URBAN DESIGN AND PLANNING POLICY: THEORETICAL FOUNDATIONS AND PROSPECTS FOR A NEW URBANISM IN PORTUGAL

by

LUIS D. BALULA

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and approved by

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ABSTRACT OF THE DISSERTATION

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Dissertation Director:

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The rising authority of neo-traditional urban planning and design—either in the United States via New Urbanism or in Europe via the European Urban Renaissance—might provide much needed answers to the failures of Modern Urbanism to produce sustainable urban environments. Nevertheless, the ethos of modernist spatial planning seems to be pervasive on current planning processes despite its many flaws. This study aims at learning how urban design theory—and in particular neo-traditional urban design theory—can inspire and reform extant planning practices so as to counteract incoherent urban growth and promote a more inclusive and sustainable urbanism.

A contextual analysis of the Portuguese planning system and its capacity to incorporate neo-traditional urban design concerns was conducted by various methods. First, a research of relevant legislation helped ascertain the national framework of spatial planning and its rapport with matters of urban design. Second, a nationwide survey was conducted in order to learn about urban development experts' attitudes towards key principles of neo-traditional urban design. Third, a series of interviews with public officials

in charge of urban planning in the city of Évora helped determine major challenges of local development control, and the way current legal and institutional regimes affect urban design quality. Fourth, a spatial survey of Évora's neighborhoods provided an overview of the outcomes of different planning processes. Fifth, a visual preference survey evaluated the preferences of the general public, in particular the residents of Évora, in terms of city image.

Major findings of these inquiries show that while both experts and laypersons seem to support neo-traditional urban design principles, the former are quite inconsistent in their assessments. Moreover, several issues emerged as major obstacles to the improvement of the current planning system, such as the exceedingly bureaucratic proceedings of urban design plans, very limited public participation, or a lack of consistent criteria to review the design quality of urban projects. Ultimately, the data suggests that in order to turn urban design into a successful policy tool it is necessary to promote a concerted effort in the fields of planning and development control, public participation, and environmental education.

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I. INTRODUCTION

Along the past half-century, suburban sprawl has created a new spatial geography which diverse authors have called the extensive city, the fragmented city, the formless city, or the city without model. An outstanding characteristic of the extensive city is its lack of formal coherence and functional efficiency. The shortcomings of this type of urban development have been noted from a variety of perspectives. Environmentalists worry about the extensive loss of natural and rural land, the steep increases in carbon dioxide and greenhouse gas emissions derived from traffic, and an over reliance on fossil fuels. Sociologists point to the loss of long-established social networks, the erosion of the public sphere, and the rise of social ghettos in fragmented residential areas isolated from nearby communities. Urban planners and policymakers struggle to manage an increasingly complex mosaic of disjointed land-uses, over-extended infrastructures, and erratic investments of public and private capital. And all those who experience the dysfunctions of living in the extended city—from regular traffic congestion in daily trips to work, to social isolation, to the poor quality of urban environments—complain about the associated stress and distress.

In light of these problematic aspects of contemporary urban development, an increasing number of planners, policymakers, architects, designers, and developers are examining the potential of alternative models of placemaking to counter some of the worst consequences of what has been—in spite of the existence of plans and other development control mechanisms—a rather unregulated process of urban sprawl. There seems to be an agreement among many of those professionals about a series of socio-spatial principles of urban design that should guide the planning process in order to attain more sustainable urban development patterns. These principles, which are relevant to diverse scales of intervention are, in short: polycentric regions composed of cities, towns and neighborhoods; compact urban development with identifiable centers

and edges; walkable neighborhoods; interconnected streets in grid-like patterns; well-defined public spaces; mixed land uses; mixed housing types; well-matched street, block, and building typologies; well situated civic buildings and public gathering places such as parks and plazas; and an architecture that respects local history and regional character.

Universal acceptance of these design principles, however, is far from evident in contemporary planning practice. Urban planning is a complex process involving a multiplicity of agents with diverse motivations, and it is difficult to predict their individual awareness of, and preferences in, matters of urban design. Moreover, although urban design theory might possibly suggest a set of universal principles of good practice, urban development processes are bounded by local contexts, and greatly responsive to local/national regulatory frameworks (or the lack of a framework). A better understanding of what the diverse participants in the planning process think about these principles of urban design would help ascertain their validity for the devising of more effective codes and guidelines for urban development; as well as suggest areas of agreement/disagreement among the stakeholders. On the other hand, testing the validity of urban design theory for practice would require a contextual analysis of specific local/national planning systems, in order to determine their ability to incorporate urban design guidance. This dissertation will investigate how urban design theory could merge with urban policy and influence practice within a concrete, localized planning system.

Even though planning by design in Portugal is not a customary practice yet, and traditional neighborhood development is still largely unknown among planners, developers and politicians, this study postulates that on a near future New Urbanism principles will be recognized as indispensable to offset the problems generated by fifty years of suburban sprawl according to Modernist principles. It also assumes that there will be many political and financial constraints to the implementation of such principles,

as well as resistance to change among experts that still identify with former models of city building. While investigating the level of support of neo-traditional principles of urban design of diverse stakeholders, including experts and laypersons, this study ultimately assumes that it is indispensable—and urgent—to advance and promote truly sustainable patterns of urbanization, such as those advanced by New Urbanism, if we want to reclaim urban life and ensure a future for upcoming generations.

Background

A renewed interest in physical planning has been steadily emerging, both in Europe and the U.S. (Healey, 2004) in recognition of the importance of urban design in planning processes (Sorkin, 2001; Gospodini, 2002; Carmona et al., 2003; Fainstein, 2003); in the social construction of places (Knox, 2005); in the cultural renewal of cities (Wansborough & Mageean, 2000); and in the development of a counter-project to post-industrialism (Duham-Jones, 2000). Growing concern with unfettered suburbanization paralleled by increased deterioration in the city core, and with the poor design quality of urban environments has also led to the organization of movements that reclaim design excellence and environmental responsibility toward social well-being. Moreover, excellence in urban design is increasingly associated with traditional urban forms and typologies.

In the US, the movement known as New Urbanism, or “neo-traditional planning,” has emerged in the early nineties as a forum for discussing alternatives to conventional suburban development. Borrowing from urban design concepts throughout history, New Urbanism advocated the revival of pre-Modernist models of city making as a way to reorganize suburban and exurban territories, and to create more sustainable urban forms at the region, city and neighborhood scales. The movement’s principles have been put into practice on numerous projects for greenfields, brownfields, greyfields, and inner

cities all over the United States, and a growing body of theory and research is confirming New Urbanism's success in delivering better quality, environmentally responsible urban settlements. The movement has continued to grow and broadening its base for more than two decades, and an increasing popularity among public officials, private practitioners, and developers attests to its current vigor.

In Europe, the early movement for the Reconstruction of the European City, assembled in the late nineteen seventies as a project of resistance against the Modernist city, advocated the study of pre-industrial urbanism and the model of the old European city for the transformation of suburbs into true and proper urban centers. The movement's principles inspired numerous design professionals and planning organizations, and have been adopted and developed by the contemporary movement for a European Urban Renaissance. Concurrently, in 2003 the European Council of Town Planners,[1] issued *The New Charter of Athens: a Vision for Cities in the 21st Century*, a declaration of principles that recognized the contribution of historic urban forms to the uniqueness of European urban culture, and envisioned spatial planning and urban design as vital for the delivery of sustainable development and the regeneration of cities (ECTP, 2003).

The importance of designing new urban areas, or retrofitting existent ones, according to traditional European city morphologies as a precondition for sustainable development has also been stressed in *Urban Design for Sustainability* (2004) a report of the Working Group on Urban Design for Sustainability to the EU Expert Group on the Urban Environment. And in the UK, the Department for Environment, Transport and Regions (DETR) has developed a new generation of design guidelines (e.g. *Places, Streets and Movement* – 1999; and *By Design: Urban Design in the Planning System* –

[1] The European Council of Town Planners is an International Association, whose role is "to provide a common platform for those exercising the profession of town planner, in whatever domain, in the countries of the European Union". (See: http://www.ceu-ectp.org)

2000) that stress the importance of traditional town planning and the use of traditional elements of urban form for achieving better quality communities by design.

There have also emerged quasi-grassroots movements supporting traditional settlement patterns to promote local distinctiveness and a positive sense of place in European cities. In face of global homogenization, the CittaSlow[2] (Slow City) movement, for example, is committed to the preservation of local, traditional cultures, local crafts, a relaxed pace of life and conviviality. The movement's charter covers a number of aspects related to urban design and planning, such as the commitment to the preservation of the distinctive character of the built environment and the pledge to plant trees, create more green spaces, implement pedestrian streets, increase the number of bicycle paths, improve public transportation and promote eco-friendly architecture.

Neo-traditional planning principles have been tested in a large variety of studies recently. Empirical research has been conducted to evaluate new urbanism projects, often by comparison with conventional suburban development, in such diverse aspects as energy efficiency and greenhouse gas emissions, travel behavior and automotive dependence, land-use patterns and neighborhood designs, density and accessibility to mass transit, quality of life, residential satisfaction, or sense of community, among others. However, like Anne Moudon (2006) has recently argued, further empirical research is still necessary to test and validate New Urbanism's ideas and thus expand its substantive basis.

Asserting the Problem

The topical interest in, and apparent support for, a neo-traditional urban design philosophy among planners, architects, environmentalists and policymakers seems to

[2] The CittaSlow movement, founded in 1999 by the mayors of four small Italian municipalities, has rapidly expanded to include—according to 2006 data—54 towns in 7 European countries. (See: http://www.slowmovement.com)

suggest the potential for a significant paradigm shift in the realm of urban planning. Even though the Modernist canon is still ubiquitous in multiple aspects of contemporary planning processes, neo-traditional planning appears to be capable of influencing and changing longstanding Modernist practices, since it articulates a novel comprehensive theory of urban design that is more responsive to the challenges of the present.

On the other hand, one needs to probe deeply into the planning system to evaluate its actual propensity for change under this new paradigm. Five or six decades of city building according to Modernist standards have left us with something more than fragmented urban landscapes traversed by highways. They have also shaped the planning system and its procedures, and the influence of old Modernist archetypes still lingers on the way we produce, perceive and judge the urban environment. Developers continue to promote single-use urban areas; traffic engineers continue to design hierarchical street systems for the automobile; architects continue to design buildings as objects isolated from context; planning officials continue to control growth by means of zoning plans; and people in general continue to accept all of it as inevitable consequences of “progress.”

In this dissertation I am interested in uncovering the current meanings of good urban design for a diversity of agents of urban development and users of the urban environment. Given the choice of more sustainable urban forms, patterns and typologies, will these diverse professionals and the people in general recognize them as better urban design? And will they choose them over what theory suggests are less sustainable development patterns and urban typologies? These questions would seem to be key to anticipating the power of neo-traditional urban design principles for inducing significant changes in the way we plan, develop, and ultimately think about our cities. In addition, answering these questions would be likely to determine the potential acceptance and

success of neo-traditional urban development projects, such as those advanced by New Urbanism and the movement for a European Urban Renaissance.

Consequently, my dissertation will address the question of how different groups of participants (stakeholders) in the planning process perceive critical issues of urban design by focusing on significant features of the urban environment, and on respondents' attitudes towards those features. It will also compare the answers of distinct groups of respondents in order to explore significant divergences between stakeholders, and uncover probable factors of such divergences. A contextual analysis of a local planning and development system will probe how these findings might inspire and reform existing planning processes.

The study will make use of interviews and survey research techniques to provide greater insight into the attributes of good urban form that influence the choices of producers and consumers of the built environment. Concurrently, a case study of the Portuguese municipality of Évora will investigate the capability of its planning system for incorporating urban design guidelines that reflect stakeholders' preferences. The results will have implications for our understanding of how neo-traditional urban design principles can be adapted to specific contexts. The study is intended for three primary audiences: planners and architects with interest in applying neo-traditional urban design principles to their projects; municipal officials involved with formulating spatial policies, urban growth management, and development control; urban affairs researchers and others with an interest on data referring to neo-traditional planning.

It is also the purpose of this dissertation to make a substantive contribution to urban design theory. The study will draw largely on the urban design literature that has been developed by architects, planners, historians, geographers, sociologists, social psychologists, and others. An extensive review of relevant literature is presented in Chapter II.

It should be noted that this study is not directly inquiring as to whether particular neo-traditional development projects will be successful. The success or failure of any particular development project is the product of many factors, including market forces, the economic climate, features of particular locations, and the actions taken by politicians, planning boards, lending/financial institutions, and private investors.

Remaining Chapters

Chapter II focuses primarily on establishing the theoretical foundations of neo-traditional urban design, anchoring it to a European and North American historiography of urban planning. It also addresses the major contemporary challenges to a new theory of urban planning based on neo-traditional design principles.

Chapter III systematizes the concept of urban design according to its four major substantive dimensions—the functional, social, morphological, and temporal dimensions. Each one of these dimensions is conceptualized and explained in terms of neo-traditional urban design principles, providing a methodological template to guide the field research (Chapters V, VI, and VII).

Chapter IV draws a contextual analysis of the Portuguese planning system and establishes the background of next chapter's case study. The Portuguese framework of planning administration is described in terms of two interrelated planning systems: the development *plan* system, and the development *control* system. Drawing on relevant literature, as well as on plans and legislation, this chapter elucidates the way design concerns are addressed by current legislative and institutional frameworks. It also describes the typical organization of the key municipal services engaged in development control, and looks at the processual relationships between local authorities and applicants, project developers, specialist consultants, and regional authorities for the evaluation of private projects of urban development. Finally, it looks at another aspect of

the development control system—the process of public participation—that binds local authorities to local interest groups and citizens in general.

Chapter V examines the workings of a particular local planning system. Starting by an overview of the city of Évora, Portugal in terms of its major morphological types and the quality of public spaces, it proceeds by investigating how local authorities deal with matters of planning, development control, and public participation. A series of interviews with the public officials in charge of key municipal departments ascertains the major challenges of local development control and the way current legal and institutional regimes affect urban design quality.

Chapters VI and VII investigate and compare how different stakeholders—either 'producers' or 'consumers' of the built environment—perceive critical issues of urban design, while examining the strengths and weaknesses of the methods employed. Chapter VI reports the results of a national survey (the UDCS – Urban Design Criteria Survey) assessing the attitudes of experts regarding the attributes of good urban design according to key principles of New Urbanism. Chapter VII reports the data of a local survey (the Évora VPS – a Visual Preference Survey[3]) evaluating the preferences of the general public, and most particularly the residents of Évora, in terms of city image.

Chapter VIII discusses the research findings and gives policy advice regarding planning by design, urban design education, and public participation. Finally, it discusses possible directions of future research.

[3] VPS is a trademark of ANA (A. Nelessen Associates)

II. DEFINING URBAN DESIGN

This chapter reviews past and current literature on urban design, approaching the concept from a historically situated perspective. It ascertains the theoretical foundations of neo-traditional planning and urban design, and addresses the major contemporary challenges to New Urbanism principles.

Urban design is usually viewed in terms of an end "product" rather than a creative problem-solving process. However, urban design encompasses far more than the physical layout of urban development. In this dissertation urban design is understood in a broad sense as an interdisciplinary collaborative process of shaping the urban environment and making places for people.

Over the last forty years scholars and practitioners have defined urban design in many different ways. It has been somewhat abstractly depicted as the field of "organization of space, time, meaning and communication" (Rapoport, 1977:8); as well as rather pragmatically described as the craft of "designing the city without designing the buildings" (Barnett, 1974:10). According to Carmona & Tiesdell (2007), the term "urban design" came into currency in the late 1950s, evolving from the idea of "civic design" associated with the North American early twentieth century's City Beautiful Movement. The characteristic City Beautiful (or Baroque) plan, of Haussmann influence, was a grid system with tree-lined boulevards, open spaces and parks, construction on a monumental scale, usually in neo-classic styles, with heavily ornamented public buildings in prominent places; it was "architecture as theatre, design intended to impress" (Hall, 1996: 202). Hence, "civic design" referred mostly to the artistic features of major public buildings and their aesthetic relationship to open spaces, as well as with the beautification and adornment of public spaces in prominent urban areas. "Urban design" departed long ago from such a confined meaning, and there are today many concurrent interpretations of urban design, and an ongoing debate about what exactly constitutes, or

should constitute its object, role and methods (see, for instance, Madanipour, 1996). This section summarizes such diverse standpoints.

In one sense, urban design can be seen as a product. An urban design project materializes a vision for a given area, which can range from parts of an environment, such as a streetscape, to the larger wholes of districts, towns, cities, or even regions. As such, it is usually translated into drawings, diagrams, images and written texts. According to the E.U. Expert Group on the Urban Environment (2004: 10), urban design consists in "the physical design and planning of the built environment (physical infrastructure, building complexes, spaces and urban areas) in relation to the natural environment in and around built-up areas" as well as "concepts and models that serve the purpose of guiding the sustainable development of settlements."

Urban design is concerned with the design of concrete spatial products, such as urban streets and squares, blocks, whole neighborhoods, new towns and new suburbs, as well as the regeneration of long-standing urban precincts. It is important to note that the project of urban design is distinct from the project of architecture because it invariably concerns multi-building environments (of variable size). Even though occasionally urban design involves the design of the buildings themselves, most often it just deals with the architecture of buildings as far as their uses and façades, particularly on the ground floor, define the public domain (Walters & Brown, 2004; Lang, 2005). Urban design is thus about managing the complex relationships between built structures and open space, between different buildings and streets, squares, parks and all the other spaces that make up the public realm, as well as the patterns of movement and activity which are thereby established (DoE, 1997). Or, more simply put, urban design is "the public quality of buildings and their relationships" (Calthorpe, 1993: 12). One may trace

the origins of such spatial understanding back to 1748, and the Nolli[4] map of Rome, where, by an effective graphic method of rendering solids as dark gray and voids as white, the city is depicted for the first time as "an enormous mass that has been 'carved' away to create 'outdoor' rooms" (Tice, 2005).

