. The street system was not planned but was the "left-over" space between buildings.	Streets had to allow the passage of animal traffic (e.g. camels, horses) and had to remain clean.
The ***tijarah*** (business district) located between the Town's two residential wings. It had two functional centres: the ***souq*** (market) where overseas goods were received and ***Shat Al Safat*** square where trade between men from the desert and townspeople took place (Al-Quraini 1979).	The business district ran perpendicular to the coastline through the center of town. It was often shaded to protect shoppers and salesmen from the hot and arid climate.	The business district is a public place and, therefore, is separated from the two residential wings to avoid outsiders from disturbing the privacy and serenity of homes.
The ***kasbah*** (citadel/fortress).	Forts also followed the courtyard typology, which embraced passive cooling strategies.	Protecting ones country is fundamental in Islam (Old Kuwait Town was exposed to attacks from Arabia).
The ***r'bat*** (defensive wall).	Defensive walls were built with mud brick, which has a high heat retention capacity and is thermally resistant.	Walls provide protection from the enemy.
The ***hammam*** (public bath).	The town had only two baths for each gender (Lewcock 1978), which also followed the courtyard typology.	Both women and men can enjoy their privacy.
Private Domain	Reaction to Climate	Reaction to Religion
The courtyard ***dar*** (house). In Old Kuwait Town, rich merchants could afford the luxury of a *hawsh al-diwanniyah* (the men's reception court) and a	The courtyard is a passive cooling strategy that cools and humidifies air before it reaches rooms, seating areas and the kitchen.	Windows facing the street were scarce and covered with shutters to protect the privacy of residents. The *dahleez* (corridor), which usually had an "L" shape following the door, gave

hawsh al-harim (the women's reception court). Houses usually had a *dacha* (bench) attached to the façade facing the shoreline. Men would sit there to watch dhows and talk.		residents enough time to clear the courtyard, if they wanted, before visitors reached it (Al-Quraini 1979).
The ***fareej*** (residential quarters) usually arranged by tribe affiliation. Old Kuwait Town had two residential wings: the western wing *Jibla*, which developed before the eastern wing *Sharq* (Al-Quraini 1979).	Quarters are clustered to create narrow streets that protect pedestrians from the harsh weather.	Quarters are unified and encourage social interactions. Unity is an important concept in Islam.

Table IV: The components of Old Kuwait Town and their traditional use as well as their responses to climate and religion (source: Khalaf 2012: 34-35). Note: the present researcher created this table as part of the journal article "Traditional vs. Modern Arabian Morphologies." It relies on a typomorphological approach for understanding urban form given that it classifies buildings and open space; thus, it explains the characteristics and physical structure of Old Kuwait Town.

4.1.2. Kuwait City Post-1950s

Socio-economic and technological change in the 1950s broke the bounds that traditionally shaped the urban environment. Oil was discovered in 1937, but World War II delayed its first shipment to Britain until 1946 (The Initials in Kuwait History 2011). The government of Kuwait used its new wealth to modernize Old Kuwait Town, which was almost entirely demolished and evacuated. Only the five gates of the fortification wall built in 1920, around one hundred and twenty historic buildings including mosques, schools and courtyard houses as well as some parts of the market remained (Anderson and Al-Bader 2006: 135; Al-Jassar 2008: 67). When the modernization program began, there were no trained local architects. The government relied on

"imported professional skills, imported ideas, imported manual labour, imported technologies, and even imported materials" (Curtis 1996: 584). Thousands of engineers, technicians, architects and workers from other Arab countries such as Egypt, and then from Europe and North America were recruited (Shiber 1964: 115). Kuwait City was raised in only a decade under the impact of oil and foreign workers (Shiber 1964: 115).

On the one hand, oil money brought some positive changes. For example, many mosques were renovated and stabilized in the 1950s such as *Masjid Mohammad Al-Jalahema Ibn Khames* built in 1773 (Lewcock 1978: 26). It also provided a more durable and safe form of habitation than mud brick buildings. Yet, its adverse effects on the traditional urban environment were severe. Since Kuwait was under the British protectorate from 1899 to 1960 (The Initials in Kuwait History 2011), the British influence on the modernization program was quite obvious. The city's urban planning began in 1951 with the first Kuwait Master Plan (KMP1) designed by the British firm Minoprio, Spencely and MacFarlane; however, the firm did not produce a plan that suited the physical or cultural-religious context of the locality. During an interview, Minoprio's words "we didn't know anything much about the Muslim World and the Kuwaitis […]. All we could give them was what we knew" (Gardiner 1983: 33-35) show that KMP1 was not the result of a careful study of local determinants and Islamic principles, but rather the replica of a British model, applied regardless of geographic and cultural differences. KMP1 "was a direct application of Ebenezer Howard's Garden City theory" in a desert setting (Koolhaas 2007: i).

At the architectural scale, cement was introduced to replace traditional materials such as mud brick. Although it allowed the construction of multistorey structures, which were impossible to achieve before, many of the buildings that were built in Kuwait City between the 1950s and 1970s were demolished, because the cement was "compromised" and could not endure the heat (Torstrick and Faier 2009: 70). To structurally support tall buildings, moreover, glass, concrete and steel became the dominant materials of Kuwaiti architecture. Yet, these materials are easily affected by the hot climate. Glass overheats interior spaces. Concrete requires shade when handled and the mixture needs to be constantly cool (T.R. 1979: 3). Also, concrete lets in almost twice as much heat as the equivalent thickness of a traditional mud brick wall (Al-

Quraini 1979: 82). The latter argument does not suggest that mud is more durable than concrete; it shows that it is more thermally appropriate and responsive to the climate.

At the urban scale, the car was a major factor in the planning of the city. The traditional pedestrian-friendly system with narrow thoroughfares that protected inhabitants from dust and heat turned into roundabouts and large streets that receive direct sun radiation (**Figure 12** p.165). This explains why quarters separated and close relations with neighbours dissolved. Modern planning tools, moreover, succeeded over Islamic principles. Zoning and neighbourhood units were directly imported from Britain (Al-Quraini 1979: 118); however, they created a hostile urban environment for Kuwaitis and resulted in social and spatial fragmentation (Shiber 1964: 22; Mahgoub 2005). Zoning regulations are quantitative whereas those of the *Maliki* School of Islamic Law are qualitative. In other words, zoning is about numbers that address and control, for instance, building heights, floor areas and setbacks. The *Maliki* School, on the other hand, is about religious interpretations that address and control concepts such as privacy. Old Kuwait Town grew organically from local circumstances, but when the town was demolished and a British grid system was imposed, the urban environment was no longer Kuwaiti: it became Western. As a result, aspects of the urban environment that were controlled by cultural conviction and mutual agreement between Kuwaitis in the past were replaced by Western thinking.

Architects, planners and researchers in the field of design have criticised the modernization of Kuwait City. For example, Al-Quraini, a Kuwaiti researcher, argues that "the new architecture that invaded Kuwait had little or no relationship to the forms which it replaced. It was an architecture of popular instead of traditional influences" (Al-Quraini 1979: 76). Al-Mutawa, a Kuwaiti architect asserts that "the new buildings imitate models in Europe and America that are totally unsuited to Kuwaiti needs […] the use is indiscriminate regarding fit into the local culture" (Al-Mutawa 1981: 22). Gardiner, a British architect, adds that "much of Kuwaiti building in the fifties was a precise reproduction of the kind of junk that was being run up in Europe, after the war" (Gardiner 1983: 53). Alsuwayeh, a Kuwaiti researcher claims that "many of Kuwait's modern buildings face each other in angry, aggressive poses. Most of these modern structures bear no relation to Kuwait's sun and seasons, its sandstorms and scorched

landscape, or its social mores and religion" (Alsuwayeh 1985: 10). Shiber, the architectural and city planning adviser for the government of Kuwait in the 1960s, argues that planning in the city since the 1950s created "an urban black-eye" and new buildings were "nothing but bastardized and juvenile concoctions and exercises rooted in nothingness" (Shiber 1964: 8 and 36). Ali, a heritage advisor at Kuwait Municipality, confirms that the destruction of the historic urban fabric of Old Kuwait Town, in order to accommodate new development, continues "notwithstanding the prudent Law of Antiquities of 1960 which called for the classification, documentation, preservation and restoration of the wealth of traditional buildings" (Ali 2009: 9).

Figure 12: Current planning in Kuwait City (source: researcher, 2011-01-18).

Concerned citizens have also shared their opinions about contemporary development in different forms of media. For instance, Al-Nakib, a Kuwaiti assistant professor of history and Director of the Center for Gulf Studies at the American University of Kuwait, expresses her disapproval of the regulating system by writing in

the Kuwait Times that it feels "no remorse at putting a beautiful old building at the mercy of […] bulldozer[s]" and sees "no need to protect and preserve the physical and psychological traces of [the city's] past." The author adds that the "tragedy" is "that most of the public just sit back and say nothing" (Al-Nakib 2008).

Online discussions, moreover, suggest that skyscrapers, in particular, ought to be compatible with their surroundings. Amenah Benjasem, a Kuwaiti architect who worked for Zaha Hadid Architects in London, as well as two other Kuwaiti architects Barrak Al-Babtain and Jasem Nadoum developed a discussion website about tall buildings in Kuwait City. Benjasem wrote the following passages in 2009: "From what I've seen, it is as if the architects design the building as a stand-alone element in the middle of nowhere, then they stick it on site […]. One can argue that most of the tall buildings here don't have an identity […]. Identity in a building doesn't necessarily mean to make it look Kuwaiti. It is completely wrong to take buildings designed for the States and force them in desert environment like Kuwait. A simple regard for the heat, dust and other regional aspects will eventually result in much better buildings […]. Many buildings use widely incorrect materials, are blind to orientation, lack in identity and are oblivious to their context" (Benjasem 2009). These passages suggest that countless skyscrapers do not represent local architectural identity, which is primarily associated with climate and "other regional aspects" that may well be cultural-religious and social aspects. Yet, it is an undeniable fact that skyscrapers are topographical reference points that symbolize limitless design possibilities, structural innovation and economic achievement in the city. It is an equally undeniable fact that it is difficult to adapt a skyscraper, which is an all-American typology, to the climate, culture and society of Kuwait City.

Though some negative reactions occurred quickly after the implementation of KMP1, they did not constrain undesired development in the following two Master Plans. In 1968, the British firm Colin Buchanan & Partners designed KMP2, in which the firm suggested improving the road system and constructing new cities (Mahgoub 2008: 159-163). In 1990, Kuwait Municipality commissioned a local firm and the international firm W.S. Atkins to develop KMP3. In 2005, the local firm Kuwaiti Engineering Group (KEG) in collaboration with Colin Buchanan & Partners were asked

to write the Third Kuwait Master Plan Review, which is the latest published review to date. It acknowledges that development is chaotic and that "building heights within Kuwait City do not follow a particular pattern that would initiate a well integrated coherent urban fabric. Examination of this shows the haphazard nature of development control decisions" (Third Kuwait Master Plan Review 2005: 53).

While Old Kuwait Town had a consistent and horizontal urban environment characterised with low-rise and clustered courtyard buildings, Kuwait City is now vertical, composed of differing and randomly located typologies that often lack a connection to existing fabric, and a number of large and vacant lots, which fragment the sense of urban continuity. With modern technology and air-conditioning, urban determinants such as climate have been overlooked. Many skyscrapers in the city, furthermore, have glass façades and un-operable windows, which create a stuffy microclimate and overheat interior spaces (**Figure 13** p.167).

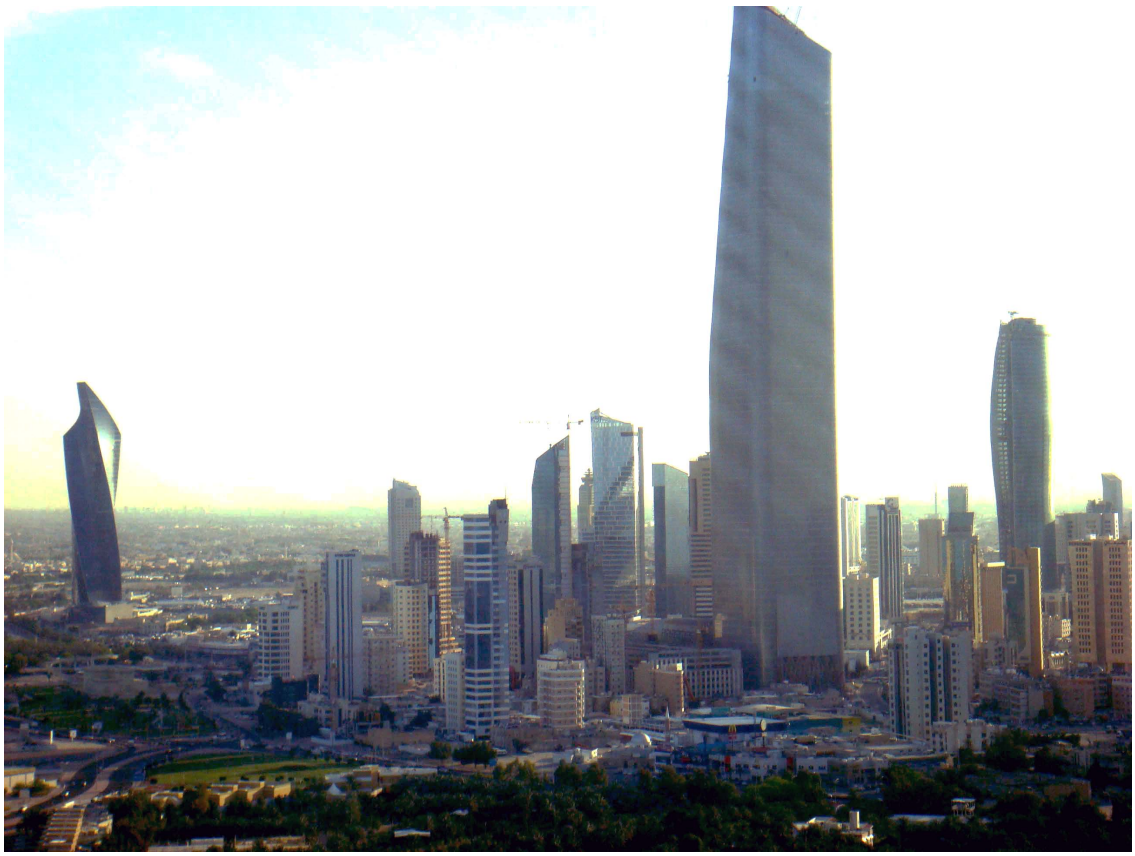

Figure 13: Skyscrapers in Kuwait City, view from the Kuwait Towers (source: researcher, 2011-03-20).

Kuwaitis have difficulties living in vertical housing, because of shared entrances, staircases and elevators (Mahgoub 2008: 169). Not only do they prefer a lot of space, but they also require it according to social custom (Greenwood Press 2004: 66). Apartments, however, lack important spaces such as the reception court for men where up to forty guests are usually received (Alenazy 2007: 71). For these reasons, Kuwaitis have not returned to live in Kuwait City, which is designed to suit the living standards of expatriates. In fact, the latest Master Plan review states that Kuwait City's population in 2005 was 48 962, of which only 2 869 (5.86 percent) were Kuwaitis and 46 093 (94.14 percent) were expatriates (Third Kuwait Master Plan Review 2005: 9). Kuwaitis mostly reside in the five suburbs at the southern border of the city: *Shuwaikh*, *Shamiya*, *Abdullah Al-Salem*, *Mansourya*, *Dasma* and *Bnaid Al-Gar*. They live in detached villas sited on lots that vary between five hundred square meters to one thousand square meters with up to three floors and a basement (Al-Bahar 1985: 72).

Still, villas, which are also Western products, are culturally and climatically challenging (Alsuwayeh 1985: 5). In the past, houses were modest, inward looking and relied on passive cooling strategies, whereas nowadays they are extravagant, outward looking and run entirely on air-conditioning. Old Kuwait Town was a place for Kuwaitis to live, while Kuwait City is now a place for shopping, working and entertainment (Mahgoub 2005). It is "mostly a financial/business and commercial centre," in which residential areas "occupy only about 9.2% of the city total land" (Third Kuwait Master Plan Review 2005: 1 and 44).

The accelerating pace of development initiated the concern about the preservation of Kuwaiti vernacular architecture and building culture. As early as the 1970s, interest in heritage reduced the demolition of historic structures, several of which were restored such as *Bayt Al-Badr* that became the National Museum of Kuwait (Lewcock 1978: 14). Still, current efforts to promote a unified development pattern seem powerless. Although the latest Master Plan review affirms that the NCCAL has created "development controls" for conservation areas (**Figure 14** p.169) "to ensure compatibility of the prospects of development with the existing situation in terms of style, form, materials, colours and intensity of use" (Third Kuwait Master Plan Review 2005: 37), many projects contradict this statement. For example, the Central Bank of

Kuwait (CBK) Headquarters Building, which is currently under construction (**Figure 15** p.170), is a forty-one-storey (i.e. 240 meters high) tower inserted between two low-rise heritage buildings. One of them is *Mohammad Al-Jalahema Ibn Khames* mosque, which is the oldest surviving mosque in the city (Lewcock 1978: 25). Though the land-use is commercial (**Figure 16** p.170), the CBK is actually a government building. Current building codes, furthermore, specify that buildings along the seafront, where the CBK is located, should not exceed three floors in height (i.e. 15 meters). Yet, if the building were a hotel, it may reach up to five floors (i.e. 25 meters) depending on the size of the plot, which may range from 2 500 m2 to 5 000 m2 (Kuwait Municipality 2008).

Figure 14: Conservation areas in Kuwait City (source: Third Kuwait Master Plan Review 2005: 37). Note: Kuwait City contains around one hundred and twenty listed buildings (Al-Jassar 2008: 67; Ali 2009: 9), which are not all indicated in the figure.

Figure 15: The Central Bank of Kuwait (CBK) Headquarters Building in Kuwait City, view from *Al-Babtain Waqf* Culture Tower (source: researcher, 2011-04-20).

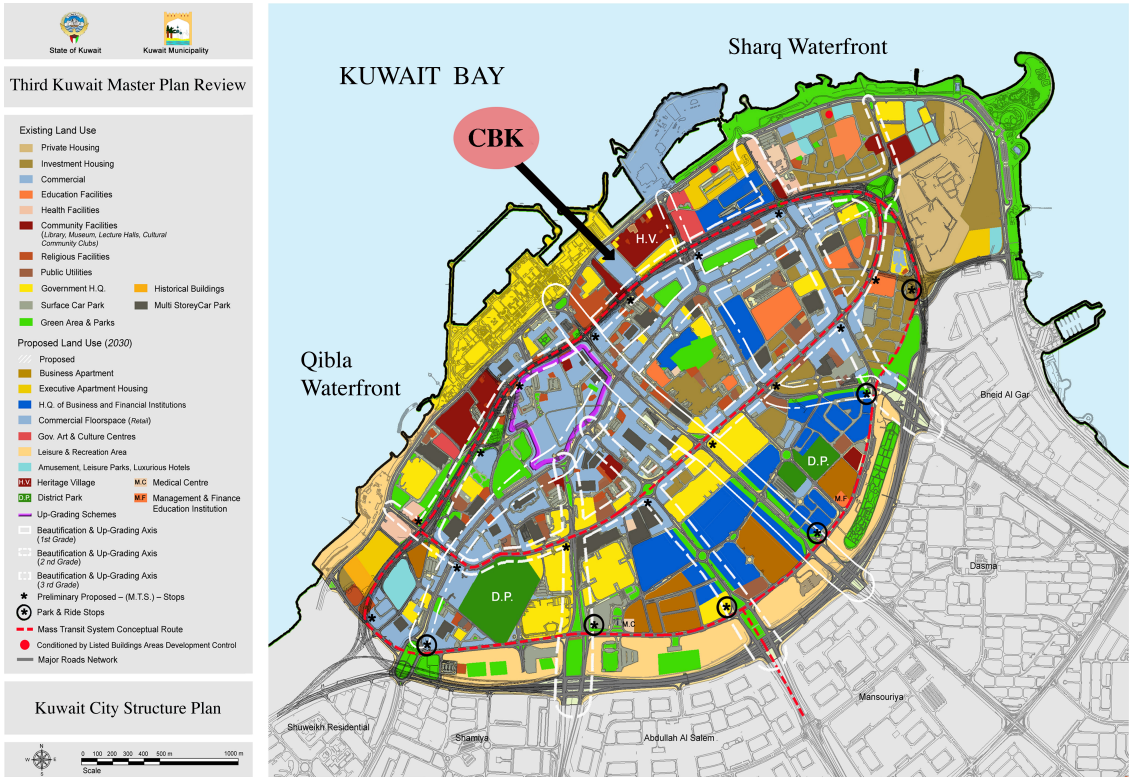

Figure 16: Location of the CBK in the Kuwait City Structure Plan (source: Third Kuwait Master Plan Review 2005: 102). Note: the researcher has indicated the location of the CBK with an arrow and highlighted the acronym in red.

As for the regulating system, Kuwait City's building codes are the zoning regulations. These were last reviewed in 2008 and consist of thirteen documents,[27] describing regulations that address development in, and outside of, the city. They mainly deal with percentage of built up area, setback from the street, height and parking. They do not discuss fenestration, colors, form, circulation or privacy issues (Kuwait Municipality 2008). Regulations, furthermore, are sometimes negotiated and bent, particularly in terms of building heights, materials and land-use, because the government occasionally allows "business elites to acquire variances to zoning and building regulations or to ignore them all together" (Anderson and Al-Bader 2006: 143). Mahgoub, an architect and professor, explains that "conflicting and continuously changing […] regulations are major contributors to the deteriorating quality of the urban environment" (Mahgoub 2005). Accordingly, it might be the instability of the regulating system that triggers chaotic developments in Kuwait City and causes the demolition of historic urban fabric.

The analysis of the literature shows that the local meaning of compatibility has shifted from being primarily a response to climate and religion, as was the case before the 1950s, to becoming a response to changing community needs, in terms of comfort and socio-economic status. Additionally, it seems that the historic, aesthetic, scientific, social and cultural-religious values of Old Kuwait Town are in jeopardy and in competition with the values of the modernized and Westernized Kuwait City. These values are economic, political, technological and recreational. Recognizing heritage values and character-defining elements in new project proposals in Kuwait City is a challenge, particularly because the city is no longer a place for Kuwaitis to live. Yet, the question is not how to re-introduce the residential function in the city, but rather what can be explored to conserve the remaining traces and qualities of the historic urban environment while accommodating the desire and need to be modern.

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[27] Private housing and housing models (1), residential investment buildings (2), commercial buildings (3), industrial development (4), residential complexes (5), commercial complexes (6), buildings along the seafront (7), buildings that contain and provide plants (8), chalets (9), private hospitals (10), private schools (11), hotels and motels (12), agricultural development and buildings for animal feedstock (13). It is noteworthy that codes for government buildings do not exist (Kuwait Municipality 2008).

Finally, one may argue that an alternative approach to criteria should embrace traditional Kuwaiti social practice, which was fundamentally about close and direct contact between the judge (the evaluator at the time) and citizens (the applicants), as discussed in subsection 4.1.1.2. of **Chapter IV: Research Findings**. Also, since reasoning (i.e. *Quiyas*) was encouraged and prescriptive criteria were nonexistent, the approach, likewise, should encourage reasoning, communication and flexibility. Hence, not only should it aim at improving values-based decision-making by promoting qualitative thought about design opportunities, but it should also aim at activating dialogue. In fact, local literature supports the need for a revised approach to design and assessment given that "new buildings shall be specified so as to be harmonious with the existing historical environment" (Princely Decree No. 11 of 1960: Law of Antiquities 1960: Article 15) and "development proposed in [historic areas] must be given considerable considerations" (Third Kuwait Master Plan Review 2005: 37). To complement and verify the research findings from document analysis, other data collection methods were applied: observation, interviews and a longitudinal survey.

4.2. On-Site Observation and Photographic Documentation of the Selected Site

After exercising on-site observation in Kuwait City in July and August of 2010, and after applying the criteria for selection (view subsection 3.3.1.2. of **Chapter III: Methodology**), a site in the *Al-Sharq* area was chosen (**Figure 17** p.173). The site is a city block surrounded by the Arabian Gulf Street on the North, *Ali Al Salem* Street on the South, *Abu 'Obaidah* Street on the West and *Khaled Ibn Al Waleed* Street on the East. Its location marks the early stages of Old Kuwait Town and dates between the construction of the first wall in 1760 and the second one in 1811. It faces the first dhow harbour called *Nakrat Al-Shamlan* (i.e. *Al-Shamlan* Marina) and holds archaeological remains, the oldest mosque in the city (i.e. *Masjid Mohammad Al-Jalahema Ibn Khames*), a heritage district containing eleven listed buildings as well as three developments. The Heritage Village (HV) is a commercial project directly in the heritage district. Construction began in 2004. The CBK is a skyscraper inserted between

the heritage district and the mosque. Construction began in 2005. The Kuwait Investment Authority (KIA) Headquarters Building is also a skyscraper, located directly behind the heritage district. Construction began by the end of 2012. Two new streets will be created to separate these developments (**Figure 18** p. 173 and **Figure 19** p.174).

Figure 17: Location of the Site in Kuwait City, highlighted in red by the researcher (source: © 2012 Google, DigitalGlobe and GeoEye).

Figure 18: Site and its three developments, highlighted in red by the researcher (source: © 2012 Google, DigitalGlobe and GeoEye). Note: **M** represents *Masjid Mohammad Al-Jalahema Ibn Khames*; **1** the HV, **2** the CBK and **3** the KIA.

Figure 19: Developments in situ. The HV **(1)** with its 5 Zones is represented in the top two images (source*: Al-Abdulhadi* Engineering Consultancy). The CBK **(2)** is on the bottom left corner (source: HOK London Office and Pan Arab Consulting Engineers Office). The KIA **(3)** is on the bottom right corner (source: KEO International Consultants). Note: the respective location of each development is indicated in **Figure 18** on p.173. On the Master Plan of the HV project (i.e. the top left corner image), the nine buildings in light brown are heritage buildings; the two buildings highlighted in purple at the top right corner (in Zone 4) are also heritage buildings that have been rehabilitated to serve the project (these buildings are **R8** and **C1** in **Figure 21** on p.176).

Although new development in this location "is recommended to be of no more than five storeys high" (Third Kuwait Master Plan Review 2005: 117), both the CBK and KIA exceed forty storeys (**Figure 20** p.175). These two buildings may embody new socio-economic values related to the importance of banking and investment in Kuwait.

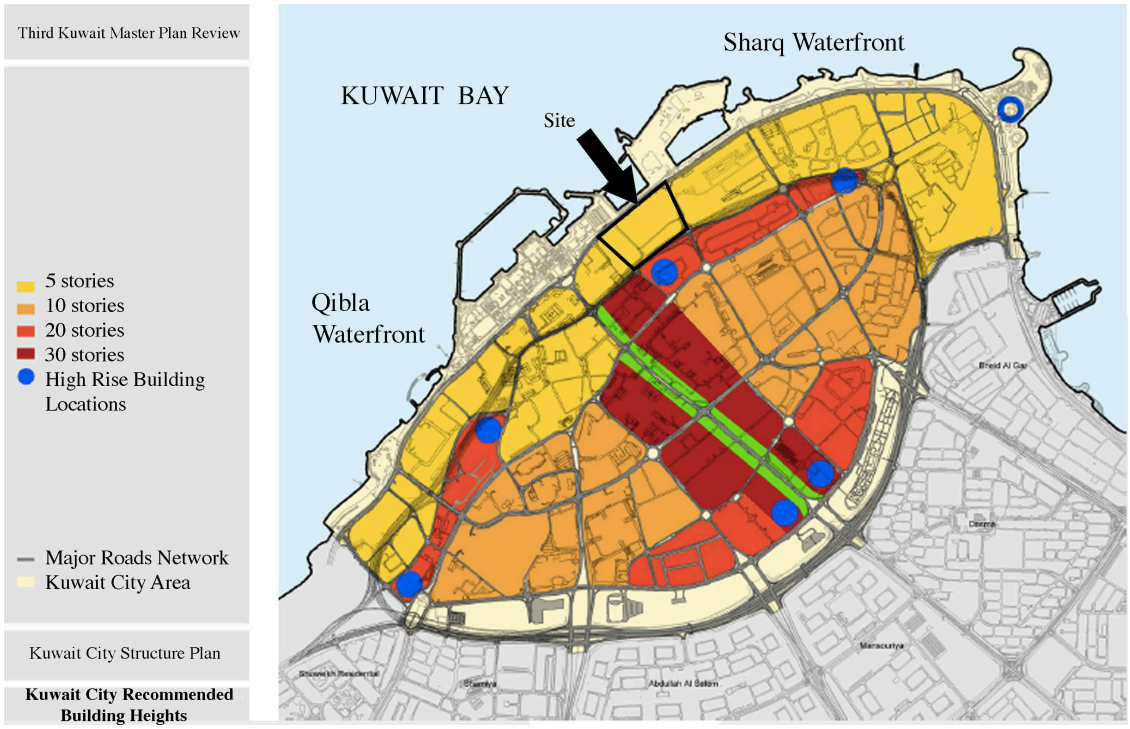

Figure 20: Kuwait City recommended building heights (Third Kuwait Master Plan Review 2005: 117). Note: the selected site, which is indicated by an arrow, is in the yellow zone, where new buildings should not exceed five storeys.