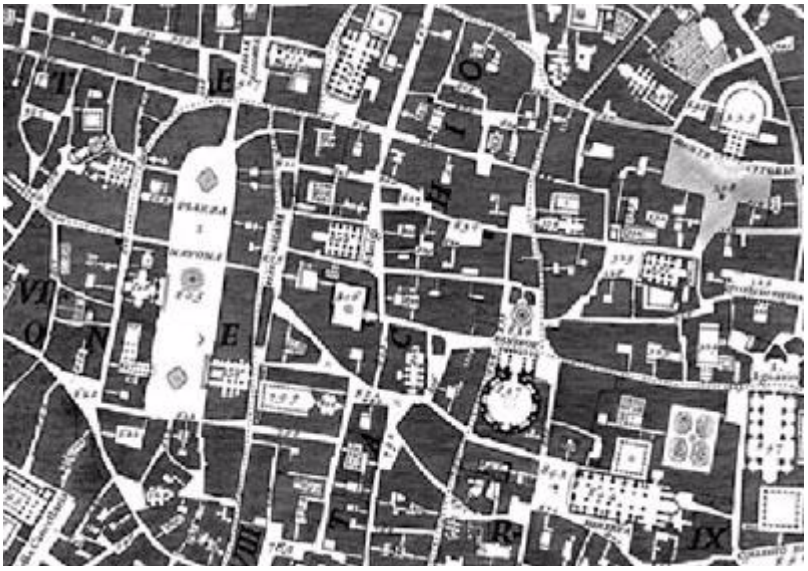

Figure 1 - Detail of the Nolli map of Rome (1748)

On the other hand, urban design can be seen as a process. It is a process of place making, a process that deals with shaping urban space. Urban design is "city-building," a practice that "brings together the many different parts and pieces of an environment to create a place" (Gindroz et al., 2003:17). Such a task, once the field of action of isolated experts (the Modern architect, the rational planner), is today a collaborative process drawing upon the techniques of many disciplines, and overlapping concerns of city planning, transportation policy, landscape architecture, civil engineering (now often called environmental engineering), development economics and architectural design (Llewellyn-Davies, 2000; Lang, 2005). As a process, urban design also engages

[4] Giambattista Nolli (1701-1756) was a Roman architect and surveyor. His graphic method of representing buildings in dark (with hatch marks) while streets and plazas remain plain white is precursor of the idea of figure-ground representation, which visually underscores the relationship between buildings and their context; the dark and light patterns reveal, intuitively, the manner in which public space in a traditional city is conceived no less carefully than buildings.

"the formal acts of urban intervention taken by government and by private developers," as well as the "actions taken by individuals and communities in their attempt to create a salubrious and supportive physical and social environment" (Robbins & El-Khoury, 2004:2). Therefore, urban designers must be generalists capable of bringing together not just diverse specialists and technicians, but also all the stakeholders, to create and implement a unified vision (Gindroz et al., 2003).

The artistic quality of urban design is often patent in statements such as: "urban design is the art of making places for people" (Cambell & Cowan, 1999; DETR/CABE, 2000); but what is evident in almost all definitions of urban design is that it has something to do with the public realm (or the public domain, or the public space) and the elements that define it (Lang, 2005). In this respect Moughtin (2003:2), for example, argues that "urban design is the study of the design of the urban realm as opposed to the private domain. By public realm is meant the streets, boulevards, squares and public parks together with the building façades that define them."

In effect, urban design operates across the public-private divide, dealing with those features of the built environment that transcend the individual parcel or the individual property (Sternberg, 2000). Differently from the architect, typically working for a single client on a single property, and focused on the private domain of buildings and their immediate surroundings, the urban designer works across property lines, sometimes redefining them, and most often establishing new formal patterns, new functional uses, and new social meanings of public space. As a product, a project of urban design usually covers more than one site, more that one single property, while as a process it usually involves—besides government agencies and private investors—many owners as well as many users.

Urban design as a process also holds an important normative dimension. As well conveyed by Carmona et al. (2003: 3), urban design "is about making places for people.

More precisely and realistically, [it is] the process of making *better* places for people *than would otherwise be produced*. (...) The idea that urban design is about making better places is unashamedly and unapologetically a normative contention about what it should be, rather than what it is at any point in time."

Making better places for people through urban design thus is a collaborative process of planned evolution (Parfect & Power, 1997), with a normative dimension. It is a holistic and integrated approach to the physical form of public space, implying the combination of design skills, physical planning, and the study of socio-economic factors to accommodate urban growth and necessary change according to *better* patterns *than would otherwise be devised*.

At a moment when rising concerns with the environment and a foreseen energy crisis have pushed urban design into the foreground of the sustainability agenda[5], the topical quest for more sustainable environments and more sustainable urban forms is unmistakably associated with the pursuit of a more normative role—and corresponding substantive alternatives—for urban design.

The Foundations of a New Theory of Urban Design

A normative theory advocating how cities ought to be regarding their urban form, and describing the design principles that underlie such approach has the potential to fulfill—in the words of Lewis Mumford (1961)—"the necessary utopian dimension of planning." Several authors have recently pointed out the need for a (new) normative theory of urban design with a substantive content to guide the planning process (e.g. Sternberg, 2000; Talen, 2002; Duany, 2002; Faisntein, 2003; Moudon, 2006). Like them, I suggest that New Urbanism, or neo-traditional urban planning, might provide such theory. To support this claim, it is appropriate to trace a brief overview of the historical

[5] E.g. see DETR/CABE, *By Design*, 2000; or the EU Working Group on Urban Design for Sustainability's Report of 2004.

genesis and evolution of urban design theories over the last decades, and show how New Urbanism is solidly grounded in the history of urban planning.

Predominant theories guiding urban design have established themselves since the 1960s in reaction to the failures of modern urbanism to produce a livable environment. The Modernist project of the functional city, which would become the dominant paradigm of twentieth century architecture and urban planning, was concerned with achieving progress and a better world through modernization. With regard to the design of the city, modernization meant a rejection of all past traditions of city making. The rational *progressivist* ideology of Modernism, exemplified by architects such as Otto Wagner, Le Corbusier, Walter Gropius, and Mies van der Rohe, was in turn a reaction against the romantic *culturalism* of "pre-moderns" such as Camillo Sitte and Raymond Unwin.[6] A pre-modern conception of public space, like that of Sitte at the end of the nineteenth century, stressed its enclosed character as a main requirement. Public spaces, as the city's "living-rooms," should offer closed vistas from any point within them (Sitte, 1889). Unwin, a key figure in the garden city movement, and a follower of Sitte's ideas, detailed the rules of design that should regulate the relationship between the public space and the private buildings surrounding it in order to obtain a desirable sense of place (Unwin, 1909).

Modernist city design frontally opposed this approach to public space. It advocated vast open spaces in order to provide a setting for a free and flexible location of buildings, hence undermining the close relationship between open spaces and the buildings around them. In Europe, the CIAM[7] manifestos of the late 1920s and 1930s,

[6] The terms Culturalism and Progressivism were first suggested by Françoise Choay, in her 1965 celebrated book *L'Urbanisme: Utopies et Réalités* to counterpose two ideologies which have run intermittently through Western culture over the last two hundred years. Simply put, Culturalism respects past traditions and envisions the future as a circular, or spiraling process of incremental evolution (a cultural-artistic stance); while Progressivism envisions the future as a series of radical breaks with the past, set along a straight line of evolution (a scientific-technological standpoint).
[7] C.I.A.M.- Congrès Internationaux d'Architecture Moderne, first assembled in 1928.

and particularly the *Athens Charter* of 1933, established the rules to achieve the efficient and functional city. The dominant industrial paradigm of the time governed this conception according to the principles of specialization, standardization, and mass production. The modernist building, as conceptualized by Le Corbusier, was “a machine to live in” and its design should follow the pure forms and simplified geometries of an “international” style, rapid to build and of universal application (Le Corbusier, 1929). The modernist city, also conceptualized as a solution of universal application, was equally envisioned as a functional machine, with its essential urban functions broken down into four basic components (housing, work, recreation, and traffic) separately planned and occupying separate urban zones, that would be assembled together—like in an industrial process—in a comprehensive master plan, by “value-neutral” and “apolitical” experts: the planners.

City planning, however, is inescapably political—there are no pure “technically correct” solutions—and much has been said about the failure of the modernist city model, even though it is still evidently pervasive in the way we keep building our urban environment (Duany, 2002). It is also acknowledged today that the modernist principles of specialization, standardization, and mass production applied to city planning have had severe impacts on the character of urban spaces, entire neighborhoods, and whole regions (Calthorpe & Fulton, 2001). Ultimately, modernist city planning gave rise to countless oversimplified urban areas rigidly separated by zoning, thoroughfares that serve no other function than the moving of vehicles from zone to zone, and more generally urban systems totally compliant with “unavoidable” increases in car dependency and consequent urban congestion, followed by highway building and suburban expansion, followed by more congestion, further highway building, and further suburban expansion (Newman & Kenworthy, 2003).

In response to the functionalist ideology, the universalism, and the anti-historicism of the Modern movement—and also against the urban and suburban environments thus created—a reaction started emerging in the 1960s among architects, planners, and theoreticians of the city. In continental Europe, one of the first critiques of the Modern movement came from Aldo Rossi, an Italian architect that described the city as a locus of "collective memory," a complex construct that withstands the passage of time; and thus emphasized the consequent importance of tradition and continuity of urban forms, especially the monumental and the vernacular, that convey a sense of place (Rossi, 1966). Another Italian architect and theorist, Paolo Portoghesi, also discussed the importance of classical archetypes and reinstated the importance of context for architecture (Portoghesi, 1983). Together with architects such as Spanish Ricardo Bofill and architectural theorists such as Italian Manfredo Tafuri they represent the neo-rationalist and neo-classicist European tendency that pioneered and popularized the use of the term "postmodernism" associated with the design professions.[8] Even though some might contend, with reason, that there is much more continuity than difference between the broad history of modernism and the movement called postmodernism (Harvey, 1989; Calthorpe, 1993)—in which case the proposals of the European neo-rationalist architects might be seen as just an ornamented, more organic form of late modernism—these architects/theorists made a noteworthy claim for the revival of the classical formal languages, stressed the importance of the study of precedents, and introduced a renewed respect for traditional and vernacular architecture. In this regard, the Norwegian architect, historian and theorist Christian Norberg-Schulz also addressed the significant topic of *genius loci*, or "spirit of place" by arguing that

[8] One should also include here North American practitioners such as the architect Peter Eisenman and the landscape architect Charles Jencks, both critical thinkers whose influential ideas and actual projects try to convey the deconstructivist theories of French philosopher Jacques Derrida; as well as architects Robert Venturi and Denise Scott Brown, whose work seeks an architecture of "complexity and contradition" inspired on popular and vernacular landscapes.

urban design should respect local traditions and the identity of places, and asserting that traditional morphologies might be interpreted in novel ways on condition that they do not harm the integrity of the place (Norberg-Schulz, 1979).

The most decisive contribution to an urban design theory that makes a comprehensive oppositional critique to the modernist city, however, would come from what became known as the Movement for the Reconstruction of the European City. The origins of the movement might be traced back to a collection of articles from a number of European historians and architects, which were assembled in 1975 and published in 1978 by a young Luxembourger architect and urban planner named Léon Krier. The book was seen as a manifesto, putting forward a theory that "deconstructs the functionalist system founded by Le Corbusier and institutionalized by the CIAM" (Delevoy, 1987:15).[9] The major premises of the Movement for the Reconstruction of the European City included: the physical and social preservation of historical centers as desirable models of collective life; the conception of public space as the primary organizing element of urban form; typological and morphological studies as bases for a new architectural discipline; and the importance of the history of the city toward reconstructing the street, the square, and the neighborhood (Krier, 1978). Krier, the most vocal representative of the movement, came out in 1980 with his own *Manifesto: the Reconstruction of the European City or Anti-Industrial Resistance as a Global Project*, and in 1981 with an article in the magazine *Oppositions*[10] entitled "Forward comrades, we must go back." He advocated the study of the best examples of pre-industrial urbanism and the "reconstruction of the old city with its social, typological and functional

[9] Robert Delevoy also claims that the book "acts as a guide, forms a corpus, develops a method [and] puts forward a theory, the absence of which has been cruelly felt since the decade 1930-40. It suggests a practice, which may well fill the gap created in 1960 by the setback of Brasília: a masterly demonstration and a striking failure of a 'way of town-planning thought'." *(Delevoy, 1978:15)*

[10] The magazine *Oppositions* was published from the early 1970s until 1984 by the Institute for Architecture and Urban Studies in New York, whose members included Peter Eisenman, Kenneth Frampton, Manfredo Tafuri and Rem Koolhaas.

complexity (...) to serve as a model for the transformation of suburbs into true and proper centers" (Krier, 1982:105). It is important to specify Krier's major principles for the reconstruction of the European city:

> "• A city can only be reconstructed in the forms of streets, squares, and quarters.
> • These quarters must integrate all functions of urban life, in areas not to exceed 35 ha [86 acres] and 15,000 inhabitants.
> • The streets and squares must present a familiar pattern.
> • Their dimensions and proportions must be those of the best and most beautiful pre-industrial cities.
> • Simplicity must be the goal of urban topography, however complex.
> • The city must be articulated into public and domestic spaces, monuments and urban fabric, squares and streets, classical architecture and vernacular building.
> • And in that hierarchy."[11]

Léon Krier has been one of the most persuasive neo-traditional architects and urban planners, and his momentous campaign for the recovery of the traditional European city model eventually crossed Atlantic borders to become one of the most influential sources of the North American New Urbanism movement. In Europe, he continues to be a leading and inspiring figure to all those who try to promote urban design principles and processes to achieve more sustainable environments, such as the contemporary movement for a European Urban Renaissance.[12]

In Great Britain, an important contribution to urban design theory, that also challenged the modernist city and particularly its focus on isolated "architectural objects" sitting on neutral space, came from the Townscape Movement. In the tradition of the Arts and Crafts Movement, and inspired by the late nineteenth century and early twentieth century's works of Camillo Sitte and Raymond Unwin, the movement emphasized the importance of the relationship between buildings and encouraged their arrangement so as to create enclosed public space. The movement's most well known contributor was

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[11] Krier, cited by Dutton (1986).

[12] The European Urban Renaissance is an architectural movement publicly launched in 1996 at the Second Bologna Triennale–with the exhibition of a large number of projects from different countries–and aiming at developing the European cities according to the principles of the Traditional City and the New Urbanism.

Gordon Cullen, who developed the idea of "serial vision," an explanation of how the urban realm is experienced and visually perceived by a walking subject, as an unfolding sequence of street scenes (Cullen, 1961). Even though, as Parfect & Power (1997) judiciously remarked, vehicles are absent from virtually all the street scenes depicted as "concise townscapes" by Cullen, his major contribution was in calling attention to the importance of the formal components of urban ensembles, as opposed to isolated buildings; and to the human experience of urban space.

Criticism of the modernist city was particularly prolific in North America during the 1960 and 1970s. On one hand, the procedural aspects of rational top-down planning were harshly criticized as authoritarian, and a first move toward more effective community participation in the planning process was brought out, first by Paul Davidoff then by others, with the concept and practice of "advocacy planning," according to which the planner should act more like a mediator between diverse stakeholders than like an elitist "apolitical" expert in charge of the execution of a master plan (Davidoff, 1965). On the other hand, a growing concern with humanizing a city that was being drastically transformed by post-war sweeping schemes of urban renewal, ripped apart by huge engineering works, especially highways, and voided by mass-suburbanization, made way for a vehement reaction among all those concerned with the future of the urban environment. The most eloquent critique—in fact a true assault against the modernist planning principles of CIAM—was launched in 1965 by American-born Canadian urbanist, writer and activist Jane Jacobs. Her celebrated book *The Death and Life of Great American Cities* was, and still is, a persuasive portrait of the social success of the old urban patterns rejected by modernism. She criticized the "separation of uses" doctrine at the core of modern zoning, while advocating mixed-use neighborhoods with wide sidewalks, narrow streets, short blocks, and plenty of pedestrian connections (Jacobs, 1965).

By 1960, Kevin Lynch, an urban planner, writer and professor at MIT also interested in the ways in which the city is lived and perceived by people, had already developed his celebrated theory of "imageability," that is, the identification of the elements of urban structure that need to be present to create a strong visual image in the eye or mind of the beholder (Lynch, 1960). On his most famous book, *The Image of the City*, based on empirical research on how individuals perceive and navigate the urban landscape, he established the momentous notion that people come to understand places in consistent ways, according to "mental maps" formed by five main elements: paths (the streets, sidewalks, trails, and other channels in which people move); edges (perceived boundaries such as walls, buildings, and shorelines); districts (relatively large sections of the city distinguished by some identity or character); nodes (focal points, intersections, and points of intense activity); and landmarks (readily identifiable urban elements which serve as reference points) (ibid). Together with urban design professor Donald Appleyard and J.R. Meyer, Kevin Lynch also explored the way we perceive the urban environment while driving, and its implications for urban design (Appleyard et al., 1964). Some years later, Appleyard's book *Livable Streets* (1980) helped understand the "ecology" of the street, and how it can be severely impaired by traffic; it also established that on "livable streets" the needs of car drivers should be secondary to the needs of other users, such as pedestrians, bicyclists, and playing children.

Paralleled by concerns with the decline of the public realm expressed by historians (Lewis Mumford, 1961), philosophers (Jurgen Habermas, 1962), and social scientists (Richard Sennett, 1970), concerns with the decline of meaningful public space were conveyed by Christopher Alexander, an Austrian-born American architect who, together with Serge Chermayeff, argued that "the spaces between buildings are as important to the life of the urban man as the building themselves" (Chermayeff &

Alexander, 1963)[13]. Inspired by Sitte's and Lynch's methodologies, Alexander sought "a timeless way of building" (Alexander, 1979) and together with five other architects, professors, and city planners developed a linked hierarchy of 253 related "patterns" ranging in scale from the structuring of a large region to the design details of a single house.[14] Based on close observation of medieval cities, the idea of an archetypical "pattern language" that is deeply rooted in the nature of things, and that can be used virtually at all scales of spatial intervention, introduced the ecological notion that spatial and formal patterns do not work in isolation, as they are (or should be) part of a coherent, interconnected whole (Alexander et al., 1977).

Based on the urban visions and theoretical models for the reconstruction of the European city proposed by Léon Krier, the "pattern language" theory of Christopher Alexander, and also the founding proposals of late nineteenth century British urban planner Ebenezer Howard[15] the idea of neo-traditional urban design evolved during the 1980s in the United States. The two most well known neo-traditional approaches to urban design were the Pedestrian Pocket proposal of architect Peter Calthorpe (1989), which evolved into the present-day urban planning philosophy of Transit-Oriented Development (TOD); and the model of Traditional Neighborhood Development, or Traditional Neighborhood Design (TND) advanced by architects Andrés Duany and Elizabeth Plater-Zyberk (1990), which evolved into the contemporary movement, theory and practice of New Urbanism. Proponents of these two concurrent approaches to urban

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[13] French edition, 1972: p.66.

[14] *A Pattern Language* was the result of eight years of collaborative work among Christopher Alexander, Sara Ishikawa, Murray Silverstein, Max Jacobson, Ingrid Fiksdahl-King, and Shlomo Angel.

[15] Ebenezer Howard (1850-1928) was the author of *To-Morrow: A Peaceful Path to Real Reform* (1898) and the founder of the Garden Cities Association, today known as the Town and Country Planning Association. He advanced the idea of "garden-cities"—administratively independent and mixed-use new-towns of limited size, planned in advance, and surrounded by a permanent green belt of agricultural land. His garden-city diagrams became widely known and extremely influential to this day. In his lifetime two garden cities were planned and partially developed (Letchworth and Welwyn). Both served as models for the post-world-war II New Towns implemented by the British government.

design eventually coalesced into a unified group—the Congress for the New Urbanism—in the early 1990s.

Calthorpe's Pedestrian Pocket—the building block of Transit-Oriented Development—is more regional in scope than TND. It entails the restructuring of suburban regions along mass-transit lines, with medium-high density mixed-use "pockets" of employment, stores, recreation, civic services and affordable apartments adjacent to transit stops, surrounded by less dense residential development within a quarter-mile to one-half mile (0.4 to 0.8 km) walking radius of the mixed-use hub (Calthorpe, 1989; 1993). Transit-oriented development constitutes a serious attempt to provide a sustainable alternative to predominantly car-oriented suburban sprawl. Traditional Neighborhood Design, on the other hand, is more concerned with the elaboration of design guidelines (or urban codes) in order to accommodate suburban growth in the manner of towns. It challenges current zoning codes and favors traditional patterns of placemaking that respect human scale and promote walkable urban environments.

To counteract the actual splintered suburban sprawl of residential pods, office parks and shopping malls dispersed along collector roads and highways, i.e. car-oriented development, TND proposes walkable mixed-use urban areas structured by a grid of interconnected streets, squares and boulevards, lined by buildings so as to create well-defined enclosed public spaces. Like in a TOD, a denser multi-functional center with mixed-use buildings is the focal point of a less dense residential area with about a quarter mile radius (the equivalent of five minutes walking) that should accommodate diverse social classes and age groups (Krieger & Lennertz, 1990; Katz 1994).

The movement known as New Urbanism was formally launched in 1993 at the first Congress for the New Urbanism (CNU) in Alexandria, Virginia. Its founders—Andrés Duany, Elizabeth Plater-Zyberk, Peter Calthorpe, Elizabeth Moule, Stefanos Polyzoides,

and Daniel Solomon—promptly initiated a vigorous campaign directly challenging conventional suburban development as sanctioned by existing zoning laws, and advocating new ways of designing the neighborhood, the city and the region. Since 1993 the CNU has met regularly every year in a different city, and established a number of task forces and initiatives to study and work on a wide range of related issues, such as the environment, education, social equity, implementation, transportation, and inner-city revitalization. The movement has attracted a great number of professionals from diverse fields, as well as the growing support of public officials, politicians, citizen activists, developers and realtors. Moreover, given an increased awareness of the intertwined problems of global warming and fossil-fuel dependency, New Urbanism has progressively merged, along the first decade of the 21st century, with sustainability; it "has gone from a design movement recognized primarily for good placemaking, to one that is perceived as beneficial to the environment" (Steuteville, 2008:2). Concurrently, an increasing body of research is showing that New Urbanism developments are energy-efficient and contribute to reduce greenhouse gas emissions (New Urban News, 2008).

New Urbanism principles have been clearly stated, described and illustrated in the *Charter of the New Urbanism* (1996), as well as in a large number of books and articles.[16] A summary list of the key principles of New Urbanism theory include: polycentric metropolitan regions that are composed of cities, towns, and neighborhoods with identifiable centers and edges; compact development that preserves farmland and environmentally sensitive areas; infill development to revitalize city centers; mixed land uses rather than single-use areas; transit-oriented development; interconnected streets, friendly to pedestrians, often in grid-like patterns; the use of street, block, and well-

[16] Among other works, see Peter Katz, 1994; John Dutton, 2000; Andrés Duany, et all, 2000; Peter Calthorpe & William Fulton, 2001; Matthew Carmona et al, 2003; Jonathan Barnett, 2003; David Walters & Linda Brown, 2004; Matthew Carmona & Steve Tiesdell, 2007; Robert Steuteville et al., 2007.

matched building typologies to create coherent urban form; well-designed and well situated civic buildings and public gathering places; discreet placement of garages and parking to avoid auto-dominated landscapes; high-quality parks and conservation lands used to delineate and connect neighborhoods and districts; and architectural design that shows respect for local history and regional character (Katz, 1994). Gerald Frug (1999), professor of Law and local government expert, synthesized the New Urbanism project very clearly, under six interrelated rubrics:

- *Multiuse Environments.* New urbanists want to replace current zoning ordinances mandating the separation of different areas by function with ordinances that require the reintegration of commercial, work, and home life. And they want to incorporate schools, parks, public squares, and public buildings into these multiuse neighborhoods as well. They also reject requirements that define residential neighborhoods by income (minimum lot sizes, exclusion of apartment houses, and the like) and favor instead the accommodation of different housing types—small and large, multifamily and single-family, rental and owner-occupied, units above stores and detached houses—within a single neighborhood.
- *Grid Systems.* New urbanists restructure old neighborhoods and build new ones in a grid pattern, i.e., a web of interconnected public streets. They thus have repudiated the traditional suburban pattern of hierarchical street systems. A grid system, they argue, facilitates intra-neighborhood connections and creates redundant ways of going from one place to another, thereby relieving congestion on collector and arterial streets.
- *The Needs of Pedestrians.* New urbanists design neighborhoods to give priority to the desires of pedestrians over the convenience of car drivers. This involves, first of all, changing zoning ordinances and street design in the manner suggested above, so that people have destinations they want to walk to and streets on which

to walk. It also involves designing streets so that people feel comfortable walking along them. Car-oriented streets are built for speed: they have few intersections, soft curves, and large, easily accessible parking areas. Pedestrian oriented streets, by contrast, limit the speed of passing cars, lead to nearby places, and are lined with trees and parked cars to protect pedestrians from traffic.

- *Public Transportation.* New urbanists promote public transit, as well as walking in an effort to reduce the current level of reliance on transportation by car. They do not seek to eliminate cars but to rebalance the three forms of transportation. Public transportation and walking, they say, reinforce each other. Public transportation is most useful if one can easily walk to and from the station, and walking is encouraged if the streets are lined with stores and houses rather than parking lots and garages (these they place behind the stores and houses, not on the street).
- *Public Space.* New urbanists make public space—not just streets but also squares, parks, and buildings—the focal points of urban life. Public squares and parks, along with multiuse zoning, interconnected street design, and pedestrian-focused neighborhoods, help create an urban feel for city life. Post offices, meeting halls, day care centers, and other public buildings can perform this function too, particularly if they are located on the squares and parks. All of these forms of public space are important because they are the traditional place where one encounters strangers as well as neighbors.
- *Centers and Edges.* New urbanists want to define centers and boundaries for neighborhoods, cities, and the region as a whole. They think that neighborhoods need edges because walkable neighborhoods are best kept small; they should also have a center (preferably, public buildings located in public spaces such as parks and squares) that creates an urban feel. City centers and edges, in turn,

> create a comprehensible map for the multiplicity of neighborhoods linked together by interconnecting streets. Finally, regional centers and edges allow neighborhoods and special districts to fit into a scheme for the metropolis as a whole. And regional edges define a limit for suburban sprawl.[17]

The success of the first new town designed and built according to neo-traditional design guidelines—the famed Seaside, Florida, designed by DZP[18] in 1981—together with the determined activism of New Urbanism advocates to influence planning policy nationwide, resulted in a widespread acceptance of this new model by an ever-growing number of municipalities, as an alternative to conventional suburban development.[19] Several advocacy groups have equally embraced these principles and are currently pressing for development policies that echo New Urbanism and TOD's ideas. The Regional Plan Association, for example, has begun urging municipalities in the tri-state New York/New Jersey/Connecticut metropolitan region to plan TOD-like "compact clusters" along regional commuter lines (Katz, 1994).

In the meantime, neo-traditional urbanism was concurrently emerging in Europe and, not surprisingly, with particular prominence in Great Britain. After all, the originality of New Urbanism laid in a close study and contemporary reinterpretation of two old British regional planning and urban design theories: Ebenezer Howard's garden-city, and Raymond Unwin's streets and plazas. In reaction to the poor design of most post-war development in England, which was "widely criticized for its monotonous uniformity and its lack of local character" (Ellin, 1996:81) a renovated interest in pre-modernist design principles and processes emerged in the late 1980s, mostly as a result of a campaign initiated by the Prince of Wales. In 1988, Prince Charles commissioned Léon Krier to

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[17] Adapted from Frug, 1999: 151-152.
[18] Duany, Platter-Zyberk & Company (DPZ) is a Florida based architectural firm, founded in 1980 by Andrés Duany and Elizabeth Plater-Zyberk.
[19] There are today all across the U.S. many hundreds of developments designed and built according to neo-traditional principles.

draft the master plan of Poundbury, an experimental new town on the outskirts of Dorchester, designed according to traditional European urban patterns. Andrés Duany was invited to devise the building code (Krier, 1989). A year later, the Prince published a book entitled *A Vision of Britain: A Personal View of Architecture*, which triggered all over England a fierce public debate on the spatial quality of places, thus bringing urban design—and in particular neo-traditional urban design—definitely to the planning policy agenda.

Prince Charles was also a sponsor and an active member of the European Urban Renaissance movement—an architectural movement aiming at developing the European cities according to the principles of the traditional city and New Urbanism—launched on 1996 with the exhibition *A Vision of Europe* at the Second Bologna Triennial of Architecture and Urbanism.[20] In Great Britain, the Princes' Foundation for the Built Environment is today actively engaged in using the knowledge gained on the Poundbury project to promote the application of the underlying neo-traditional planning and design principles elsewhere in the nation. The foundation sponsors strategic initiatives with major policy partners; promotes developments in partnership with the private sector and public agencies; teaches skills in successful place-making through seminars and workshops; and develops and disseminates new examples of innovative tools for building successful communities.[21]

Concurrently, in 1999 the UK's Urban Task Force, chaired by the British architect Richard Rogers, issued a report entitled *Towards an Urban Renaissance*,[22] which was influential in the re-writing of a new generation of planning policy guidance relating to the design quality of new residential environments (Tiesdell, 2002). Steven Tiesdell's

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[20] The exhibition *A Vision of Europe*, making the case for neo-traditional urbanism, traveled all over Europe from 1996 to 2001.
[21] See http://www.princes-foundation.org
[22] The "Rogers Report" examined the question of how 4 million projected new homes over 25 years, might be accommodated in the UK without further encroachment into the green belt.

comparative study of North American New Urbanism and two pieces of governmental guidance for residential design in England shows a remarkable convergence of objectives (ibid). In effect, most principles of New Urbanism can be found either on *Places, Streets and Movement* or on *By Design–Urban Design in the Planning System*, the two sets of design guidance issued by the Department for Environment, Transport and Regions (DETR) in 1998 and 2000 respectively. Andrés Duany also confirms a "pronounced similarity between the intended outcomes" of American New Urbanism and the European Urban Renaissance agenda—which is not surprising, since "the basic principles of traditional town planning seem to converge on a recurring manifestation of the human habitat—not only across cultures, but across time" (Duany, 2002: 259). Furthermore, Marc Ouellet's study of the relationship between New Urbanism and contemporary neo-traditional urban design in Europe showed that while Léon Krier has operated "as a bridge between the Americans and the Europeans" and "the Prince of Wales has been instrumental in setting up neo-traditional organizations in the UK and Europe," the Congress for the New Urbanism "represents a unified and cohesive template for European neo-traditional organizations" (Ouellet, 2004:1). This trans-Atlantic hybridization is also patent in such dynamics as the recent creation of a CNU-Europe, or the nomination in 2005 of an American New Urbanist[23] for Chief Executive of the Prince's Foundation in England.

It is thus apparent that, on both sides of the Atlantic a new urban planning ethos emerged by the end of the twentieth century in reaction to the conventional paradigm of modernist planning and urban design. What all these contemporary movements toward a neo-traditional design praxis seem to suggest is the emergence of a viable new theory of

[23] Hank Dittmar has been Chief Executive of The Prince's Foundation for the Built Environment since January 2005. Until 2008, he was also Chairman of the Board of Directors of the Congress for the New Urbanism. [http://www.princes-foundation.org/index]

urban design that may effectively challenge the deeply entrenched theories and practices of Modernist urbanism.

Over the last decades, planning theories have gravitated to such matters as "rationalism, incrementalism, participation, group process and communication—concepts that are properly a part of *procedural theory*" and which focus on the dynamics of knowledge, power and decision-making "on behalf of the community" (Sternberg, 2000: 265). However, and although such theories might shed light on the spatial inequities of the modern city, they offer few buildable alternatives, and tend to operate at a high level of abstraction (Harvey, 1997). Planning practitioners need an accompanying *substantive* planning theory capable of guiding concrete urbanization processes. As Peter Hall observed, uniquely procedural theories—mostly coming from academics that tend to be "divorced from practice"—are sometimes "simply irrelevant, even completely incomprehensible, to the average practitioner" (Hall, 1996: 340). It is thus obvious, as Cliff Ellis (2002) pointed out, that planning theory cannot subsist on process alone.

To meet this challenge New Urbanism and its European counterpart movement for an Urban Renaissance are firmly positioned within the history of ideas and theories of urban design. By projecting a concrete vision of what cities should be in the future New Urbanism defines itself as a normative theory focused on the rules of "good" city form. Susan Fainstein (2003), an advocate of "Equity" planning theory, recently included New Urbanism among the three most important "new directions in planning theory," largely because of its ability to specify the substantive elements of good city form lacking in theories exclusively devoted to the procedural aspects of planning, like communicative theory and equity theory. Conversely, as Emily Talen (2003) has noted, empirical knowledge about physical urban form is still weak, and it is possible that, like Anne Vernez Moudon (2006) has recently argued, further empirical research is still necessary to test and validate New Urbanism's ideas and thus expand its substantive basis. That

should not constitute a problem, however, to a movement that wants to emulate and update historical urban patterns and common urbanization processes, since there is a vast repository of precedents to be studied in successful existing cities and towns. Together with a growing number of New Urbanism projects, existing cities and towns, as well as New Urbanism's nemesis—the suburbs—"hold all the data necessary for appropriate research, providing a long-term empirical foundation of applied planning and design principles" (Moudon, 2006: 39). Hence, New Urbanism appears to represent a sound theory of urban design capable of inducing more sustainable cities and city making processes, and that offers, like any good theory does, guidance to practice.

"Post"- Modernist Challenges

While New Urbanism and Urban Renaissance strive for properly planned metropolitan regions structured by mixed-use and pedestrian-friendly neighborhoods, districts and corridors, there are those who endorse contemporary suburban sprawl as the inevitable physical expression of contemporary modes of production. Shaped by current political and economic forces, the "fragmented" city—archetypical of the postmodern urbanscape, where "the periphery has displaced the center" and urban space is becoming a "polyglot, polycentric, polycultural pastiche" (Dear, 2000: 14)—is seen by some not as a problematic reality in need of solutions but rather as a structural condition to which we have to resign and even willingly embrace. American journalist and author Joel Garreau (1991), for example, suggested that the "edge city"—an automobile-oriented concentration of offices, shopping and entertainment outside a traditional planned urban area, usually around a freeway intersection—would be the 21st century urban form par excellence.