The heritage buildings and the three developments in situ as well as the surrounding urban context are described in greater detail in the following subsections.

4.2.1. Description of Heritage Buildings in Situ

The heritage district is a locally and nationally designated heritage area (**Figure 14** p.169), which is also an area reserved for the HV project, as indicated in the Kuwait City Structure Plan (**Figure 16** p.170). The value of the eleven heritage buildings (**Figure 21** p.176) has been evaluated according to four criteria developed by the NCCAL in the 1990s. The researcher translated the NCCAL's list of criteria from Arabic to English (view legend of **Figure 21** on p.177 as well):

I: an extremely important national value that must not be demolished or altered;

II: a very important national value that must not be demolished or altered;

III: an important national value that must not be demolished, but could be altered after permission from the NCCAL;

IV: a little heritage value;

IV-1: the historic building must be registered, restored and re-used;

IV-2: the historic building must be registered, partially preserved and partially restored in a new image that must be compatible;

IV-3: the historic building must be registered, demolished and then reconstructed accurately;

IV-4: the historic building must be registered, demolished and then reconstructed according to particular criteria specified by the NCCAL;

IV-5: the historic building must be registered, demolished and rebuilt freely without any restrictions.

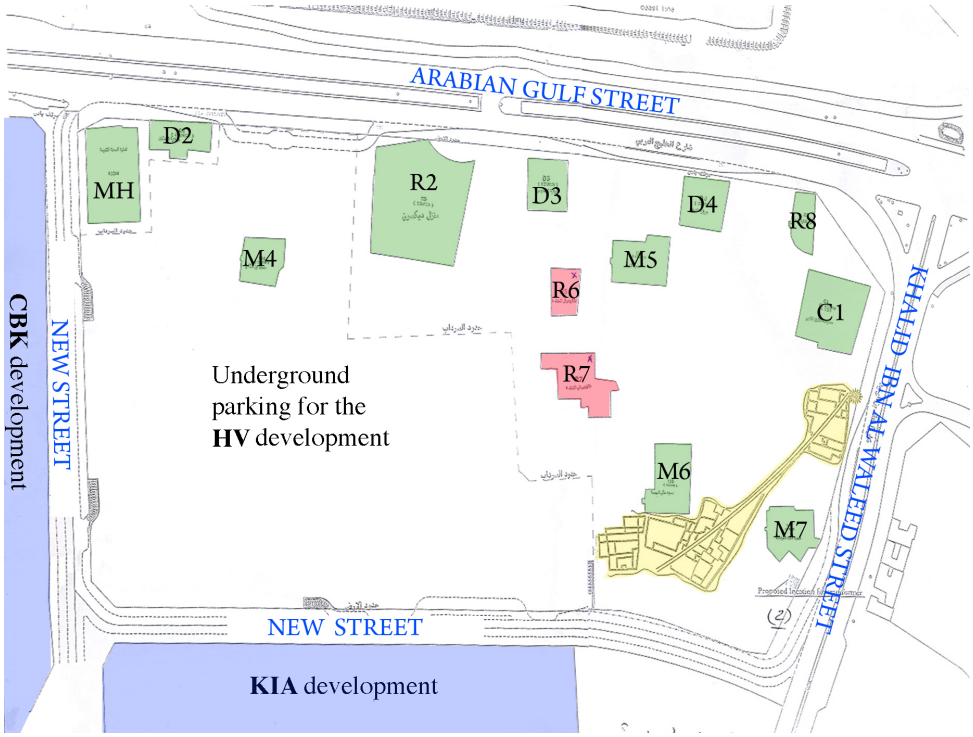

Figure 21: The heritage district of the selected site in Kuwait City (source: researcher). Note: the eleven listed buildings that are still standing are highlighted in green, whereas those highlighted in red have been recently demolished. The dotted lines indicate the limit of underground parking for the HV. Archaeological remains, which will be exposed to the public, are highlighted in yellow. Finally, the locations of the CBK and KIA are highlighted in blue. These are not representative of the size of the plots.

Legend (source: NCCAL):

MH: The old Ministry of Health. Owner: The Ministry of Health. Area: 1200 m2. Criterion III. Use: offices of the State Minister for Parliamentary Affairs and offices of the Ministry of Health.

D2: *Diwaniyah Al-Shamlan*. Owner: Ministry of Finance. Area: 350 m2. Criterion II. Use: *diwaniyah* (i.e. men's reception court) of *Al-Shamlan* family.

R2: Dixon House. Owner: the NCCAL. Area: 2000 m2. Criteria I. Use: museum that recalls the memory of the relationship between Britain and Kuwait.

D3: *Al-As'oussi Diwan*. Owner: Ministry of Finance. Area: 440 m2. Criterion II. Use: *diwaniyah* of *Al-As'oussi* family.

D4: *Al-Nousf Diwan*. Owner: Ministry of Finance. Area: 535 m2. Criterion II. Use: *diwaniyah* of *Al-Nousf* family.

M4: Mosque of *Bin-Quatami*. Owner: Ministry of Islamic Affairs. Area: 200 m2. Criterion II. Use: mosque.

R6: *Badr Ali Al-Nousf Diwan*. Owner: *Badr Ali Al-Nousf* (private owner). Area: 260 m2. Criterion II. Proposed use: museum and exhibition space. According to the NCCAL, Kuwait Municipality demolished this building without the permission of the NCCAL to leave room for the HV. *Al-Abdulhadi* Engineering Consultancy (AEC) is reconstructing the building, which will be incorporated in zone 4 of the HV.

M5: Mosque *Al-Nousf*. Owner: Ministry of Islamic Affairs. Area: 550 m2. Criterion II. Use: mosque.

C1: The old *Al-Sharq* Clinic. Owner: Ministry of Health. Area: 1 015 m2. Criterion III. Proposed use: restaurant and showroom in zone 4 of the HV.

R7: *Badr Al-Nousf Diwan* 2. Owner: *Badr Ali Al-Nousf*. Area: 795 m2. Criterion II. Proposed use: museum or exhibition space. According to the NCCAL, Kuwait Municipality demolished this building without the permission of the NCCAL to leave room for the HV. AEC is reconstructing the building, which will be incorporated in zone 4 of the HV.

R8: Building of the inheriting family members of *Sheikh Al-Soubah Abdullah Al-Salem*. Owner: the inheriting family members of *Sheikh Al-Soubah Abdullah Al-Salem*. Area: 1015 m2. Criterion IV-4. Proposed use: headquarters and administration building for the HV in zone 4.

M6: Mosque of *Maqui Al-Jouma*. Owner: Ministry of Islamic Affairs. Area: 250 m2. Criterion II. Use: mosque.

M7: Mosque of *Ahmad Al-Abdullah*. Owner: Ministry of Islamic Affairs. Area: 250 m2. Criterion II. Use: mosque.

Figure 22: View of the future underground parking area of the HV. The CBK is on the right. Four heritage buildings (**MH**, **D2** (white building), **M4** and **R2**) are shown from right to left (source: researcher, 2010-08-08).

Figure 23: Main entrance to the HV. **M6** is on the right (source: researcher, 2010-08-08).

Figure 24: Panoramic view of the selected site in Kuwait City. The HV is fenced. *Al-Babtain Waqf* Culture Tower is the blue skyscraper on the right (source: researcher, 2010-08-08).

Figure 25: Panoramic view inside the HV. The CBK is on the left. Zone 4 of the HV is under construction (source: researcher, 2010-08-08).

Masjid Mohammad Al-Jalahema Ibn Khames (**M**) which is next to the CBK and outside of the heritage district (**Figure 18** p.173), is also a heritage building (Criterion I). It has an area of approximately 300 m2. It was renovated in the 1970s and is being used as a mosque (**Figure 26** p.180). The owner is the Ministry of Islamic Affairs.

Figure 26: *Mohammad Al-Jalahema Ibn Khames* mosque and its extension on the left (source: researcher, 2010-08-08).

4.2.2. Description and Evaluation of the New Developments in Situ

4.2.2.1. Heritage Village (HV)

The HV consists of many buildings located directly in the heritage district. The former Prince of Kuwait wanted to architecturally represent Kuwaiti culture to tourists and Kuwaitis who have no recollection of Old Kuwait Town. For this reason, the Ministry of Finance and Kuwait Municipality proposed the idea of a heritage village in the 1980s. The objectives of the project were to revive past memories, to capture the attention of Kuwaitis and tourists alike, and to resurrect a part of Old Kuwait Town (**Figure 27** p.181), which was demolished during the 1950s after the implementation of KMP1. Initially, the Ministry of Finance was the owner of the project and Kuwait Municipality was the owner representative and the project development authority.

In 2003, the architectural department of Kuwait University produced conceptual drawings, which the local firm AEC transformed into working drawings and won the design competition. In 2004, the Heritage Village Real Estate Company (HVREC) was created specifically to build, manage and operate the project for eighteen years, after which the land will be transferred to the Ministry of Finance. Construction began the same year and completion is estimated at the end of 2013.

Figure 27: The site of the HV in 1951 (source: AEC). Note: the reddish map on the top right corner is Old Kuwait Town.

The plot area of the development is around 76 191 m2 and consists of five Zones (**Figure 28** p.182). The new buildings include one to two basements, a ground floor, a first floor and some have a second floor. The project respects maximum height limitations, as described in the building codes for development along the seafront (Kuwait Municipality 2008). The main materials are reinforced concrete, lightweight brick, teak wood and decorative plastering. Two heritage buildings, furthermore, will be integrated in the HV. **R8** will become the headquarters and administration building for the project and **C1** will become a commercial building in Zone 4 (view **Figure 21** on p.176). Though the design is pedestrian friendly, underground parking in Zones 1, 2 and 3 will accommodate a total of 1200 cars (Heritage Village 2010). Also, according to the NCCAL, AEC suggested displacing **M4** to leave additional space for the five star hotel and to avoid surrounding the mosque from many sides (view Zone 1 in **Figure 28** on p.182). The NCCAL refused the displacement.

Figure 28: Master Plan of the HV (source: AEC). Zone 1 in navy blue is a five star hotel. Zone 2 in red consists of hotel-operated villas. Zone 3 in yellow is a commercial area with VIP suites. Zone 4 in purple consists of twelve individual single-floor multi-functional buildings (e.g. restaurants, showrooms and stores). Zone 5 in turquoise is a second commercial area. The Municipality allows these functions along the seafront (Kuwait Municipality 2008).

Although the HV is meant to be a reconstruction project that resurrects a portion of Old Kuwait Town, one may argue that it is rather a reinterpretation of traditional Kuwaiti urban form (view subsection 2.2.2.2. of **Chapter II: Literature Review**), because the original design is not actually reproduced and the traditional use of the site has changed. In fact, the layout of paths and buildings is only based on an aerial view plan (from the 1950s) that lacks accurate dimensions and details. The HV does not follow the exact footprint, scale, materials, dimensions, proportions of openings, method of construction, functions, textures and finishes of the courtyard houses that were demolished. In Old Kuwait Town, mud brick and coral sea rock were the main construction materials; inhabitants relied on passive cooling strategies such as the wind tower; housing, praying and gathering in *diwaniyahs* were the functions of the site; modesty, domestic privacy and the prevention of harm were the main design concepts. On the other hand, in the HV, reinforced concrete is the main construction material; air-conditioning is the source of cooling; new buildings have a mixture of recreational,

commercial and temporary residential functions; luxury, which comes with ornamentation and large fountains, is the main design concept. Additionally, the scientific, social and cultural-religious values of the courtyard are lost; the courtyard has been reduced to a transitional space and to an aesthetic feature in the project. In its early stages of construction, moreover, a Kuwaiti citizen criticized the HV and called it a "very tawdry Disneyland style" in the Kuwait Times (Al-Nakib 2008), implying that the relationship between the heritage district and the new buildings is incompatible.

On January 30th 2011, the researcher took a guided tour of the HV. At the time, construction was limited to Zones 4 and 5 (**Figure 29** p.183, **Figure 30** p.184 and **Figure 31** p.184).

Figure 29: Pictures of the HV. The top three pictures show new buildings in Zone 5. The three pictures in the middle show new ones in Zone 4. The two pictures on the bottom left corner show archaeological remains that will be exposed to visitors. The one

on the bottom right corner shows the colour of the decorative plastering, which will be used to match the colour of heritage buildings (source: researcher, 2011-01-30).

Figure 30: An area between Zones 4 and 5 of the HV. Zone 4 is on the right whereas Zone 5 is on the left. **M5** is the mosque in the middle. The CBK, which reached twenty-eight storeys at the time, is in the background (source: researcher, 2011-01-30).

Figure 31: The area for underground parking (source: researcher, 2011-01-30).

4.2.2.2. Central Bank of Kuwait (CBK) Headquarters Building

The CBK is a government building that controls the banking system in the State of Kuwait and issues the Kuwaiti Dinar. It is located between the heritage district and *Mohammad Al-Jalahema Ibn Khames* (**Figure 32** p.186 and **Figure 33** p.186), on a plot that covers 26 000 m2. In 2003, HOK London won the design competition in collaboration with the local Pan Arab Consulting Engineers Office (PACE).

Construction began in 2005 and completion is estimated in 2013. The design consists of an office tower and a multi-storey car park building. The tower is 240 meters high. It has a triangular shape and is composed of three basements and forty-one floors above ground level. According to the designers, it is meant to echo "the geometry and order of traditional Kuwaiti architecture" and "sits in harmony with the nearby [*Mohammad Al-Jalahema Ibn Khames*] Mosque on the north-west side of the site" (Central Bank of Kuwait (CBK) Headquarters 2011).

The South-facing façade is composed of two reinforced concrete walls that will be covered with imported limestone, which will function as a "heat-sink." The North-facing façade is double-glazed and solar-controlled. A steel diagrid keeps the glass curtain wall from falling.

The multi–storey car park building is composed of three basements and four floors above ground level, which will accommodate a total of 1500 cars (**Figure 34** p.186). The CBK also includes a podium that contains reception and banking halls, conference facilities, dining and banquet rooms among other functions (Central Bank of Kuwait (CBK) Headquarters 2011).

The tower has a unique and impressive structure that might inspire future building technologies in the city. Still, though it respects the minimum distance of five meters from the main street and that of three meters from secondary streets (excluding the sidewalks), as required in existing regulations (Kuwait Municipality 2008), its location in a five-storey zoning area and directly between two low-rise heritage buildings (**M**: Criterion I and **MH**: Criterion III) is environmentally inappropriate.

Figure 32: The relation between the CBK and *Mohammad Al-Jalahema Ibn Khames* mosque (source: researcher, 2012-05-30).

Figure 33: The relation between the CBK and the two heritage buildings on its left. **MH** is the brown building and **D2** is the white one. (source: researcher, 2012-05-30).

Figure 34: Multi-storey car park building of the CBK (source: researcher, 2012-05-28). This picture is taken from the area on top of which the KIA tower will be constructed.

Figure 20 on p.175 and the building codes show that heights in this location should not exceed three storeys (i.e. 15 meters) or five storeys (i.e. 25 meters) in the exceptional case of hotels (Kuwait Municipality 2008). Also, new development along the seafront should have a commercial, a residential or a recreational function rather than a government one. The Kuwait City Structure Plan (**Figure 16** p.170), moreover, shows that the plot of the CBK is for commercial use (Third Kuwait Master Plan Review 2005: 102). Yet, it is unclear why the Municipal Council, who created the building codes and approved the Structure Plan, assigned this plot for a government building that exceeds the height limit by approximately two hundred and fifteen meters. Additionally, the tower seems to overwhelm the low-rise heritage buildings next to it. One of these buildings, the mosque **M**, has "an extremely important national value" (Criterion I). For these reasons, the CBK brings to mind what Benjasem wrote in her website: "From what I've seen, it is as if the architects design the building as a stand-alone element in the middle of nowhere, then they stick it on site" (Benjasem 2009), which is a quote that was mentioned in subsection 4.1.2. of **Chapter IV: Research Findings**. Therefore, one may argue that the CBK produces an undesirable form of contrast that may adversely affect the heritage values of the site (view subsection 2.2.2.3. of **Chapter II: Literature Review**).

4.2.2.3. Kuwait Investment Authority (KIA) Headquarters Building

The KIA is a project that will be built behind the heritage district on a plot that covers 11 000 m2 (**Figure 35** p.188). KEO International Consultants, based in Kuwait, won the design competition in 2007. The initial design included sustainable elements such as wind turbines and photovoltaic panels, which are no longer included in the final design. Construction began at the end of 2012. The development comprises a podium with four basements and a forty-seven-storey tower (i.e. the equivalent of approximately 220 meters) with three basements. The podium houses public facilities including an auditorium. Its form is reminiscent of a Kuwaiti dhow, which according to the designers represents "Kuwait's link and heritage to the past" whereas the tower "manifests its soaring global presence into the future" (KIA Headquarters Building 2007). The method

of construction is post-tension slabs and beams. The façades consist of concrete shear walls covered with stone cladding. Underground parking, moreover, will accommodate a total of 600 cars.

The architects explain that the design reflects "the importance of tradition in terms of architectural and cultural values to Kuwait" (Boldly Traditional 2006). It also respects the minimum distance of five meters from the main street and the distance of three meters from secondary streets (excluding the sidewalks), as required in existing regulations (Kuwait Municipality 2008).

Figure 35: Kuwait Investment Authority (KIA) Headquarters Building (source: KEO International Consultants). Note: this figure is a digital model.

The white color of the KIA brings to mind Kuwaiti vernacular buildings along the seafront, prior to the implementation of KMP1 in the 1950s. The box-like structure of the tower and its appearance, furthermore, may reflect the Islamic concept of "beauty

without arrogance" (view subsection 4.1.1.2. of **Chapter IV: Research Findings**). Also, the design competition panels produced by KEO show that the tower is mostly inward-oriented and contains inner courtyards with vegetation that intend to minimize the dependence on mechanical air-conditioning. The design of the podium, moreover, is inspired by the Kuwaiti dhow, which represents trade, fishing and pearling (view subsection 4.1.1.1. of **Chapter IV: Research Findings**). Additionally, the use of geometric patterns on the inside and the outside is an attempt to create a contemporary vernacular that embraces Islamic architecture. The KIA, therefore, strives to respond to the local climate and to the cultural-religious context, in spite of its height. Accordingly, one may argue that it may produce a harmonic/sympathetic contrast once it is constructed (view subsection 2.2.2.3. of **Chapter II: Literature Review**). Still, development in situ is meant to remain horizontal (i.e. low-rise) and to house residential, religious, commercial or recreational functions. The verticality of the KIA, which is a government building, will change the skyline of the city along the seafront. Hence, although it fits into the Kuwaiti context in general, it does not seem to sufficiently fit into the site in particular.

The client of the KIA wanted a design that would incorporate the same qualities of the Arab Organisations Headquarters Building in Kuwait, which he owns. For this reason, the last eight architectural firms who entered the KIA design competition took a guided tour of that building to understand the client's requirements and vision. Designed by PACE and the Associated Engineering Partnership, the Arab Organisations Headquarters Building, built in 1994, houses four Arab organisations: the Arab Fund for Social and Economic Development, the Organisation of Arab Petroleum Exporting Countries, the Inter-Arab Investment Guarantee Corporation and the Arab Maritime Petroleum Transport Company (Arab Organisations Headquarters Building 1998). Original art pieces, artisan craft, furniture and finishes were brought from every Arab country in the world and placed inside the building. Similar to the KIA, it has a box-like structure and is white from the outside; however, it is only ten storeys high. It is mainly inward-oriented and has a large inner courtyard with vegetation. Every office receives daylight, particularly from the skylight above the courtyard and the suspended glass wall, which spans five storeys.

4.2.3. Description of the Surrounding Urban Context

The immediate surrounding urban context is primarily low-rise and contains large vacant areas that are often used for surface parking (**Figure 36** p.190). To the North of the site, there is a fish market and *Nakrat Al-Shamlan* (**Figure 37** p.191 and **Figure 38** p.191), which is used as a space for dhows. To the East, there is a cemetery, *Al-Rawdan Diwan* and the Kuwait Maritime Museum (**Figure 36** p.190). To the South, there is the *Hesseniya Marifi* mosque exactly across the street from the CBK (**Figure 39** p.192). There is also *Said Abdullah Mosawi* mosque, which is across the street from the plot of the KIA (**Figure 40** p.192 and **Figure 41** p.193). To the West, there is *Al-Babtain* Central Library for Arabic Poetry (**Figure 42** p.193), which is designed as an open book by *Al-Jazeera* Consultants, a local architectural consulting office. This library is next to *Al-Masjed Al-Kabeer* mosque (**Figure 43** p.194) and the Ministry of Planning (**Figure 44** p.194), and across the Arabian Gulf Street from the Ministry of Foreign Affairs (**Figure 45** p.195).

Figure 36: The site and its surroundings from *Al-Babtain Waqf* Culture Tower. The CBK is the only high-rise development facing the seafront to date. *Al-Rawdan Diwan*, the Kuwait Maritime Museum and the cemetery (surrounded by a fence and trees) are on the right, next to the HV (source: researcher, 2012-05-30). In this picture, it seems that the distribution of high-rise buildings in the historic centres of Kuwait City is chaotic. It disrupts the Islamic principle of unity and promotes a view of urbanism that challenges the conservation of nearby heritage structures.

Figure 37: *Nakrat Al-Shamlan* (source: researcher, 2012-05-30).

Figure 38: Relationship between the CBK and the seafront. The CBK is on the left whereas *Nakrat Al-Shamlan* is on the right (source: researcher, 2012-05-30).

Figure 39: *Hesseniya Marifi* mosque (source: researcher: 2012-05-30).

Figure 40: *Said Abdullah Mosawi* mosque. *Al-Babtain Waqf* Culture Tower is in the background (source: researcher, 2012-05-30).

Figure 41: Relationship between the CBK and *Said Abdullah Mosawi* mosque. The KIA will be constructed across the street from that mosque (source: researcher, 2012-05-28).

Figure 42: *Al-Babtain* Central Library for Arabic Poetry. This façade is facing the Arabian Gulf Street and the seafront (source: researcher, 2012-05-30).

Figure 43: *Al-Babtain* Central Library for Arabic Poetry and *Al-Masjed Al-Kabeer* mosque, facing the inland of Kuwait City (source: researcher, 2012-05-30).

Figure 44: Relationship between the CBK, the Ministry of Planning (i.e. the brown building in the middle) and the mosque (source: researcher, 2012-05-30).

Figure 45: Ministry of Foreign Affairs (source: researcher, 2012-05-30).

Figure 46: Relationship between the CBK and the HV on the Arabian Gulf Street (source: researcher, 2012-05-30).

4.3. Face-to-Face Interviews and Thematic Analysis of Answers

In addition to its traditional and contemporary characteristics, the selected site has the potential to recruit interviewees, mainly applicants who are associated with the new buildings. The objectives of the interviews are to invite decision-makers to share their views on the research problem as it relates to Kuwait City, to communicate their understanding of compatibility in the Kuwaiti context, to explain how new buildings proposed in historic areas are currently reviewed, and to express their opinions about the HV, CBK and KIA. As a result, the interviews aim at assessing the compatibility of these developments with their surroundings since on-site observation (hence the sense of vision alone) and document analysis (which excludes the interaction with human subjects) are insufficient in this regard.

The recruitment process began shortly after the selection of the site. The initial plan was to interview the client, the principal architect, the principal structural engineer and the project manager of each development in order to build an in-depth understanding of each design (view subsection 3.3.1.3. of **Chapter III: Methodology**). Unfortunately, some professionals were no longer available in Kuwait City while others did not return the researcher's phone calls and e-mails. Fortunately, however, eleven participants were recruited, including two from the HBPS of Kuwait Municipality and two from the NCCAL. The purpose is to gather more than one point of view and, thus, to avoid bias. According to literature on the case study, particularly the Third Kuwait Master Plan Review, the HBPS and the NCCAL are the heritage conservation authorities in Kuwait City (view subsection 4.1.2. of **Chapter IV: Research Findings**). For this reason, professionals from each bureau were recruited and interviewed.

4.3.1. Groups: Applicants and Evaluators

Interviewees were recruited in July and August of 2010. An Arabic or English consent form was personally handed to every one, depending on his/her language preference. The questions were prepared between September and December of 2011,

while the interviews were conducted between January and February of 2011[28] (view **Appendix 1** on p.xxiii). All the participants accepted having their names mentioned in the thesis along with their answers.

Nevertheless, during the process of data collection, sensitive topics, which were not anticipated prior to the recruitment process, were brought up. These topics may potentially harm some participants in their workplace if they were to be identified. Hence, to protect them from unforeseen negative impacts, answers and direct quotes in the following subsection are attributed to either the applicant group or the evaluator group (view section 3.4. of **Chapter III: Methodology**). This strategy is unlikely to compromise the thematic analysis, because the outcomes of the interviews are more important than knowing exactly who said what. At the same time, it makes the association of sensitive data with a particular individual difficult.

The applicant group is composed of seven individuals: the client, project manager, principal structural engineer and one of the architects of the KIA from KEO International Consultants; the principal architect of the HV from AEC; the client representative and one of the architects of the CBK from PACE.

The evaluator group is composed of four individuals: the main heritage advisor and the Head of the HBPS at Kuwait Municipality; the main heritage advisor/Head of the Documentation and Following Department for Historical Building and a heritage advisor/architect at the NCCAL.

4.3.2. Identification of Themes and Sub-Themes

"In thematic analysis the task of the researcher is to identify a limited number of themes which adequately reflect their textual data" (Howitt and Cramer 2008). After conducting the face-to-face interviews and reviewing the answers of the eleven interviewees, four major themes on conservation, compatibility, carelessness and coordination were identified. These themes strive to capture the majority of the analysed data. Each one encloses three sub-themes that embody useful information in relation to

[28] With the exception of one participant who was interviewed after being recruited in August of 2010.

the three subsidiary research questions. The organization of themes and the analytic narrative aim at communicating a coherent and detailed account about the collected data. Illustrative extracts (i.e. quotes from interviewees)[29] and information from document analysis are included to support the argumentation as well as the interpretation of answers. The themes, furthermore, justify the idea of creating a new review process that would engage and reconcile diverse interest groups when they evaluate project proposals. That review process will be discussed later, in subsection 4.3.3. of **Chapter IV: Research Findings**.

Theme 1: the **conservation** of historic properties is a side issue in the country

1.1. The distinction between a "historic" and a "heritage" property

The words "historic" and "heritage" are used synonymously in Kuwait. When asked whether criteria that distinguish a historic property from a heritage one exist, the evaluator group answered that there is no difference between the two per se; it is an issue of terminology. For instance, the NCCAL associates "historic" with a building but "heritage" with a site. One of the interviewees, however, suggested that the difference might be function. Accordingly, a building is considered "heritage" if it has a function that would allow "people to experience the past" whereas a "historic" one is simply "an abandoned old building." Put differently, the use value could be the main criterion that draws the distinction. Because of these responses, one may deduce that the expression "listed building" in the Third Kuwait Master Plan Review (e.g. view legend of **Figure 14** on p.169) and in related Kuwaiti literature (e.g. Ali 1988; Ali 2009; Al-Beeshi et al., eds 2010) refers to both historic and heritage buildings. Additionally, one of the interviewees explained that Kuwait Municipality currently uses the criterion pre-1950s to distinguish historic/heritage properties from modern ones. For this reason, any tangible attribute or intangible quality that dates back to Old Kuwait Town (i.e. prior to the implementation of KMP1) can be called Kuwaiti cultural heritage.

[29] Some interviews were partially conducted in Arabic. One of them, though, was entirely in Arabic. The researcher, therefore, translated the answers to English.

1.2. The classification of historic properties

It is difficult to count and to categorize historic properties in Kuwait City, because some can be counted as individual buildings whereas others as sites. For instance, the evaluator group explained that the *Dasman* complex could be regarded as one site or as five buildings. Although there is a Conservation Plan at Kuwait Municipality that shows the location of heritage properties in a present-day context, they are all marked in red, which makes it difficult to distinguish buildings from sites. Yet, one of the evaluators states that there are approximately one hundred and twenty-two historic buildings, which consist of courtyard houses, mosques and government edifices, as well as eight cemeteries, five gates (i.e. of the 1920s fortification wall that surrounded Old Kuwait Town) and some historic areas on the North of *Gharabali* Street, on the East of the fresh foods market and on the West of the new heritage market, including the *diwaniyah* of *Sheikh Moubarak*. Some of these properties have been demolished since the last time they were surveyed. Apparently, they have not been counted and classified since the creation of the "Kuwait Heritage Register" in the 1980s, which was republished in 2009 without any significant updates.

The rest of the evaluators, on the other hand, answered that the quantity of historic properties "is unknown. No one can tell you an exact number. We consider everything pre-1960 as historic." They guessed that the number of buildings is "maybe around one hundred." It is unclear which criterion would mark a building as heritage, since one interviewee said it is pre-1950s (view sub-theme 1.1. in subsection 4.3.2. of **Chapter IV: Research Findings**) whereas another said pre-1960s.

1.3. The responsibility of property owners

Although the NCCAL is the main heritage conservation authority in Kuwait, it is only in charge of the properties under its ownership, such as Dixon House in the *Al-Sharq* area (view building **R2** in **Figure 21** on p.176). Initially, historic properties were the responsibility of the Department of Education, which had to "prevent any damage from befalling the recorded sites of antiquities and historic buildings" as stated in

Article 13 of Princely Decree No. 11 of 1960: Law of Antiquities. The evaluator group explained that the authority of the Department of Education was transferred to the NCCAL in 1994. The group also clarified that the conservation of a historic property is the responsibility of "the administration that owns and runs that property." For example, since the Ministry of Islamic Affairs owns heritage mosques, it is responsible for preventing any damage from happening to these mosques.

Still, any owner (including the various Ministries) who wishes to alter, restore or rehabilitate a historic building must first consult the NCCAL. Usually, the NCCAL and the Ministry of Public Works can hire contractors to execute a conservation project; nevertheless, it is difficult to conserve a private property, such as a listed courtyard house, unless the NCCAL purchases it through the Ministry of Finance. The evaluator group, moreover, explicitly said that Kuwait Municipality does not undertake any conservation work. Hence, the information stated in the Third Kuwait Master Plan Review about the role of the HBPS in safeguarding cultural heritage, which was discussed in subsection 4.1.2. of **Chapter IV: Research Findings**, is false. Legally, furthermore, the NCCAL has the right to seize a historic building from its owner if he/she is not maintaining it properly, "but this did not happen before" in Kuwait, according to the group. One of the interviewees said that "there is nothing written about how to maintain a historic building." Put differently, the NCCAL has not created or disseminated instructions to guide owners. Consequently, the fate of some historic properties is in the hands of individuals who may have little or no knowledge about conservation measures.

In terms of protection belts, Article 15 of the Law of Antiquities states that "any concerned authority […] shall provide unbuilt space round [historic] buildings;" however, this rule is not applied, because the NCCAL cannot enforce it. Instead, the NCCAL places a fence around historic properties, but the evaluator group explained that the distance between the fence and a given property is insignificant. Listed mosques, in particular, should be surrounded with six meters of vacant space, as pointed out by one of the interviewees. In other words, no new building should be constructed within less than six meters from a mosque. Nevertheless, the CBK and HV do not respect this rule. Hence, it seems that the NCCAL is not using its authority or receiving

governmental support to effectively conserve historic properties, including those under its ownership.

Theme 2: compatibility is both the appearance of the new and sensitivity to the old

2.1. The subjectivity of definitions

As discussed in **Sections II** and **III** of **Chapter II: Literature Review**, the meanings that individuals attribute to compatibility are subjective (e.g. Brolin 1980: 6; Fitch 1982: 80; Tyler et al. 2009: 111). This explains why the evaluator group had different definitions. One argued that a compatible new building gives "the heritage building a stage or buffer zone" even if it contrasts with its surroundings. Yet, if the new building were residential, "privacy, income and location" must be carefully considered. Another said that compatibility entails following "building codes" and respecting "height, views, colours" and "the overall design" of neighbouring buildings as well as "landscape features and function," because it would be "inappropriate" to place "an office tower next to a heritage building, like a mosque." Nevertheless, another judged that building codes "are doing more harm than good" because they do not sufficiently address urban design in Kuwait City. The same interviewee added that compatibility does not necessarily imply that the design of the new building must imitate that of historic ones, "because we are not living in the past." A design quality that would help establish a compatible relationship between the new and the old is "simplicity," because it is "part of Kuwaiti architecture but also part of modern architecture. So it works for both traditional and modern design." Hence, it seems that reinterpretation and contrast are more desirable than reproduction or reconstruction. Another stated that compatibility "can be achieved if the design is at least responsive to our climate," which means that climate is an essential urban determinant (a point that was mentioned in subsection 4.1.1. of **Chapter IV: Research Findings**).

The applicant group explained that compatibility "means not to take the attention away from the historic building. It could be about a complementing contrast," which may be interpreted to mean harmonic/sympathetic contrast. The group also talked

about “climate, proportions, openings and comfort” as well as “height and traditional elements” and explained that the choice of a design option should depend on “typology.” For example, if the new development were a tower, then contrast should be used to achieve compatibility. Since none of the applicants mentioned reproducing or reconstructing historical designs, it also seems that the preferred design options are reinterpretation and contrast.

Though the two groups did not discuss Islamic principles per se, some interviewees talked about privacy and simplicity, which are associated with religious teaching. Hence, one may argue that the preliminary definition of compatibility in the traditional Kuwaiti context that was formulated at the end of subsection 4.1.1.2. of **Chapter IV: Research Findings**, is reasonable.

The interviews have also shown that Kuwaiti architectural and cultural identity is difficult to describe. Yet, only the evaluator group was asked to define this identity, because the four interviewees who form this group are Kuwaiti citizens whereas all the applicants (with the exception of the client of the KIA) are expatriates who would most probably have a different interpretation. The evaluator group explained that this identity is expressed in an architecture that is “austere externally,” “compatible with heat” through the use of the “interior courtyard” as well as “compatible with our traditions and privacy,” although it is “not the same privacy as before.” It was also argued that this identity has been replaced with an “international identity,” which is not “necessarily negative,” because Kuwaitis “need to keep up-to-date with progress” but without copying and pasting “designs from outside.” Hence, reproducing the past is seen as a counter progressive activity, which explains why this design option is not looked upon favourably. The idea of importing foreign designs also seems unsuitable. Therefore, it may be deduced that what is needed in Kuwait City is a vernacular contemporary architecture that represents progress (for example, through the use of the latest building technologies) while remaining faithful to traditional roots. It may also be deduced that the preliminary definition of compatibility in the current Kuwaiti context, suggested at the end of subsection 4.1.2. of **Chapter IV: Research Findings**, is fairly reasonable, because some interviewees have pointed out that issues of privacy, and thus the needs of the Kuwaiti community, have changed after the 1950s.

It is noteworthy that the researcher purposefully did not refer to heritage values and character-defining elements in the line of questioning to see whether participants would bring up these notions when defining compatibility and/or Kuwaiti identity (view **Appendix 1** on p.xxiii). Although none of them mentioned the word "value," the exchange of ideas on climate, simplicity, privacy, traditions and courtyards show that heritage values and character-defining elements in subsection 4.1.1. of **Chapter IV: Research Findings** were sensibly identified.

2.2. The strategies for developing a heritage district

Each participant was asked to explain what he/she would do if he/she had to develop the heritage district where the HV project is currently under construction. The evaluator group had different approaches for adding the new to the old. One would rebuild a traditional environment with some housing and commercial buildings such as artist studios at ground level and artist housing on the first floor while leaving the existing heritage buildings as museums and opening archaeological areas to the public. Another would follow the outline of archaeological remains to construct new buildings, such as cafeterias and hotels, and would pay attention to height limits, colours, views and climate while using modern materials "to make sure the buildings are durable" but "look historic." Another would construct modern housing and, consequently, make the new buildings look contemporary. The applicant group had different ideas as well. One would use the courtyard approach so that the new buildings look contemporary but feel traditional. Another would work with orientation and views "so that when the viewer walks into the new buildings his eyes are directed towards the historic buildings." Another would take pictures of historic buildings and try to integrate their traditional elements in the new designs.

Hence, a single recipe for marrying the new with the old does not exist. This point was particularly discussed in **Section II** of **Chapter II: Literature Review**. Also, the interviews have shown that the choice of a design approach depends, to a large extent, on the perceptions and skills of decision-makers as well as on their sensitivity

towards tangible and intangible aspects, such as views. As a result, guidance, alone, cannot guarantee compatible design solutions.

2.3. The compatibility or incompatibility of the HV, KIA and CBK

To better understand each development and, subsequently, to better assess its compatibility with the site and the surrounding urban context, every interviewee was asked to share his/her opinion and/or to explain design characteristics and qualities.

One of the applicants considered the HV "entirely compatible because of its concept." According to the interviewee, AEC followed guidelines pertaining to "functions, heights, areas and units" that were put forth by the Municipality for the project; yet, it did not follow the building codes that were discussed in subsection 4.1.2 of **Chapter IV: Research Findings**, not even the ones for development along the seafront. Additionally, AEC did not follow "any zoning criteria," but rather created its "own zones for the project." From HVREC, the guidelines were to respect financial performance and feasibility costs in terms of floor areas for commercial and housing spaces (e.g. for the VIP suites) and to use traditional design with high-tech services. The HV is expected to be "a landmark and one of a kind in Kuwait," because "it is developed to resemble Kuwait's real culture;" however, "privacy is not maintained," because it is a commercial development. Although it was meant to be an accurate reconstruction of a portion of Old Kuwait Town in the 1950s, AEC did not consider reconstruction "a conservation measure," because the project is about "something new, so it can't be historic." In consequence, AEC decided to reinterpret, instead of reproduce, historic elements and parts. The idea was to bring back "past memories for Kuwaitis who are sixty and more" as well as "to show teenagers their heritage, because they have been disconnected from it" due to the implementation of KMP1 in the 1950s. Yet, this idea had to be expressed without actually recreating the past.

Nevertheless, many applicants expressed some disagreement about the compatibility of the HV, particularly because there is a contradiction between the concept and the architectural outcome. If the purpose of the project were to show

Kuwaiti heritage, then the design should have been an accurate reconstruction as opposed to a reinterpretation, which would inevitably mislead the observer, particularly young teenagers who would believe that what they are looking at is what Kuwait City was in the 1950s. Additionally, the name of the project is "Heritage Village," although it is far from being heritage. For this reason, an interviewee called it "a Hollywood mock-up" whereas another claimed that "the winning design has no depth to it;" it is "a jungle and superficial." Another saw that the project is not "trying to conserve the historic atmosphere." Still, some judged that "it is good" and "wonderful" to have such a project in Kuwait City, because "it is about variety and diversity and life should be about variety." As a result, they would visit the HV when construction is over.

The evaluator group was a bit more critical about the final design. Apparently, one of the interviewees was "involved in the project up until the first submission sometime in 2003." The main design guideline, which was put forth in the 1980s, was "to take the existing buildings and recreate the map of 1950." This means that the design of the HV was supposed to show "Kuwait as it was" and was supposed to follow the handbook that was created for this purpose. The same interviewee does not consider the HV a compatible response, because it is a "standardization" that uses "concrete, parapet design, wrong window dimensions, fountains, large plazas and huge archways" all of which "can be built anywhere. They are not specific to Kuwait." For this reason, the HV was compared to "Sharm Al-Sheikh," a resort in Egypt. Another added that the final design "has nothing to do with Kuwaiti architecture." Another explained that when the architects of the HV consulted the NCCAL in the early stages of design, the heritage advisors made a few changes, because some ideas were "not appropriate." For example, the circular windows had to be removed from the drawings, because vernacular Kuwaiti architecture did not "have those." Still, the same interviewee judged that "it is nice" to have a project "that tries to combine tradition with modernity" in the city.

As for the CBK, the design guidelines were to "reflect an iconic and prestigious status that would be innovative, that would reflect Islamic principles in an intangible way" and that would have the "wow factor." An applicant argued that the tower "belongs here in Kuwait, not in downtown Chicago," because it is "conservative,"

"technical" and it "reflects Islamic culture" since "the façade facing the harbour is glazed whereas the back façade facing the city is concrete." Nevertheless, document analysis has shown that glass and concrete were not traditionally used in construction (view subsection 4.1.1.1. of **Chapter IV: Research Findings)**. The same applicant added that "there were some considerations" for *Mohammad Al-Jalahema Ibn Khames* mosque, but not for the HV, which is a new project, "not a World Heritage Site." However, on-site observation has shown that there are eleven heritage buildings in that village (view **Figure 21** on p.176).

One applicant judged that the CBK is incompatible because of its highly contrasting form and bulk. Another said that it overshadows the HV since it is "big and very high" and it is a government building that does not belong on the seafront. Another argued that the form of the tower "doesn't work" with the surroundings. On the other hand, some admired the structure, which is "impressive," but they saw that "it does not belong in Kuwait. It can be located anywhere."

According to the evaluator group, the CBK is insensitive to its urban surroundings, particularly because of its height, massive scale and location between two low-rise heritage buildings and above an archaeological area "that contains pre-1811 structures," particularly "layers of courtyard buildings." Additionally, rather than connecting the low-rise heritage buildings along the seafront and then gradually moving to medium and high-rise buildings towards the city centre, the CBK, as well as the KIA, are creating "visual pollution." Though one of the interviewees appreciates the design of the CBK, its "location from an urban design point of view" was considered "inappropriate." Hence, the chaotic distribution of high-rises in historic areas was brought up, a point that was discussed in subsections 4.1.2. and 4.2.3. of **Chapter IV: Research Findings**.

As for the KIA, the competition guidelines were to design a "modern, flexible, adaptable, sustainable" and "comfortable work environment" while paying great attention to daylight. The winning design had to introduce the qualities of the Arab Organisations Headquarters Building in Kuwait and had to be "built on a modular basis" (e.g. the ability to grow) and had "to meet the requirements of future technology,

minimum cost and maximum height." KEO's design was selected, because the firm "gave a lot of importance to the interior environment, as opposed to the other firms, which focused on exterior form, like architecture in Dubai." The interior of the building is considered more important than the exterior "as long as the exterior is decent."

The applicant group added that the design has many good qualities. It is "simple, strong and rich," "innovative, feasible," "traditional, unique, Arabic in spirit but modern in application, sustainable and efficient." The KIA is a "smart" or a "green building," because it responds to the climate. For example, windows are recessed to protect the interior spaces from overexposure. There is also under floor air distribution, "which brings the use of energy down to twenty-five percent." Yet, the design does not seem to respond to its immediate urban environment because when asked whether the historic context of the area was considered in the decision-making process the group answered "no." One of them explained that the KIA "is far from the heritage buildings and is located on a piece of desert." The applicant continued "now Kuwait does not have a heritage," it has "an Arab-Islamic heritage;" the KIA expresses an "Arab-Islamic spirit" rather than a Kuwaiti one. This answer may explain why some applicants in the city do not feel the need to design context-specific buildings and why instead they choose to design regional-specific buildings or international buildings (view quote by Benjasem 2009 in subsection 4.1.2. of **Chapter IV: Research Findings**).

The evaluator group argued that the project "is not trying to be compatible with the heritage district," although one of them found its location "OK given that it is behind" the district and would most probably have less negative impacts than the CBK.

Generally speaking, the evaluator group judged that the environmental impacts of the HV, CBK and KIA on the immediate site and its surroundings are mostly harmful. All three developments could have been located anywhere, because they have "nothing to do with Kuwaiti identity," they "are affecting negatively the heritage buildings, especially the image of Kuwait City along the seafront" and they "distract the viewer's attention from the existing historic buildings." Nevertheless, the applicant group judged that the impacts of the CBK and KIA, in particular, are "not important," because "development on other blocks will probably be high-rises as well" and because

the heritage district "is all inward-oriented so it doesn't matter what is around it." Yet, on-site observation has shown that these skyscrapers may block views from and towards existing buildings and may drastically change the horizontality and the experience of the heritage district (view **Figure 30** on p.184). Hence, given the pros and cons of each development, one may deduce that the goal of compatibility was not entirely achieved.

Theme 3: the **carelessness** of diverse interest groups with regard to conserving cultural heritage is explicit in the country

3.1. The interests of Kuwait Municipality

Document analysis has shown that the interests of Kuwait Municipality tend to counteract urban heritage conservation efforts. More specifically, a heritage advisor, who still works at the Municipality, wrote in the late 1980s that the Municipality is interested in the establishment of efficient street layouts and regular plot alignments at the expense of historic buildings that are often demolished, as well as in the exchange of historic sites with empty plots, which means that the fate of historic properties is left in the hands of private owners who are not necessarily interested in conserving or maintaining these properties (Ali 1988: 5). The evaluator group confirmed this issue and gave the example of the recently constructed ring road project in Kuwait City. The Municipality approved that project although it caused the destruction of some historic structures and archaeological remains. Hence, according to the group, "the Municipality does not care about heritage buildings; they are just a side issue." The demolition of the NCCAL Headquarters Building (**Figure 47** p.209), which is a listed building that traditionally functioned as a school for girls, was also approved in order to leave room for the ring road. Fortunately, heritage advisors at the NCCAL and the HBPS requested that the road be built underneath or next to the building. Their request was met.

Additionally, the group explained that the destruction of historic fabric is expected, because "there is no one that keeps an eye on what is happening during construction," which means that monitoring measures and on-site inspections are not sufficiently employed. Apparently, the demolition of **R6** and **R7** in the heritage district,

where the HV is currently under construction (**Figure 21** p.176), was not an accident, because, according to the group, "there are no accidents in Kuwait City. Everything is intentional." Thus, it is quite possible that the Municipality tolerated the destruction of these buildings to leave room for the HV project, although they have "a very important national value that must not be demolished or altered" according to the criteria set forth by the NCCAL (view subsection 4.2.1. of **Chapter IV: Research Findings**). HVREC is now rebuilding **R6** and **R7** in an image that suits the HV.

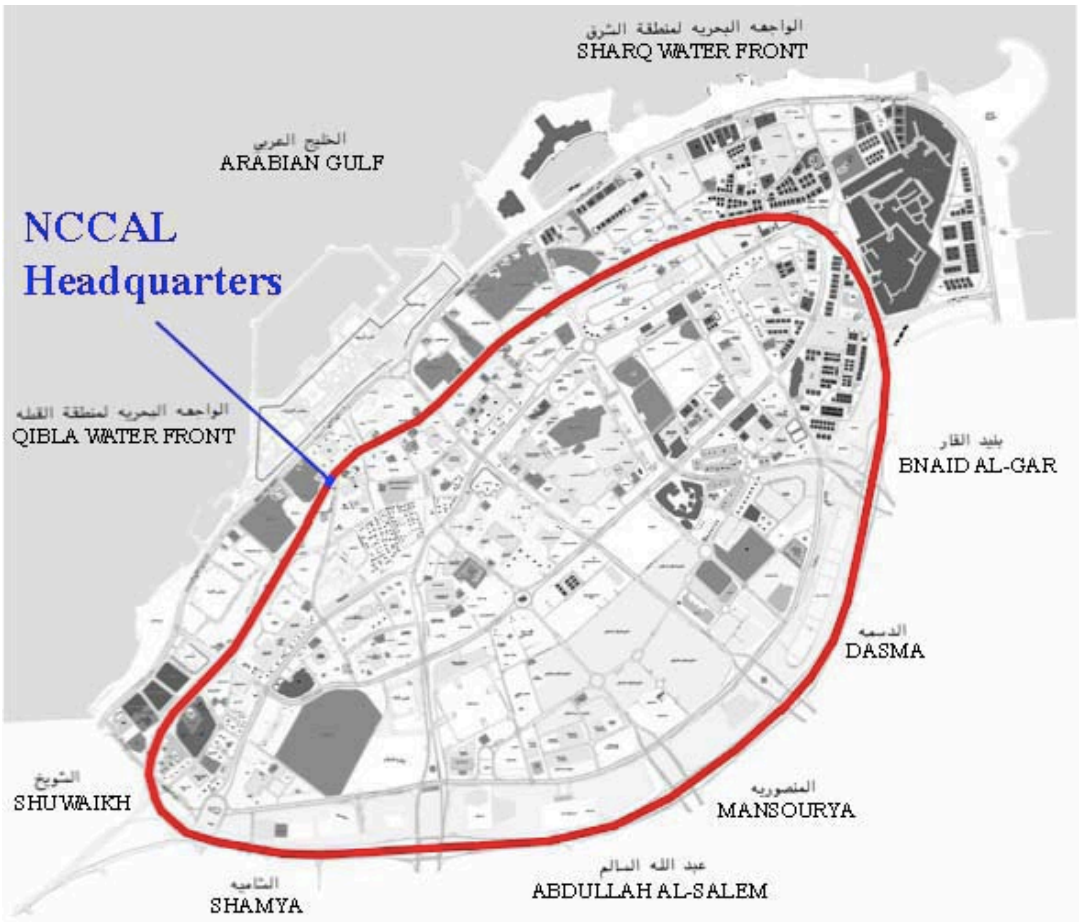

Figure 47: First ring road project in Kuwait City (source: Third Kuwait Master Plan Review 2005: 106). Note: the researcher added the ring road in red and the location of the NCCAL in blue.

The applicant group acknowledged the point on carelessness by saying that "heritage is not a primary concern in Kuwait, because the Municipality does not care. No one cares. Nothing will restrict you from building what you want." It seems that

much of the Kuwaiti cultural heritage has been lost not only due to the implementation of KMP1 in the 1950s as discussed in subsection 4.1.2. of **Chapter IV: Research Findings**, but also due to current interests, which are not always sensitive to heritage values and existing historic fabric. As a result, it may be very difficult to make heritage conservation a part of development and planning or a part of the local mentality.

3.2. The personal interest system

Personal interests have contributed to the instability of the regulating system in the country. The evaluator group clarified that "development in Kuwait City is not under control. You can have any project you want approved by the Municipality as long as you have money. The Municipality is the 'bad guy' and the NCCAL is the 'watch dog.'" Although heritage advisors try to conserve historic properties and prevent insensitive development in these areas, "there is a higher power" and "a limit to what we [heritage advisors] can do here." In many cases, this power is that of the client/project owner. The applicant group explained that "the people from the KIA are very powerful. So in the end we got what we wanted." The group also stated that "the governor of the Central Bank is from the Royal family *Al-Sabah*. The design follows his requirements. […] Rules had to be redefined" although "back when the design was done some ten years ago, the maximum height in Kuwait City was twenty-six storeys," whereas today the CBK has reached forty-one storeys. The height limit put forth in existing regulations "was amended" in order "to satisfy the client who wants future expansion areas." Regulations, therefore, are sometimes bent and negotiated, a point that was discussed in subsection 4.1.2. of **Chapter IV: Research Findings**.

In other cases, power is connections. The evaluator group asserted that "if you know someone from the Municipal Council, or even better, someone from the Council of Ministers, then you can dismiss any law and build what you want." The law in question is the Law of Antiquities. These types of power (i.e. money and connections) are locally known as *wasta*, which stands for "personal interest system" in Arabic. When asked about the effectiveness of design and zoning regulations in Kuwait City, the evaluator group replied that "they can be useful, if you can impose them. As you

know, it is hard to impose anything in Kuwait, because of the interest system." Hence, *wasta* is a constraint that prevents compatibility from being achieved.

3.3. The lack of power and willpower to enforce existing regulations

Although new projects proposed in historic areas "must be given considerable considerations in the context of the development control guidelines put down by the historic building preservation section of Kuwait Municipality and the NCCAL" (Third Kuwait Master Plan Review 2005: 37), such guidelines do not exist. The evaluator group clarified that Princely Decree No. 11 of 1960: Law of Antiquities is the only formal policy that strives to control new development in historic areas; yet, it mostly deals with the preservation of existing structures and archaeological remains. The group confirmed that this policy has not been updated since 1960. It was not revised in 1980 as stated in the 2009 Kuwait Historical Preservation Study: Old Kuwait Town, which is, in fact, the recently republished "Kuwait Heritage Register" (Ali 2009: 11).

The group added that the four criteria developed by the NCCAL in the late 1990s, which were discussed in subsection 4.2.1. of **Chapter IV: Research Findings**, are as important as the Law. Nevertheless, neither the Law nor the criteria are implemented. The group clarified that it is not the responsibility of the Municipality or the NCCAL to enforce them, but that of the Council of Ministers. The latter is also responsible for enforcing existing regulations (e.g. the building codes).

When asked whether Article 42 of the Law, which states "anyone who destroys a historical building […] shall be liable to imprisonment […] and fined," is imposed, the group answered that in Kuwait "there aren't any such penalties" because "of *wasta*." According to Article 14, moreover, no new development may be erected in a historic area without procuring a license from the NCCAL; however, the group confirmed that the HV, KIA and CBK did not obtain one, because "no one cares about [this Law]. Some might not even know about it." The latter supposition is apparently true, because none of the applicants know the Law. One of them asked "what is it? I have been working in Kuwait for nineteen years and I never heard of it before." Furthermore, when the applicant group was asked to explain what the word

"harmonious" in Article 15 means, the same interviewee replied: "If the Law itself does not define it, how do you expect me to know what it means? This shows you that this Law is not a concern for governmental agencies. No one enforces it, because I never heard about it. So nobody cares about it."

Since building codes do not exist for government buildings, the applicant group explained that there were no design constraints for the design of the KIA or CBK. Although codes for development along the seafront would have been applicable due to the location of these developments, the group argued that "it is up to the designer to stick to the building codes or not." As a result, it seems that the problem in Kuwait City is not only the lack of guidance, but also the lack of power and willpower to effectively oversee the application of guidance.

Theme 4: the **coordination** of diverse interest groups is essential to sound decision-making

4.1. The prevention of adverse impacts

According to the evaluator group, neither Kuwait Municipality nor the NCCAL has an EIA requirement for new buildings proposed in historic areas. Yet, the group agreed that an EIA study should be included in project proposals. For this reason, one may argue that the two agencies should work together to introduce EIA in decision-making processes with a view to facilitating the identification, evaluation and mitigation of effects and selecting the design variant that has the least negative ones and the most positive ones, as discussed in subsection 2.2.5.2.3. of **Chapter II: Literature review**.

The applicant group explained that for the HV a study was conducted and "emphasis was placed on noise, waste collection and soil tests," as per the request of HVREC. Yet, heritage buildings in situ are not monitored during construction to prevent adverse impacts from actually occurring. On the other hand, since the KIA does not have "any chemicals," the group found that an EIA study is not necessary. It was not necessary for the CBK either, according to the group.

4.2. The current review system

The applicant group explained how project proposals are currently being reviewed. To obtain a building permit in Kuwait, the design consultant, who often serves as client representative, first submits his/her project proposal to the Planning Division of Kuwait Municipality. When the design is approved, the proposal moves forward to other Divisions and lastly to the Building Permit Division. If the Municipality cannot make a decision, for example because of issues related to parking, traffic or height limit, it organizes a meeting between the Municipal Council and the consultants who would have to "present the project and try to get the approval of the Municipal Council. If they do, they get the building permit." Also, it is the Municipal Council who "gives land for projects; this is how zoning is applied;" accordingly, this was the case for the plots attributed to the HV, CBK and KIA.

The evaluator group added that if a project is proposed in a historic area, approval must also be granted from the NCCAL and from the owner(s) of the area or the historic buildings in situ. For example, if the buildings were heritage mosques, then the consultants would have to receive permission from the Ministry of Islamic Affairs. Only AEC consulted the Ministry of Islamic Affairs and the NCCAL before obtaining the building permit, because the HV is directly located in a heritage district. This means that heritage advisors as well as the Ministry had to approve the design before the proposal of the HV moved forward to the Building Permit Division of Kuwait Municipality. Nevertheless, the evaluator group confirmed that AEC did not obtain a formal licence from the NCCAL, which is the only body that can issue one. As for the CBK and KIA, design consultants only had to deal with the Municipality, according to the applicant group, although these developments are located near heritage buildings that belong to the NCCAL, the Ministry of Finance, the Ministry of Health and the Ministry of Islamic Affairs (view **Figure 21** on p.176, **Figure 32** on p.186 and **Figure 33** on p.186).