Once an American phenomenon, the edge city became a ubiquitous suburban form all over the world, even though the model has proven its severe limitations. A

concentration of workplaces, shopping-malls and entertainment activities only accessible by car is definitely a non-sustainable urban environment either from a social justice perspective—because it accentuates the gap between non-mobile poorer populations and relatively wealthier car-owners—or from an ecological point of view—because it generates traffic congestion and unnecessary car-trips, thus increasing energy spending, air pollution, and global warming. As Lang (2003) has recently noted, the revitalization of edge cities may well represent the major challenge of 21st century urban planning.[24]

Theorists and practitioners who see Los Angeles as the new paradigm of city form and have challenged the classical model of concentric urban growth advanced by the Chicago School in the early 20th century have also, by extension, contested the polycentric region as currently proposed by New Urbanism. Post-structuralist geographer Michael Dear, one of the foremost advocates of the Los Angeles School, argued that contemporary urban development is a "semi-randomized process" shaped by capitalist market forces that generate an "urban aggregate characterized by acute fragmentation and specialization," and define the contemporary city as a "non-continuous collage of parcelized, consumption-oriented landscapes devoid of conventional centers yet wired into electronic propinquity" (Dear, 2000: 159). However, the production of "consumption-oriented landscapes"—basically consistent with a "let it happen without control" model—is demonstrably unsustainable, and incompatible with the promotion of a healthy, socially just urban environment. Although Dear's model of the city as "gaming board"[25] might be

[24] A fine example of what the revitalization of an edge-city according to New Urbanism principles might look like was clearly depicted on a pair of drawings created by the (tri-state, NY-NJ-CT) Regional Plan Association to show alternative growth scenarios for the New York metropolitan region. The drawings can be consulted, for example, in *The New Urbanism: Toward an Architecture of Community* (Katz, 1994) on page xxxvi.

[25] The city as "gaming board" is conceptualized by Michael Dear as a partitioned territory (gaming board) consisting in interdictory spaces (individual cells) that might be occupied by ten different exclusionary urban modes (gaming "pieces"): edge cities, theme parks, gated communities, street warfare, corporate citadels, ethnoburbs, containment centers, consumption opportunities, command & control centers, and spectacle. Urban development is defined by a quasi-random process whereby capital touches down, as if by chance, in the parcels of land (or cells) that make up the "consumption-oriented landscape" of the postmodern urban metropolis.

correct in describing processes of spatial appropriation that ought to be rightly contested through political action, as he implies, it proposes no physical solutions that might constitute alternative, more equitable, metropolitan spatial patterns.

Moreover, it is questionable that increased mobility, instant communication and the Internet have rendered traditional urban spaces obsolete. As William Mitchell (1999) has asserted, even if the global digital network is a whole new urban infrastructure bound to change dramatically the form of our cities, it is also certain that the power of place will prevail, as people still value meeting face-to-face, and tend to gravitate to places that are rich in interactions and that possess unique qualities that "cannot be pumped through a wire." New Urbanism's proposals thus cannot be simply dismissed, like Dear does, as an attempt to "return to origins" derived from "nostalgia for professional identity" (Dear, 2000: 123). The use of traditional elements of urban form to shape the urban environment does not entail a superficial emulation of a lost past, as it is rather, like Moudon maintains, "the outcome of known practices that have a record of accommodating greatly different urban processes" (Moudon, 2006: 2). There is indeed no concrete reason to believe that polycentric regions and walkable mixed-use neighborhoods cannot constitute the adequate and necessary physical support of a new virtual geography of electronic meeting places. On the contrary, they may even become the indispensable loci of human activity and collective interaction of an electronically interconnected, but socially disenfranchised world.

Neo-traditional urban design has also faced strong opposition from within the design professions. Among those that developed a deconstructionist rhetoric and style in respect to the city, Dutch architect Rem Koolhaas is perhaps the most articulate practitioner and theoretician. Claiming that cities are solely shaped by market forces and cannot be controlled by design, Koolhaas sees the postmodern fragmented city as a structural condition that we should embrace and celebrate. As a result, his postmodern

"style" is mimetic of the fractured urban condition. Koolhaas's urban dystopia holds a proposal to further the congested, chaotic, fragmented, incoherent pattern of contemporary urbanization. Sometimes his conceptual projects celebrate the principle of "urban congestion" as "the essential condition for realizing the architect's modern dreams" (Koolhas, 1994: 125). Other times they reflect Koolhaas's refusal to affirm any positive urban form: space is unclearly defined by "nonevents" accompanied by a discourse of what should *not* happen, along with vaguely defined regions that *must* "surrender to chaos," by what he means "urbanization" (Koolhaas, 1995: 974). Additionally, he also shows a derisive contempt, rare in an architect, both for buildings and urban design. In a competition project for a new town in the vicinity of Paris, after defining the spaces where nothing should happen (obeying to a Lacanian "logic of absence") he would "abandon the residue [the areas that were supposed to be urbanized] to what the French call *merde*[26]—the average-contemporary-everyday ugliness of current architecture" (ibid: 977). Beyond Le Corbusier's dreams of regimented mega-cities, in yet another project included in the vast compendium *S, M, L, XL*, he questions: "Why not conceive bastard cities, gigantic architectural accumulations, huge buffer buildings … that simply absorb all the flows, swallow the goods, the cars, the people...?" (ibid: 999). Following the Modernist archetype, such huge buildings should be "by definition, most efficient." The postmodernist bend comes as an afterthought: the buildings are to be located "in places where people least want to go" and should have "infinite capacity for the absorption of bridge-and-tunnel people" (ibid: 999). This final piece lifts the veil of hyper-conceptualization to reveal that contempt goes not only for "plankton—the typical accumulation of inferior buildings" (ibid: 1096) but also for the ordinary people—human plankton perhaps—that have to use the city. It appears that Koolhaas would like to reserve the *places where people most want to go* for the happy

[26] Literally meaning, "shit."

few that can afford them. For those who still aspire to act coherently with respect to change, however, such proposals seem if not a parody, a demagogic propaganda of an outrageous growth-machine, and an unacceptable acquiescence with "inevitable" socio-spatial fragmentation. A postmodern urban *condition* does not necessarily imply the adoption of a postmodern urban *style* that mimetically reproduces and reifies such a condition.

In effect, if one did not grow to be a moral skeptic and a nihilist, like some postmodern deconstructionists appear to have become, one must try to find positive alternatives to the socially disruptive, aesthetically unattractive, functionally congested, and environmentally unsustainable urban patterns of contemporary urbanization. It is necessary to ask why do we continue designing, promoting, and building exclusively residential areas increasingly targeted to "market segments," exclusively commercial shopping malls, exclusively business office parks, and exclusively traffic-oriented thoroughfares? Is it not possible that, like Andrés Duany asserts when referring to the current planning system, "what is assumed to be a neutral, market-responsive and technocratic system is actually heavily biased toward a certain model," (Duany, 2002: 252) a model responsible for perpetuating Modernist planning despite its empirical failure? And if so, how can New Urbanism and Urban Renaissance inspire and reform existing planning processes in order to achieve more inclusive, attractive, functional, and sustainable spatial outcomes? This dissertation constitutes an attempt to answer to such questions.

Conclusion

As a product, urban design materializes concrete formal solutions that shape the built environment either through plans or urban development projects. As a process, it is a collaborative practice between designers and non-designers that brings, or should

bring together a multitude of stakeholders with a role to play in the creation of urban environments and places—including central and local governments, local interest groups, property developers and investors, and the local community at large. As a theory, urban design is normative—in the sense that it aims at discerning the design principles that underlie good urban form; and often prescriptive—whenever it proposes substantive guidelines to control urban development.

The rising influence of neo-traditional urban planning and design—either in the United States via New Urbanism, or in Europe via the European Urban Renaissance—might be an answer to the failures of modern urbanism to produce sustainable urban environments. While some opponents assume that cities are solely shaped by market forces and cannot be controlled by design, there are strong reasons (among which the current economic crisis and a foreseen energy crisis are not the lesser factors) to believe that neo-traditional urban design patterns—such as compact development, mixed land uses and housing types, plenty of public space, pedestrian oriented design, and interconnected street networks—can contribute to reform the sprawling development pattern, as well as guide the redevelopment of existing urban areas, and thus contribute to create more cohesive and sustainable communities.

In order to systematize an approach to urban design that might guide the study's field research, the next chapter will delve into the normative qualities of urban design from a neo-traditional perspective.

III. THE NORMATIVE QUALITIES OF URBAN DESIGN

As stated in the previous chapters, this study aims at learning how can urban design—and in particular neo-traditional urban design—inspire and reform existing planning processes so as to counteract incoherent development and promote more inclusive, attractive, functional, and sustainable urban environments. Theory suggests that urban design is a multi-dimensional concept. It is thus appropriate to systematize an approach to neo-traditional urban design that might guide the empirical research on a concrete planning system and its spatial outcomes.

Based on the approach developed in *Public Places, Urban Spaces: the Dimensions of Urban Design* (Carmona et al., 2003), this study considers four major substantive dimensions of urban design: the functional, the social, the morphological, and the temporal. It purposefully leaves out the perceptual and visual dimensions, also addressed by Carmona et al. These more subjective aspects of urban design refer essentially to the way people experience the urban environment, and how the visual quality of urban space may help create a "sense of place." They have been addressed by numerous studies of environmental psychology, and are probably more appropriate to explore in phenomenological studies of urban perception than in an inquiry that aims at uncovering more substantive urban design contents to guide the planning process.

This section will briefly systematize the functional, social, morphological, and temporal dimensions of urban design according to a neo-traditional perspective, which will be subsequently operationalized for field research, as described in Chapter VI. This artificial separation is for the purpose of clarity in exposition and analysis only, as in reality these overlapping dimensions work together in the shaping of the urban environment. Ultimately, the research will emphasize the holistic nature of urban design.

The functional dimension

The functional dimension of urban design deals primarily with the distribution of building uses, as well as with the patterns of mobility and movement in the public space—which is understood as a setting for diverse activities. A key principle of Modernist urban design, functional zoning, or the regulation of land uses by homogeneous tracts of the same activity, has been the focus of an active, long-lasting criticism (e.g. Jacobs, 1961; Krier, 1990; CNU, 2000). As result, the mixing of uses has become a commonly accepted urban design objective among planners, architects, and scholars. Nonetheless, powerful market forces continue to support and justify mono-functional urban areas and mono-functional buildings. First, property owners and developers seek to promote the "highest and best" possible use of their property; second, the building and real-estate industries tend to specialize in particular development types (Carmona et al., 2003). The result is a de facto aversion to multiple uses, led by the market, in spite of growing evidence of its benefits, pointed out by research. As Gerald Frug (1999) has shown, zoning remains a pervasive template for the creation of new urban and suburban districts; furthermore, Andrés Duany (2002) even suggests that there is a systemic objection to change embedded in the interlocked modus operandi of banks and lending institutions, realtors, and traffic engineers. The urban design challenge in this respect is to exploit the synergies of multiple uses that can potentially translate into greater urban vitality and street life; more convenient access to facilities; reducing car dependency; minimizing travel-to-work commuting; promoting socially diverse communities; and providing greater opportunities for social interaction as well as more choices of lifestyle, location and building type (Llewelyn-Davies, 2002).

The issue of density, and particularly residential density, is also relevant for the functional dimension of urban design. Schemes of neighborhood design for sustainability, such as Peter Calthorpe's idea of "pedestrian pockets" and transit-oriented

development (TOD), have stressed the importance of compact development in order to make public transit viable (Calthorpe, 1993). Compact and higher density (and intensity of) development is currently advocated by most planning and design theories even though societal studies often reveal a conflicting sociocultural preference for lower density environments and for car-based mobility (Breheny, 1997). The contemporary planning ethos also favors the design of pedestrian-oriented rather than car-oriented urban environments. An over-reliance in traffic engineering standards for the design of the road system over the last decades has led to over-simplified, car-efficient street layouts that often ignore the most basic standards of design for the pedestrian (Calthorpe, 1993). Moreover, the inescapable energy crisis of this century is likely to have deep repercussions in the way we live. Kunstler (2005), for instance, envisions a post-globalist society where severe energy shortage will demand drastic downscaling at all levels. As finite natural resources like oil and natural gas are rapidly waning and alternative energies fail to materialize in ways that can satisfy current needs, rising transportation costs of people and goods will render existing land-use patterns obsolete. In the post cheap-oil society of the future, as envisioned by Kunstler, everything—from food-production to everyday commerce, from jobs to services, from schools to recreation—will have to be closer to home; and while big cities, edge cities, and suburban mega-structures dependent on huge amounts of gas and electricity will have colossal problems to remain viable, the most successful urban places will be, most probably, those closer to the model of the traditional town or small city served by an agriculturally productive hinterland.

Hence, in a car-oriented culture that is spending energy increasingly beyond its production capacity, urban design's challenge will be the development of sustainable land-use patterns and pedestrian-oriented public spaces that can offer a choice of

modes of travel and enhance the movement of people and goods as well as the experience of “staying fixed” rather than that of being “mobile.”

Functionally, neo-traditional urban design respects the following principles:

- Urban areas are multi-functional, with residential and commercial uses, as well as businesses, green areas for recreation, and public buildings.
- The public space network includes a number of public gardens and parks interconnected by tree-lined streets.
- Residential areas have a center with focal activities, including the offer of daily goods (groceries, etc.) and a transit stop within walking distance (less than 400 meters, or 1200 feet) of most dwellings.
- Public buildings, such as post offices, meeting halls, day care centers, etc. are located on (central) squares and parks.
- Residential density is enough to ensure commercial activity and a transit system.
- Building density decreases from the center towards the periphery of the urban area.
- Most central buildings are mixed use (residential and commercial; or residential and business).
- There is a wide range of housing types regarding unit size—and market price.
- There are residential units to rent as well as residential units to sell.
- Parking lots and garages are located behind the stores and houses, and not on the street.
- Car parking along residential streets is preferably parallel to the sidewalk.

The social dimension

The social dimension of urban design concerns the relationship between physical space and social activities. It also implies the interrelated notions of "public space" and "public life." The social dimension of urban design raises difficult questions regarding the effects of design on individuals and social groups. The claim that the physical environment has a determining influence on human behavior is dismissible as environmental determinism. However, as Peter Calthorpe (1993: 9) has argued, "it is just as simplistic to claim that the form of communities has no impact on human behavior as it is to claim that we can prescribe behavior by physical design." In fact, while design by itself might not be enough to bring about social change, the physical form of urban places does inhibit certain social activities while making others possible (Moughtin, 2003). Concurrently, the understanding of public space as the network of sites and settings of public life entails the notion that public spaces must ideally function as a forum for political action and representation; as a "neutral" or common ground for social interaction; and as a stage for social learning, personal development, and information exchange (Loukaitou-Sideris & Banerjee, 1998). Public space is not only made of streets, squares and public open spaces but also of a series of "third places"—after home as first and workplace as second (Oldenburg, 1999)—such as sidewalk cafes, pubs, bookstores, post offices, restaurants and corner stores that make up a set of informal socio-cultural transactions. The ability of the built environment to provide such informal "third places" is thus a significant feature of good urban design.

Public life, however, is increasingly thriving in other types of places such as shopping malls and theme parks which have abandoned the central city and turned the back on its surroundings, inside mass-consumption, fortress-like, suburban enclaves (Ellin, 1999). Despite their popularity, these privately managed and controlled environments lack many of the defining characteristics of truly public spaces of

encounter, and their proliferation raises serious questions regarding the privatization of the public realm and the threat of the "end of public culture" (Sennet, 1977). Ultimately, and regarding the dialectical tensions between global trends and local "cultures of place," it might be useful to explore the principles of the Slow City (CittaSlow) movement. This movement, recently created in Italy as a grass-root response to big business and globalization, as well as in reaction against the increasingly fast pace of life brought in by informational technology, responds to the growing need of subjective settings—specific places or communities—that people recognize as their own because they respect local, traditional cultures, a relaxed pace of life, and conviviality (Knox, 2005). As far as the social dimension of urban design is concerned CittaSlow principles include working towards calmer and less polluted physical environments, conserving local aesthetic traditions, fostering local crafts, produce and cuisine, promoting local distinctiveness and a sense of place, and respecting the traditional rhythms of community life.

Socially, neo-traditional urban design respects the following principles:

• Residential urban areas integrate diverse socio-economic groups, as well as diverse age groups.

• Public spaces provide adequate places where people can circulate, socialize, and rest safely and comfortably.

• Public spaces provide places to engage in "people watching" (e.g. sidewalk cafes).

• Public spaces are truly accessible to all, without exclusion, be it social, economic, or due to physical handicaps.

. • There are places that sustain an informal public life (e.g. the neighborhood café, the grocery store, etc.) where people can casually meet.

• There are central, easily accessible, cultural places appropriate to social gatherings—such as theater houses, movie theaters, museums and art galleries.

The morphological dimension

The morphological dimension of urban design refers to the layout and configuration of urban form and space. Morphologically, there are two divergent conceptions of the city. In the first one—the traditional city—buildings organized in urban blocks define urban space, as if streets and squares were "carved out" from an original block of solid material. The other conception—the modernist city—is that of a city as an open space in which buildings are introduced as three-dimensional objects sitting on the landscape according to free and flexible patterns (Lynch, 1981; Ellis, 1986). The first conception may be traced back to the seminal works of Camilo Sitte (1889) and Raymond Unwin (1909), and was dominant during the early twentieth century. The second conception, set against the former approach to urban design, was championed by the Modern Movement in architecture, particularly by Le Corbusier (1929) and the manifestos of CIAM[27] (1928-59).