4.3. The need to define communal objectives

Some advisors try “to get the government to preserve” historic properties and implicate themselves “into the planning of Kuwait City to make sure” that they “are protected” and “sometimes get the NCCAL involved to stop the Municipality from demolishing a heritage building.” Still, these individual efforts are powerless in front of authority figures who may have little care for, or knowledge of, Kuwaiti cultural heritage. For this reason, the evaluator group explained that “at the moment, the Municipality is trying to come up with a Committee that includes members from the Municipality, the NCCAL and all the Ministries.” Apparently, “many listed structures have been demolished, not intentionally, but because not everyone knows that they are historic structures. So we hope that by creating this Committee we can avoid this miscommunication and misunderstanding.” Thus, in order to improve the safeguarding, planning and management of the historic urban environment, the group judges that different authorities must directly communicate with one another and set collective and clear objectives.

Given the results of the interviews, one may deduce that if heritage advisors and property owners, including private ones, were involved in the evaluation of the HV, KIA and CBK proposals, more emphasis would have been placed on the mitigation of adverse impacts and the conservation of existing buildings such as **R6** and **R7**. For this reason, the creation of a Committee (similar to the one suggested by the evaluator group) that brings together a diversity of decision-makers to review project proposals would be beneficial.

4.3.3. New Review Process for Engaging and Reconciling Diverse Interest Groups

An alternative approach to preservation rules/criteria would be useful in theory since existing rules are being bent and negotiated; however, the thematic analysis has shown that its implementation would be improbable, unless heritage conservation

becomes an integral part of local development and urban planning. Since the city is strongly development-oriented and runs on a number of interests, the challenge is to engage and reconcile diverse interest groups during the evaluation of project proposals in order to balance development with conservation and, ultimately, to reach a communal and values-based decision. One way to achieve this balance is to create a new review process that brings together decision-makers who would articulate their interests and opinions, exercise their legal rights, reconcile their differences and effectively oversee the application of the alternative approach.

Hypothetically speaking, a project proposal should first be sent to a Committee who would appraise the design of the new building in conformity with the Law of Antiquities and the four criteria developed by the NCCAL before the proposal could move forward to the Planning Division of Kuwait Municipality. That Committee would be composed of architects, heritage advisors and archaeologists from the NCCAL and the HBPS of Kuwait Municipality. It would also include property owners in situ (i.e. Ministries and Kuwaiti citizens) since their properties will most probably be affected by design development decisions. On the other hand, professionals from the Planning Division of the Municipality would not be included in the Committee, because they are not specialized in conservation and may not recognize whether a proposal preserves or threatens heritage values. In fact, when a Committee is composed of too many people, reaching a communal decision could become a long-lasting dispute. Arvey, a professor of management and organization, explains that "too many people may be problematic under circumstances where decision-making is important" (Arvey 2009: 10).

The mission of the Committee, however, would not be to evaluate the design of the new building per se, as this is the task of Kuwait Municipality, but to evaluate the design in relation to its historic context. For this reason, applicants would have to explain to the Committee how the proposed project relates to its site, responds to its heritage significance, enhances it and avoids adverse environmental impacts. Emphasis, therefore, would be placed on the understanding of the site, the recognition of its heritage values and character-defining elements and the identification, evaluation and mitigation of potential environmental impacts on those values and elements. **Chapter II: Literature Review** has shown that a SOS and an EIA study would be useful in this

regard. Also, applicants would have to explain how the project relates to the surrounding urban context, the climate and the local culture, particularly if the project were residential.

Following the evaluation of the proposal, the Committee would have to reach a decision and send a legally binding document to the Planning Division of Kuwait Municipality. Put differently, the decision of the Committee would be compulsory; otherwise, the Municipality would not apply it since it may have other interests (view theme 3 in subsection 4.3.2. of **Chapter IV: Research Findings**). Furthermore, depending on the scale of the project and its adverse impacts, the Committee might request, in the same document, to review the final design before a building permit is issued. If the proposal is accepted, it would eventually move forward to the Building Permit Division; if not, applicants would have to modify the design to meet the requirements of the Committee and those of the Municipality. If the Municipality were unable to issue a permit, the proposal could be forwarded to the Municipal Council. In that case, applicants would have to present the proposal to the Council; still, the requirements of the Committee in the legally binding document must be fulfilled. In addition to the building permit, a license from the NCCAL must be procured before construction could begin, as stated in Article 14 of the Law of Antiquities. Furthermore, since contractors are selected during the tendering stage, which is after the issuing of the building permit, it would be the responsibility of the client and that of the project manager to implement the Committee's decision.

To apply this new review process, a face-to-face meeting should take place at the NCCAL, where the Committee would receive applicants. A face-to-face meeting has many advantages. It brings people together, facilitates social bonding and builds long-term business relationships and trust (Arvey 2009: 7) whereas communication via a videoconference or a conference call socially isolates people in their own workspace. Additionally, it gives a face to every person and alleviates mystery. It is also successful in capturing attention (Lesonsky 2011) as well as in dealing with misunderstandings, because information can be exchanged instantly. It may also help the Committee understand the project proposal, thus, it may facilitate decision-making.

This new review process can form the basis of the theoretical model that the present researcher intends to compose as part of the current chapter, particularly to demonstrate how the alternative approach to criteria[30] might be used during design and assessment. Yet, before composing the theoretical model, a longitudinal survey with Kuwaiti citizens was conducted mainly to complement the preliminary definition of compatibility that was formulated as a result of document analysis.

4.4. Longitudinal Survey and Classification of Results

The standardized questionnaire has a total of twenty-four questions, grouped into four sections on architectural identity, cultural identity, collective memory and opinions about new buildings in historic areas (view **Appendix 2** on p.xxviii and **Appendix 3** on p.xxxvii). Its purpose is to verify whether what was understood from document analysis as well as the face-to-face interviews with local practitioners (e.g. in terms of compatibility, heritage values, identity) conforms to, or diverges from, what will be understood from a survey with a sample of the Kuwaiti population.

The survey was gradually conducted from January to March of 2011 with one hundred and fifty-five Kuwaiti citizens. This number is the sample that represents the saturation of information. Put differently, the same multiple-choice answers for the majority of the questions were being selected, which is why questionnaires were no longer handed out after reaching this number. It is noteworthy that the purpose of the survey is not to perform a statistical analysis for which the margin of error should be very narrow, but rather to collect and to interpret multiple participant meanings, as discussed in subsection 3.3.1.4. of **Chapter III: Methodology**. Participants were selected arbitrarily to avoid the risk of sampling bias.

Since the distribution of questionnaires without a referral from a staff member is culturally inappropriate in Kuwait and unlikely to receive any collaboration from the public, the survey was not carried out in homes or commercial places. It was carried out in two schools, three government buildings and a gymnasium. The researcher

[30] The approach will be identified and justified in section 4.5. of **Chapter IV: Research Findings**.

distributed questionnaires in Kuwait English School and Kuwait New English School (22 participants), the Municipality (13 participants), the NCCAL (7 participants), the Ministry of Public Works (4 participants) and the Holiday Inn Gym (103 participants).

To see multiple-choice answers simultaneously, numbers were first classified in a chart and those that relate to compatibility were highlighted in blue (view **Appendix 4** on p.xli). Secondly, the explanations and written answers of all the participants, including those in Arabic, were grouped under each question to simplify the analysis (view **Appendix 2** on p.xxviii).

4.4.1. Analysis and Specific Interpretations of the Results

4.4.1.1. Section 1: The Identification of Kuwaiti Architectural Identity

Question n°1 asks whether participants live in Kuwait City. According to document analysis, Kuwaitis who live in the city represent only 5.86 percent of the city's total population given that it is now "mostly a financial/business and commercial centre" (Third Kuwait Master Plan Review 2005: 9 and 1). Yet, surprisingly, 104 participants answered yes. Nevertheless, it is quite possible that some of them confused "Kuwait City" with the "State of Kuwait" or with the suburbs at the southern border of the city, which are *Shuwaikh*, *Shamiya*, *Abdullah Al-Salem*, *Mansourya*, *Dasma* and *Bnaid Al-Gar* (view **Figure 47** on p.209). Some respondents scratched the word "city" and wrote "state." Others asked the researcher whether Kuwait City means inside the city or its suburbs. When the researcher replied inside the city, they circled no.

Question n°2 asks participants what kind of housing they live in. Document analysis has shown that buildings in Old Kuwait Town followed the courtyard typology and were closely clustered to protect alleyways from the harsh weather. One of the main Islamic principles that influenced domestic architecture and urban morphology was privacy of the occupants in relation to outsiders, including neighbors and visitors (Hakim 1986; Morris 1994; Edwards et al. 2006; Elsheshtawy ed. 2008; Jayyusi et al. 2008). It seems that sharing living space with non-family members was, and is still, not desired, because 120 participants live without neighbors (79 live in detached villas and 41 live in courtyard houses, which are most likely villas with inner courtyards). It also

seems that a large amount of space is required by social custom (Greenwood Press 2004: 66; Alenazy 2007: 71), given that 142 participants live in houses as opposed to apartment buildings. Only 13 participants live in low-rise apartment buildings whereas none live in high-rise ones. However, judging from the researcher's personal experience in Kuwait, it is quite possible that those 13 participants occupy both the ground and first floor of low-rise apartment buildings, which usually have a separate entrance that provides privacy for Kuwaiti families.

Question n°3 asks whether participants have a *diwaniyah*, which is a reception area for Kuwaiti men, either annexed to a villa (the typical contemporary Kuwaiti house), or inside the villa, or as a separate structure (Lewcock 1978; Hawker 2008). For this reason, the researcher expected more than 86 participants to have a *diwaniyah*.

Question n°4 asks whether participants would like to live in a high-rise building in Kuwait City. According to document analysis, Kuwaitis rarely live in apartment buildings, because they dislike shared entrances, elevators and staircases (Mahgoub 2008: 169). The survey has shown that 140 participants prefer houses not only for privacy purposes, but also for security, independence/freedom, prestige and comfort. For example, one participant wrote that he/she would feel trapped in a high-rise building. Another wrote that he/she prefers living in a house to avoid a potential negative mixture of people. One explained that a person could change the layout of a house and add more space but this cannot be easily achieved in an apartment. One argued that apartments do not provide enough space for kids to play. Also, one would like to live in Kuwait City but not in a high-rise building. Two participants, moreover, like having a garden, which is the modern equivalent of a courtyard.

Question n°5 asks what element best describes traditional Kuwaiti architecture while providing three choices: the courtyard, the *diwaniyah* and simplicity in form. 60 participants chose the first option, 50 the second one, and 43 the third one. Still, 6 participants had a different answer: "mud and wood," "the *liwan*," which means colonnade in Arabic, "privacy and independence," "responsiveness to climate," "a design that brings family members together" and the combination of "courtyard, height, building materials and form." In fact, document analysis has shown that the *diwaniyah* is not specific to Kuwait, because it is found in other countries. Additionally, the

courtyard is not a Kuwaiti typology; it was adopted from the Mesopotamian model (Morris 1994: 8-9). Simplicity in form is also not specific to Kuwaiti architecture; it is a general characteristic of domestic Islamic architecture (Hakim 1986: 22) as well as modern architecture (as pointed out by one of the evaluators in subsection 4.3.2. of **Chapter IV: Research Findings**). For these reasons, one may argue that it is the combination of different elements that creates Kuwaiti architectural identity. Some participants circled all three answers to transmit this argument.

Question n°6 asks whether Kuwait City has an architectural heritage. This particular question provides an opportunity to verify the reactions of some of the evaluators and applicants (in subsection 4.3.2. of **Chapter IV: Research Findings**) who said that now Kuwait has an "international identity" or "does not have a heritage," it has "an Arab-Islamic heritage." Some participants circled more than one answer. In total, however, only 74 answered yes "we have a unique Kuwaiti architectural heritage." The rest answered no. 57 of them judged that Kuwaitis have a "regional Arabian architectural heritage" whereas 20 judged that they have an "Islamic" one. Some explanations were provided. One participant wrote "no" because "the government demolishes heritage buildings," which may be interpreted to mean that only tangible evidence can be heritage. Another wrote "Kuwaiti architecture has yet to develop its own identity," which may imply that there is a need to develop a Kuwaiti contemporary vernacular. Another wrote "there is a notable influence from neighbouring Arab countries so we don't have our own identity," which may be the influence of Dubai with its high-tech skyscrapers. Another explained "buildings today follow Western designs and there is not enough attention paid to the façades of buildings," which may imply that the "notable influence" is not only that of "neighbouring Arab countries" but also that of Europe and the United States. One participant, moreover, argued that "Arabians are all the same and we all live the same." It seems that some respondents do not see the need for a Kuwaiti vernacular, but rather a regional vernacular.

Question n°7 asks whether participants like Kuwait City's skyscrapers. As understood from document analysis and the face-to-face interviews, tall buildings are climatically and culturally challenging. They are mostly the outcomes of imported skills, designs, materials and methods of construction that are not always sensitive to

local urban and man-made determinants and that may cause adverse environmental impacts on neighboring heritage districts. Although it is possible to design culturally and climatically responsive skyscrapers (and the KIA tower may be an example), this has yet to be seen in Kuwait City. The survey has shown that a total of 115 participants answered yes whereas only a total of 40 answered no. Most of the ones who like the skyscrapers selected the option "because they show we are up-to-date with building technologies." The rest either selected the option "because they are nice-looking" or gave a different answer, which is associated with progress. Those who answered no mainly selected the options "because most of them are oblivious (insensible) to the Kuwaiti context" and "because they make Kuwait City look like any other Arabian city." Generally speaking, it seems that many citizens associate skyscrapers with Kuwaiti architectural identity. In other words, high-rise development may have become a part of a new identity.

Question n°8 asks whether skyscrapers are appropriate for Kuwait City's climate. Document analysis has shown that they are not usually climatically appropriate (Benjasem 2009); yet, 88 participants answered yes while only 58 answered no. One may argue that this result is not necessarily surprising, because a skyscraper could be responsive if it is designed and oriented appropriately. In the particular case of Kuwait City, research shows that high-rises should be rectangular with their main axis in the east-west direction to reduce the amount of heat in summer and maximize it in winter. It is found that the least amount of radiation is received when a building's long axis is located about 30 degrees off the east-west axis (Babaa 1978: 50).

Question n°9 asks whether participants would feel comfortable working in a skyscraper that has un-openable windows. 104 answered no because they "sometimes prefer exposure to natural air" whereas 39 answered yes as long as there is "air-conditioning." One of the participants who answered no explained that "a building has to be designed environmentally friendly (get natural air, natural light, save some energy, get good environment for work) because healthy buildings make healthy people." Hence, it is acknowledged that un-openable windows may create an unpleasant microclimate and lead to health problems. Though air-conditioning is deemed necessary in a hot and dry climate, as suggested in the participants' explanations, architectural

design should minimize the use of energy in order to achieve the goal of climatically compatible new buildings. Research shows that the size and location of openable windows, as well as the use of traditional passive cooling strategies such as courtyards with water areas and vegetation, or wind catchers and other devices such as ceiling fans that increase the rate of airflow, could provide some thermal comfort while minimizing the consumption of energy. Windows, moreover, could benefit from external vertical louvers, which can be opened to admit sunlight or remain closed to ban it completely (Al-Mutawa 1994: 22; Khalaf 2012: 38).

Question n°10 asks whether the Kuwaiti government should invest in sustainable (low-energy) design. 132 participants answered yes while 14 answered no. Fortunately, many are aware of the benefits of low-energy design. However, one may argue that sustainability does not necessarily lead to compatibility. For example, although wind turbines and solar panels may reduce the use of electricity, they may also disturb the cohesiveness and appearance of historic areas.

4.4.1.2. Section 2: The Identification of Kuwaiti Cultural Identity

Question n°1 asks participants whether they have a distinct culture. It is difficult for foreigners and expatriates to distinguish between Kuwaiti culture and an Arabian one (e.g. Saudi, Bahraini, Qatari, Omani). The fact that 96 participants answered yes shows that there is indeed a distinction. Two of them explained that Kuwaitis have "different food, clothing and speech" as well as different "customs related to distinct climate and economy." On the other hand, 41 participants answered "no, Kuwaiti culture is a regional Arabian culture" whereas 6 answered "no, Kuwaiti culture is an Islamic culture."

Question n°2 asks whether Kuwaiti culture, in relation to housing, changed after the 1950s (when Old Kuwait Town was demolished and replaced with modern Kuwait City). 126 answered yes "customs evolved with new forms of inhabitation" whereas only 16 answered no "we have maintained the same customs." Many sources of literature have pointed out the cultural and climatic problems related to contemporary housing in Kuwait in comparison to vernacular courtyard housing (Shiber 1964; Babaa

1978; Al-Quraini 1979; Al-Mutawa 1981; Al-Bahar 1985; Alsuwayeh 1985; Al-Mutawa 1994; Al-Sanafi 2001; Alenazy 2007; Al-Jassar 2008; Torstrick 2009). Traditionally, houses were inward looking and simple whereas nowadays villas, which are based on Western designs, are outward looking and extravagant. Many participants acknowledge that this paradigm shift has negatively affected the Kuwaiti lifestyle. Some explained that "now we have European and American designs for our homes that do not suit us" or "we seem to be leaning towards a western lifestyle, which is quite sad" or "now we have a social change because spaces in the household are arranged differently" or "now the immediate family lives alone whereas in the past extended families lived together." Hence, it seems that current forms of inhabitation have led to spatial and social fragmentation and have adversely affected Kuwaiti customs.

Question n°3 asks whether privacy is an essential part of Kuwaiti culture. Subsection 4.1.1.2. of **Chapter IV: Research Findings** has shown that it is. The fact that 143 participants answered yes confirms this information. Some explained that "privacy is the most important element of Kuwaiti architecture and living," which is why "we have separate entrances and meeting rooms for visitors in the villa."

Question n°4 asks participants whether they think that skyscrapers in Kuwait City reflect their culture. The 48 participants who answered yes mainly explained that these tall buildings represent modern Kuwaiti culture. The 89 others who answered no argued that the high-rise typology has "nothing to do with our traditions." Hence, though a skyscraper can be designed in a manner that responds to the local climate, as discussed previously, it may be difficult to design one that responds to the local culture or one that would at least be considered culturally responsive.

4.4.1.3. Section 3: Measuring Collective Memory

Question n°1 asks whether participants know what Kuwait City looked like in the 1950s. A total of 122 participants answered yes and only 27 answered no. Therefore, it is quite possible that the morphology of Old Kuwait Town is being taught.

Question n°2 asks participants about the reason behind the rebuilding of Kuwait City in the 1950s. 116 answered "because the government wanted to make Kuwait City

a modern city," which is the reason that was provided in subsection 4.1.2. of **Chapter IV: Research Findings**. Yet, 25 participants answered "because Kuwaitis did not want to live in small courtyard houses anymore." In fact, these answers are interrelated, because the question is similar to a cause and effect chain: if oil were not discovered, the government would not have been able to modernize Old Kuwait Town, consequently, Kuwaitis would have continued to live in small courtyard houses; or, because oil was discovered, Kuwaitis wanted to live in bigger and better houses, which is why the government decided to demolish Old Kuwait Town and raise Kuwait City.

Question n°3 asks whether participants know the Law of Antiquities. 128 answered no. Yet, the 21 participants who answered yes are probably those who were asked to complete the questionnaire at the NCCAL and Kuwait Municipality, because it is hard to believe that the general public knows the Law when practitioners do not (view subsection 4.3.2. of **Chapter IV: Research Findings**).

Question n°4 asks participants about the quantity of historic buildings in Kuwait City while providing four options: around 100, around 50, around 25 and around 5. 16 participants selected the first option, 51 the second one, 50 the third one and 24 the last one. Nevertheless, the correct answer is more than one hundred, according to an evaluator (view subsection 4.3.2. of **Chapter IV: Research Findings**). Hence, one may deduce that historic buildings are overshadowed by high-rise development, which is why citizens do not see them, or that educational programs about Kuwaiti cultural heritage are scarce.

4.4.1.4. Section 4: Gathering Opinions about New Buildings in Historic Sites

Question n°1 asks whether changing the appearance of a historic site, by constructing new buildings for example, can add value (importance) to the site. 50 participants answered yes whereas 98 answered no "the historic site should remain unchanged in order to remain valuable." They gave some explanations, such as "the whole point of a historic site is that it has not been altered with time;" "I did not see one example in Kuwait City where change has added value to a historic site and this is why

I don't like change unless the new project has been selected from a design competition because competitions show different alternatives where the best one is selected;" "the value is in the history not the present;" or "we want the past to be remembered not changed." It seems that previous developments in Kuwaiti historic areas have brought more harm than value.

Question n°2 asks whether a skyscraper placed directly next to a historic site is appropriate. A total of 24 participants answered yes, mainly "because a skyscraper symbolizes success and it doesn't matter where it is located." On the other hand, a total of 138 participants answered no, mainly "because the skyscraper might disturb the visual appearance of the historic site." The explanations that were provided suggest that the location of the KIA and CBK is inappropriate because the two towers will disrupt visual continuity and take the attention away from historic buildings in situ.

Question n°3 asks whether new buildings in historic sites should follow guidance/rules that control size, materials, color, form, orientation, function and interior layout. 155 participants answered yes and gave different reasons. The main ones are to maintain unity in the historic environment, to create a cohesive architectural identity and to make the exterior and interior compatible. On the other hand, 6 participants answered no, because rules would prevent creativity and diversity and would make new buildings look similar when they should look modern. One participant, however, did not choose an answer and instead wrote that "rules don't matter, what is important is to make sure that skyscrapers are built very far away from a historic site so that they don't destroy its appearance." Generally speaking, the results show that guidance should aim at protecting visual integrity. **Chapter II: Literature Review** has shown that there are other aspects worth protecting as well.

Question n°4 asks whether new buildings in historic sites should follow rules that control parking. 13 participants answered no, but 126 answered yes. Traffic, overcrowding, congestion, pollution and "disorganization of space" are some of the concerns that were brought up. Therefore, one may deduce that guidance for new development should also address parking.

Question n°5 asks how new buildings in historic sites should look. Three options were provided: "they should look historic, using traditional materials and

concepts;" "they should look contemporary/new, using modern materials and concepts;" "they should look like a mixture of historic and contemporary/new." 31 participants chose the first option, 22 the second one, and 92 the third one. Some participants had a different answer, such as "form doesn't matter but the building should be built in a way that does not negatively affect the historic environment" and "each case is different, what is important is to make the new building distinguishable from the historic." Additionally, some participants explained that "new buildings should be an adaptation of the old not a copy and paste solution;" "new buildings should contrast with the historic site and be far from it to give it some space;" and "new technology and materials can be used to create well-designed buildings that include historic features." Given these various results, it seems that the issue of new buildings in historic areas is, indeed, subjective (view subsection 2.2.3. of **Chapter II: Literature Review**) and that there is no one approach or magic formula to achieve compatibility.

Question n°6 asks participants whether they like or dislike the Heritage Village Project in the *Al-Sharq* district of Kuwait City while providing four options: yes "because it shows Kuwaiti architecture and culture to our children;" yes "because it shows Kuwaiti architecture and culture to tourists;" no "because it does not accurately show Kuwaiti architecture and culture;" and "I don't know this project." 60 participants selected the first option, 27 the second one, 24 the third one, and 35 the last one. Those who answered yes explained that the project is educational and reminiscent of Kuwait before the 1950s. Others wrote that they like the thought of a heritage village, but they cannot judge the design, because they have not seen it yet. On the other hand, those who answered no explained that the project caused the demolition of many heritage buildings and fails to connect with existing buildings. One participant wrote: "this project is a failure because it did not respect the footprint of the demolished historic buildings and the archaeological remains and it has a completely new layout than the past one and it destroys the value of the existing historic buildings. Architectural heritage means the transmission of craftsmanship, so how can you reconstruct a historic building if no one has inherited Kuwaiti craftsmanship?" Generally speaking, one may deduce that the concept of the HV is desirable, but the architectural outcome has failed

to communicate an accurate image of Old Kuwait Town. Thus, the HV is not a compatible development.

4.4.2. General Interpretations of the Results

Only rarely did participants discuss values in their explanations or answers; yet, it is clear that many of them value their heritage and believe it is worth protecting from environmentally and visually insensitive new development. Also, the majority agrees that new buildings in historic areas should follow some guidance, for example in terms of materials and parking, in order to protect the unity and appearance of historic buildings.

Though skyscrapers are desirable and associated with progress, many judge that they do little to reflect traditional Kuwaiti architectural and cultural identity. Still, they may be creating a new identity. This point was also raised during the interviews (view subsection 4.3.2. of **Chapter IV: Research Findings**).

Most importantly, the survey led to a deeper understanding of compatibility. According to the respondents and the interviewees, compatibility in Kuwait City today is mostly associated with these indicators: appearance, domestic privacy, culture, evolving customs, experience, function, thermal comfort/(hot) climate responsive design, spatial comfort (particularly indoors), simplicity/modesty, design concept, views, landscape features, location, typology and height.

Additionally, since participants are unfamiliar with the quantity of historic buildings in the city, it seems that there is insufficient effort to educate the public and to raise awareness about cultural heritage. Hence, the obstacle facing the goal of achieving compatible new buildings is not only the lack of explicit guidance or that of power or willpower to effectively oversee the implementation of guidance, but also the lack of educational programs as well as public involvement and consultation when making design development decisions that concern historic properties.

To deal with these perceived obstacles and to empower public opinion, one may argue that the role of the NCCAL and that of the HBPS of Kuwait Municipality should

be strengthened and that private property owners (i.e. Kuwaiti citizens[31] who may act as community representatives) should help administer a new review process that would place greater emphasis on the relationship between the old and the new, as suggested in subsection 4.3.3. of **Chapter IV: Research Findings**.

4.5. Identification and Justification of an Alternative Approach

The interpretation of the data generated from document analysis has shown that a revised approach to design and assessment could be beneficial, particularly to reintroduce *Quiyas* (i.e. reasoning), flexibility and direct contact between applicants and evaluators during decision-making processes. Traditionally, there was no need for prescriptive criteria, because judgement about the compatibility of a new intervention in relation to its context was a qualitative assessment made on a case-by-case basis. On-site observation, moreover, has provided the opportunity to interview seven applicants and four evaluators. Following the analysis and interpretation of their answers, it was found that a new review process might resolve misunderstandings and misinterpretations as well as improve communication among decision-makers. Furthermore, the interpretation of the survey results has shown that citizens, particularly the private owners of heritage properties, should be involved in that review process.

In addition to these major findings, subsection 2.2.3. of **Chapter II: Literature Review** explained that to design in context does not necessarily mean the fulfilment of criteria: it is the understanding of the context that can lead to a range of design solutions and help select the one that best balances urban heritage conservation with development. Put differently, the knowledge gained from the thorough analysis of a place can help produce projects that conserve the values of, and add value to, that place. Section 3.1. of **Chapter III: Methodology**, moreover, has clarified that any type of guidance must insist on the obligation to understand the old before designing the new (i.e. variable **A**) and to respond to the old while designing and constructing the new (i.e. variables **B** and **C**). For these reasons, one may argue that it is better to inspire

[31] Expatriates cannot own property in Kuwait, unless they have a Kuwaiti business partner.

qualitative thought/reflection than to impose rigid directives and a language of control on decision-makers. In fact, this argument conforms to the thesis statement (view section 1.5. of **Chapter I: Introduction**).

Hence, based on the specific knowledge gained from the case study (**Chapter IV: Research Findings**), the review of relevant sources of literature on the problem (**Chapter II: Literature Review**) and the theoretical framework (**Chapter III: Methodology**), an alternative approach to criteria could be: probing questions.

Rather than placing the emphasis on what applicants must or must not do, questions would place it on what evaluators expect to see in, and understand from, project proposals: clear answers that justify the design of a new building in relation to its historic urban environment. Questions, therefore, may inform applicants in advance of what will be asked about their project proposals and may give them the opportunity to explain to evaluators how and why they are doing what they are. As a result, this approach may resolve misunderstandings, foster positivity, establish direct communication and encourage productive discussions between applicants and evaluators, as was the case traditionally in Old Kuwait Town.

This approach tends to be less restrictive than rules and more focused on the opportunities available for creative and compatible designs, because a probing question (as opposed to a leading question or a yes/no question or a rule) may have multiple answers and, consequently, may help applicants consider different design variants for the same project.

Unlike standards, this approach does not favour a particular design response or conservation attitude; hence, it is more objective than standards that tend to impose general and predetermined opinions on what constitutes a compatible architectural outcome. In fact, "Building in Context: New Development in Historic Areas," an English policy reviewed in **Section III** of **Chapter II: Literature Review**, explains that asking questions can help overcome "differences of opinion and matters of personal taste" and "arrive at opinions about design quality that are based on objective criteria" (Golding 2001: 37). Though this policy does not discuss whether questions can replace criteria, this exchange will be demonstrated in the following section.