Modernist urban design dominated the second half of the twentieth century and shaped the patterns of growth of cities worldwide. Modernist principles of organization of public space are today, however, the subject of popular criticism (Moughtin, 2003). The Krier brothers, for example, were among the first to restate the importance of a public realm defined by buildings instead of an interstitial space that is more like a leftover after the construction of buildings (Krier, L., 1978; Krier, R., 1979). A renewed interest in traditional patterns of placemaking, such as those advocated by Sitte and Unwin, as an alternative to the prevailing patterns of suburban fragmentation is also the focus of a growing number of planners and urban designers, both in Europe and in the US, that have adhered to the principles of neo-traditional planning promoted by movements such as the European Urban Renaissance (Urban Task Force, 1999) or New Urbanism (CNU, 2000). These movements claim that reinventing traditional urban morphologies is not a

[27] *Congrès International d'Architecture Moderne* (International Congress of Modern Architecture)

superficial emulation of the past but the outcome of known practices that have created countless successful urban places (Duany, 1991; Katz et al., 1994).

Morphologically, neo-traditional urban design respects the following principles:

• Public space is defined by the facades of buildings, which shape streets and squares, and promote spatial enclosure.

• The street system is a grid-like network of interconnected streets, allowing alternative routes between places—as opposed to a hierarchic system in which all trips must hit a main collector road.

• The street network promotes spatial continuity with the urban grid of contiguous areas.

• Neighborhoods have a distinct center and discernible edges.

• Buildings are organized into blocks of relatively small dimensions, allowing for multiple choices of pedestrian and auto trips—as opposed to "super-blocks" surrounded by large thoroughfares.

• Blocks are subdivided into small lots, allowing for multiple distinctive buildings – as opposed to large lots with bulky continuous buildings.

• Streets are pedestrian-oriented, i.e. they limit the speed of passing cars, lead to nearby places, have adequate sidewalks, and are lined with trees and parked cars.

• Streets have terminated vistas.

• The architecture of new buildings respects local tradition (in forms, details, textures, materials, and colors).

• There is a "dialogue" between different building forms and styles that favors stylistic "continuity"—as opposed to a monotonous uniformity or an abrupt contrast.

The temporal dimension

The temporal dimension of urban design concerns the impact of time on places, and in particular the way cities accommodate change and evolve over time. Urban environments are continuously and inexorably changing. Any intervention in the physical fabric of a place irreversibly changes its history forever, becoming part of that history (Carmona et al., 2003). In this sense, a city can be "read" as a multi-layered text, a physical narrative of urban change (Knox & Ozolins, 2000). For centuries cities evolved "organically" at a slow pace, urban change was incremental, small scale, and in continuity with the past. Over the last sixty years, however, the speed and scale of urban change increased drastically. Under the Modernist paradigm "progress" meant a radical break with the past, which was seen as a hindrance to the future, and radical urban change was usually promoted by emphasizing novelty and difference from, rather than continuity with, the legacy of the past. Significantly, for a movement that shuns all tradition, Modernism shows an inordinate reverence for the "tradition of the new" (Childs, 2000).

This abrupt break with the centuries-long incremental evolution of the physical fabric of cities was not without consequences. Today, in a rapidly changing world with an increasingly mobile population, people need to derive some sense of permanence, continuity and stability from their built environment. Despite constant change, meaningful urban places embody a city's collective memory translating it into a "sense of place," urban form being a repository of culture from the past and for the future (Rossi, 1966). Ideally, cities should welcome the future and accommodate the present without breaking the line of continuity with the past (Burtenshaw et al., 1991). Consequently, many theoreticians of the city have defended incremental urban change against "cataclysmic" or "over-abrupt" change (Lynch, 1972; Jacobs, 1961; Lowenthal & Binney, 1981; Tibbalds, 1992). Christopher Alexander et al. (1987), for example, attempted to

systematize a theory of urban growth according to incremental change principles. They argued that in order to respond to fragmented growth and recover the organic quality of old cities each built increment should strive to create a “wholeness,” or something “larger and more significant than itself,” relating it to the rest of the city.

Temporally, or evolutionally, neo-traditional urban design respects the following principles:

- Urban change is incremental (small-scale) properly integrating “old” and “new” structures (buildings, urban areas)—as opposed to a radical change, with sudden replacements of large tracts of the urban fabric.
- Buildings are robust (i.e., besides structural resistance) they have charm and character enough to justify their prolonged preservation, with the potential of being adapted so as to accommodate diverse uses in time.
- Public places maintain a good level of activity at different times of the day, and there is also an “evening economy” which provides places of convivial leisure and entertainment.
- Landscaping enhances the perception of changing seasons.

Conclusion

In order to guide the empirical research, the multi-dimensional concept of urban design was broken down into its morphological, functional, social, and temporal dimensions—which in turn were described according to neo-traditional urban planning and design principles. This has provided a necessary substantive basis and a methodological template to approach and develop the Urban Design Criteria Survey (UDCS) as well as the Visual Preference Survey (VPS), as described respectively in chapters VI and VII.

The next chapter probes into the Portuguese case by analyzing both its urban planning system and its development control system so as to contextualize the implications of urban design for public policy on a specific legal and regulatory framework.

IV. URBAN DESIGN AND THE PLANNING PROCESS

The analysis of urban design, so far in this study, has been more focused on the intended "outcome" in terms of urban environment—which is sensitive to local/regional differentiation but also bounded by general principles of good practice—than on the design implementation "process"—which is, by nature, more responsive to local/national political, economic, regulatory and physical contexts. It is thus important to further this study by investigating how could urban design theory merge with urban policy and influence practice within a concrete, localized planning system.

This chapter examines the workings of the Portuguese planning system, which constitutes the administrative background of the Évora case study (Chapter V). I will draw on the relevant literature, the analysis of legislation, and also on my knowledge and experience as a practitioner with a direct involvement in numerous planning processes in Portugal over the last twenty years. For analytical purposes, the Portuguese framework of planning administration will be described in terms of two interrelated planning systems: the development *plan* system; and the development *control* system.

The Planning Context in Portugal

Throughout the first three quarters of the twentieth century, planning processes in Portugal, like the public administration system in general, were dictated and controlled by a highly centralized form of government. During this period there was "a remarkable urbanistic production" (Lobo, 1995, cited by Domingues, 2006: 45) in the form of "image-plans" (PGU, or *Planos Gerais de Urbanização*) inspired by diverse formalist models such as the city beautiful of Haussmann inspiration, the Anglo-Saxon garden city, or the radiant city of modernist tendency (Domingues, 2006). Such master plans—usually including a map with the layout of new and existent streets and buildings, together with

some sort of zoning and written regulation—were meant to control and regulate the urban expansion and physical change of still well-defined, compact cities and towns.

The sudden advent, by coup d'état, of a new political regime in 1974, ultimately leading to the establishment of a democratic state, initiated a period of political unrest and administrative uncertainty at all levels of the public administration. While important political changes—starting with the writing of a new constitution—were being painfully crafted by the deliberative bodies of successive provisional governments, urban development was left largely unregulated at the national level. On the other hand, local governments were noticeably unprepared and understaffed to face unusual development pressures brought about by massive returns of emigrants and former residents of the Portuguese colonies in Africa.[28] Such distinctively national troubles, coupled with the generalized free-market economics climate of the 1980s led to a period that some have defined as a time of "power without plan and plan without power."[29]

Major innovative legislation dealing with urban and regional planning was enacted only in 1990. The decree 69/90[30] established the legislative background that regulates to this day (with some detail amendments and accessory legislation) the planning system at the municipal level. It promoted and regulated the implementation of three types of plans: the PDM—or *Plano Director Municipal*—a regional plan, or "structure plan" of a whole municipality, allocating and regulating major land uses and establishing growth boundaries (*perímetros urbanos*) to all urban areas; the PU—or *Plano de Urbanização*—a zoning plan of a town or part of a town, detailing the major urbanistic parameters (e.g. density, building mass, building height, lot size, etc.) for each differentiated urban zone, as well as outlining the area's road network and the public buildings/services; and the PP—or *Plano de Pormenor*—an urban design plan, defining

[28] Between 1970 and 1981 the country's total population grew by 15% (Source: INE, Lisboa).
[29] A number of articles were written under this title in a 1986 publication of Urban and Regional Studies of the Porto University, namely the Journal *Sociedade e Território* (no.4).
[30] DL 69/90.

the physical design of either new developments or part of an existent town, by detailing buildings' shape and location, streets' plan and sections, open spaces, parking, landscaping and the arrangement of public spaces. These three planning instruments should work "in cascade," meaning that the urban design plan (PP) should detail the zoning plan (PU), which in turn should detail the structure plan (PDM). Consequently, because the PDM determined the framework of all subsequent land use and design decisions at smaller, intra-municipal scales, the implementation of such plans throughout the national territory (with about three hundred municipalities) became the top priority of the Portuguese planning policy of the 1990s. Despite that—and given the lack of experience, means, and expertise of both the local governments and the central government's regional agencies to develop, follow, evaluate and approve three hundred plans of great complexity and involving numerous actors—this objective was only fully achieved by the end of the decade.

In the meantime, almost three decades of quasi-unregulated growth at an unprecedented pace had already drastically altered most of the country's urban and rural landscapes. As Álvaro Domingues (2006: 54) asserted, the PDM arrived too late, "when the urbanization had already proceeded in chaotic ways, with intensive construction unaccompanied by plans or by urban infrastructures." In effect, the delay in getting an integrated planning vision for the whole municipal (and ultimately for the entire national) territory had the perverse effect, in most municipalities, of hastening the licensing of a great deal of unqualified projects for unsuitable locations *before* the plan's approval. Ultimately, unfettered suburban sprawl of cities and towns ended up generating incoherent landscapes and unsustainable land-use patterns, with the negative consequences of "excessive land waste, fragmentation and discontinuity of the built urban fabric, rarefaction of density, deficit of infrastructure and urban design, desecration of environmental and landscape resources, excessive energy consumption, etc."

(Domingues, 2006: 21). In the absence of a coherent spatial strategy for urban growth, the building boom of the 1980s and 1990s was mainly carried out in very discretionary ways. Diffused urbanization proceeded along existing roads, or was induced by newly built highway networks,[31] based on simple projects for individual buildings in single lots, or by way of *loteamento* (land subdivision) projects, followed by urbanization projects.

A *loteamento* project, according to current Portuguese law involves "the subdivision of property into smaller plots for the purpose of urban development in areas designated as 'urban' or for 'urban expansion' as well as in areas for 'industrial' location," as defined by the PDM (Larsson, 2006: 227).[32] Before the existence of a PDM, however, the approval of private *loteamento* projects was a rather flexible affair in most municipalities. A *loteamento* project can be as small as the constitution of a single residential lot, or as large as several hectares, including many lots, buildings, streets and open spaces. A widely used planning tool up until today, *loteamento* projects (followed by urbanization and construction projects) constitute a rather poor alternative to urban design plans (PP). Instead of developing an overall vision for a large part of a territory, articulating the public and private spaces of several properties in coherent ways, a *loteamento* project is constrained by the limits of a single property, whatever its size or format, and responds solely to the purposes of a single owner/developer without considering the larger scale and the relationships with the surrounding areas. As most often the purposes of private developers are simply guided by the rationale of maximizing the profitability of the operation while keeping external costs to a minimum,

[31] The implementation of the National Highway Plan (*Plano Rodoviário Nacional*), which took place mainly throughout the 1990s, was "carried out by institutions under the direct tutelage of a central government agency (*Junta Autónoma das Estradas, Instituto das Estradas de Portugal*) with a minimum of (or even in the absence of any) urbanistic strategy." (Domingues, 2006: 26)

[32] After the approval of a PDM, *loteamento* projects are only accepted within the established urban growth boundaries. However, these boundaries are in most cases (too) generously defined, as to include a vast perimeter around consolidated urban centers, and incorporate large tracts of—de facto—rural and natural land. As a result, these vast urban expansion areas tend to promote scattered urbanization.

the design solutions are often mediocre and unrelated to the surrounding environment. Moreover, while a urban design plan (PP) requires always a process of public consultation, a *loteamento* operation smaller than 100 housing units, or 4 hectares (approximately 8 acres), is not subject under current law to public scrutiny.[33]

The Urban Planning System

Within the larger picture of the national planning system municipal plans stand as pivotal, since they are the planning tools that materialize wider policies and strategies in spatial and physical solutions at the local level. As described above, there are three types of Municipal Plans—the *Plano Director Municipal* (PDM) the *Plano de Urbanização* (PU), and the *Plano de Pormenor* (PP)—that organize the municipal territory and specific intra-municipal urban areas at three scales of increased detail and spatial definition.[34] On the whole these plans establish the fundamental distinction between urban and rural lands; classify and map the diverse categories of land-use; define the land-use regimes, the urbanistic parameters and the building capacity for each category; guarantee a rational distribution of activities and infrastructures; and ensure the protection of natural and patrimonial values.

Differently from some other European countries, the Portuguese urban planning system does not yet comprise any type of national guidance dealing specifically with design issues. In Great Britain, for example, the PPG 1 (Planning Policy Guidance 1– General Policy and Principles), issued in 1996 by the Department of Environment (DoE), established a set of rules for the physical design of urban environments, and stated that

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[33] The legal regime of *loteamento* operations was recently challenged by a professional association of Portuguese urbanists (APROURB), which demanded in an open letter to the Ministry of Territorial Planning "the extinction of loteamento operations in areas not previously covered by urban design plans." (www.aprourb.org/txts_/figura_loteamento_.html, 2002)

[34] Municipal Plans were first legislated in 1990 by DL 69/90 (Law Decree 69/90). Further statutory directives were introduced in 1999 by DL 380/99 (*Regime Jurídico dos Instrumentos de Gestão Territorial*). DL 380/99 has been subject to several amendments. In 2007, its fifth amendment was legislated by DL 316/07.

"development plans and guidance for particular areas and sites should provide applicants with clear indications of local authorities' design expectations." Reinforcement of this concern with the quality of the urban environment was provided by PPG3 (Housing), which emphasized the need for "a high quality of design in all new housing developments producing buildings well designed for their purpose and surroundings;" and PPG12 (Development Plans and Regional Planning Guidance), which stipulated "the need to maintain the character of towns and the countryside." Based on these principles, in 1998 and 2000 respectively, the Department for Environment, Transport and Regions (DETR) issued two series of very specific design guidance for England's urban areas, named *Places, Streets and Movement*, and *By Design–Urban Design in the Planning System* that contributed to publicize general principles of good design practice and provided a universal template for local evaluation of the urban design quality of virtually all kinds of development proposals. Before that central government's policy, in England—like in Portugal today—design control by local authorities was "a vexed question," as Parfect and Power (1997: 23) put it, also noting that in the absence of such explicit criteria to evaluate urban design quality "councils were reluctant to reject a scheme purely on design terms—with the shadow of adverse cost for insubstantial reasons for refusal looming ever larger."

In the absence of some kind of general design guidance, local governments must rely on Municipal Plans to deal with problems of urban form and design. Thus, it is important to look at how well they perform this purpose. As explained above, all municipalities have an operational structure plan (PDM) for their territory. The purpose of a PDM is basically to provide a comprehensive land-use plan for the overall area of each municipality. Except for certain spatial policies at a strategic level (such as the delimitation of urban growth boundaries, or the establishment of spatial units that should be the object of more detailed planning) little specific guidance is given for local

authorities in terms of individual development sites. Any advice in respect of urban design quality is usually limited to very general references in the PDM report. Many municipalities have also developed a few zoning plans (PU) and/or urban design plans (PP) for parts of their territory. In many cases, however, the PDM—a manifestly inappropriate tool to control urban design—remains the main legal instrument regulating urban growth. Without a concrete vision for the territory within the towns' urban growth boundaries, scattered urbanization proceeds in such cases by means of urbanization operations based on isolated *loteamento* projects for random areas (determined by the will/opportunity of developers), which inevitably tend to produce inarticulate public space and incoherent urban form.

Zoning plans (PU) define a general conception for the whole, or a part of a town in terms of land-use. They outline differentiated urban zones as a function of their dominant use; stipulate the major urbanistic parameters (e.g. land-uses and their density, maximum floor-to-area ratio, maximum number of floors, minimum street widths, and the provision of public parking and public "green" space as a function of total floor space) for each zone; delineate schematic plans for the roads' network and the major urban infrastructures; organize the public transportation system; define the location of future public buildings and open spaces; identify the natural and patrimonial values to protect; circumscribe spatial sub-units that should be the object of more detailed planning through urban design plans (PP); and correct the PDM's urban growth boundary according to the general zoning conception. Zoning plans (PU) make, however, a very crude contribution to the definition of city form. The coarse scale of a statutory zoning map associated with a rough definition of the road system leaves too many aspects of urban design undecided, and (undefined) public space tends to be treated as a residue of the urbanization process—instead of as an essential structuring

element of urban form. Even though it constitutes a better tool for regulating growth than a PDM, a PU remains a very blunt instrument in terms of urban design.

The only plan that provides a clear structure and an explicit urban pattern for areas subject to major development and/or widespread change is the urban design plan (PP). Urban design plans express a cohesive picture and a concrete vision to guide future development, while rigorously establishing the design of public spaces. They define the precise buildings' location, built-to-line, mass, height, construction area by use, materials, and colors; delineate exactly the streets' section, landscaping, sidewalks and vehicular lanes; calculate and provide for the necessary parking; define the location, general design and landscaping of parks and other open public spaces; define the dimensions and the location of public buildings; determine the necessary conservation, rehabilitation, or demolition of existent structures; and establish the phasing of the overall plan. Usually comprising several properties and involving diverse owners, urban design plans perform another significant task: by redefining what are public areas and private properties, they fully redesign the cadastral map of the area. Hence, the plan must include a mechanism to ascribe expected costs and profits of urbanization equitably by all proprietors. This is usually done by calculating the overall building capacity of the plan and allocating to each individual proprietor an abstract right to build equivalent to the relative size of his or her property. If the actual construction on a given property is in excess of that value, the owner must pay back that excess to the municipality (usually in the form of lots or built units); inversely, the proprietor is compensated if the construction in his or her property is less than the stipulated by his or her abstract right to build. The same mechanism applies to the distribution of infrastructure costs.[35]

[35] This compensatory mechanism was first legislated in 1999 by DL 380/99.