Moreover, asking a question that calls for a response, which cannot be limited to yes or no, may encourage applicants, in particular, to start thinking about the design challenge in hand, to get under the surface of their probable answers and to decide what would be appropriate or inappropriate design. Hence, this approach may improve values-based decision-making: first, applicants would mainly be asked to identify the particular heritage values of the site; secondly, to examine the options available for compatible responses and to weigh those options in light of the identified values by anticipating environmental impacts; thirdly, to explain how potential adverse impacts might be avoided during construction. Questions, therefore, may be asked in a manner that helps applicants determine the design option or the principal conservation treatment (i.e. reproduction/reconstruction, reinterpretation or contrast) on the one hand, and helps evaluators understand that choice on the other hand. Put differently, the same list of questions may be used to guide both the design and assessment of new buildings, thus, to offer a common framework for decision-makers.

This approach aims at being neither too constraining as to inhibit architectural creativity or diversity in historic contexts nor too flexible as to lead to out-of-context new buildings, because evaluators can still control the design. In view of these justifications, the affirmation in **Figure 6** on p.117 (view section 3.1. of **Chapter III: Methodology**) is now:

Probing questions may help achieve the goal of compatible new buildings.

(independent variable) (dependent variable)

In the following subsection, a theoretical model is proposed to develop this approach and demonstrate how it might be presented to, and used by, decision-makers. More specifically, it brings "final order" to research findings while showing how they relate to each other, reports the answers to the specific and subsidiary research questions, communicates the researcher's understandings and suggestions, and brings out the questioning, principles and themes that should frame new development in historic contexts. Information is arranged in five major parts: 1) Preamble, 2) Motivation, 3) New Review Process, 4) New Framework for Design and Assessment

and 5) Visual Content. Nonetheless, this model is not the end result nor the absolute solution to the research problem: it is rather a starting point that may have the potential to initiate a constructive dialogue between applicants and evaluators and to contribute to the debate on the reconciliation of conservation and development in historic urban environments, as shown in **Chapter V: Discussion**.

The Committee, suggested in subsection 4.3.3. of **Chapter IV: Research Findings**, is the governance structure that would oversee, hypothetically speaking, the application of the approach during the New Review Process, which aims at giving applicants an understanding of how their proposals will be assessed. Also, a list of questions is created and enclosed in the New Framework for Design and Assessment, which is the suggested guide/tool for applicants and evaluators. Questions are organized into three phases that follow the same order as the three dependent variables that were identified in section 3.1. of **Chapter III: Methodology** (i.e. variables **A**, **B** and **C**). The indicators, which pertain to each variable, as well as the knowledge gained from **Chapter II: Literature Review** and the case study have been used to formulate the questions. Words that appear in *italic* for the first time in the theoretical model are defined in the **Glossary** at the end of the thesis (p.276-278). When possible, definitions have been adapted to the Kuwaiti context for clarity purposes.

4.6. A Proposed Theoretical Model: Presentation and Demonstration of Research Findings

1. Preamble

Mission

This theoretical model is a detailed example that illustrates how compatibility between a new building and its historic urban environment may be found and how values-based decision-making may be improved, particularly in Kuwait City. It presents an alternative approach to preservation rules that may lead to a useful set of discussion points on the reconciliation of conservation and development.

Heritage Values and Character-Defining Elements[32]

Kuwait City, traditionally known as Old Kuwait Town, was a place shaped by climate, topography, materials in situ, human activities (e.g. fishing) and Islamic principles (e.g. the respect of privacy, the acceptance of modesty and the prevention of harm).
The urban environment of Old Kuwait Town was fundamentally an expression of a coastal and Muslim lifestyle. In general:

- Its historic value is the adoption of the *Mesopotamian model* and its adaptation to Muslim living; it is embodied in the clustering of courtyard buildings and narrow thoroughfares;
- Its scientific value is the response to climate; it is set in passive cooling strategies (e.g. courtyards) and thermally resistant building materials (e.g. mud brick);
- Its aesthetic value is simplicity; it is exemplified in the façades and the box-like structure of buildings;
- Its social value is order in the household; it is represented in the courtyard, which orders the location of access and interior spaces (e.g. bedrooms, colonnades, corridors), the relationship between functions (e.g. men's reception, women's reception, kitchen and livestock) and the relations between people (i.e. inhabitants and guests). Also, the social value extends outward where marine activities (e.g. pearling) influenced the construction of courtyard houses near the seafront. It is embodied in the location of these houses with their dacha (i.e. benches);
- Its cultural-religious value is the application of Islamic principles to design; it is embodied in the location of positive spaces (e.g. buildings, rooms) in relation to negative spaces (e.g. thoroughfares, windows, courtyards).

The sum of the above *heritage values* and *character-defining elements* formed the architectural identity of Old Kuwait Town. In a present-day context, however, these values are competing with economic, political, technological and recreational values.

[32] This section is the answer to the first subsidiary research question.

Kuwaiti *building culture* has lost its significance to imported ideas of progress (e.g. high-rise development) and planning tools (e.g. zoning).

The challenge is to raise buildings that respond to the locality but still accommodate the desire and need to be modern. For example, some citizens today consider skyscrapers a part of their architectural identity; yet, many judge that these buildings should not be located in, or near, historic areas to avoid adverse environmental and visual impacts.

Current Review Process[33]

At present, project proposals, including those of new buildings in historic areas, are submitted directly to the Planning Division of Kuwait Municipality. They are usually evaluated in conformity with existing building codes and zoning regulations before a building permit can be issued.

Rules, however, are sometimes negotiated and bent, particularly in terms of height and land-use. For this reason among others, a New Review Process for project proposals and an alternative approach to rules are suggested.

Audience

The individuals and bodies that may find this model useful are:

- The Municipal Council, who allocates land to clients and is responsible for creating guidance and regulations that control development, including development in historic areas;
- The Historic Building Preservation Section (HBPS), the Planning Division and the Building Permit Division of Kuwait Municipality;
- The Ministries (e.g. the Ministry of Islamic Affairs, the Ministry of Finance);

[33] This section is the answer to the third subsidiary research question.

- The Documentation and Following Department for Historical Building, the Department of Architecture and Engineering Affairs, and the Archaeology Department at the National Council for Culture, Arts and Letters (NCCAL);
- Designers and design consultants, particularly architects and project managers who serve as client representatives;
- The private owners of historic properties (i.e. Kuwaiti citizens).

Objectives

Ten objectives are put forth in no particular order of importance or preference:

- Conforming to, and supplementing, the Law of Antiquities, which is the only Kuwaiti formal policy that touches upon new construction in historic areas and which has not been updated since its creation and adoption in 1960;
- Conforming to, and supplementing, the four criteria developed by the NCCAL in the 1990s, which help evaluate the importance of historic properties: **(I)** an extremely important national value, **(II)** a very important national value, **(III)** an important national value, **(IV)** a little heritage value;
- Strengthening the role of the NCCAL in the conservation and management of the Kuwaiti historic urban environment;
- Promoting the continuity of Kuwaiti building culture;
- Establishing direct communication between applicants and evaluators;
- Understanding, responding to, and enhancing the historic urban environment;
- Preparing and presenting comprehensive project proposals;
- Facilitating the review of proposals;
- Encouraging multiple design variants for the same project with a view to promoting thoughtful responses to the historic urban environment and to selecting the variant that best balances *urban heritage conservation* with development;
- Reconciling conflicting interests in a democratic manner.

2. Motivation

Principles

The historic urban environment shows evidence of Old Kuwait Town. This evidence has the potential to educate contemporary and future generations about, for instance, Kuwaiti architectural identity, belief system, building culture and collective memory. For this reason, five principles are put forth to help conserve and manage this environment while encouraging positive change:

1. A new building should be designed, evaluated and realized based on the complete understanding of context, including heritage values and character-defining elements.

2. A new building should avoid adverse *environmental impacts* and harmonize with its surroundings. Wholeness, in a given context, takes precedence over individual parts and elements.

3. A new building should be a beneficial layer to existing architectural layers.

4. Compatibility is a quality that extends outward, beyond the place of intervention, into the landscape, as well as inward, into the layout and use of space. A building is judged compatible not only from the appearance of its façades, but also from its responsiveness to *urban and man-made determinants* and *patterns of development* as well as its relationship with individual components and the context as a whole. A compatible building is place-specific and time-specific.

5. Designers have a responsibility towards their profession, the owner of the project, the public and the place of intervention. The act of intervening in an established context should be guided by this sense of responsibility.

Design Approach

The guidance suggested in this model does not favour a particular attitude towards change, because:

- Whether designers choose a traditional, a different or an in-between approach to achieve the goal of compatible new buildings, what matters is to base this choice on the complete understanding of the place of intervention. However, arbitrary similarities or *distinctions* between existing and new buildings are discouraged.

- There is no formula to establish a *compatible relationship* between old and new. Design may vary from *reproduction/reconstruction,* through *reinterpretation,* to *contrast*. What is compatible in a historic context that consists of various typologies and construction periods is probably incompatible in another that has a unified *historic character*. For this reason, the choice of a design approach must be made on a case-by-case basis.

- The success of the architectural outcome will depend, to a large extent, on the designers' skills and sense of responsibility towards the historic context. Designers cannot be dictated to, but rather guided. This explains why the guidance put forth in the theoretical model cannot ensure great design solutions or prevent high-rise development; nevertheless, it may help applicants and evaluators make values-based decisions.

Compatibility in Kuwait City today is mostly associated with the following indicators: appearance, domestic privacy, culture, evolving customs, experience, function, thermal comfort/(hot) climate responsive design, spatial comfort (particularly indoors), simplicity/modesty, design concept, views, landscape features, location, typology and height.[34] The choice of a design approach, therefore, must be guided by this local understanding of the concept.

[34] This is the answer to the second subsidiary research question.

3. New Review Process

Use

This model shall be used as:

- A reminder list for applicants. This list is embedded in a New Framework for Design and Assessment that intends to guide applicants in achieving the goal of compatible new buildings.
- A method of assessment for evaluators. This method is embedded in a New Framework for Design and Assessment that intends to guide evaluators in achieving the goal of compatible new buildings.

Implementation

Rather than directly submitting the project proposal to the Planning Division of Kuwait Municipality, design consultants (applicants) are required to first send it to the NCCAL. Consultants shall present and explain the proposal at the NCCAL to a Committee who would assess the design of the new building in relation to the historic urban environment. The proposal should be sent a week in advance to give the Committee a chance to prepare comments or concerns about the design before listening to the consultants' presentation.

The Committee would bring together different interest groups, including:

- Architects, heritage advisors and archeologists from the NCCAL;
- Architects and heritage advisors from the HBPS of Kuwait Municipality;
- The owners of the historic buildings and sites that might be affected by the proposed project (i.e. private property owners and the Ministries).

During the presentation, consultants shall justify the choice of their design approach and emphasize how the project relates to the site, conserves its heritage values and

character-defining elements, contributes to its vitality, relates to the wider urban context and avoids adverse environmental impacts.

Following the presentation, the Committee is required to write and send a legally binding document to the Planning Division of Kuwait Municipality, comprising:

- A brief description of the site and its components. The description should rank the importance of the components: **(I)** an extremely important national value, **(II)** a very important national value, **(III)** an important national value, **(IV)** a little heritage value;
- A brief description of the particular heritage values and character-defining elements of the site where the project is proposed. These values can be historic, aesthetic, scientific, cultural, spiritual or other;
- A brief description of the project. Emphasis should be placed on its design quality in relation to its context as well as on its potential adverse environmental impacts;
- The decision of the Committee, including any suggested modifications to the design.

Depending on the scale of the project and its adverse impacts, the Committee might request, in the same document, to review the final design before the proposal proceeds to the Building Permit Division of Kuwait Municipality.

The Planning and Building Permit Divisions must ensure that applicants have met the requirements of the Committee.

If the Municipality cannot reach a decision, the project proposal should proceed to the Municipal Council. In any case, the decision of the Committee must be implemented.

In addition to the building permit, applicants must procure a license from the NCCAL before the beginning of construction, as stated in Article 14 of the Law of Antiquities.

It is the responsibility of the project manager and the client to guarantee the fulfillment of the Committee's decision. In other words, they must implement the design that was approved by the Committee and Kuwait Municipality and/or the Municipal Council.

The Archaeology Department at the NCCAL must supervise excavation to record and conserve any antiquities found below ground.

Meeting

The meeting shall take place at the NCCAL. First, the Committee briefs the applicants on the review process, after which they present their project proposal. A discussion period follows. When the applicants leave the conference hall, the Committee deliberates to reach a decision.

Existing Regulations

It is the responsibility of Kuwait Municipality, not that of the Committee, to ensure that the project proposal meets building codes as well as zoning, health, safety, security, accessibility and energy efficiency standards. For this reason, these codes and standards are not discussed in the theoretical model.

Negotiation

Any change to existing regulations cannot be negotiated to avoid adverse personal interests, chaotic development, high density and traffic.

4. New Framework for Design and Assessment

Rationale

A new framework within which applicants and evaluators may acknowledge heritage values and search for compatibility is put forward. This framework offers a common ground for the design and assessment of new buildings proposed in the Kuwaiti historic urban environment. It aims at accommodating the desire and need for architectural

creativity and diversity. It also aims at fostering positivity and objectivity, embracing traditional Kuwaiti social practice and promoting a productive exchange of information between applicants and evaluators.

Since the framework necessitates a Committee whose members would make use of their expertise to collectively evaluate project proposals, prescriptive criteria would defeat the purpose of that Committee. Furthermore, though criteria, both prescriptive and non-prescriptive ones, can be appropriate and effective in achieving the goal of compatible new buildings, they tend to have more weaknesses than strengths. For these reasons, the suggested New Framework for Design and Assessment is composed of thematically grouped probing questions.[35]

On the one hand, the questions intend to promote qualitative thought about several design opportunities for the same project, without suppressing creativity. Applicants must have an answer to each question; however, they are not required to literally write it in the proposal. Answers can be shown in the form of text, image or drawing.

On the other hand, the questions allow the Committee to enquire about the design of the new building with a view to understanding it and controlling the architectural outcome. The Committee can literally ask the questions after the consultants' presentation at the NCCAL to request information and, ultimately, to make a decision.

Structure

The questions are grouped into three chronological phases: **Pre-Design Phase**, **Design Phase** and **Post-Design Phase**. They have been determined following the review of relevant sources of literature and the study of Kuwait City.

[35] This is the answer to the specific research question.

- **Pre-Design Phase: Understanding the Historic Urban Environment**

Site

1. Where is the site located in Kuwait City?
2. How did the site evolve over time? What is its resulting physical condition?
3. What is the current spatial configuration of the site? What are the characteristics of its individual components (e.g. in terms of typology, scale, height, form, function, materials, colors, method of construction, cultural associations or meanings)?
4. Who are the people and what are the events associated with the site?
5. What are the particular heritage values of the site? What are the character-defining elements in which these values are embedded?

Surroundings

6. What is the current spatial configuration of the surrounding urban context? What are the characteristics of its individual components?

Immediate Location of the Project

7. Was an archaeological survey conducted? If so, what antiquities were identified?

- **Design Phase: Responding to the Historic Urban Environment**

Design Requirements

1. What are the design requirements of the client (project owner)? How can they be accommodated on the site given its physical condition, heritage values and character-defining elements? Can these requirements be revised or reconsidered with the client?

Relation to Site

2. How is the project integrated into the site? What are its design specifications (e.g. in terms of concept, typology, height, scale, form, proportions, colors, materials, roofing and fenestration)? Are façades opaque or glazed? Are they simple or embellished? Why are these specifications appropriate for the site and its values?
3. How does the project affect the understanding and experience of the site? Does it detract the attention away from historic buildings? If so, how can this issue be avoided?

4. Does the project maintain the site's *use*? If not, does it provide a *compatible use*? What changes to the site does this new use require?
5. What is the distance between the project and adjacent historic buildings?
6. How is the project physically accessed? How is parking managed? How many parking spots are suggested? How does the project deal with traffic?
7. Does the project include landscaping? If so, how does the landscape design relate to the site?

Relation to Surroundings

8. How is the project integrated into the surrounding urban context?
9. How does the project respond to urban constraints and opportunities?
10. How is the density of the project related to existing uses?

Relation to Climate

11. How is the project oriented in relation to wind and sun?
12. Where are windows located? Are they recessed? Are they operable? If not, why?
13. How is the ratio of solid to void determined?
14. How does the design ensure thermal comfort?

Relation to Culture

15. How does the design relate to Kuwaiti culture? What design elements or qualities show this relation?
16. Were property owners in situ consulted and involved in the design? If not, why?
17. If the project is residential, how does the interior layout ensure privacy and spatial comfort? How is the transition from outdoor to indoor space designed?

Environmental Impact Assessment

18. What are the positive and negative impacts of the project on the site, its values and its urban surroundings? What is the nature of each impact? Is it visual? Audible? Physical? Cultural? Social? Economic? Are negative impacts compensated by positive impacts (e.g. Does the project improve access to the site? Does it provide a public space? Is the project *sustainable*?).
19. What is the severity of each impact? Is it direct, indirect or cumulative? Is it temporary or permanent? Is it reversible or irreversible? What is its magnitude? Is the impact on-site or off-site? Is it likely to occur?

20. Does the project block views to and from historic buildings? Does it block daylight, which historic buildings depend on? Does it block access to historic buildings and to the site? If so, what are the design alterations that could avoid these issues?

- **Post-Design Phase: Realization of the Project**

Building Process

1. What is the method of construction? What is the structure? What is the skin? How do these choices relate to the site, its values and urban surroundings?
2. Does the project reintroduce traditional craftsmanship? If so, are there any specialised craftsmen who still master these practices in Kuwait City?

Displacement

3. Does the construction of the project require displacing a historic building? If so, how is this action justified?

Documentation

4. How will the site and its urban surroundings be documented before, during and after construction, for future reference?

Impacts

5. How will interpretive material (if any, such as signage), fences and temporary offices be positioned and controlled during construction?
6. What measures will be taken during construction to prevent negative environmental impacts from occurring?

5. Visual Content

Visual content must supplement project proposals. On the one hand, it helps applicants present the proposal at the NCCAL. On the other hand, it helps the Committee understand the design of the new building. For these reasons, the following yes/no questions, which serve as a checklist, are asked:

1. Is the design illustrated with elevations, plans and sections?
2. Does the site plan show the relation between the existing urban fabric and the project, including its landscape architecture?

3. Are pictures of the project, the site and the wider urban context included?
4. Is there a digital or a hand-made model to support the oral presentation?
5. Is the project shown in relation to views from and towards historic buildings?
6. Does a shadow analysis show the impacts of the project on existing buildings in terms of access to daylight?
7. Are two or three design variants for the same project included in the proposal with a view to selecting the variant that best conserves and develops the site?

Summary

In this chapter, detailed descriptions of the case study and the research findings were provided not only to answer the specific and subsidiary research questions, but also to help ensure external validity, as suggested in subsection 3.5.2. of **Chapter III: Methodology**.

First, information sources available on Old Kuwait Town were examined to establish heritage values and character-defining elements. As a result of this research, historic, scientific, aesthetic, social and cultural-religious values were identified. In a present-day context, however, these heritage values are competing with economic, political, technological and recreational ones. Urban and man-made determinants, including Islamic design guidelines, have lost their authority in shaping the urban environment to imported symbols of progress, such as high-tech buildings and zoning, which compromise the unity, appearance and significance of the remaining historic areas in the city. The interpretation of the analysed data, moreover, has shown that compatibility in the traditional Kuwaiti context was primarily about climate responsive design and adherence to Islamic design guidelines, which were non-prescriptive criteria. Also, it was found that a potential revised approach to design and assessment should embrace traditional Kuwaiti social practice, which was fundamentally about close and direct contact between evaluators and applicants. Put differently, the approach should not only promote reflection, as stated at the outset, but also encourage communication and activate productive discussions among decision-makers.

Then, on-site observation was exercised. This method facilitated the selection of a site that seems to best portray the problem as it relates to Kuwait City. It faces the harbour on the Arabian Gulf Street in the *Al-Sharq* area and contains archaeological remains, a heritage district with eleven listed buildings, the oldest mosque in the city, and three new developments. The HV is a commercial project directly in the heritage district. The CBK is a forty-one-storey skyscraper located between the heritage district and the mosque, which is a listed building as well. The KIA is a forty-seven-storey skyscraper located behind the heritage district. The knowledge gained from **Chapter II: Literature Review** was used to evaluate these developments. Accordingly, the HV is a reinterpretation rather than a reconstruction. The CBK is an example of undesirable contrast. The KIA might produce a harmonic/sympathetic contrast once it is constructed, although its location in a five-storey zoning area is problematic. Additionally, heritage buildings in situ are low-rise whereas the surrounding blocks are mostly vacant and used for surface parking. In the future, two new roads will separate the three developments; consequently, the site will be spatially fragmented.

Shortly after the selection of the site, eleven professionals were recruited for face-to-face interviews. Four were evaluators who work at the HBPS of Kuwait Municipality and the NCCAL while the others were applicants associated with the new buildings in situ. Once their answers were reviewed, four themes on conservation, compatibility, carelessness and coordination were identified. Overall, the thematic analysis has shown that the problem in Kuwait City is not only the lack of guidance, but also the lack of power and willpower to effectively oversee the application of guidance. Furthermore, interviewees have indicated that *wasta* is an obstacle that prevents the goal of compatible new buildings from being achieved. For this reason, any alternative approach to preservation rules would have to address the issue of *wasta* in order to be effectively applied in practice. The analysis also led to the suggestion of a new review process, administered by a Committee that would include professionals from the HBPS and the NCCAL as well as owners of historic properties. That Committee would focus on the relationship between the proposed design and the Kuwaiti historic urban environment.

Afterwards, a survey with a sample of the indigenous population was gradually conducted to build an in-depth understanding of compatibility from the perspective of Kuwaiti citizens. Multiple-choice answers were first classified in a chart then the written answers and explanations of all the participants were grouped under each question. This process allowed clusters of data to be viewed simultaneously; therefore, it simplified the analysis and interpretation of results without overlooking any information. Next, general interpretations were made and a definition of compatibility, as it is understood today, was formulated. Though participants did not mention heritage values per se, many of them believe in the existence of a distinct Kuwaiti architectural heritage that is worth protecting from environmentally and visually insensitive new buildings. It was also found that there is insufficient effort to raise public awareness about cultural heritage. For this reason, the Committee that was suggested previously should include private property owners (i.e. citizens who may act as community representatives) as a way of raising awareness and empowering public opinion when making design development decisions.

Finally, probing questions were identified as an alternative approach to preservation rules, mostly because they may promote reflection about design opportunities and may reintroduce traditional Kuwaiti social practice in the qualitative assessment of project proposals. Next, a theoretical model was composed to develop this approach. That model presented the answers to the specific and subsidiary research questions, showed how research findings relate to each other, communicated the researcher's understandings and suggestions, offered five principles, proposed a list of thematically grouped probing questions that may promote the right kind of reflection and dialogue between applicants and evaluators, and explained how the new review process may ensure that proposals respond to heritage values.

CHAPTER V: DISCUSSION

Introduction

To identify the strengths and weaknesses of the suggested approach and to explore the practical application of the theoretical model in and beyond Kuwait City, member-checking (i.e. an internal validity strategy) and external auditing (i.e. an external validity strategy) were conducted. The opinions and concerns of all the interviewees, including the external auditors who were asked to read the model and prepare comments,[36] are reported in the current chapter. First, the results of member-checking with local evaluators and applicants are discussed. Next, a brief section, which relies on the knowledge gained from these practitioners, explains how the approach might be implemented and enforced in Kuwait City while coping with perceived obstacles, such as *wasta*. Then, the results of external auditing with Canadian and American experts are discussed. Following that, the generalization of some parts of the theoretical model to the broader context of historic urban environments is determined. Lastly, a return to the initial research question and thesis statement brings the research project to an end. Findings from the literature review and the case study are used to support the argumentation.

5.1. Member-Checking

To avoid bias, four participants in Kuwait with different professional backgrounds and workplaces were recruited for follow-up interviews. Two were evaluators from the NCCAL and the HBPS of Kuwait Municipality, and two were applicants from AEC and KEO International Consultants. A few open-ended questions

[36] At the time, the theoretical model had a different name and included a section on "Source" (derived from **Chapter II: Literature Review**), a bibliography and a glossary that have been deleted to avoid repetitions in the thesis. The glossary is now placed at the end (p.276-278). The researcher's definition of compatibility (in the section on Motivation) was not included in order not to affect the answers of the evaluators and applicants who were asked to define this concept again during the follow-up interviews. Also, a few sentences in the model were slightly modified to better express the researcher's ideas.

were prepared to allow each participant to express his/her point of view about the theoretical model and to take charge of the discussion (view **Appendix 5** on p.xliv).

First, each participant was asked to explain what compatibility means in Kuwait City in order to verify whether his/her answer still corresponds to that of the previous year (view sub-theme 2.1. in subsection 4.3.2. of **Chapter IV: Research Findings**).

One of the evaluators judged that compatibility is a characteristic that refers to how well the design of an intervention responds to "climate, height limits, colors" and the "architectural appearance" of the site. The other explained that a new building "does not have to mimic the old building" in order to be compatible, but it could be "completely modern within limits," because "imitation" is considered "wrong" whereas a "total juxtaposition between old and new" can be "right" "as long as it is tastefully done." Accordingly, reproduction/reconstruction is ruled out even though it could be suitable depending on the design concept (e.g. to reconstruct Old Kuwait Town in the 1950s, which was the initial concept of the HV) or if the place of intervention has a noticeably unified historic character (Stovel 1991: 29-Section D; Macdonald 2011: 15).

One of the applicants asserted that compatibility means respecting the existing "architectural scheme" and maintaining "views, site aspects, activity and function" whereas the other said it is mostly related to "materials, style and respect to culture." Hence, the interviewees, except for one evaluator, did not place the emphasis on design options. The emphasis was rather placed on indicators (e.g. height, colors, views). Consequently, it seems that specifying the design option before beginning a project is not crucial as long as the attributes and qualities of the project are carefully considered. In that sense, the option or treatment (i.e. reproduction, reinterpretation or contrast) will not become obvious until the design process has began.

Also, the evaluators who are both Kuwaiti citizens were asked to express their opinion about the section on Heritage Values and Character-Defining Elements in the theoretical model. They said the interpretations are "good;" yet, one of them suggested adding a "nostalgic value" that would be embedded in the remains of Old Kuwait Town.

As for the rest of the questions, which were asked to everyone, a thematic analysis was deemed necessary to join recurrent answers together. Accordingly, two major themes on leadership and flexibility-predictability were identified.

Theme 1: Leadership in the suggested Committee

The idea of having a specialized Committee that would evaluate project proposals prior to their transfer to the Planning Division of Kuwait Municipality was positively received. However, an evaluator affirmed that the researcher has weakened the role of the NCCAL and judged that the NCCAL must have "50% of the say or more" when it is time to make a decision about project proposals. In other words, the NCCAL must dominate the discussion that would occur, hypothetically speaking, among the Ministries, the HBPS of Kuwait Municipality and the private property owners. The evaluator clarified that the owners of historic properties often "do not care" about the conservation of Kuwaiti traditional architecture whether the proposed project is a new building, a restoration, a rehabilitation or an addition to a historic building. According to this view, conservation is "an immature" concept in Kuwait.

The example of *Hesseniya Majles Aza'*, which is a nationally important heritage building, was discussed to support the argumentation. The owner of that building has put up a new extension without obtaining the permission of the NCCAL, although heritage advisors refused his proposal, mainly because of the height and bulk of the extension. Still, the owner managed to execute the project and, consequently, profit from the additional space. For this reason, the evaluator would give the NCCAL greater power in decision-making.

Evidently, this comment on leadership should be taken into account, because the personal interests of property owners might overshadow their judgment. It might even lead to demolition, for instance, if an owner accepts to sell his/her historic building to an investor who would then demolish it to leave room for new development without obtaining permission from the NCCAL. Hence, private owners should not act as the community representative group in the Committee, as suggested at the end of subsection 4.4.2. of **Chapter IV: Research Findings**. Nevertheless, one may argue that both the NCCAL and the HBPS should direct the decision of the Committee, because heritage advisors at the HBPS may genuinely care about the future of historic properties and may be erudite in conservation processes. In fact, advisors from these two agencies could be regarded as the expert group within the Committee.

The other evaluator agreed that the decision of the Committee must be "legally binding," because in order for any guidance to be effectively implemented in Kuwait City, whether that guidance consists of probing questions or criteria, it has to be "tied down by legislation" and have formal governmental recognition. Otherwise, the fate of historic areas, in which new projects are proposed, will remain unfortunate.