Urban design plans (PP) are often criticized—and avoided by many municipalities—on the grounds that they are too rigid and too prescriptive, lacking flexibility to adjust to swift urban change, ubiquitous development pressures, and variations on real estate demand during the (usually long) period of implementation. Duany et al. (2000: 177) criticize this reluctance to planning through design because it usually means that municipalities are in fact choosing to "abdicate initiative to market forces rather than providing a predictable environment for the market to thrive in." According to Álvaro Domingues (2006) the success of an urban design plan relies on three combined factors: an adequate size, a high degree of consensus among all stakeholders, and an adequate financing formula. In the absence of such conditions "the plan fails by excessive rigidity and detail, by attempting to control too large a territory, or by an unbalanced formula of public/private investment" (Domingues, 2006: 358). There are also those who consider that an urban design plan stifles architectural creativity because it is too detailed. In response to this criticism, it is useful to quote Witold Rybczynski's suggestion that "public discipline of building design does not necessarily inhibit the creativity of architects—far from it. What it does have the potential to achieve (...) is a greater quality in the urban environment as a whole. Less emphasis on the soloist and more on ensemble playing will not be a bad thing" (Rybczynski, 1994: 211).

The importance of urban design plans (PP) for the development control process must be underscored since only they can effectively associate urban design strategies to land-use policies. By shaping a concrete "vision" of the urban future and the criteria to achieve it, a dependable urban design plan confers on local planning authorities a high degree of control over the quality and coherence of the urban ensemble. Moreover, only urban design plans provide a clear indication of local authorities' design expectations to citizens, promoters, and development agents, thus creating a substantive platform for decision-making and investment.

The diminutive number of urban design plans (PP) annually produced and approved in Portugal from 1997 to 2007—24 in average, for a total of 276 municipalities[36]—constitutes obvious evidence that most urban development is still being carried out by means of private urbanization projects solely regulated by structure plans (PDM), or at most by zoning plans (PU). As we saw, these plans are inadequate to regulate urban form. Consequently, in order to counteract diffused urbanization and incoherent development, more design guidance and substantive "visions" for the territories comprised within urban growth boundaries—either urban design plans and codes, or design guidelines, or both—are urgently required.

The Development Control System

Territorial development plans shape, and in turn are shaped by, the development control system. The later—in charge of regulating, evaluating, monitoring, and advising in matters of spatial planning—is run by the services of public administration at various scales of intervention and is tied to the broader planning process. At the national and regional scale, the government—mainly through the central and regional departments of the Ministry of Environment, Spatial Planning and Regional Development[37]—is competent for defining territorial policies and programs, as well as special and regional plans. However, it is at the local scale that the day-to-day operations of urban development take place. At the local level, the municipal authorities are competent to prepare and approve municipal and inter-municipal plans, and also hold the legal authority to regulate urbanization and to grant building permits. Therefore, I will focus on the local (municipal) development control system, since it represents "the 'sharp end' of planning where decisions on proposals have to be made" (Parfect & Power, 1997: 39). It

[36] According to the intervention of the Mayor of Cascais, António Capucho, in the First Architecture Triennial of Lisbon, in March 22, 2007. (in www.cm-cascais.pt)

[37] *Ministério do Ambiente, do Ordenamento do Território e do Desenvolvimento Regional* (MAOTDR).

is possibly at this level that the public sector has the most significant potential to intervene in order to promote better quality urban design.

The municipal authority is the local government body to which concrete urbanization projects are submitted for approval. Licenses—building permits—for all construction works and private urban development initiatives are issued by the municipal authority following the submission of an application. The local authority operates via its internal departmental structure, which may vary from city to city—as a function of territorial complexity and demographics—but generally has a similar organization and carries out comparable tasks. The executive (political) body ultimately assumes the responsibility for granting or barring final approval to the applicants' urbanization projects, based on the advice of the municipal (technical) services. These services, in turn, manage the application process, evaluate the proposals, make recommendations to applicants (before and/or after the formal application), and report a substantiated advise (with three possible outcomes: grant permit, grant permit with conditions, or refuse permit) to the executive body.

With regard to development control, the municipal services are not only responsible for the preparation of statutory municipal plans (PDM, PU, PP), but also for the evaluation of private urban development projects, and their compliance with existing municipal plans and other specific regulations. Private projects for areas already regulated by urban design plans (PP) are swifter to evaluate, because they must conform from the start to the plan's explicit rules. Whenever there is no urban design plan, however, the review of an urban development project is frequently a lengthy and intricate process.

The legal regime regulating private urban development projects[38] specifies three types of projects that an applicant must fulfill sequentially in order to advance a comprehensive urban development operation. First, the applicant must file for a *loteamento* (land subdivision) project—requesting the constitution of one or more lots for the purpose of urban development. Second, the applicant must file for an *urbanization* project—delineating the overall street and infrastructures' networks (the water, sewage, electricity, telecommunications and gas systems) as well as the 'green areas' and public spaces. Finally, the applicant must file for a *construction* project—comprising the architectural project, the diverse engineering projects (structure, water, sewage, electricity, gas, telecommunications, fire security, acoustics and thermal performance), and the public spaces' landscaping project.

A closer look at the requirements of this legal regime of development control shows that many fundamental urban design issues, such as the definition of public spaces and the architecture of buildings, are deferred to the final phase of the process (probably too late), while many "hard" urban design issues, like the configuration of blocks and lots, are defined in the first phase of the process (probably too soon). Even though some architects and urban planners might be willing to bridge this gap by creating an integrated vision of the development from the start, many applicants tend to turn out rough *loteamento* and *urbanization* projects in the first phases, and then merely "beautify" them with architecture and landscaping—a practice that seldom leads to a qualified proposal.

Local planning and development processes involve a wide range of participants, which may be broadly summarized as follows:

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[38] The legal regime of urbanization and construction (*Regime jurídico da urbanização e da edificação*) is regulated by DL 555/99 with revisions introduced by DL 177/01 and Portaria 1110/01.

- *Applicants*, which can be private citizens, private developers, housing cooperatives, or public institutions (such as township councils or governmental agencies). To submit a development project they must prove ownership of the land/site in question.
- *Project developers*, which can be private professional designers, such as architects and landscape architects, or engineers (individuals, teams, or firms). They must have certified professional competence for all projects involved in the urban development operation under consideration, and serve as the applicant's representative close to the municipal authority.
- *Specialist consultants*, such as planning, architectural, environmental, archeological, commercial or tourism consultants, that are employed by local planning authorities for advice in the implementation of plans, or whenever major projects tackle with complex matters or sensitive contexts.
- *The regional authority*, representative of the central government,[39] with supra-municipal powers, and the right and responsibility to assist municipal authorities in planning operations of substantial complexity, or that may have major environmental, economical, or social impacts. It is also responsible for assembling and presiding a committee with all major public entities that must be consulted in the evaluation of a given plan.
- *Local interest groups*, such as residents' associations, business associations, environmental associations, cultural and social associations, universities and so on—which the local planning authority is under varying degrees of obligation to consult.
- *Local citizens* with an active interest in the proposal (supporting it, or objecting to it).

[39] *Comissão de Coordenação e Desenvolvimento Regional* (CCDR).

- *The local authority*, which develops and monitors the implementation of municipal plans (often with recourse to private planning firms), and reviews all private urban development projects filed by applicants. Design advice, in the later case, is usually administered informally, via negotiations between the applicant and the municipal services.

The evaluation of private urban development projects by the municipal services implies a series of tasks and procedures. Overall, they review the applications to ensure that they comply with all legal requisites; assess schemes against site appraisals; assess schemes against established policy and guidance (municipal plans and briefs); obtain expert advice on specific issues from all relevant municipal services; consult with regional government departments (in particularly sensitive or controversial cases); negotiate project improvements with the applicant; and issue a reasoned recommendation to the executive body.

The most populated municipalities of the two Portuguese metropolitan regions (Lisboa and Porto), which have relatively complex governance systems, tend to have a great number of municipal services dealing with urban development control, organized in separate departments, with separate jurisdictions and sometimes overlapping authority. Most middle-size cities, however, have substantially less bureaucratized development control systems. Municipal authorities of middle-size cities usually rely on a few municipal departments that are directly involved in the licensing process. Although their designations may vary there is usually a service (e.g. Department of Projects and Private Construction Works) responsible for the reception of applications for private urban development projects (either individual buildings or urbanization operations). This service initiates the formal review process by consulting, whenever necessary, with other municipal departments, and sometimes with other (regional) government departments, to

assess the project's conformity to specific departmental or sectoral standards. It is also usually responsible for matters of inspection and enforcement.

Another key municipal service (e.g. Department of Planning and Management of the Territory) is responsible for producing and managing the implementation of statutory municipal plans (PDM, PU, PP) and for assessing the private projects' conformity with the plans. This department is also responsible for planning and implementing municipal (public) projects, and usually has a strong position close to the executive body in matters of strategic territorial planning.

In cities that still retain significant historical neighborhoods there is an additional municipal service (e.g. Department of the Historical Center) exclusively dedicated to review and evaluate the impact of development proposals on historical districts, as well as the impact of projects for, or in the immediacy of, listed buildings. This department is often responsible for cultural and/or patrimonial matters as well.

Finally there is also a municipal service (e.g. Department of Environmental Quality) that deals with parks and landscaping, as well as with municipal infrastructure systems such as water, sewage, and waste disposal. A typical urban development project has to be reviewed by these municipal services at least, before final advice can be given to the executive committee, and released for deliberation at the Municipal Assembly.[40]

Municipal services must be able to formulate expert design advice both to applicants and the municipal executive committee. Typically, both the Department of Planning and the Department of Projects have their own design staff, usually architects, whose day-to-day work is mainly concerned with the review of projects that fall within discretionary zoning provisions of a PDM or a PU. Other departments typically have

[40] The Municipal Assembly is a public meeting presided by the municipal executive body (the elected representatives of the political parties) and backed, whenever necessary, by the directors of municipal services, that gathers regularly to discuss and decide on public and urban affairs.

engineers, geographers, sociologists and lawyers, among others, that also participate in project reviewing. Consequently, the staff's training, experience, and sensibility in matters of urban design is central to ensure proper assessments that may contribute to urban quality and good design, beyond the mere enforcing of a system of control.

Álvaro Domingues (2006) observes that most Portuguese municipalities are facing today a growing lack of financial resources for an increasing number of competences in matters of urban development control. Moreover, in order to balance their limited budgets, many municipalities are willing to welcome virtually any type of development at all, regardless of its quality (Parfect & Power, 1997). In order to promote appropriate urban quality and good design through the development control system, local authorities need to have not only a strong political commitment to improve the urban environment, but also qualified human resources and financial means to carry out the spatial policies endorsed by municipal plans. Certainly, like Carmona et al. (2003: 255) asserted, "the regulatory action of local authorities will never be a substitute for good design proposals in the first place." However, in addition to requiring better proposals from private sector planning and design practitioners, both professionals working in the public sector and elected officials need a well developed understanding of urban design issues. Besides the "negative" concern with design control and regulation, their role must also be that of advocates and educators on matters of design quality, since both developers and dwellers must be persuaded of the benefits of investing in good design.

There is another important tool of development control that can be used by local authorities, besides statutory municipal plans and the legal regime of private urban development projects. Legislation allows local authorities to introduce their own municipal statutes[41] regulating a variety of significant details of the urban environment

[41] *Regulamentos Municipais*.

that may require special attention, such as the design of facades and fenestration, the use of certain local materials and colors, shop fronts, signs and street furniture, the layout of parking spaces, tree planting, hard and soft landscaping, and so on. A frequently undervalued or underused tool to control urban design, municipal statutes constitute a suitable option to regulate locally appropriate solutions and improve the quality of the urban environment in the absence of adequate detail plans. Via municipal statutes local authorities have the power to issue local design guidelines, which can operate as standard-setting urban design tools. To be fully effective, however, such guidelines must be concise and easy to interpret, relying more on imagery than on text, with examples of good practice and expressive diagrams contrasting 'good' and 'bad' solutions. Municipal statutes can also be used to introduce a concise "checklist" of urban design issues that must be addressed by every private development project of a given size. This would help clarify the application process, facilitate the negotiations between applicants and the municipal services, and expedite the review process.

Public Participation

In Portugal, local authorities are required by law to consult with local residents and interest groups while preparing municipal plans, or when considering certain private development projects. The law warrants the universal right of citizens to participate "in the formulation, execution and evaluation" of municipal plans by way of "suggestions, requests of clarification and objections." It also establishes a mandatory period of public discussion (typically 60 days) before the plan's approval; and mandates that all municipal meetings in which the plans are to be discussed must be open to the public.[42] Hence, there is a commitment—at least in principle—to involving local communities in the design decision-making process. This commitment, however, rarely goes beyond

[42] DL 380/99 (*Regime Jurídico dos Instrumentos de Gestão Urbanística*), with the amendments introduced by DL 316/07.

compliance with minimum statutory requirements. Municipal plans are typically prepared by teams of experts (often of private planning firms) working away from the public eye, and usually reach the public at large only at their very final stage, just to comply with the mandatory period of public discussion before formal approval. In short, it is a practice that nourishes an already feeble tradition of public engagement in community affairs. Most often than not, it elicits only the participation of local politicos and of those with direct interests in urbanization operations (builders, developers, realtors, and so on), while the community at large remains aloof from such decision-making *moments*. While more fundamental forms of participation that bring the community together in planning and design *processes* are not pursued, the democratic ideal of public participation will remain a symbolic gesture.[43]

Referring to the imperfections of communication processes in urban planning and design, Carmona et al. (2003) identify several communication gaps between producers and consumers of the urban environment. These gaps—either between professionals and laypersons, designers and non-designers, the powerful and the powerless, or designers and users—may derive from such diverse factors as personal experience, education, visual literacy, or individual self-interest. For professionals operating within the urban development system, and communicating through drawings, pictures and images, as well as concepts and words, it is important to acknowledge such gaps and make appropriate efforts to bridge them. Constructive communication is a two-way process of speaking and listening to others. In matters of urban planning and design it typically involves persuasion (to ensure consent and approval)–which is not the same, however, as manipulation. Duany et al. (2000: 213), for instance, denounced the way

[43] It is also significant to note that for private urban development operations (carried out by "loteamento," urbanization, and construction projects) the current law dispenses with the mechanism of mandatory public consultation in operations smaller than 100 housing units, 4 hectares (approximately 8 acres), or 10% of the settlement's total population (DL 555/99 – *Regime Jurídico da Urbanização e da Edificação,* with revisions introduced by DL 177/01).

some architects try to mystify their audience "by developing illegible techniques of representation, and by shrouding their work in inscrutable jargon." To illustrate the latter, they quote the following passage from an Ivy League design publication, describing the plan for a single-family house:

> "These distortions elicit decipherment in terms of several constructs that allow the house to analogise discourse and call for further elucidation. These constructs are continually motivated and frustrated by conflicts in their underlying schemata and the concrete form in which they are inscribed. They refer to the ideal or real objects, organizations, processes and histories which the house approximately analogises or opposes."[44]

Such meaningless verbiage unfortunately is not uncommon in many design statements. Avoiding gratuitous jargon and manipulative pictorial representations, whilst trying to overcome the communication gap between producers and consumers of the urban environment is vital for eliciting greater community involvement in the process of urban design. According to Carmona et al. (2003: 258) wide public participation in urban development processes can help to:

> "- develop and refine policies;
> - ensure that the gap between professional and lay tastes is minimized;
> - build consensus about appropriate levels of intervention and prescription;
> - give extra weight to policies and guidance in an area which is frequently challenged;
> - ensure that amenity interests and design professionals are working towards mutually agreed goals; and
> - develop a sense of local ownership for policy and guidance."

Local communities' involvement in the planning and management of their own environment must be sought out through innovative forms or techniques of public participation and information exchange. Most plans and projects are routinely discussed in public meetings at the Municipal Assembly, mostly among politicians, technicians, developers and representatives of major interest groups. Innovative approaches are necessary, however, to bring together all those directly affected by the proposals and

[44] From the *Harvard Graduate School of Design News*, Winter/Spring 1993:13.

who should participate in the decision-making process. Public exhibitions, advertising campaigns, oriented focus groups, design workshops, and community preference surveys are prime examples of participatory techniques that have the potential for stimulating civic engagement. A British study of 1998 by the New Economic Foundation[45] identified twenty-one different techniques of community participation that may be selected and tailored to meet specific local needs and circumstances.

Taking local public opinion on board in design projects helps building consensus on agreed goals, and increases public awareness in matters of environmental quality. New Urbanism practitioners, for example, have developed and perfected the charrette design process, a collaborative planning process that brings together all local key stakeholders to produce a detailed and co-authored plan.[46] The innovative feature of the charrette design process lies on bringing together designers and non-designers to develop a site plan. During a typical "on-site" charrette—which lasts for a number of days—the designers confer with local officials, community leaders and interest groups; stage public meetings and presentations; and call in local architects, planners, and citizens to collaborate in an intensive, several days long, design workshop. This focused program becomes a local event, "capturing attention in ways that typical planning activities never do" (Bressi, 1994: xxv).