An applicant brought up the same point and explained that "in this culture" decisions must be "mandatory." If not, the document, which would be written by the suggested Committee, would "go in a drawer somewhere" in the Planning Division of Kuwait Municipality (i.e. it will not be taken seriously). The applicant also argued that the section on Audience in the theoretical model should include members of the community, because the public "has to have a say."

Clearly, a community representative group should be a part of the Committee. The section on Audience, therefore, needs modification concerning citizen representation. The group, however, should be composed of Kuwaitis who are not associated with the historic area in question to avoid bias and personal interests. That group would represent the public and would remind the members of the Committee including the expert group (from the NCCAL and the HBPS) of the way Kuwaitis identify with their urban heritage. As a result, the two groups would have greater power in decision-making and would guide the discussion that would occur, hypothetically speaking, with the Ministries and private property owners in situ.

Additionally, the two applicants stated that they would not mind presenting a project proposal to a Committee at the NCCAL. One of them believed this additional step to the current review process could effectively deal with misunderstandings.

Theme 2: Flexibility and predictability in decision-making

Generally speaking, the idea of asking/answering probing questions instead of imposing/following rules was not received very positively. One of the evaluators is an advocate of "strict regulations," because questions may leave too much room for "flexibility in design," which may lead to undesirable outcomes. The other evaluator liked the idea as long as it does not convey the impression that designers "can do

whatever they want" given that questions, alone, constitute a type of guidance that is "too vague." For this reason, "design guidelines" that applicants "must follow" should be provided. Put differently, a combination of questions and rules is deemed necessary to avoid ambiguity and to ensure predictability/certainty in decision-making. Also, the evaluator argued that there should be a specific question on "the periodical supervision of the site" in the Post-Design Phase of the theoretical model, because a big concern in Kuwait City is the lack of supervision during construction, which, consequently, causes the demolition of existing historic fabric and the alteration of the design that was approved by Kuwait Municipality and/or the Municipal Council.

An applicant judged that the list of probing questions is "good," because "rigid rules don't work for me; they are too black and white" and because guidance "must allow for creativity" since "architecture is based on evolution" and creative thinking. The same applicant explained that rigid rules may be applicable to a historic site in Kuwait City at a certain time, but they may not be applicable to a different site at a different time. In other words, standards are subjective, because they tend to embrace a particular conservation attitude and a preferred design response; consequently, they must be updated when conservation attitudes/practices as well as perceptions on what constitutes a compatible architectural outcome in a given context evolve. Questions, however, are neutral/objective; therefore, they can be asked in any context, at any time, even if the understanding of compatibility changes. Nevertheless, the applicant eventually said that questions and principles, alone, are insufficient, because they do not ensure predictability. For this reason, he believes the theoretical model should have "additional guidelines" to "support" the questions and principles.

The second applicant, however, reacted negatively towards the idea of having to answer questions in order to achieve the goal of compatible new buildings. "Fixed criteria" that would "maintain aesthetics" and describe "what is allowed and what is not allowed in historic sites" are preferred, said the applicant, so that designers can know "exactly how the expectations of the Committee" can be met. As a result, guidance that encourages reflection about more than one design response is not what all designers want to be confronted with. Accordingly, one may deduce that the fulfillment of fixed criteria seems to be the easier and the more certain path than the path that offers the

opportunity, or the challenge, to justify the design approach of a project in relation to the applicable characteristics of its context.

Additionally, the same applicant said that "questions are already part of my job. I ask them when I work" without having read the theoretical model prior to the interview. Since the applicant did not inspect the list of thematically grouped probing questions suggested in the model, the researcher suspects that inquiring about, or responding to, heritage values and character-defining elements may not necessarily be "already part of" the applicant's job.

On the whole, the follow-up interviews have shown that the alternative approach to criteria risks being too flexible. Consequently, it may give the impression that the design of new buildings has no limits. Also, it may not sufficiently satisfy applicants who seek predictability and want to ensure that their project proposals will meet the expectations of evaluators. Still, one may argue that if applicants have a well-justified answer to each question, then maybe their proposals will be supported and accepted. Furthermore, the theoretical model intends to conform to, and supplement, rules/Articles from the Law of Antiquities, as indicated in the section on Objectives. Hence, if applicants seek predictability, they would have to consult that Law, which is the main path that leads to certainty. In other words, probing questions and rules from the Law could be used together to satisfy the need for predictability. These rules may act as the "strict regulations" or "design guidelines" or "fixed criteria" that the four interviewees recommend having in the model.

5.2. The Practical Application of the Theoretical Model in Kuwait City

Once the answers of the interviewees were reviewed and thematically analysed, the present researcher has attempted to explore the applicability of the theoretical model. First, the model would have to be converted into an actual policy in order for the idea of asking probing questions to be effectively implemented in architectural and planning controls. The making of that policy is a team effort that would most probably involve the NCCAL, the Municipality and the Municipal Council. It might require the

participation of architectural historians, architects, landscape architects, archeologists, engineers, planners, site managers, directors and, possibly, citizens. Next, that policy would have to receive governmental recognition from the Council of Ministers, which is the legislative body that governs the city and enforces regulations in the country through the Ministry of Interior. That Ministry can, in fact, intervene if applicants have violated existing regulations during the construction of any project in Kuwait. To support the implementation of the policy, urban heritage conservation would have to officially become a part of local development and planning.

More specifically, the Council of Ministers would have to enforce the Law of Antiquities as well as enforce a new bylaw (created by the Municipal Council) that would tie the policy to the Law and give the suggested Committee legally binding powers. Consequently, the Municipality would be compelled to apply the decisions of the Committee before the issuing of a building permit. A bylaw/regulation is essential, because without it, any guidance, no matter how appropriate and effective it may be in theory, will be pointless in practice, as pointed out by one of the evaluators. Additionally, the Municipal Council would have to inform clients/project owners about the bylaw when it allocates land for new development in historic areas. The intentions would be to stress the importance of the policy and to disseminate it before the design of a new building could begin. Furthermore, the Committee, the Municipal Council, the Municipality and the applicants would have to set a system of correspondence through which project proposals could be sent and received.

Additionally, *wasta* would have to be dealt with through the imposition of penal tools, such as those suggested in Article 42 of the Law of Antiquities (i.e. paying a fine or going to prison). In fact, given the results of the follow-up interviews, it seems that the success or failure of the idea of asking probing questions will depend not so much on modifications to the current review process in Kuwait City or to the new review process suggested in the theoretical model. It will depend on supporting mechanisms, on the willingness and the commitment of municipal and conservation authorities to effectively oversee new development in historic areas, and on the prevention of *wasta*.

Yet, since skyscrapers such as the KIA and CBK are desirable and continue to increase in the city, it will be difficult to re-adapt to, and work with, local determinants

and patterns of development (Khalaf 2012: 38). That being said, the real challenge is convincing the government and Kuwaiti citizens (who are potential clients/project owners) that responsive design is essential for retaining the quality of the historic urban environment. This would mean less reliance on electro-mechanical systems as well as less insensitive new developments and less parking in historic areas.

Most importantly, local government, citizens and stakeholders would have to establish heritage values and character-defining elements and determine what is worthy of protection and transmission to future generations. They would also need to agree on principles and design development goals as early Kuwaiti society did otherwise urban growth in the city will likely remain chaotic and cause the fragmentation and deterioration of urban heritage. Also, contemporary practices and regulations, such as zoning, which were blindly followed since the 1950s, should be revised and considered in light of Kuwaiti building culture and Kuwaiti customs as well as Islamic principles such as privacy and unity, which are still a living tradition in the country. Only after these steps are completed can the steps of creating, adopting and enforcing an actual values-oriented policy begin, whether that policy consists of rules, probing questions or a combination of both.

5.3. External Auditing

Subsection 3.5.2. of **Chapter III: Methodology** explained that at least three external auditors who are willing to read, and comment on, the theoretical model must be identified and recruited for interviews. The intention is to receive the input of international experts in the fields of architectural design, conservation and policy-making with a view to verifying whether the suggested approach makes sense to professionals outside the case study and determining which parts of the theoretical model may be generalized to the broader context of historic urban environments.

Accordingly, three external auditors were selected: a heritage advisor and environmental design consultant at the *Conseil du Patrimoine de Montréal*, an architect at *Fournier Gersovitz Moss et Associés* and member at the *Conseil du Patrimoine de Montréal*, and an architectural conservator and program manager for Policy, Procedures

and Technical Guidance at the U.S. General Services Administration, Public Buildings Section, National Preservation Program, Center for Historic Buildings. A few open-ended questions were prepared to guide the discussions (view **Appendix 5** on p.xliv).

The auditors have agreed to have their names mentioned in the thesis. Although sensitive topics did not arise during the interviewing process, names have been removed to protect everyone from unforeseen adverse impacts in their place of work. Hence, answers and direct quotes are cited without being associated with a particular individual. Once again, knowing what was said is more important than knowing who said it, as explained in subsection 4.3.1. of **Chapter IV: Research Findings**.

When answers were reviewed, a major theme on flexibility-predictability was identified. Four less recurrent themes, but equally important ones, were also identified: iterative process, contextual information, enforcement, and public involvement.

Theme 1: Flexibility and predictability in decision-making

An auditor judged that asking questions rather than imposing criteria can encourage "*une reflexion plus approfondie*" about design opportunities and activate "*des discussions collectives*." Similarly, another saw that the principles and "the list of design questions for encouraging sympathetic responses to urban context are excellent." Still, the concern was that "applicants seeking predictability may prefer to at least be provided rules of thumb to help ensure that their requests will be supported."

In response to this concern, one may argue that the New Framework for Design and Assessment is bound by the five principles in the section on Motivation, which could stand for "rules of thumb." If, hypothetically speaking, an applicant who seeks predictability finds that the principles and the list of probing questions are insufficient, then some design guidelines could be provided. Yet, the addition of guidelines would not necessarily imply that probing questions are inappropriate, but that questions cannot produce a successful or an acceptable application on their own.

Another auditor found that the suggested approach conveys the impression that applicants are "free to design what they want." For this reason, questions must be asked in ways that "provoke the answers." Speaking of freedom in design, the auditor asserted

that contrast, as a design option, should be removed from the theoretical model, because it is inappropriate in historic contexts. Additionally, it was pointed out that the model should explain how each question was formulated.

In view of these comments, one may argue that the questions already aim at provoking the answers, because they do not give applicants the opportunity to limit their answers to yes or no. Most of the questions create openings that demand to be filled with details about the proposed project. In terms of contrast, it may be that this option is considered inappropriate in historic areas in Montreal, where the auditor currently works, but it is appropriate in those of Kuwait City as pointed out by many local practitioners and Kuwaiti citizens (view subsections 4.3.2. and 4.4.1. of **Chapter IV: Research Findings** as well as the comment of one of the evaluators in section 5.1. of **Chapter V: Discussion**). Also, continuity and harmony can sometimes be achieved through contrast in historic areas that are valued for their diversity. An example is the Louvre Pyramid (Choay 2007: 13). As for showing how questions were formulated, **Table I** on p.118 and the main findings in **Chapter IV: Research Findings** could be added to the theoretical model for clarification purposes.

Theme 2: An iterative process when evaluating project proposals

An auditor recommended making the New Review Process an "iterative" process, which means that the meeting between the Committee and the applicants must be repeated until a final decision about the proposed project is made. Accordingly, the design must be completely finalized with the Committee before the proposal could move forward to Kuwait Municipality.

The researcher finds that this recommendation should be taken into account, but not in the early stages of the review process, because the design cannot be completely finalized with the Committee. It would be finalized once existing regulations (e.g. building codes, zoning, safety, security, accessibility and energy efficiency standards) have been met. The suggested members of the Committee are not necessarily experts in technical matters (e.g. emergency exits) and would not be responsible for assessing project proposals in conformity with existing regulations in the first place, because that

is the task of the various Divisions of Kuwait Municipality. The Committee would rather evaluate the relationship between the proposed building and its context. For this reason, the theoretical model mentioned that the Committee "might request […] to review the final design before the proposal proceeds to the Building Permit Division of Kuwait Municipality" rather than stating that the design must be completely finalized before it reaches the Municipality. Accordingly, the "iterative" process would occur later, between the Committee and the Municipality or between the Municipality and the applicants rather than earlier, between the Committee and the applicants.

Theme 3: The provision of contextual information

An auditor suggested including some sentences in the Preamble to make "the case for the guidance approach" so that the reader can know what to expect. Another recommended illustrating the Current Review Process section with a graph to simplify its understanding and suggested adding images of architecture, urban design and good practice in Kuwait City to visually support the model.

Evidently, contextual information is important. In fact, subsection 2.2.5.2.1. of **Chapter II: Literature Review** has shown that guidance should be supplemented with explanations, illustrations and "district-specific photographic examples from both the past and the present" (Joslin et al. 2011: 2). Also, the majority of the policies reviewed in **Section III** of **Chapter II: Literature Review** provide a range of case studies and images. Therefore, if the theoretical model were to be converted into an actual policy, these supplements would have to be included.

Theme 4: The enforcement issue

An auditor pointed out that the Committee and the entire theoretical model would need political support by stating that there is an "*intérêt d'avoir une réglementation plus tard qui vienne appuyer cet outil*."

The theoretical model would certainly necessitate formal governmental recognition, because without it the diverse interest groups would not commit to the New

Review Process and the New Framework for Design and Assessment. Section 5.2. of **Chapter V: Discussion** has attempted to address this issue in more detail.

Theme 5: The voice of the public in decision-making

An auditor recommended strengthening the "*valeur de sensibilisation*" of the theoretical model in order to raise public awareness about the conservation of historic properties. Another suggested expanding the section on Audience to include "residents, and visitors." This point is similar to the comment that was made by one of the applicants in Kuwait City (view theme 1 in section 5.1. of **Chapter V: Discussion**).

Evidently, civic engagement tools would have to be included if the model were to become a policy. The public can help designers and governing authorities in introducing new functions that "are useful to society and that are compatible with the structure and nature of the buildings" in situ (Deschambault Declaration 1982: Article VIII-A). In fact, subsection 2.2.5.2.1. of **Chapter II: Literature Review** stressed the importance of public involvement and consultation (Stovel 1991: 10-Section B; Feilden and Jokilehto 1996: 96). Some authors, moreover, find that "non-architects generally have better judgment than do professionals when it comes to fitting new buildings with old" (Brolin 1981 - online article).

As for the different parts of the model, some modifications were deemed necessary. An auditor suggested merging some questions together, if connections can be found, and including an explicit question on "how does the project enhance or contribute to historic buildings" or "preserves or creates a sympathetic setting." In the section on Implementation, furthermore, it should be the client, rather than the project manager, who would be "ultimately legally accountable for implementing the design as approved, since the designer is limited by direction the owner provides." As for the introduction to the New Framework for Design and Assessment, some revisions should be made "to make the thrust a little more positive," because the argument on criteria versus no criteria "is a little overstated." The auditor explained that criteria can be general and flexible, but "the appropriateness of broad or specific criteria," such as

"compatible scale" versus "scale no higher than adjoining buildings," "really depends on the context" and varies from one jurisdiction to another. For this reason, the model must first clarify "the difference between prescriptive and non-prescriptive criteria" and then present the difference between criteria against the "goal of encouraging deeper qualitative thought on a development proposal's potential and its merit."

In terms of the last comment, the advantages and constraints of standards and design guidelines, which were discussed in subsection 2.2.5.1. of **Chapter II: Literature Review**, could be incorporated into the theoretical model for clarification.

Overall, external auditing has shown that the suggested approach has the potential to guide decision-makers; nevertheless, probing questions are not enough by themselves, because they are not sufficiently clear about what is acceptable and what is not acceptable development in historic contexts. As a result, clear statements or rules that welcome appropriate/desirable designs and control inappropriate/undesirable ones are necessary. Also, a balance between general guidance and specific guidance or between the implicit and the explicit is recommended.

5.4. The Applicability of the Theoretical Model beyond the Case Study

The research findings may, to some extent, be generalized and applicable to cases other than Kuwait City, as explained in the following paragraphs.

Since the provision of rules and probing questions is a type of guidance, the suggested approach could be embedded in any policy framework. This deduction is consistent with the views of the external auditors who judged that questions might be effective when combined with rules, regardless of location/jurisdiction. In other words, the approach may be generalized beyond the case study.

The list of questions provided in the theoretical model is the outcome of both the specific knowledge that was gained from the case study as well as the general knowledge that was gained from **Chapter II: Literature Review**, which was used to establish the relationships among variables and indicators in **Table I** on p.118. These questions do not favour an indicator over another, because they are neutral/objective,

which means that they are unlikely to affect a jurisdiction's preference of indicators (view the example of London and Sydney in section 3.1. of **Chapter III: Methodology**). For this reason, the questions themselves may be generalized once the references to Kuwait City are eliminated (e.g. question n°1 in the Pre-Design Phase). Still, some modifications might be necessary, particularly to merge some questions together or to add other ones about, for example, enhancement and on-site inspection, as this was recommended by some interviewees, including auditors.

Since the five Principles and the Design Approach in the section on Motivation as well as the section on Visual Content are not specific to Kuwait City, but were rather written after the analysis and interpretation of international literature on the research problem, one may argue that they may be generalized as well.

The New Review Process, however, is specific to the case study, because it is based on the knowledge that was gained exclusively from the interviews with local practitioners (view subsection 4.3.2. of **Chapter IV: Research Findings**). Although some of its ideas (e.g. having a Committee and a legally binding document) may be beneficial beyond Kuwait City, the researcher judges that a number of other cases/cities must first be studied before attempting to generalize that review process.

Likewise, the section on Heritage Values and Character-Defining Elements cannot be generalized, not even to Arabian cities. The survey (view subsection 4.4.1. of **Chapter IV: Research Findings**), in particular, has shown that Kuwait has distinct qualities that differ from those of other Arab States. Also, subsection 1.8.1. of **Chapter I: Introduction** explained that the Arabian Gulf region is not homogeneous. Every Arabian city has particular cultures, customs, resources, materials and topography. Some heritage values may be similar to those of Kuwait, but others different.

Lastly, the local understanding of compatibility, which was expressed at the end of the section on Motivation, cannot be generalized, because it is based on data generated about the case study. On the other hand, the general definition that forms Principle n°4, in the same section, may inform future definitions in other geo-cultural contexts, because it was formulated following the analysis and interpretation of international publications, consulted in **Chapter II: Literature Review**.

5.5. Return to the Initial Research Question and Thesis Statement

Member-checking and external auditing have shown that the topic of criteria versus questions is open to debate. Although an applicant and an auditor judged that questions are neutral and may encourage profound reflection and activate collective discussions, the majority of the interviewees (including two auditors) argued that this type of guidance may not lead to desired outcomes and may not sufficiently ensure certainty in decision-making. For this reason, it was found that a mixture of questions and criteria, such as "rules of thumb," "fixed criteria," "design guidelines" or "strict regulations" would better balance flexibility with predictability, recommendation with restriction, qualitative grading with quantitative grading. In that respect, subsection 2.2.5.1. of **Chapter II: Literature Review** explained that rules "are most successful when combined with added rights and incentives," such as "advice, honorary awards programs, relaxing of certain zoning restrictions, and financial incentives" (Joslin et al. 2011: 6). Asking probing questions may be an added "incentive" that encourages applicants, in particular, to think more deeply about the opportunities available for compatible responses, to bring out more detail in their answers and to defend their project proposals in front of evaluators.

However, the success of questions and/or rules in achieving the goal of compatible new buildings and improving values-based decision-making will most likely be obstructed by *wasta*, which is not specific to Kuwait City. For example, variances, exceptions and special permits, which are forms of *wasta*, have been frequent in the history of zoning (Haar and Kayden 1989: x).[38] In other words, it is not only "business elites" in Kuwait City who "acquire variances to zoning and building regulations or […] ignored them all together" (Anderson and Al-Bader 2006: 143) as indicated in subsection 4.1.2. of **Chapter IV: Research Findings.** There are other constraints that affect the architectural outcome as well, such as the designer's sense of responsibility towards existing fabric and values, as discussed in section 3.1. of **Chapter III: Methodology**. Hence, one may deduce that a single approach or a simple solution that

[38] This source on zoning was discussed in subsection 2.2.5.1. of **Chapter II: Literature Review**.

would prevent obstacles/constraints, establish compatible relationships and improve values-based decision-making at the same time does not exist.

In subsection 2.2.5.1. of **Chapter II: Literature Review**, moreover, some authors have argued that "the making of architecture is not the following or the breaking of rules" because "only a trained eye can know whether materials are most important in one case, scale in another" (Goldberger 1980: 258 and 265) and rules "cannot make a less-creative architect more creative" (Alderson 2006: 26). Judging from the results of member-checking and external auditing, the same can be said about probing questions. Put differently, neither rules nor questions can improve architectural creativity, which is a skill. Likewise, one may argue that values-based decision-making is a skill that comes with experience and training. Traditionally, this skill came naturally, because decision-makers shared the same values and were members of the same group of users. Now, however, the situation has changed because applicants, in particular, are also foreign workers (e.g. expatriates, "star" architects, international firms) who may not necessarily understand what the local community valued traditionally and what it still values today.

For this reason, a preliminary solution to the problem under study would be the provision and implementation of training to develop the skill of values-based decision-making through professional capacity-building. It might include educational strategies such as courses, workshops and symposiums that would first target local architectural/consulting firms and municipalities. Once these decision-makers become familiar with the values of the locality and how to connect decisions to those values, then the provision of direction for design and assessment may follow. In other words, the provision of standards, design guidelines and/or probing questions as well as principles and "added rights and incentives" may follow. Also, other solutions such as the imposition of penal tools will be necessary to cope with obstacles (e.g. variances to existing regulations). Nevertheless, guidance and penal tools, alone, are insufficient, because the real challenge is to embed heritage conservation in the mentality of local government and communities, which, given the results of the interviews in subsection 4.3.2. of **Chapter IV: Research Findings**, is not an easy task to accomplish.

In light of this argumentation, the answer to the initial research question **"What is an alternative approach to preservation rules for establishing a compatible**

relationship between a new building and its historic urban environment?" is probing questions; however, neither questions nor rules nor a combination of both suffice for establishing this relationship. Also, the thesis statement **"Guidance on compatibility should encourage qualitative thought about design opportunities that enhance historic urban environments"** would be more consistent with this argumentation if it were to explicitly point out that training is a means to advance reflection.

Summary

The composition of the theoretical model has facilitated discussions with four participants in Kuwait City and three external auditors in Canada and the United States. Six themes were identified on leadership, flexibility-predictability, iterative process, contextual information, enforcement, and public involvement. Some interviewees judged that the idea of asking probing questions is neutral and may promote an effective exchange of information between applicants and evaluators; however, the majority argued that this type of guidance risks being too flexible and unpredictable. Hence, the suggested approach, alone, cannot control "bad" project proposals, because it is not sufficiently clear about what is acceptable and unacceptable development. For this reason, many interviewees recommended combining questions with rules. Yet, once the applicability of the theoretical model was explored, a return to what was learned from the literature review on architectural creativity and what was learned from the case study on obstacles has shown that neither questions nor rules nor a combination of both suffice for solving the problem. A preliminary solution would be to develop the skill of values-based decision-making through professional training and education, but this will not guarantee the disappearance of obstacles, such as *wasta*, which may be encountered in different parts of the world. Penal tools may help resolve this issue, but the real challenge is to elevate heritage conservation on the list of local priorities. In conclusion, the problem is still open for further exploration.

CHAPTER VI: CONCLUSION

6.1. The Highlights of Each Chapter

This thesis has attempted to rethink conventional wisdom, which sees preservation rules/criteria as the key for thoughtful change in historic contexts. Since standards and/or design guidelines do not sufficiently guide applicants and evaluators in their search for compatibility, the research project was undertaken to explore what could potentially help them. The process of carrying out this exploratory study progressed from one chapter to the next.

Chapter I: Introduction stated the problem by providing an answer to each of the following questions: What? Where? When? Why? Who? How? The statement of the problem made the case for a reconsideration of current means in relating new architecture to old. The purpose of the study was to develop an alternative approach to criteria that helps achieve the goal of compatible new buildings and improve values-based decision-making. Two research objectives were put forward. First, the concept of compatibility must be understood. Secondly, an approach that promotes reflection must be identified. To generate specific and convincing results, case study research was deemed necessary. Accordingly, a city was selected from the Arabian Gulf region: Kuwait City. Next, a list of the contributions of the research project to the advancement of knowledge was provided. The presentation of research findings and the structure of the thesis were also explained.

Chapter II: Literature Review critically analysed major scientific sources on the problem. It began with a chronological assessment of standard-setting instruments and related UNESCO documents in **Section I**. The analysis and interpretation of the guidance provided in these texts uncovered significant concepts and themes, which merited further investigation. For this reason, scholarly publications were consulted in **Section II**. Finally, six policies were selected from England, Australia, Canada and the United States to show the range of approaches and regulatory tools available for the

design and assessment of new buildings in **Section III**. On the whole, the review revealed three main areas of inconsistency in the current state of knowledge. These involve the meaning of compatibility, how to relate the new to the old, and what attributes and/or qualities merit protection from new development. Most importantly, compatibility was found to be a concept that evolves with human perceptions, from one location to another and from one historical period to the next. It was argued that reproduction/reconstruction, reinterpretation and contrast are not only design options, but also conservation treatments, each of which has the potential to establish a compatible relationship between a context and a new building. The selection of a treatment must depend on the thorough analysis of that context.

Chapter III: Methodology began with the theoretical framework, which was developed from the knowledge that was gained from the literature review. The framework clarified the relationships among the independent variable, the dependent variables and the indicators, which, together, may form the basis of any guidance on compatibility. Next, the overall methodology of the research project was explained. To determine how inquiry should proceed, data collection methods were evaluated according to eight criteria: reactivity, flexibility, validity, fidelity, triangulation, saturation, ethics and research objectives. The evaluation showed that interviewing, document analysis, a survey and a case study should be selected to carry out the research project. Yet, since the strategy of inquiry is case study research, the interviews and the survey were conducted in Kuwait City. On-site observation was another data collection method that was selected to find a site in the city that best portrays the problem and to recruit interviewees. The associated data analysis methods were chronological organization of information from document analysis, photographic documentation of the selected site, thematic analysis of interview answers and classification of survey results. Two internal validity strategies (i.e. triangulation, member-checking) and two external validity strategies (i.e. the provision of thick descriptions, external auditing) were suggested. Ethical considerations with human subjects were also explained.

Chapter IV: Research Findings applied the data collection and analysis methods. Available sources of literature were consulted to establish the heritage values and character-defining elements of Old Kuwait Town before its modern transformation into Kuwait City in the 1950s. The role of determinants and that of Islamic design guidelines in shaping the urban environment were investigated. The analysis has shown that compatibility in Old Kuwait Town was primarily about climate responsive design and adherence to Islamic principles. It has also shown that a potential alternative approach to criteria should embrace traditional Kuwaiti social practice, which was about close and direct contact between evaluators and applicants. On-site observation, furthermore, led to selecting a block in the *Al-Sharq* area, which contains a heritage district, the oldest mosque in the city as well as three developments (i.e. HV, CBK and KIA). Eleven interviewees were then recruited. Seven of them were associated with the new developments in situ whereas four were heritage advisors from the HBPS of Kuwait Municipality and the NCCAL. The thematic analysis of all the answers provided significant information on conservation, compatibility, carelessness and coordination. A new review process that would embrace traditional Kuwaiti social practice was suggested. The survey, moreover, was conducted with one hundred and fifty-five citizens. It resulted in a better understanding of compatibility in Kuwait City in a present-day context. Next, the idea of asking probing questions as an alternative to the idea of imposing criteria was identified. To develop this approach and to demonstrate how it might be presented to, and used by, decision-makers, a theoretical model was composed. That model combined the knowledge gained from **Chapter II: Literature Review** with new research findings on the case study.

Chapter V: Discussion explored the effectiveness and application of the theoretical model in and beyond Kuwait City through discussions with four local practitioners and three external auditors from Canada and the United States. The thematic analysis of all the answers revealed important information on leadership, flexibility-predictability, iterative process, contextual information, enforcement, and public involvement. The majority of the interviewees, including auditors, found that a mixture of questions and rules would better lead to desirable designs than questions

alone. Nevertheless, that mixture will not suffice to improve values-based decision-making. Subsequently, an analogy between the latter and architectural creativity made the case for the following concluding statement: the provision of training that would help develop the skill of values-based decision-making should precede the provision of guidance for design and assessment. Put differently, learning how to connect values to decisions should come first. Still, obstacles, such as deficiencies in regulating systems, will likely prevent the goal of compatible new buildings from being achieved. Hence, the problem under study is still open for further exploration.

6.2. The Accomplishments of the Research Project

This section follows the same numbering system that was used in the list of potential contributions to the advancement of knowledge in section 1.10. of **Chapter I: Introduction**. The intention is to help the reader understand exactly what has been accomplished.

1. A general definition of compatibility was formulated at the end of subsection 2.2.1.2. of **Chapter II: Literature Review**. Some advice was also provided to establish a compatible relationship between a new building and its historic urban environment in subsections 2.2.2. and 2.2.3. of **Chapter II: Literature Review**. Next, a more specific definition of compatibility, as it was understood traditionally and in a present-day context in Kuwait City, was provided in **Chapter IV: Research Findings**, particularly in subsection 4.1.1.2. and section 4.6.

2. In subsection 4.1.1. of **Chapter IV: Research Findings**, the heritage values and character-defining elements of the Kuwaiti historic urban environment were identified. Evidently, these findings are not as accurate as they should be, given that values are generated from, and acknowledged by, the whole community, not a single person. Still, their validity was tested through interactions with Kuwaiti citizens in subsections 4.3.2. and 4.4.1. of **Chapter IV: Research Findings** and then in section

5.1. of **Chapter V: Discussion**. These findings, therefore, may add to the body of literature on Kuwaiti architecture and urban morphology.

3. A shift from regulation to discussion was proposed in section 4.5. of **Chapter IV: Research Findings** then developed in section 4.6. A list of probing questions was provided. These questions are neutral/objective. They may promote reflection about design variants for the same project. They may also foster positivity, bring out detail in project proposals, encourage communication between applicants and evaluators, accommodate architectural creativity, welcome diversity in historic contexts and allow decision-makers to qualitatively assess the compatibility of projects on a case-by-case basis. This suggested approach is a kind of guidance that relies more on local knowledge, values and practices and less on the views of the expert. Hence, it might be regarded as a values-based approach to compatible design. Its effectiveness in guiding decision-makers in and outside of Kuwait City was verified through interviews with local practitioners and external auditors in sections 5.1. and 5.3. of **Chapter V: Discussion**. Its applicability was also explored in sections 5.2. and 5.4. of **Chapter V: Discussion**. At the same time, the researcher looked "for alternative explanations and negative evidence" (Maxwell 1996: 113) and discussed "contrary information" with a view to adding "to the credibility" (Creswell 2009: 191) of the study (view subsections 3.5.1. and 3.3.2.3. of **Chapter III: Methodology**).

4. A common framework for design and assessment, which consists of a list of thematically grouped probing questions, was suggested in section 4.6. of **Chapter IV: Research Findings** to show how applicants and evaluators may search for compatibility and acknowledge heritage values.

5. In subsection 4.3.3. and section 4.6. of **Chapter IV: Research Findings**, a new review process was suggested to apply the approach during the assessment of project proposals. A Committee (i.e. governance structure) that would oversee this process, hypothetically speaking, was also suggested. That Committee would contain an expert group (i.e. professionals from the NCCAL and the HBPS of Kuwait

Municipality), a community representative group (i.e. Kuwaiti citizens who are not associated with the historic area in concern) and property owners (i.e. Ministries and private owners).

6. Research findings on Kuwait City may have filled the knowledge gap between the standard-setting instruments that were reviewed in **Chapter II: Literature Review** and the practical realities of a locality. The theoretical model is a medium between these two realms since it sets an example of how to balance the processes of development and safeguarding in established contexts. Hence, it might be regarded as a beneficial addition to the body of literature on the problem, such as the 2011 Recommendation on the HUL and the 2005 Vienna Memorandum (on the "contextualization of contemporary architecture").

7. The five principles that were suggested in section 4.6. of **Chapter IV: Research Findings** might contribute to the national, regional and international discourse on the conservation and management of historic urban environments. These principles were mainly formulated following the analysis and interpretation of international perspectives on the problem, which were consulted in **Chapter II: Literature Review**. In other words, they are not specific to the case study.

6.3. The Limitations of the Research Project

The limitations of the research project concern the strategy of inquiry, the data collection methods and the theoretical model.

Although the choice of working with a case study can generate specific and convincing results (Roy 2009: 200) and further the understanding of particular phenomena or problems in a particular site at a given time (Schwandt 2001: 23), it limits the ability to generalize research findings and models that are developed from, or for, the case study (Creswell 2009: 192-193), such as, for example, the entire New Review Process suggested in this thesis. On the other hand, to work with many cases

may reduce the depth of the research project. Nonetheless, one may argue that additional cases from the same region (e.g. Doha, Manama, Dubai) or other regions (e.g. Damascus, Montreal, Vienna) would have been beneficial to ensure the transferability of the majority of the research findings.

While document analysis was successful in portraying Kuwait City before and after its modernization in the 1950s, it later became evident that it is not the best method to understand the link between design and Islamic principles, which are derived from *Qur'anic* verses (i.e. from the recitation) and the *Sunna* (i.e. the tradition of the Prophet Mohammad that encloses His sayings, known as *Hadith*). Subsection 4.1.1.2. of **Chapter IV: Research Findings**, in particular, would have benefited from the consultation of an *ulamma* (i.e. religious scholar) specialized in *fiqh* (i.e. jurisprudence, science of religious law in Islam) who could have shed more light on examples of *Qur'anic* verses and *Hadith* that are associated with matters of design beyond privacy, modesty and the prevention of harm. The knowledge gained from the consultation of one or more *ulamma* would have made the compatibility of the theoretical model with *Al-Shari'a* (i.e. divine Islamic Law) more explicit than it currently is.

The number of face-to-face interviews was relatively small given the quantity of new developments in situ. Initially, the researcher wanted to interview a client, an architect, a project manager and a structural engineer for each project in order to gain a better understanding of its architectural design, as explained in subsection 3.3.1.3. of **Chapter III: Methodology**. This initial plan was only partially fulfilled. The choice to collect data by the means of interviewing, without having a pre-determined number of participants, was very risky. Evidently, the researcher was limited by the availability of professionals and their willingness to share information. Some of them whose participation was crucial were no longer working in Kuwait City (e.g. the principal architect of the CBK from HOK London and the principal architect of the KIA from KEO International Consultants). The thematic analysis in subsection 4.3.2. of **Chapter IV: Research Findings** would have benefited from access to all the individuals who were originally identified for interviews.

The researcher purposefully limited the survey to Kuwaiti citizens with a view to gaining a better understanding of compatibility in a present-day context from the perspective of the indigenous population. Although immigrants cannot become Kuwaiti citizens (unless they provide an exceptional service to Kuwait throughout many years, such as a medical service) and those born in the country cannot apply for a Kuwaiti nationality either, an additional survey with a sample of the non-Kuwaiti population would have been beneficial, particularly to explore how different communities (e.g. Arabs from other regions, Americans, Europeans) have influenced local knowledge, practices and the understanding of compatibility. This survey would have helped expose the layering of different values and cultural identities in the city.

Member-checking and external auditing have shown that the suggested approach has the potential to guide decision-makers, but it risks being too flexible and unpredictable. As a result, the theoretical model will need to be supplemented with additional guidance if a given jurisdiction were to adopt some of its ideas in the future.

6.4. Closing Remarks about the Research Topic, Literature Review, Case Study and Major Research Findings

The research topic is relevant to academics and practitioners alike. It is also timely given that recent publications have urged the exploration of new approaches, tools and principles to guide decision-makers when they intend to intervene in historic urban environments, whether these interventions are additions or alterations to existing structures or new buildings.

The literature review has shown that regulatory tools cannot guarantee thoughtful responses in established contexts. Some authors have argued that prescriptive rules, in particular, inhibit creativity, which is the foundation of any design challenge including that of compatible new buildings. For this reason, any type of guidance must provide a framework in which creativity can flourish.

Fortunately, case study research has permitted the identification of an approach that is less restrictive than rules. To demonstrate how this approach might succeed in

joining creativity with context-specific design, a theoretical model was composed. Yet, local and international practitioners were concerned about the issue of flexibility. Although flexible guidance may encourage reflection, it may not necessarily improve values-based decision-making or produce desirable architectural outcomes.

Subsequently, a return to what was learned from the literature review and the case study on architectural creativity and obstacles has shown that the provision of preservation rules and/or probing questions does not suffice for improving values-based decision-making, which is a skill that develops with experience and training.

For this reason, it was argued that local communities should first establish heritage values then practitioners should understand how to connect these values to design development decisions. This knowledge would later result in a better use of the suggested guidance for design and assessment whether it consists of standards, guidelines and/or probing questions. Also, perceived obstacles such as variances to existing regulations would have to be dealt with through the imposition of penal tools.

Still, neither the identification of new approaches nor the provision of guidance nor the imposition of penal tools can solve the problem of insensitive development in historic urban environments, because there are other important issues involved: How can one effectively apply guidance once it has been created? Or develop the skill of values-based decision-making? Or embed heritage conservation in the mentality of local government and communities? When actions will be taken to deal with these issues, heritage could become a part of the planning process. That is the ultimate goal.

6.5. Future Research Directions

The research project was carried out according to the proposed methodology; however, during the process of carrying it out, some lines of thought that could further contribute to the advancement of knowledge have appeared. Those can be grouped into five research directions, which are recommended to activate new avenues for thinking and learning. The directions focus on 1) Islamic principles and cultural practices, 2) immigrant communities, 3) comparative case study research, 4) questions versus criteria and 5) natural heritage.

1. Studying Islamic principles and cultural practices:

Future researchers could study Islamic principles and cultural practices and determine how they might be embedded in planning with a view to establishing an urban modernity compatible with *Al-Shari'a*. To proceed with inquiry, *Qur'anic* verses and *Hadith* about design should be collected and analysed within the limits of a School of Islamic Law, since each School has distinct religious interpretations. A Muslim city that adheres to that School should be selected to generate specific findings. Researchers could also determine what is possible to adopt from other Muslim or non-Muslim cities (e.g. in terms of building technology) given that Islam views the pursuit of knowledge and science from any context as a religious duty as long as the adopted ideas and practices are compatible with *Al-Shari'a* (Mortada 2003: 159).

2. Exploring the influences of immigrant communities:

Since immigrant communities may influence native building cultures, lifestyles, values, understanding of compatibility, architecture and planning, future researchers could explore these influences, particularly in countries where immigrants/expatriates are a majority. For instance, the indigenous population in the United Arab Emirates has become a minority after the discovery of oil in the 1960s. This means that cities, such as Dubai, have more immigrants living in them than natives. Given that there are many competing cultural identities and values, researchers could investigate the process of layering. They could also examine how the values of different communities could be taken into account when making design development decisions.

3. Conducting comparative case study research:

A comparative study between two cities from different geo-cultural contexts could be conducted to further the understanding of the research problem. Future researchers could explain the similarities and differences between the two cities in terms of historical events, building cultures, administrative structures, urban and man-made determinants as well as patterns of development. Then, a list of common principles, design objectives, options for engaging and reconciling diverse interest groups, ways of improving values-based decision-making, tools and incentives could be composed with

a view to identifying a common language for decision-makers in the two contexts. This study would be beneficial to transcend local boundaries, to extend local ideas and practices and to provide the necessary understanding that must precede the generalization of research findings. Also, it is likely to better assess the transferability of policies from one jurisdiction to another and to better fill the knowledge gaps in previous research than a non-comparative study.

4. Developing the debate on questions versus criteria:

A comparative table with three columns could be created where each probing question from the theoretical model is aligned with its equivalence in the form of a standard and a design guideline. Next, future researchers could identify which themes (e.g. description of site; prevention of adverse environmental impacts) are better served through questions or standards or guidelines. At the same time, they could explore the relationship between heritage values and conservation treatments (i.e. reproduction/ reconstruction, reinterpretation and contrast) and examine how different approaches can help select the treatment that best preserves and enhances values. Ultimately, an in-depth understanding of the benefits and constraints of each approach would result, which, subsequently, would help determine when it is better to advise/inform decision-makers and when it is better to impose prescriptive or non-prescriptive rules.

5. Extending the study to natural heritage values and tools:

If the debate on questions versus criteria is to move forward, it should progress beyond the conservation and management of cultural/urban heritage to include natural heritage. More specifically, future researchers could study natural environments (e.g. those that have significant biological diversity, landform development, natural habitats) and examine the range of approaches and tools available to preserve and enhance their heritage values. Afterwards, a common framework for the design and assessment of different levels of intervention proposed in both cultural and natural heritage properties could be considered and eventually composed. The purpose of the study would be to deepen the understanding of the principles and questioning that should frame interventions in valued places.

6.6. The Final Words

The process of carrying out the study was a learning exercise for the researcher. It is hoped that this journey of discovery will be recognized as a solid basis for future reflections and research on the topic. Hopefully, the outcomes of this journey will start conversations, promote a productive exchange of ideas and experiences among scholars and practitioners and assist decision-makers in their search for compatibility.

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Glossary of Key Terms in the Theoretical Model

Building culture: the coordinated system of knowledge, rules, procedures, technical skills and craftsmanship that is shared by people who participate in the building activity and that determines the form buildings and cities take. The term is independent of style and fashion, though possibly influenced by them, and they by it (Semes 2009: 25 and 43). Kuwaiti building culture is embedded in the remains of Old Kuwait Town, in both the individual courtyard building and the sum of courtyard buildings, which formed its urban morphology along the seafront (defined by researcher).

Character-defining elements: the materials, forms, location, spatial configurations, uses and cultural associations or meanings that contribute to the heritage value of an historic place, which must be retained in order to preserve its heritage value (Standards and Guidelines for the Conservation of Historic Places in Canada 2010: 253).

Compatible relationship: a relationship that results from the design and realization of an intervention that does not compromise heritage values and character-defining elements. To establish this relationship, the design may vary from reproduction/reconstruction, through reinterpretation, to contrast. It is the understanding of the place of intervention that must determine the choice of a design option/treatment (defined by researcher).

Compatible use: use that is consistent with the […] heritage value of a place, and which has little or no adverse impact on it (ICOMOS New Zealand Charter 2010: 9).

Contrast: to follow a divergent architectural language by remaining completely new/contemporary in design and method of construction (defined by researcher).

Distinction: the difference between old and new. Style is discouraged from being the primary indicator of differentiation. Means of differentiation may include materials, mechanical systems, construction methods, and signage (Joslin et al. 2011: 9).

Documentation: collecting, recording, keeping, and managing information about a place and its […] heritage value, including information about its history, fabric, and meaning; information about decisions taken; and information about physical changes and interventions made to the place (ICOMOS New Zealand Charter 2010: 9).

Environmental impact: an effect caused by a proposed project. An environmental impact assessment (EIA) is a process that can be used to identify, predict, evaluate and mitigate impacts (Noble 2006). It should precede and escort final design decisions.

Heritage value: the aesthetic, historic, scientific, cultural, social or spiritual importance or significance for past, present or future generations. The heritage value of an historic place is embodied in its character-defining materials, forms, location, spatial configurations, uses and cultural associations or meanings. (Standards and Guidelines for the Conservation of Historic Places in Canada 2010: 254).

Historic character: the combination of particular characteristics or special qualities of a place related to its period or method of construction (Design in Context: Guidelines for Infill Development in the Historic Environment 2005: 5). The Kuwaiti historic character is the combination of vernacular, low-rise, inward-oriented buildings that have a box-like structure and are austere externally. They date prior to the implementation of the first Kuwait Master Plan in the 1950s (defined by researcher).

Mesopotamian model: the use of the courtyard typology in a densely packed manner with narrow thoroughfares. This model appeared in two cities, *Erbil* and *Ur*, in Iraq and predates Islam by about three thousand years (Hakim 1986: 95 and 137; Morris 1994: 8-9). These cities grew organically and their road system was the result of the patterning of courtyard buildings rather than that of defined planning.

Patterns of development: the way urban and man-made determinants are selected, mixed and distributed. Patterns can be urban, cultural or other. Therefore, they are not necessarily seen; they can be experienced (defined by researcher).

Reconstruction: to build again as closely as possible to a documented earlier form (ICOMOS New Zealand Charter 2010: 9).

Reinterpretation: to capture the essence of a context and pick up some of its attributes and/or qualities while remaining new/contemporary (defined by researcher).

Reproduction: to imitate the design of an existing or a demolished building (defined by researcher). However, if the new building is constructed on the same specific site of a demolished building, then it is a reconstruction (Fitch 1982: 187).

Sustainability: a group of objectives (economic, social and environmental) that must be coordinated and addressed to ensure the long-term viability of communities and the planet (Standards and Guidelines for the Conservation of Historic Places in Canada 2010: 255). In Kuwait City, sustainable design is mostly related to building orientation, sun angles, wind studies, size of openings, recessed and operable windows, thermal comfort and daylight in interior spaces (defined by researcher).

Urban and man-made determinants: the factors or elements that initiate urban form (Morris 1994: 10). Geographical attributes such as climate, topography and available construction materials are urban determinants. Values, functions and trade, for example, are man-made determinants.

Urban (heritage) conservation: urban conservation is not limited to the preservation of single buildings. It views architecture as but one element of the overall urban setting, making it a complex and multifaceted discipline. By definition, then, urban conservation lies at the very heart of urban planning (Recommendation on the HUL 2011 – Appendix: Glossary of Definitions).

Use: the functions of a place, and the activities and practices that may occur at the place. The functions, activities, and practices may in themselves be of […] heritage value (ICOMOS New Zealand Charter 2010: 9).

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Personal Interview n°5. 25 Jan. 2011.

Personal Interview n°6. 31 Jan. 2011.

Personal Interview n°7. 2 Feb. 2011.

Personal Interview n°8. 3 Feb. 2011.

Personal Interview n°9. 6 Feb. 2011.

Personal Interview n°10. 6 Feb. 2011.

Personal Interview n°11. 6 Feb. 2011.

Personal Interview n°12. 5 Oct. 2011.

Personal Interview n°13. 8 Nov. 2011.

Personal Interview n°14. 19 Feb. 2012.

Personal Interview n°15. 19 Feb. 2012.

Personal Interview n°16. 19 Feb. 2012.

Personal Interview n°17. 20 Feb. 2012.

Appendix 1: Interview Guides for Evaluators and Applicants

After the recruitment process, questions were formulated in relation to the professional credentials of every interviewee. Yet, in order to avoid repetitions in **Appendix 1**, only two interview guides are included with some variable questions depending on project (i.e. HV, KIA, CBK) and workplace (i.e. Kuwait Municipality, NCCAL, AEC, PMC, HOK-PACE, KEO). Questions that appear in *Italic* were asked if the interviewee did not already discuss the information in his/her answer. (Some questions were asked in Arabic and one of the interviews with an evaluator was entirely conducted in Arabic).

The evaluator group is composed of:

The main heritage advisor at Kuwait Municipality (Personal Interview n°2, Jan. 18th 2011);

The Head of the HBPS at Kuwait Municipality (Personal Interview n°3, Jan. 20th 2011);

The main heritage advisor and Head of the Documentation and Following Department for Historical Building at the NCCAL (Personal Interview n°5, Jan. 25th 2011);

An architect and heritage advisor at the NCCAL (Personal Interview n°6, Jan. 31st 2011).

Evaluator Guide

1) What are your job responsibilities at Kuwait Municipality/the NCCAL? *[How does your professional background relate to your current work? For how long have you been a heritage advisor? Are you mostly involved in administration, procedure, advice or decision-making?]*

2) How does the Municipality/the NCCAL distinguish between a heritage property and a historic one? What are the criteria involved?

3) How many historic or heritage sites are there in Kuwait City at the moment?

4) How many historic or heritage buildings are there in Kuwait City at the moment?

5) How are these properties protected from contemporary development near by? *[Are they all under the Municipality's protection or that of the NCCAL?]*

6) What is the preservation policy in Kuwait City?

7) How is preservation practiced and by whom? *[Are these professionals from the Municipality, the NCCAL or both? Does the Municipality/NCCAL deal with preservation, restoration, reconstruction, rehabilitation and new development in historic or heritage areas?]*

8) Is there a maintenance policy for historic and heritage buildings in Kuwait City?

9) Are there any regulations that control development in historic or heritage areas, such as height limit and size? *[Judging from the development that you see in historic and heritage sites, do you think that there are such regulations?]*

10) Is there a Conservation Plan? Does it control urban development in historic areas in any way? *[Have you worked on the plan? Where can I find it?]*

11) Does the Municipality/the NCCAL require that historic and heritage buildings be encircled by a protection belt? *[If so, what is the distance or perimeter?]*

12) When contemporary architectural projects are proposed in historic and heritage sites, do you require seeing the proposals? *[If so, how do you evaluate them?]* Are you always consulted during the decision-making process and the evaluation of projects such as restorations, additions, alterations, or new development in historic or heritage areas? Have you ever refused a project that still got constructed?

13) Are you aware of international documents that discuss the preservation of historic sites? *[Do you follow their guiding principles in your job?]*

14) Did the Municipality ever strive to place a Kuwaiti heritage property on the World Heritage List? *[Why or why not?]*

15) It is written on page 11 of the Kuwait Historical Preservation Study: Old Kuwait Town that "The Kuwait Municipality […] ruled formally in 1988 in favour of […] readopting a modified 1960 Law of Antiquities." Has the Law been modified or updated? Do you think that the Law is being respected by new development in Kuwait City today?

16) Article 42 of that Law states that anyone who destroys a historic building is subject to imprisonment and fined. Does the Municipality/the NCCAL impose such penalties? *[Do you have some statistics for such penalties?]*

17) Article 15 of that Law states that new buildings in historic areas must be harmonious with the existing historic environment; do you think this is being applied in Kuwait City today? *[Why or why not?]*

18) How do you define compatibility and how do you think it can be achieved?

19) Do you think that the Heritage Village, the Kuwait Investment Authority Building and the Central Bank of Kuwait Building are compatible? *[Why or why not?]*

20) Are the Municipality and the Ministry of Finance still the clients of the HV until now or is it just HVREC?

21) What were the Municipality's initial design guidelines for the HV project? What would you suggest in this area if you were to design the HV project? *[Would you leave it alone? Or would you restore and rehabilitate existing buildings? Or would you fill the heritage district with new buildings?]*

22) Does the Municipality/the NCCAL have an environmental impact assessment (EIA) requirement for contemporary development in historic or heritage areas? *[What are these requirements? Do you believe EIA should always be a requirement?]*

23) Do you think that the Heritage Village, the Kuwait Investment Authority Building and the Central Bank of Kuwait Building can adversely affect the heritage district? *[Why or why not?]* Did the NCCAL give a license to these projects in order for them to be constructed?

24) Do you think that design and zoning criteria/rules imposed on contemporary architectural projects can be useful preservation measures? *[Why or why not?]*

25) As a Kuwaiti citizen, how do you define Kuwaiti architectural identity?
[What element best describes traditional Kuwaiti architecture?]

26) As a Kuwaiti citizen, how do you define Kuwaiti cultural identity? *[Is privacy an essential part of your culture?]*

27) Do you feel that these identities are respected in contemporary development in Kuwait City? *[Why or why not?]*

The applicant group is composed of:

The client of the KIA (Personal Interview n°1, Aug. 16th 2010);

The project manager of the KIA (Personal Interview n°9, Feb. 6th 2011);

The principal structural engineer of the KIA (Personal Interview n°11, Feb. 6th 2011);
One of the architects of the KIA (Personal Interview n°10, Feb. 6th 2011);
The principal architect of the HV (Personal Interview n°4, Jan. 24th 2011);
The client representative of the CBK from (PMC) Project Management and Control (Personal Interview n°7, Feb. 2nd 2011);
One of the architects of the CBK from PACE (Personal Interview n°8, Feb. 3rd 2011).

Applicant Guide*

1) What were the design guidelines?
2) How was the site selected? *[Municipality or client or other?]*
3) Have you participated in the initial design of the HV/KIA/CBK? *[When did you start working on the project? Have you suggested any changes to the initial design? If so, which ones and why?]*
4) How do you manage the project? What are the tasks involved?
5) Was the historic context of the site considered in the decision-making process?
6) Has AEC/KEO/HOK-PACE discussed the design of the HV/KIA/CBK with the NCCAL or a heritage advisor given that the project is in/near a heritage district?
7) What are the qualities of the HV/KIA/CBK? Could you please describe the foundation, method of construction, materials, finishes, and roofing [and curtain wall]?
8) Do you think the design relates to Kuwaiti culture? *[If so, how?]*
9) Do you think the design relates to the climate of Kuwait? *[If so, how? Are the windows operable (can you open them)? Are they recessed?]*
10) What is the amount of parking spots? Do you think that this amount might or might not overwhelm the heritage buildings near by? How will you manage traffic now that 2 new roads will be constructed on the block?
11) Has AEC/KEO/HOK-PACE conducted an environmental impact assessment study as part of the project proposal? *[Did the client ask for it, and if so, why (or why not)?]*
12) Did you deal with zoning regulations for the project? From your experiences, how is zoning applied in Kuwait City? Are the regulations different from one area to the next (e.g. *Al- Sharq* vs. *Dasman*)?
13) Have you heard of the Law of Antiquities?

14) According to Article 14 of that Law, "no new building may be erected on a site of antiquities […] without procuring a license" from the NCCAL. Has AEC/KEO/HOK-PACE procured a license?

15) Article 15 of that Law states that new buildings in historic areas must be harmonious with the existing historic environment. What do you think harmonious or compatible means?

16) Do you think the HV, KIA and CBK are compatible with the heritage district and Kuwaiti context? *[Why or why not?]*

17) Are the KIA, HV and CBK stepping-stones towards a regional architecture?

18) How would you accommodate a contemporary development in a historic area? For example, what would you suggest instead of the current HV project? *[Would you leave it alone? Or would you restore and rehabilitate existing buildings? Or would you fill the heritage district with new buildings?]*

*Specific Questions about Each Development

Are the heritage buildings in the HV encircled by a protection belt? What is the distance between a heritage building and a contemporary one? Are the heritage buildings being monitored during the construction of the HV? Will AEC or HVREC reconstruct **R6** and **R7**? Do you believe that reconstruction is a conservation measure? Do you think the HV is important to local communities or tourists or both? Why?

The initial KIA design included sustainable elements such as photovoltaic panels and wind turbines that are no longer part of the final design. Is this a matter of cost? Why were they suggested in the first place? Would or wouldn't the energy savings from such devices compensate in the long run for their initial cost?

For how long was PMC supervising the CBK project?

Who chose the design of the KIA/CBK? *[Did the client choose the design or was a jury hired to select it?]* What made the design of KEO/HOK-PACE stand out from the rest? What is the life expectancy of the KIA/CBK? Do you think the height of the KIA/CBK might or might not overwhelm the small-scale heritage buildings near by?

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Appendix 2: Survey Questionnaire with the Answers and Explanations[37] of all the Participants (including those in Arabic, translated to English)

Objectives:

I) To identify Kuwaiti architectural identity

II) To identify Kuwaiti cultural identity

III) To measure collective memory

IV) To gather opinions about new buildings in historic sites

Contact Information:

Researcher: Roha W. Khalaf

E-mail address: *this information has been removed from* ***Appendix 2***

Telephone number: *this information has been removed from* ***Appendix 2***

Dear participant,

Below you will find some questions with multiple-choice answers. Please circle **only** one answer to each question. If you have a response that does not appear in the list, please feel free to write it down. **Some answers need an explanation, so please fill the blank space** – Thank you ☺
The questionnaire is **4 pages long** (the papers are double-sided).
You are **not** required to mention your name, but **only** to circle your age category:

→ **I am between:**
a) 13 and 16 years old
b) 17 and 25 years old
c) 26 and 65 years old
d) 66 and 80 years old

I) First Section: The Identification of Kuwaiti Architectural Identity

1) Do you live in Kuwait City?
a) yes 104
b) no 51

[37] Indicated in blue in **Appendix 2**. The total number of participants is 155.

2) What kind of housing do you live in?
   a) In a courtyard house 41
   b) In a detached villa (a villa that is not connected to your neighbor's home) 79
   c) In a semi-detached villa (a villa connected to your neighbor's home) 22
   d) In a low-rise (short) apartment building 13
   e) In a high-rise (tall) apartment building 0

3) Do you have a *diwaniyah*?
   a) yes, it is in my home 66
   b) yes, it is next to my home 18
   c) no 71

4) Would you like to live in a high-rise building in Kuwait City?
   a) yes, because I would like to live in upper floors 9
   b) yes, because it is a new way of living 12
   c) no, because it has shared entrances, staircases and elevators 33
   d) no, because it is not as prestigious (impressive) as living in a villa 41
   e) no, because apartments have small spaces 45

If other, please specify:

- No, because "I feel trapped;" I like to have a garden in my house **(2 people wrote that)**; "entering and leaving the building takes time and is not as easy as in a villa;" "I don't feel safe;" "they are too crowded and congested whereas villas are more relaxing and private;" "I am happy with where I live;" "they have thin walls and less privacy;" "it does not have the threshold between the indoor and the outside as a villa does;" "if I can get a villa then I would because it has more privacy;" I enjoy my privacy **(2 wrote that)**; I don't like living with other people (**2 wrote that**); an apartment building "is not comfortable and might have a negative mixture of people;" Kuwaitis did not learn to live in apartments **(2 wrote that)**; "they do not offer the freedom as in villas;" "I don't like taking elevators;" "they don't have enough space for kids to play;" "I'd like to live in Kuwait City but not in a high-rise building;" "there is no independence so you can't change the layout or add space or change the inside of the building."