Another popular tool among New Urbanism practitioners, as well as among municipal officials, are community preference surveys, such as the Visual Preference Survey (VPS^{TM}) method developed and perfected by Anton Nelessen (1994). The VPS^{TM} is a photo elicitation technique conducted in focus groups, face-to-face interviews, and/or the Internet, which inquires about the community's preferred "vision" of the future in terms of urban development. The typical process starts by a discussion with the

[45] "Participation Works! 21 Techniques of Community Participation for the 21st Century." London: New Economic Foundation, 1998.
[46] See, for instance, www.charretteinstitute.org

community to ascertain what the major development concerns are; this is followed by field work to collect significant images of the study area; these images are then paralleled with other significant images from other places; next, a survey investigates people's reaction to each one of those pictures; and finally, after showing participants and discussing the most liked/most disliked images, a Vision Translation Workshop takes place, where the assembled community actually sketches a few alternative solutions for the plan's site.

In a VPS™, respondents are asked to look at a large number of images of buildings and urban spaces and rate the appropriateness of each case to their city or town. The use of imagery has proven to be a sensible and effective way to get laypersons to express their opinion about usually complex urban design matters. Besides widening public participation in the planning process, and raising public awareness on design issues, the close (qualitative and quantitative) study of the most-preferred/most-disliked cases of a VPS™ provides both designers and public officials with a bottom-up consensual vision for the community's urban future.

Another innovative technique of public participation worth noting is the "Placecheck" method, recently developed in the United Kingdom by the Urban Design Alliance (UDAL). "Placecheck is a method of assessing the qualities of a place, showing what improvements are needed, and focusing people on working together to achieve them."[47] The initiative can come from anyone, and the process consists in local groups (including local authority) coming together to brainstorm what needs to be done to improve their city, neighborhood or street. The method deliberately tries to avoid abstractions and jargon that exclude non-specialists. Before initiating the discussion, people meet for a walkabout of the site, along which they ask themselves three very basic questions: "What do you like about this place? What do you dislike about it? What

[47] In www.placecheck.info

needs to be improved?" During subsequent focus group meetings a facilitator breaks down these questions into a series of other questions about the site and the people that need to be involved in improving the place physically. This approach to participation, which "can start small, with half a dozen people round a kitchen table, or a small group meeting on a street corner" (UDAL, 2005), has been widely tested with success in several pilot projects.

To conclude this chapter on urban design and the planning process it is useful to summarize what seem to be the key requirements for improving both the processes and the outcomes of contemporary urbanization through design:

- Political will to engage in urban design concerns;
- Financial resources to implement spatial policies through quality urban design plans;
- Skilled urban designers, both in the private sector (for project development) and in public agencies (for development control);
- Willingness of developers to consider issues of design quality and environmental sustainability; and
- Awareness of consumers (the general public) in matters of environmental quality.

At the local (municipal) level, some of these goals could be more effectively achieved through collaborative processes of participated planning involving these various agents.

Conclusion

A contextual analysis of the Portuguese planning system shows that urban design decisions are taken by and large at the municipal level. Local authorities rely on municipal plans to control urban development, and are responsible for evaluating and licensing all private development projects within their jurisdiction. Of the three types of municipal plans (PDM, PU, and PP), only the PP (or urban design plan) unequivocally

address urban design concerns, by associating design strategies to land-use policies. In the absence of urban design plans, urban development tends to proceed in rather discretionary ways through *loteamento* projects. On the other hand, public participation in planning processes seems to be a valuable feature of the development control system that is often overlooked, suggesting the need for a stronger commitment to involving local communities in spatial decision-making processes.

In order to better understand how the Portuguese planning system works in practice I have focused my research on a local system of planning administration. In the summer of 2008, I have conducted a series of ten interviews with all the key public officials directly dealing with urban planning and development control in the city of Évora. Together with a brief description of the city in terms of its major urban morphologies, the outcomes of those interviews are thoroughly analyzed on the next chapter.

V. THE ÉVORA CASE STUDY

Urban Morphologies and the Quality of Public Spaces

The city of Évora (Portugal) was singled out as a case study because of its unique, albeit prototypical qualities. Like many other medium-size European cities, Évora faces today the challenges of fast suburban growth and uncertainty regarding the good urban morphology of its hinterland. Contrary to many other cases, however, Évora preserves a strong condition of centrality. A dense core of considerable size (113 hectares, or 280 acres) has been fully preserved in its medieval layout and historical architectures. Besides being a major heritage tourism destination,[48] the historical center is a pedestrian friendly environment that convenes most of the city's economic and social activities; it is a leading regional hub of employment and the unequivocal meeting place of the urban community. Hence, the cultural identity of Évora remains strongly associated with its historical center, and the image of the city is unquestionably dominated by its traditional urban patterns and morphologies.

Figure 2 – Aerial View of the Center of Évora

[48] The whole old city was classified as World Heritage by UNESCO in 1986.

If one looks at the city as a whole, however, a problematic contrast between the old center and the relatively recent peripheries is clearly noticeable; there is a critical morphological gap between the compact city center and the extended city of the hinterland. Although it did not suffer an extreme suburban fragmentation, over the last five decades the city spread out over the hinterland, with thirty eight new peripheral neighborhoods forming today a mosaic of compact residential enclaves and undefined spatial voids. In this extended city, where the boundaries between the urban and the rural remain unclear, most neighborhoods stand quite isolated from each other and from the center; most destinations are hardly reached by walking; and urban areas—except for the southern suburb where a planned "industrial zone" has resulted in a rather unplanned, albeit "zoned," location of business and services—are almost exclusively residential and lacking focal nodes of activity.

Figure 3 – Aerial View of Évora and Suburbs (partial view)

Moreover, in sharp contrast with the striking formal complexity of the historical center, most suburban neighborhoods show very feeble formal arrangements, with scarce and poorly designed public spaces, which are more like the residual spaces of urbanization than the organizers of the urban realm. Hence, the urban fringe lacks the formal coherence, the clarity of design, and the spatial quality of the center, contributing to what a city official described as "a great lack of continuity and a less positive image of the city as a whole."[49]

Figure 4 – Old and New Streets of Évora

The symbolic importance of the historic center, which makes the city a powerful magnet for tourism, is reinforced by its functional diversity. Most public institutions (like the hospital, the tribunal, the city hall, the university, the market, etc.), as well as the main gathering public spaces (*Praça do Giraldo*, *Largo da Sé*, *Jardim Público*, etc.) are located in the historic center, together with a considerable number of stores (both small local shops and franchising outlets), restaurants, sidewalk cafes, cultural venues and a few hotels and inns. The coexistence of all these activities generates a daily bustle of people (workers, consumers, students, visitors) that animate streets and squares, contributing to a sense of urban vitality.

[49] Rebeca, Jorge, "Comments on the Urbanization Plan of Évora" in http://www.cm-evora.pt/pu/ , 2002.

Morphologically, the historic center's public space is clearly defined by a set of outstanding landmarks such as defensive walls, plazas and squares with exceptional civic and religious buildings, and radial main streets organized in unique patterns. This ensemble of landmarks constitutes the spatial organizer of a maze of secondary streets and alleys in the areas between the main arteries. There is a constant physical and visual relationship between the landmarks and the total urban structure: walls are the perimeter encircling the town, main streets originate in the city gates and lead to main central places, the network of secondary streets establishes alternative routes between urban areas, and any place in the network is at walking distance of all possible destinations.

Figure 5 – Plan of the Historic Center of Évora

Apparently, all the required features of good urban design are present in the historic center.[50] Not withstanding this fact, and the noticeable vitality of its streets, the number of residents in the historic center has been steadily decreasing over the last decades. Even though the total number of Évora's residents has increased by almost 9% over the last decade, in the same period the historic center lost about 17% of its population.[51] There are currently about 6,000 residents in the historic center, meaning less than 12% of the entire city's population (a figure that in 1960 was 55%).[52] A recent study[53] pointed out a few factors for this persistent depopulation trend, namely a decrease in family size; an increase in the number of vacant dwellings (second homes and homes bought as investment); and the replacement of residencies by retail and business. However, a series of interviews conducted in 2008 (and thoroughly examined in the next sub-chapter) suggested that the functional obsolescence of dwellings, coupled with strict heritage preservation policies are among the major factors for the residents' abandonment of the center.[54]

Until 1940 there were almost no urban settlements outside the medieval city walls. Presently, nearly 90% of Évora's residents live in the city's suburban

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[50] Moreover, in 2000-2002 twenty eight projects of rehabilitation of streets and squares (financed by the national program PROCOM) substantially improved the quality of the historic center's public space.

[51] According to data of the Census Bureau (INE – *Instituto National de Estatística*).

[52] CME, *"Estudo sobre o Despovoamento dos Centros Históricos da Rede Atlante"* 2005.

[53] Parque Expo/SRU Évora Viva, "Strategic Plan for Évora's Historic Center," March 2008 [in http://www2.cm-evora.pt/parque%20expo/default.htm]

[54] While many dwellings "do not offer the conditions and amenities required by contemporary standards of living... [because they have] small rooms, insufficient lighting and ventilation, inadequate internal subdivision, deficient bathrooms and kitchens," preservation policies are apparently too exacting. Radical interior renovation (of spaces, of uses) even if fully preserving the external façades, has been "strongly opposed by fundamentalist heritage preservation groups" and preservation policies seem to "show a greater concern with the city as monument – an untouchable sculptural environment that people visit and photograph but in reality has no life – than with the social questions and the practical solutions the community really needs." – *Citations from interviews with the Directors of the DCHPC (Municipal Department of the Historic Center) and the Director of DOGT (Municipal Department of Planning and Territorial Management) in June, 2008.*

neighborhoods.[55] Yet, with a few exceptions, the spatial quality, the image, and the formal identity of these neighborhoods—especially when compared with those of the historic center—are remarkably poor. In order to characterize the neighborhoods' morphology and urban design I have conducted a field survey of the extended city,[56] together with a documental analysis, which allowed me to summarize four major suburban types, reflecting four different planning strategies and urbanization processes.

1) The first type is exceptionally represented by a planned neighborhood contiguous to the eastern city walls, consistent with a detailed Urban Design Plan of 1945[57] following the garden-city movement principles, and developed over the 1950s and 1960s both by public initiative and through private investment.[58] This neighborhood is predominantly residential with a mix of housing types (one to four stories, single- and multi-family) for different income groups, organized into large blocks (with internal distribution streets), surrounded by tree-lined curvilinear streets, and forming a clear urban grid in fine continuity with the street grid of the historic center. The neighborhood includes a few planned public facilities such as schools, and some commercial units that thrived in the vicinity of major crossroads.

Figure 6 – *Bairro "da Câmara"* (*Zona Urbanização No.1*)

[55] According to data of the Census Bureau (INE – *Instituto National de Estatística*).
[56] The field survey was conducted between July 12th and July 17th 2008 in the peripheries of Évora, as well as in the historic center. Photos and field notes were taken on ten suburban neighborhoods. A complete photo survey of all the neighborhoods is included on Appendix I.
[57] *Plano de Urbanização de Évora (Zona de Urbanização No.1)* by French urbanist Etienne de Groer.
[58] In the latter case the projects were tightly monitored by the planning public authorities.

2) The second type includes a number of areas of illegal genesis, which started to evolve disjointedly all around the city's hinterland as soon as the 1950's, and are the result of the private initiative of developers (capitalizing on a weak and lax development control system coupled with a growing demand for housing, mainly for disadvantaged social groups). This—illegal—urban development process had its boom in the 1960s and the beginning of the 1970s. Typically, these scattered urbanizations are linearly structured by a few parallel streets, intercepted by lesser streets, forming long dull blocks of one-story single-family houses in small lots. These strictly residential areas (which initially had no urban infrastructures besides dirt streets) have very narrow streets with no sidewalks, no street trees, no provisions for parking, and the architecture of buildings is in general quite simplified.

Figure 7 – *Bairro do Granito* and *Bairro do Bacelo*

3) The third type encompasses several planned neighborhoods regulated by the Zoning Plan of 1980[59] and mostly developed along that decade, either by the municipality or by private developers and housing co-ops. Many of these neighborhoods, developed in the vicinity of the illegal urbanizations, attempted to integrate the latter into more coherent urban patterns and alleviate some of their problems, like the provision of needed public facilities and the crucial extension of urban infrastructures. Morphologically they are mostly shaped by orthogonal street networks forming blocks of

[59] *Plano de Urbanização de Évora*, 1980.

two-story row-houses or single- and two-family houses, usually with the same architectural project repeated in the whole street, and generally showing an incipient preoccupation with the treatment of public spaces.[60] This pattern of urban development is still prevalent today, now regulated by a recently reviewed Municipal Structure Plan.[61]


Figure 8 – *Bairro do Granito* and *Bairro da Malagueira*

4) The forth and last type comprises a few residential complexes and ("luxury") condominiums of recent development (mostly in the 2000s), built by private promoters, generally in the immediate vicinity of the historic center. These are relatively small urban developments on a few vacant pockets of land facing the old city walls, along the main circular road that surrounds the historic center. The projects are essentially structured by one or two new streets connecting preexisting thoroughfares and linearly occupied by continuous buildings, mostly with commerce in the first floor and two or three residential floors above. The neo-modernist minimalist architecture of the new condominiums is defined by very simplified white surfaces and plain volumes which arguably "dialogue" with the medieval architecture of the city walls. One of the main purported goals of these

[60] A particular case of the 1980's period is a relatively large housing project to the west of the city, developed according to an urban design plan by architect Álvaro Siza. This neighborhood mostly promoted by housing co-ops but also by the public sector, has a unique morphology, purportedly based on archetypes of popular architecture, and defined by very narrow linear streets with no sidewalks, lined on each side by continuous rows of one- and two-story small, modest patio-houses with no backyards (the rows of houses do not form blocks). The neighborhood includes a public park and some public facilities, as well as a few units of local commerce.

[61] *Plano Director Municipal de Évora*, reviewed and approved in 2008.

projects—to solve the spatial discontinuity between the historic center and the urban areas outside the walls—was barely reached, since the simplified design of the public spaces between the new buildings and the main circular road is inadequate to redefine this roadway as a dynamic urban boulevard.

Figure 9 – New Private Condominium at the Gates of Évora

This brief overview of the city's major morphological types exposes a problematic contradiction. On the one hand the historic center retains a high quality urban environment with attractive open spaces but is fast loosing its residents. On the other hand, with few exceptions the suburban neighborhoods where the large majority of people live today have very simplified morphologies and poorly designed public spaces. Good urban design per se might be insufficient to generate urban vitality, but its absence is certainly the sign of declining standards of quality of life, and should be urgently addressed by proper spatial policies. At a time when numerous public programs for the rehabilitation of central urban areas[62] attest to an increasing concern with the quality of public spaces in Portugal (Sá, 2006), it is essential to expand the scope of such programs and initiate the challenging task of improving the quality of the places where most people live—the sprawling suburbs.

[62] E.g. national programs like the PROCOM and POLIS; or locally specific programs like Lisbon's Expo 98 and *Porto Capital da Cultura* 2001.

Urban Planning and Development Control Systems in Évora – a Diagnosis

Both the rehabilitation of existing suburbs and the development of new urban areas according to better urban design patterns depend not only on good placemaking models but also on accountable local systems of planning administration, with appropriate know-how to manage the existing mechanisms of urban development control. Hence, in order to understand the specificity of Évora's planning processes, I have conducted a series of interviews with the departmental directors and the chiefs of division of all the key municipal services directly dealing with urban planning and development control, as well as with the mayor and the vice mayor.

A total of twelve exploratory interviews were locally conducted from July 17th to July 24th, 2008. The interviews were semi-structured, with a few open-ended questions[63] to direct the conversation to the topics of interest, but also letting the respondents talk freely and elaborate on his or her own perspective. Follow-up questions were introduced whenever necessary to pursue new relevant issues raised by the respondents. The interviews were recorded and (partially) transcribed, and lasted between forty minutes and one hour each.

A set of eight key themes emerged from the interviews as central to the local planning and development control systems. They constitute a diagnosis of the situation at the time of the interviews, pointing out the major challenges faced by the Municipality, and are described below under the titles: (1) Structural inadequacy of the urban administration; (2) Lack of public initiative to project a "vision" of the future; (3) Fragmentary urbanization; (4) Bureaucratic proceedings of Urban Design Plans; (5) Limited public participation in the planning process; (6) Lack of unambiguous criteria and good references to review the design quality of urban development projects; (7) Lack of

[63] The interviews' questionnaire is included on Appendix II.

coordination between infrastructure projects and urban development plans; (8) Pervasiveness of outdated models of urban development.

Structural inadequacy of the urban administration

At the time of the interviews, there were three key City Hall departments in the Municipality of Évora dealing directly with issues of urban development. First, the Department of Planning and Management of the Territory—DOGT[64]—which is responsible for developing and managing the Municipal Plans (PDM, PU, PP), as well as for assessing the conformity of all urban development projects with those statutory plans. Second, the Department of Projects and Private Construction Works— DPOP[65]—which is responsible for reviewing all applications for private urban development projects. And third, the Department of Environmental Quality—DAQ[66]—which manages the parks and green areas, as well as the urban infrastructure systems such as water, sewage, and waste disposal. All private urban development projects— either individual buildings or urbanization projects—have to be systematically reviewed by these three municipal services. The DPOP receives all the urbanization projects' applications, evaluates their suitability (essentially if they are well articulated with the surrounding street network), and requests the projects' formal review by the DOGT and the DAQ.