5) What element best describes traditional Kuwaiti architecture?
   a) Courtyard (*hosh*) 60
   b) *Diwaniyah* 50
   c) Simplicity in form 43

→If other, please specify:

It is "mud and wood;" "the *liwan;*" "privacy and independence;" "responsiveness to the climate;" "a design that brings family members together;" "courtyard, height, building materials and form."

6) Does Kuwait City have an architectural heritage?
   a) yes, we have a unique Kuwaiti architectural heritage 74
   b) no, we have a regional Arabian architectural heritage 57
   c) no, we have an Islamic architectural heritage 20

→Please explain your answer:

- No, because "the government demolishes heritage buildings;" "Kuwaiti architecture has yet to develop its own identity;" "there is a notable influence from neighboring Arab countries so we don't have our own identity;" "buildings today follow Western designs and there is not enough attention paid to the façades of buildings;" "our architecture is a mixture of Arabian and Islamic;" "Arabians are all the same and we all live the same;" "Kuwait is a Muslim country so we have Islamic architecture."

7) Do you like Kuwait City's skyscrapers (office towers)?
   a) yes, because they are nice-looking 31
   b) yes, because they show we are up-to-date with building technologies 77
   c) no, because they make Kuwait City look like any other Arabian city 12
   d) no, because most of them are oblivious (insensible) to the Kuwaiti context 24

→Please explain your answer:

- Yes, because "they attract tourists and then people will come to visit Kuwait;" "they look good for the country;" "they show progress;" "they take less room;" "they give us pride;" "I like them if they are designed according to wind and sun;" "I like skyscrapers but the ones in Kuwait City are not compatible with the general look." "Skyscrapers reflect a civilized country;" "they show our hard work and our will to progress;" "they show that we are on the same level as the rest of the world;" "they show Kuwait's landmarks;" "they bring offices close to each other and minimize distance."

- No, because "they don't use space appropriately;" "we don't need them;" "they use a lot of electricity;" "there is no understanding of how to place them and of how high they should be;" "Kuwait should try something different and not just follow certain designs of other Arabian cities;" "we need to express our individuality;" "the Kuwaiti ideology currently reads 'bigger is always better' and supply is far more than the demand and the skyscrapers aren't unified at all;" "skyscrapers indiscriminately destroy old urban connections and the essence of how the town developed;" "skyscrapers reflect an international progress not a Kuwaiti one;" "to copy is the beginning of failure and what is needed is some creativity that distinguishes Kuwait's architecture from the rest;" "skyscrapers shouldn't be built on main streets to avoid overcrowding and congestion in rush hours but I don't mind them in the city centre;" "skyscrapers shouldn't be built in

Kuwait City because they take away the simplicity of the city;" "we don't need skyscrapers because we live without them."

8) Do you think skyscrapers are appropriate for Kuwait City's climate?
   a) yes 88
   b) no 58

→**Please explain your answer**:

- Yes, because "Kuwait City does not have any earthquakes and the land is flat and we don't have snow so the climate is good for skyscrapers;" "we can enjoy the view from upper floors;" "we don't have very strong winds and hurricanes and rain;" "if the engineering is up-to-date and well suited for the climate then skyscrapers can be appropriate;" "if you select the right materials and use smart/green systems and make parking available and ordered;" "they can be, if designed correctly."
- No, because "soil in Kuwait is not good and the more you dig the more a terrible smell appears and you have to keep dewatering the hole and all this costs a lot of money;" "I don't like them because they use a lot of glass and bring a lot of sun inside."

9) Would you feel comfortable working in a skyscraper that has un-openable windows?
   a) yes I would feel comfortable, as long as I have air-conditioning 39
   b) no I wouldn't feel comfortable, because I sometimes prefer exposure to natural air 104

→**Please explain your answer**:

- Yes, "buildings here have to be air-conditioned because it is hot in summer so opening windows is not necessary;" "to avoid dust;" "it is hard to live without AC in Kuwait;" "if I can control my own AC."
- No, "I believe a building has to be designed environmentally friendly (get natural air, natural light, save some energy, get good environment for work) because healthy buildings make healthy people;" "I feel trapped if I can't open windows;" "if I am in upper floors I want to enjoy the wind."

10) Do you think the Kuwaiti government should invest in sustainable (low-energy) design?
   a) yes 132
   b) no 14

→**Please explain your answer**:

- Yes "to save energy for the future;" "because oil will not last forever;" "for global worming;" "because it is more healthy;" "because we waste a lot of energy;" "it will

minimize the use of electricity and air-conditioning;" "because it will encourage competitions to come up with sustainable designs;" "this should be an international rule to invest in sustainable design;" "you have to be able to live without life support. Kuwait will not always be as wealthy as now. You can only survive if you can live within the conditions of your natural environment."

- No, because "we have enough money."

II) Second Section: The Identification of Kuwaiti Cultural Identity

1) Do you think that Kuwait has a distinct culture?
   a) yes, we have our own culture 96
   b) no, Kuwaiti culture is a regional Arabian culture 41
   c) no, Kuwaiti culture is an Islamic culture 6

→**Please explain your answer**:

- Yes "we have different food, clothing and speech;" "because Kuwaiti culture is very much about family relations;" because we have our own "dialect, clothing, customs related to distinct climate and economy."

- No, because "all Arabians are the same;" "we have a mix culture."

2) Do you think Kuwaiti culture, in relation to housing, changed after the 1950s (when Old Kuwait Town was demolished and replaced with modern Kuwait City)?
   a) yes, our customs evolved with new forms of inhabitation 126
   b) no, we have maintained the same customs 16

→**Please explain your answer**:

- Yes, because "we seem to be leaning towards a western lifestyle, which is quite sad, many seem uninterested in our Kuwaiti culture and do not try to learn or practice old traditions;" "now we have European and American designs for our homes that do not suit us;" "now we have a social change because spaces in the household are arranged differently;" "now the immediate family lives alone whereas in the past extended families lived together."

3) Is privacy an essential part of Kuwaiti culture?
   a) yes, it is essential to the way we live 143
   b) no, it is not essential to the way we live 6

→**Please explain your answer**:

- Yes "privacy is the most important element of Kuwaiti architecture and living;" "it is important that is why we have separate entrances and meeting rooms for visitors in the villa;" "nobody must see what is going on behind closed doors."

- No, because "women speak a lot and our secrets come out."

4) Do you think that skyscrapers in Kuwait City reflect your culture?
   a) yes 48
   b) no 89
→**Please explain your answer**:
- Yes, because "we need to be modern."
- No, because "skyscrapers have nothing to do with our traditions;" "progress should not only be in Kuwait City but in the country as a whole and our culture should be reflected not only by skyscrapers but by all kinds of buildings;" "skyscrapers reflect international 'progress.'"

III) Third Section: Measuring Collective Memory

1) Do you know what Kuwait City looked like before the 1950s?
   a) yes, very well 46
   b) yes, a little bit 76
   c) no, not at all 27

2) Why do you think Kuwait City was completely rebuilt in the 1950s?
   a) Because Kuwaitis did not want to live in small courtyard houses anymore 25
   b) Because the government wanted to make Kuwait City a modern city 116
→ **If other, please specify:**
Kuwaitis wanted to live in better homes **(2 people wrote this)**; we discovered oil **(8)**; Kuwaitis started to travel and bring design ideas from outside **(3)**; "Kuwaitis did not want to live in mud houses anymore" **(1)**; "Kuwait City was demolished and rebuilt (is still being rebuilt) as a government or commercial center. Housing really had nothing to do with its current form."

3) Do you know the Law of Antiquities?
   a) yes 21
   b) no 128

4) How many historic buildings do you think Kuwait City has today?
   a) around 100 16
   b) around 50 51
   c) around 25 50
   d) around 5 24

IV) Fourth Section: Gathering Opinions about New Buildings in Historic Sites

1) Do you think that changing the appearance of a historic site, by constructing new buildings for example, can add value (importance) to the site?

a) yes, change could add value to the historic site 50
b) no, the historic site should remain unchanged in order to remain valuable 98

→**Please explain your answer**:

- Yes, "if appropriately done;" "change is acceptable only if historic sites are restored to how they looked like in historic times;" "old buildings should be preserved and new ones should be homogeneous with the surroundings;" "we should maintain, renovate and rehabilitate historic sites so that they may be kept for future generations and not to leave it for random development."

- No, because "the whole point of a historic site is that it has not been altered with time;" "I did not see one example in Kuwait City where change has added value to a historic site and this is why I don't like change unless the new project has been selected from a design competition because competitions show different alternatives where the best one is selected;" "the value is in the history not the present;" "we want the past to be remembered not changed;" "so that future generations can experience it the way that we have."

2) Do you think that a skyscraper placed directly next to a historic site is appropriate?

a) yes, because a skyscraper symbolizes success and it doesn't matter where it is located 20
b) yes, because the skyscraper might ensure economic growth (e.g. employment) 4
c) no, because the skyscraper might environmentally affect the historic site 39
d) no, because the skyscraper might disturb the visual appearance of the historic site 99

→**Please explain your answer**:

- Yes "if its design contrasts with historic buildings."

- No, because "the historic site is meant to represent the historic time and a skyscraper would ruin the look and feel;" "a skyscraper could disturb the continuity and harmony of the space;" "if there is good urban planning they would keep all the historic sites together and the skyscrapers in a different place;" "skyscrapers will become popular and the historic site will be forgotten;" "skyscrapers will block the sun that historic buildings depend on;" "the height of skyscrapers does not work with the small historic buildings;" "skyscrapers take the attention away from the historic site."

3) Do you think new buildings in historic sites should follow guidance/rules that control size, materials, color, form, orientation, function and interior layout?

a) yes 125
b) no 26

→**Please explain your answer**:

- Yes "they should follow the government's legislation;" "they should follow rules to blend in with the historic buildings;" "to maintain the historic atmosphere in the area;" "so that new buildings will not take the attention away from the historic site;" "there should also be rules for residential areas;" "to protect the overall form of the area;" "they should follow rules to avoid different personal tastes in design that might lead to diversifying rather than unifying the historic environment;" "they should follow rules to create a cohesive architectural identity in historic areas;" "because otherwise they will look inappropriate;" "to make the exterior and the interior compatible and unified and rely on technology to achieve this;" "otherwise new buildings would ruin our culture;" "to blend in with the form of historic buildings."

- No "they shouldn't follow rules to allow creativity to take action and not to make all buildings similar;" "the point of new buildings is to look modern so they should not follow rules to make them look historic;" "it is nice to have different buildings in the same place;" "people have their freedom and they can choose the way they want their houses to look."

- N/A, because "rules don't matter, what is important is to make sure that skyscrapers are built very far away from a historic site so that they don't destroy its appearance."

4) Do you think new buildings in historic sites should follow rules that control parking?

a) yes 126
b) no 13

→**Please explain your answer**:

- Yes "to avoid traffic, overcrowding and congestion;" "to reduce pollution;" "to protect the form and beauty of the historic site;" "to create order and make parking spaces more civilized;" "parking in Kuwait City need order not just in historic areas but also in modern ones because it is a mess;" "to make sure that cars are not parked anywhere;" "to maintain the beauty of historic sites;" "parking spaces should not be visible."

5) How do you think new buildings in historic sites should look like?

a) They should look historic (traditional materials and concepts) 31
b) They should look contemporary/new (modern materials and concepts) 22
c) They should look like a mixture of historic and contemporary 92

→Please explain your answer:
"Form doesn't matter but the building should be built in a way that does not negatively affect the historic environment;" "each case is different, what is important is to make the new building distinguishable from the historic;" "what is important is to give space for historic buildings;" "new buildings should be an adaptation of the old not a copy and paste solution;" "new buildings should contrast with the historic site and be far from it to give it some space;" "new technology and materials can be used to create well-designed buildings that include historic features."

6) What do you think of the Heritage Village Project in the *Al-Sharq* district of Kuwait City?

a) I like it, because it shows Kuwaiti architecture and culture to our children 60
b) I like it, because it shows Kuwaiti architecture and culture to tourists 27
c) I don't like it, because it does not accurately show our Kuwaiti architecture and culture 24
d) I don't know this project 35

→Please explain your answer:
- Yes "I think it is educational;" "it will make me remember how Kuwait looked like before;" "we Kuwaiti people know our culture but we need to show it to other countries."

- No "it caused the demolition of many heritage buildings;" "this project is a failure because it did not respect the footprint of the demolished historic buildings and the archaeological remains and it has a completely new layout than the past one and it destroys the value of the existing historic buildings. Architectural heritage means the transmission of craftsmanship, so how can you reconstruct a historic building if no one has inherited Kuwaiti craftsmanship?;" "it's a shame! It has nothing to do with the historical buildings and the old urban fabric of Kuwait City;" "it is only a commercial and touristic project;" "it's *Sharm Al-Shaikh* transplanted in Kuwait without no connection whatsoever to the original district of *Sharq* which it is supposed to represent."

- N\A "I can't judge it because it is still under construction;" "I love the thought but cannot judge it yet as I haven't walked around inside the project."

Thank you for completing the questionnaire ☺

Université de Montréal

جامعة مونتريال
كلية التصميم البيئي
مدرسة العمارة
برنامج الدكتوراه

Appendix 3: Survey Questionnaire in Arabic

الأهداف:

I. تحديد الهوية المعمارية الكويتية
II. تحديد الطابع الكويتي
III. قياس الذاكرة الجماعية
IV. جمع الآراء حول المباني الجديدة في المواقع التاريخية

معلومات الاتصال:

الباحثة: رها وليد خلف
عنوان البريد الالكتروني: تم إلغاء هذه المعلومة من **ملحق 3**
رقم الهاتف: تم إلغاء هذه المعلومة من **ملحق 3**

عزيزي المشارك،

أدناه سوف تجد بعض الأسئلة مع إجابات متعددة الاختيار، الرجاء وضع دائرة حول جواب **واحد فقط**. إذا كان لديك جواب لم يظهر في القائمة لك الحرية لكتابته. **بعض الأجوبة تحتاج إلى تفسير الرجاء ملء الفراغ** – شكراً☺

الاستبيان يتألف من **4 صفحات** (على الوجهين). أنت **غير ملزم** أن تذكر اسمك **بل فقط** أن تضع دائرة حول فئة العمر.

← **أنا عمري ما بين:**
(أ) 13 – 16 سنة
(ب) 17 – 25 سنة
(ج) 26 – 65 سنة
(د) 66 – 80 سنة

I. القسم الأول: تحديد الهوية المعمارية الكويتية

1- هل تعيش في مدينة الكويت؟
(أ) نعم
(ب) لا

2- ما هو نوع السكن الذي تعيش فيه؟
(أ) في منزل فيه حوش
(ب) في فيلا مستقلة (منفصلة)
(ج) في فيلا شبه منفصلة
(د) في مبنى سكني منخفض الارتفاع
(ه) في مبنى سكني شاهق الارتفاع

3- هل لديك ديوانية؟
(أ) نعم، إنها في منزلي
(ب) نعم، إنها بجانب منزلي
(ج) لا

4- هل تحب أن تعيش في مبنى سكني شاهق الارتفاع في مدينة الكويت؟
(أ) نعم، لأنني أحب أن أعيش في الطوابق العليا
(ب) نعم، لأنها طريقة جديدة للعيش
(ج) لا، لأن لديها مداخل وسلالم ومصاعد مشتركة
(د) لا، لأنها ليست مرموقة كالعيش في فيلا
(ه) لا، لأن الشقق صغيرة الحجم
← إذا كان لديك جواب آخر الرجاء التوضيح _____

5- ما هو العنصر الذي يقدم أفضل وصف للعمارة التقليدية الكويتية؟
(أ) الحوش
(ب) الديوانية
(ج) البساطة في الشكل
← إذا كان لديك جواب آخر الرجاء التوضيح _____

6- هل لدى مدينة الكويت تراث معماري؟
(أ) نعم، لدينا تراث معماري فريد
(ب) لا، لدينا تراث معماري خليجي
(ج) لا، لدينا تراث معماري إسلامي
← الرجاء توضيح الإجابة _____

7- هل تحب ناطحات السحاب الموجودة في مدينة الكويت (أبراج المكاتب)؟
(أ) نعم، لأن شكلها جميل
(ب) نعم، لأنها تبرهن بأننا نساير تكنولوجية البناء
(ج) لا، لأنها تجعل مدينة الكويت تبدو كأي مدينة خليجية أخرى
(د) لا، لأنها لا تمثل الطابع الكويتي
← الرجاء توضيح الإجابة _____

8- هل تظن أن ناطحات السحاب مناسبة لمناخ الكويت؟
(أ) نعم
(ب) لا
← الرجاء توضيح الإجابة _____

9- هل تشعر براحة إذا عملت في ناطحات السحاب ذات الشبابيك الغير قابلة للفتح؟
(أ) نعم، أشعر بالراحة طالما كانت مجهزة بالتكييف
(ب) لا، لا أشعر بالارتياح لأنني أحياناً أحب الهواء الطلق
← الرجاء توضيح الإجابة _____

10- هل تظن أن الحكومة الكويتية عليها أن تستثمر في التصاميم منخفضة الطاقة؟
(أ) نعم
(ب) لا
← الرجاء توضيح الإجابة _____

II. القسم الثاني: تحديد الطابع الكويتي

1- هل تظن أن للكويت طابع مميز؟
(أ) نعم، لدينا طابع خاص
(ب) لا، الطابع الكويتي هو طابع خليجي
(ج) لا، الطابع الكويتي هو طابع إسلامي
← الرجاء توضيح الإجابة _____

2- هل تظن أن الطابع الكويتي فيما يتعلق بالسكن قد تغير بعد سنة 1950م (عندما أهدمت مدينة الكويت القديمة واستبدلت بمدينة الكويت الحالية)؟
(أ) نعم، عاداتنا تطورت مع أنماط السكن الجديد
(ب) لا، حافظنا على عاداتنا
← الرجاء توضيح الإجابة _____

3- هل الخصوصية جزء أساسي من الطابع الكويتي؟
(أ) نعم، الخصوصية ضرورية في طريقة عيشنا
(ب) لا، الخصوصية ليست ضرورية في طريقة عيشنا
← الرجاء توضيح الإجابة _____

4- هل تظن أن ناطحات السحاب في مدينة الكويت تعكس حضارتك؟
(أ) نعم
(ب) لا
← الرجاء توضيح الإجابة _____

III. القسم الثالث: قياس الذاكرة الجماعية

1- هل تعرف كيف كان شكل مدينة الكويت قبل عام 1950م؟
(أ) نعم، أعرف جيداً
(ب) نعم، أعرف قليلاً
(ج) لا، لا أعرف

2- لماذا تظن أن مدينة الكويت أعيد بناؤها في الخمسينيات من القرن الماضي؟
(أ) لأن الكويتيون لم يعودوا يريدوا أن يسكنوا في منازل صغيرة لها حوش
(ب) لأن الحكومة أرادت أن تجعل من مدينة الكويت مدينة عصرية
← الرجاء توضيح الإجابة _____

3- هل تعرف قانون الآثار؟
(أ) نعم
(ب) لا

4- كم مبنى أثري يوجد في مدينة الكويت؟
(أ) حوالي 100 مبنى
(ب) حوالي 50 مبنى
(ج) حوالي 25 مبنى
(د) حوالي 5 مباني

IV. القسم الرابع: إجماع الآراء حول المباني الجديدة في المناطق التاريخية

1- هل تظن أن تيير شكل المنطقة التاريخية ببناء مباني جديدة مثلاً قد يضيف لهذه المنطقة قيمة؟
(أ) نعم، التغير قد يضيف قيمة للمنطقة التاريخية
(ب) لا، المنطقة التاريخية يجب أن لا تتغير للحفاظ على قيمتها
← الرجاء توضيح الإجابة: _____

2- هل تظن أن وضع ناطحة السحاب بجوار منطقة تاريخية مناسباً؟
(أ) نعم، لأن ناطحة السحاب ترمز للنجاح بغض النظر عن مكان وجودها
(ب) لا، لأن ناطحة السحاب قد تؤثر بيئياً على المنطقة التاريخية
(ج) لا، لأن ناطحة السحاب قد تؤثر على منظر المنطقة التاريخية
← الرجاء توضيح الإجابة: _____

3- هل تظن أن المباني الجديدة في المناطق التاريخية عليها أن تتبع قوانين أو توجيه للسيطرة على الحجم، المواد، اللون، الشكل، التوجه، النوع، والتصميم الداخلي؟
(أ) نعم
(ب) لا
← الرجاء توضيح الإجابة: _____

4- هل تظن أن المباني الجديدة في المناطق التاريخية عليها أن تتبع قوانين تسيطر على مواقف السيارات؟
(أ) نعم
(ب) لا
← الرجاء توضيح الإجابة: _____

5- كيف تظن أن المباني الجديدة في المناطق التاريخية عليها أن تبدو؟
(أ) عليها أن تبدو تاريخية (وفق المفاهيم والمواد التقليدية
(ب) عليها أن تبدو عصرية (وفق المفاهيم والمواد العصرية)
(ج)عليها أن تبدو خليطاً بين التاريخي والعصري
← الرجاء توضيح الإجابة: _____

6- ما رأيك في مشروع القرية التاريخية في منطقة شرق في مدينة الكويت؟
(أ) أحبه لأنه يظهر العمارة والطابع الكويتي للكويتيون وأبناؤهم
(ب) أحبه لأنه يظهر العمارة والطابع الكويتي للسياح
(ج) لا أحبه لأنه لا يظهر بطريقة صحيحة العمارة والطابع الكويتي
(د) لا أعرف هذا المشروع
← الرجاء توضيح الإجابة: _____

* شكراً لاستكمالك لهذا الاستبيان ☺ *

Appendix 4: The Classification Chart of Survey Results

Multiple-choice answers/ Number of Participants	Between 13 and 16 years old **N° 22**	Between 17 and 25 years old **N° 45**	Between 26 and 65 years old **N° 80**	Between 66 and 80 years old **N° 8**	**Total number of participants** **N° 155 → sample**	
First Section: The Identification of Kuwaiti Architectural Identity						
Q1						
a	12	27	58	7	104	yes
b	10	18	22	1	51	no
Q2						
a	3	11	25	2	41	**120** live in detached or semi-detached villas; hence, privacy is essential
b	13	26	36	4	79	
c	3	8	10	1	22	
d	3	0	9	1	13	
e	0	0	0	0	0	
Q3						
a	14	23	26	3	66	84 yes
b	2	8	7	1	18	
c	6	14	47	4	71	no
Q4						
a	1	4	3	1	9	21 yes
b	2	6	3	1	12	
c	4	9	18	2	33	**119** no (there are additional "no" answers in the blank spaces of the questionnaire. A total of **140** participants would not live in a high-rise building)
d	10	11	18	2	41	
e	4	11	28	2	45	
Q5						
a	4	17	37	2	**60** courtyard best describes traditional Kuwaiti architecture	
b	17	17	16	0	**50** *diwaniyah* best describes it	
c	1	12	24	6	**43** simplicity best describes it	
Q6						
a	12	24	35	3	74	yes
b	9	16	28	4	57	77 no
c	1	14	4	1	20	

Q7						
a	4	9	18	0	31	**108** yes (there are additional "yes" answers in the blank spaces. A total of **115** participants like skyscrapers in Kuwait City for many reasons, mainly progress)
b	14	21	41	1	77	
c	1	5	5	1	12	36 no
d	2	9	7	6	24	
Q8						
a	11	28	49	0	88	yes
b	11	17	23	7	58	no
Q9						
a	6	10	22	1	39	yes
b	16	26	55	7	104	no
Q10						
a	19	37	68	8	**132**	yes the government should invest in sustainable low-energy design
b	1	4	9	0	14	no
Second Section: The Identification of Kuwaiti Cultural Identity						
Q1						
a	14	31	45	6	**96**	yes Kuwait has its own distinct culture
b	6	10	25	0	41	47 no
c	2	1	3	0	6	
Q2						
a	19	35	67	5	**126**	yes Kuwaiti customs changed with new forms of inhabitation
b	2	7	6	1	16	no
Q3						
a	21	41	74	7	**143**	yes privacy is essential to Kuwaiti living
b	1	3	2	0	6	no
Q4						
a	6	12	27	3	48	yes
b	15	31	39	4	**89**	no skyscrapers do not reflect Kuwaiti culture
Third Section: Measuring Collective Memory						
Q1						
a	5	9	27	5	46	122 yes
b	9	27	39	1	76	
c	7	8	11	1	27	no

Q2						
a	3	8	13	1	25	
b	18	34	58	6	116	
Q3						
a	4	4	12	1	21	yes
b	18	40	63	7	128	no
Q4						
a	5	5	4	2	16	
b	7	12	27	5	51	
c	5	15	29	1	50	
d	4	9	11	0	24	
Fourth Section: Gathering Opinions about New Buildings in Historic Areas						
Q1						
a	9	14	25	2	50	yes
b	13	27	53	5	**98**	no historic sites should not change to remain valuable
Q2						
a	2	3	14	1	20	24 yes
b	1	2	1	0	4	
c	4	14	21	0	39	**138** no placing a skyscraper directly next to a historic site is inappropriate; hence, incompatible
d	15	36	42	6	99	
Q3						
a	14	34	70	7	**125**	yes guidance that controls development in historic sites is important
b	8	9	9	0	26	no
Q4						
a	17	26	76	7	**126**	yes guidance that controls parking in historic sites is important
b	3	7	3	0	13	no
Q5						
a	4	9	15	3	31	new should look historic
b	6	7	8	1	22	new should look modern
c	11	26	52	3	**92**	new should look like a mixture of historic and modern
Q6						
a	8	17	32	3	60	**87** like the HV, mainly because of its concept
b	7	9	10	1	27	
c	0	8	15	1	24	Don't like the HV
d	6	10	17	2	35	Don't know the project

Appendix 5: Interview Guide for Member-Checking and External Auditing

If a participant did not have the chance to read the theoretical model, the researcher explained it in about 10 minutes before asking questions. Those that appear in *Italic* were asked if the participant did not already discuss the information in his/her answer.

Local interviewees are:

Evaluators from the NCCAL (Personal Interview n°14, Feb. 19th 2012) and the HBPS of Kuwait Municipality (Personal Interview n°17, Feb. 20th 2012);

Applicants from AEC (Personal Interview n°15, Feb. 19th 2012) and KEO International Consultants (Personal Interview n°16, Feb. 19th 2012).

External interviewees/auditors are:

A heritage advisor and environmental design consultant at the *Conseil du Patrimoine de Montréal* (Personal Interview n°12, Oct. 5th 2011);

An architect at *Fournier Gersovitz Moss et Associés* and member at the *Conseil du Patrimoine de Montréal* (Personal Interview n°13, Nov. 8th 2011);

An architectural conservator and program manager for Policy, Procedures and Technical Guidance at the U.S. General Services Administration, Public Buildings Section, National Preservation Program, Center for Historic Buildings (Online Interview n°1, Nov.11th 2011).

Guide

1) Have you had the chance to read the document I've given/sent you?

2) Could you please tell me what compatibility means in Kuwait City (question for evaluators and applicants in Kuwait City only)?

3) Do you like or dislike the New Review Process? *[Do you think the idea of having a Committee might or might not be useful?*

What do you think of the suggested members of the Committee? Would you add or

remove a member? Would you like or dislike listening to a project proposal presentation at the NCCAL (question for evaluators in Kuwait City only)?

Would you feel comfortable presenting a project proposal to a Committee at the NCCAL (question for applicants in Kuwait City only)?]

4) Do you like or dislike the New Framework for Design and Assessment? *[Do you think probing questions could or could not replace rules? Would you prefer asking/answering questions or imposing/following rules? Do you think that the suggested principles could or could not complement the questions?]*

5) What do you think of my interpretations on heritage values and character-defining elements? *[Would you add or remove something (question for evaluators in Kuwait City only, since they are Kuwaiti citizens)?]*

6) Do you think the ideas in this document fit or do not fit into Kuwaiti culture (question for evaluators and applicants in Kuwait City only)?

7) Do you think the ideas in this document fit or do not fit into Kuwaiti administration (question for evaluators and applicants in Kuwait City only)?