According to the elected mayor, this structure of the municipal services was put in place in 2004, after almost 30 years of having a single department simultaneously in charge of territorial planning and urban development control. This restructuring was the consequence of a political decision, allegedly necessary because that department has

[64] *Departamento de Ordenamento e Gestão do Território* (DOGT)
[65] *Departamento de Projectos de Obras Particulares* (DPOP)
[66] *Departamento de Ambiente e Qualidade* (DAQ)

apparently gained too much power within the City Hall; it was a department that "worked almost autonomously... [and in ways] sometimes less than transparent"[67].

One of the major problems pointed out by some interviewees, however, was precisely this separation of competencies between departments, and especially between the DOGT and the DPOP. "There is a logical continuity between the territorial plans and the private development projects" said the director of the DOGT, and "if it was all centralized in the same department, we could devise more effective administrative routines to make the necessary bridges between the two scales of intervention."[68] The present "bicephalous administration,"[69] and the resulting overlapping authority over urban development projects, seems to contribute to the maintenance of a regime where "long term planning is disconnected from the daily management of urban growth."[70] This was also the opinion of one of the two Chiefs of Division of the DPOP. Thus, the current administrative structure of the municipal services seemingly emphasizes the dichotomy between the urban planning system (carried out by the DOGT) and the development control system (carried out by the DPOP). In practice this fact might be responsible for reinforcing the unrelenting tendency to urbanize the territory through a sum of small disjointed urbanization projects (*loteamentos*), instead of promoting a more coherent urban growth by means of comprehensive Urban Design Plans (PP) for larger territories.

Other concerns recurrently mentioned by the interviewees were related to human and financial resources. Not unlike many other Portuguese Municipalities, Évora faces an increasing lack of financial means for a growing number of responsibilities in matters of urban development control. A Chief of Division referred that "the department's ability to properly solve its problems is severely restricted by budgetary constraints (...) [Moreover] the low salaries of municipal officials have been driving out most of our

[67] Interview with the Mayor in June 23, 2008.
[68] Interview with the Director of the DOGT in June 17, 2008.
[69] Ibid.
[70] Ibid.

experienced technicians."[71] The latter was confirmed by the mayor, who said that "one of the main problems has been the instability of the municipal services' executives (...) there has been a high turnover of department directors and chiefs of staff lately."[72] Hence, the difficulty in retaining knowledgeable and accountable public officials is also hampering the effectiveness of both the urban planning system and the development control system.

Lack of public initiative to project a "vision" of the future

In Évora, about 95% of all urbanization projects result from the private initiative, while the Municipality is responsible for promoting just about 5% of all construction. Private developers control roughly 65% of the new housing market (45% building firms; 20% individual proprietors), while housing co-ops build approximately 30% of all new buildings.[73] According to the director of the DOGT this great dependency on the private sector is the reason why "public planning is always on the tail of private investment".[74] Instead of defining a few areas of priority development to accommodate urban growth according to a Plan, the local government welcomes virtually every private development project, regardless of size, design or location, as long as it falls somewhere within the city's vast growth boundary (*perímetro urbano*). Thus, the Municipality not only lacks the initiative in the local housing market but—and perhaps more importantly—it also misses a clear vision for the city's urban future, and a comprehensible path (a concrete Plan) to achieve it.

[71] Interview with a Chief of Division of the DOGT in June 17, 2008.
[72] Interview with the Mayor in June 23, 2008.
[73] Interview with a Chief of Division of the DPOP in June 24, 2008.
[74] Interview with the Director of the DOGT in June 17, 2008.

Fragmentary urbanization

According to some interviewees, the city's Zoning Plan (PU)[75] "is already very detailed, with a lot of [legal] constraints, allowing a reasonable level of development control"[76] and it "defines 'almost' clearly the urbanistic rules"[77] to be followed by the urbanization projects. In fact, besides ascribing diverse land-uses to differentiated zones, the Zoning Plan (PU) delineates a schematic street network for future urban areas, and regulates for each zone a number of issues such as the construction density (floor/area ratios), the buildings' height, the provision of public parking, and the land that must be provided for public green areas and public facilities. However, such a plan is a rather coarse instrument that leaves too many important details of urban design unresolved.

Whenever urban growth is carried out by way of scattered urbanization projects (*loteamentos*), even when complying with all the Zoning regulations, "each developer advances an individual solution for a given site, not attending to the necessary integration with the surrounding areas."[78] Sometimes there are urbanization projects for contiguous sites that are separately developed and evaluated, when "it would make more sense to develop an overall solution to the whole area (...) which would allow, for example, a shared, and more rational distribution of public green areas and public facilities".[79] Instead, and because each urbanization project is separately developed and separately evaluated, each promoter has to cede land for public green areas and public facilities within his own site, to the detriment of better options of urban design. This might account in great part for the customary tendency to treat public space as a residue of the urbanization process (e.g. designing a small green area in the less favorable piece of

[75] Approved in 2000; under revision in 2008.
[76] Interview with the Mayor in June 23, 2008.
[77] Interview with a Chief of Division of the DPOP in June 24, 2008.
[78] Interview with the Director of the DOGT in June 17, 2008.
[79] Ibid.

property, "the leftover of the urbanization operation"[80]) instead of considering the public space as an essential structuring element of urban form.

The director of the Department of Environmental Quality—DAQ—acknowledged that "it is obviously preferable to control urban growth through Urban Design Plans (PP) [because] the lack of an all-inclusive vision [of the territory to be urbanized] creates serious problems of compatibility between the infrastructures of diverse and disconnected urbanization projects."[81] Hence, as said by another interviewee, "there would be clear advantages in a planning process more bounded by Urban Design Plans (PP) that would connect all the disjointed proposals under a comprehensive vision."[82]

Bureaucratic proceedings of Urban Design Plans (PP)

Urban Design Plans, however, are apparently hard and slow to implement. "The typical implementation of an Urban Design Plan is so slow that when it is finally approved sometimes the solutions are already outdated (...) with the risk of becoming more like a 'straight-jacket' of future development than a factor of urban dynamism."[83] The approval process of an Urban Design Plan is, in effect, extremely bureaucratized when compared with the direct approval of an urbanization (*loteamento*) project. This seems to derive, to some extent, from the actual legislation. "While the local government has the power to approve a *loteamento* project (...) an Urban Design Plan of the same dimension and with the same objectives has to be reviewed by a number of supra-municipal offices (...) a fact that ends up by curtailing a great deal the exercise of planning in Portugal".[84] The latter critique extends to all Municipal (territorial) Plans. Referring to the recently

[80] As referred by the Director of the DAQ on the interview of June 18, 2008.
[81] Interview with the Director of the DAQ in June 18, 2008.
[82] Interview with a Chief of Division of the DOGT in June 17, 2008.
[83] Interview with a Chief of Division of the DPOP in June 19, 2008.
[84] Interview with the Director of the DOGT in June 17, 2008.

approved Municipal Structure Plan (PDM), the mayor said: "the process takes so long that when the Plan is finally approved it is already out-of-date and in need of revisions."[85]

Another problematic issue with Urban Design Plans is the need for bringing together diverse land owners. While urbanization projects are by definition carried out on individual properties belonging to a single owner, most Urban Design Plans incorporate numerous properties and involve several different owners. In the words of one of the interviewees, "the worst difficulty we face [with Urban Design Plans] is to pull together all the proprietors."[86] Another interviewee pointed out that "all interested parties—not only the proprietors but also the developers (most often they are not the same individuals)—should sit together and discuss the Plan with us [the public administration]. Unfortunately this seldom happens."[87] Consequently, when an Urban Design Plan is finally approved—after a lengthy and time-consuming process—"the developers start immediately proposing changes (...) and to accommodate them [the services] need to revise the Plan, which is a very bureaucratic process (...) basically we're back to the beginning."[88]

Limited public participation in the planning process

The recently approved Municipal Structure Plan (PDM) elicited a relatively ample public debate. According to the mayor, "there were about 30 public sessions to explain the Plan, which resulted in more than 300 written comments, suggestions and objections. Besides the general public meetings there were sectorial meetings with the business association, the university, the commercial association, the farmers association (...) their inputs resulted in several amendments to the Plan [and] the end result was quite consensual."[89]

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[85] Interview with the Mayor in June 23, 2008.
[86] Interview with a Chief of Division of the DPOP in June 19, 2008.
[87] Interview with the Director of the DOGT in June 17, 2008.
[88] Ibid.
[89] Interview with the Mayor in June 23, 2008.

Another interviewee, however, explained that while the public involvement in Municipal Plans is, in general, relatively ample, the same does not occur with urbanization projects (*loteamentos*).[90] The level of public participation in the appraisal of urbanization projects is typically very low. "Usually, in addition to the project's promoters only a few participants—mostly representatives of economical, cultural or environmental organizations—show up at the public meetings [to discuss the project] and their influence in the process is usually small."[91]

Significantly, a third interviewee noted that "whenever the City submits a project to the European Union (the most recent one was a 'sustainable transportation plan') the jury invariably criticizes it on account of its feeble investment on publicity and public participation."[92] The City Council typically issues a public announcement inviting the citizens to participate, but "it's not easy to promote the participation (...) people don't collaborate, they don't show up (...) and those who do show up are always the same."[93]

Lack of unambiguous criteria and good references to review the design quality of urban development projects

The evaluation of all proposed urbanization projects within the city's urban growth boundary is currently carried out exclusively by reference to the regulations of the Zoning Plan (PU) and the Structure Plan (PDM). As explained above, such plans are rather vague in matters of urban design. While the DOGT verifies the projects' compliance with the zoning regulations, "the main concern of the DPOP is to evaluate the projects' street system articulation with the surrounding road network."[94] The architectural quality of the

[90] According to the law, a "public consultation" process is mandatory for urbanization projects larger than 100 housing units, or larger than 4 hectares (approximately 8 acres).
[91] Interview with a Chief of Division of the DPOP in June 24, 2008.
[92] Interview with a Chief of Division of the DOGT in June 17, 2008.
[93] Ibid.
[94] Interview with a Chief of Division of the DPOP in June 24, 2008.

projects, on the other hand, is evaluated "just in terms of materials and colors; there are no established criteria to evaluate the project's formal language."[95]

When asked about the main references of good urban design that may influence the projects' review, one interviewee answered that "there are no clearly defined criteria (...) we are short of references of good quality urban design. There is, of course, the resilient reference of Álvaro Siza's *Malagueira* housing project.[96] It dominates the [local] collective imagery of what's *the* good re-interpretation of traditional architecture and urbanism. Then again, Krier-type neo-traditional urbanism was never a reference here [in Évora]."[97]

Lack of coordination between infrastructure projects and urban development plans

It is worthwhile to provide here a brief account of the recent process of urban development on the northern sector of Évora, since it epitomizes the detrimental results of the lack of coordination between infrastructure projects and urban development plans.

The Zoning Plan (PU) of Évora—approved and published in 2000—assigned a vast area of about 190 hectares (470 acres) to the north of the city as the major reserve of land for urban growth. However, even though it considered this territory an area of priority development, the plan did not explicitly required the development of an Urban Design Plan (PP)—"as it should"[98]—in order to determine "a comprehensive vision of the whole area and the precise rules to accomplish it."[99] Instead, it proposed the execution of a system of highways across the area, recommending the municipal purchase—if

[95] Interview with a Chief of Division of the DPOP in June 24, 2008.
[96] The housing project of *Malagueira* (photos included on Appendix I) is a suburban community on the outskirts of Évora designed by the internationally renowned architect Álvaro Siza. The architecture of *Malagueira*—a low-rise complex of about 1200 dwellings mainly built in the 1980s—is a Modernist interpretation of the region's traditional vernacular architecture.
[97] Interview with a Chief of Division of the DPOP in June 19, 2008.
[98] Interview with the Director of the DOGT in June 17, 2008.
[99] Section II of Chapter II of the *Plano de Urbanização de Évora*, in Resolution No.13/2000–D.R. No.74, March 28, 2000.

necessary by means of expropriation—of all the properties adjacent to this road infrastructure. It also advised the Municipality to "concentrate its efforts on the urbanization of the linear strips along the thoroughfares, and not [on the urbanization] of zones."[100] Accordingly, a vast project of road engineering was developed in 2002 for the city's major urban growth area.[101]

In the meantime, a new municipal administration was elected in 2002 and, although it decided to suspend the acquisition and the urbanization of land along the thoroughfares, it did not suspend the construction of the roads, which were rapidly built in the course of the following year. The new administration also decided to develop a comprehensive Urban Design Plan (PP) for the whole expansion area, and launched a public competition to the effect in 2002. However, a number of judicial hurdles over the results of this competition delayed the execution of the plan for several years. When the winning team of architects and planners[102] started to work on the plan in 2007, the system of highways was a consummated fact, and a major hindrance to the development of a coherent proposal, consistent with a neo-traditional urbanization model. Three kilometers (almost 2 miles) of freeways—with a section of 30 meters (100 feet) between sidewalk curbs, and with a rigid, uninterrupted median divider—cut disjointedly through the site, making it very difficult to weave together the urban fabric according to proper, pedestrian-friendly patterns. Hence, instead of a coherent plan based on a consistent hierarchy of streets, avenues and urban boulevards, a compromise had to be made with a pre-existent (and totally inadequate) road engineering project, a project of "roadway urbanism" devised with the automobile in mind, and not the people, as it should.[103]

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[100] Carvalho, Jorge and Oliveira, Fernanda. *Perequação, Taxas e Cedências - Administração Urbanística em Portugal*, Coimbra: Edições Almedina, 2003 (p.151-152).
[101] See Figure 3, on page 72.
[102] Of which I was a participant member.
[103] This issue was thoroughly discussed in diverse team meetings, with all participant experts agreeing that it was a crass error (alas inescapable) to have such a road engineering project as the main physical organizer of the territory.

Pervasiveness of outdated models of urban development

Last but not least, it is also important to mention a few examples that reveal a resistance to new models of urban development, which is either the result of deeply embedded Modernist convictions or the product of retrograde prejudices.

As an expert member of the team responsible for the Évora Urban Design Plan (PP) referred to above,[104] I had the chance to follow closely the evolution of the whole process. As usual in Portugal, there was no public participation at this stage of the plan, which was developed by the team (a subcontracted firm) always in close contact with the Municipality (especially with the Department of Planning and Management of the Territory – DOGT). After a first (internal) presentation, in August 2008 the team received the first official assessment of the Plan, issued by the Municipality's external planning consultant, an expert architect and urban planner. A close reading of this document reveals three basic Modernist fallacies, which expressly condemn three key neo-traditional features of the plan (in parenthesis I include the relevant excerpts of the official assessment). First, it shows complacency with the current practice of segregation of uses ("The plan's proposed typologies should be reviewed considering that home buyers are used to the predominantly residential environments produced by current habits of segregation of uses and zoning."). Secondly, it disregards one of the basic principles of sustainable new urbanism, namely that sizable new urban areas should have denser centers, less dense peripheries, and some kind of non-built edge separating them from neighboring urban areas ("The plan proposes a decrease in altimetry and density from the center to the periphery (...) [however] it should take into consideration the eventual future expansion of the city's urban growth boundary"). Thirdly, it emphasizes the importance of a hierarchic road system designed for the automobile to

[104] *Plano de Pormenor dos Leões* (2007-2008).

the detriment of a network of interconnected streets designed for the comfort and safety of pedestrians ("Any solution of urban design must be structured by the primary road system [meaning the highways] (...) and the proposed network of streets conflicts with the desirable swiftness of auto traffic across the intervention site.")

Another problematic issue in Évora is the ascendancy of Alvaro Siza's neo-modernist housing project of *Malagueira*[105] as *the* archetypal interpretation of the region's traditional architecture and urbanism. Even though it is "regularly visited by excursions of students of architecture from all over the world,"[106] the project, based on a stereotypical "architecture for the poor" strongly influenced by modernist dogmas and communist ethics of the 1970s, does not fulfill, as a model, the requisites of current standards of living. As I was told by one interviewee, "many residents of Évora dislike the project;" however, among local architects and planners "it persists as an irrefutable reference."[107]

Finally, there are also some rooted prejudices in the local collective mentality that resist change towards more sustainable urbanization models. As the city mayor pointed out, "in Évora the paradigm of familial success is still very associated with the automobile (...) differently from other cities, walking and bicycling here is still strongly associated with rural life and poverty."[108] Even though Évora offers the perfect conditions to become a bicycle-friendly environment (a flat territory with a warm climate) it will probably take a few years before a new generation might overcome such preconceptions and reverse the general attitude on this matter.

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[105] A photo survey of *Malagueira* is included on Appendix I.
[106] Interview with a Chief of Division of the DPOP in June 19, 2008.
[107] Ibid.
[108] Interview with the Mayor in June 23, 2008.

Conclusion

Together with the analysis of documents (maps, plans, and regulations) a field survey was conducted to characterize the city's diverse morphology and urban design. This diversity was summarized into five groups, reflecting dissimilar planning and urbanization processes[109]: (1) the historic center, a repository of accumulated development processes, preserved in its medieval layout; (2) a neighborhood designed according to the garden-city principles and developed in the 1950s and 1960s; (3) a number of scattered suburban areas of illegal genesis, mostly developed in the 1960s and 1970s; (4) a number of suburban neighborhoods that were developed according to both public and private projects under the regulations of successive Zoning Plans, since the 1980s and until today; (5) a few private projects of residential condominiums contiguous to the historic center, and developed along the 2000's. The survey revealed that while the historic center retains a high quality urban environment with attractive open spaces, the suburban neighborhoods, where most people live, have very simplified morphologies and poorly designed public spaces.

A series of exploratory interviews with key city officials were conducted to investigate and diagnose the local planning and development control systems. Eight topics emerged as major challenges to the improvement of these systems: (1) structural inadequacy of the urban administration; (2) lack of public initiative to project a "vision" of the future; (3) fragmentary urbanization; (4) bureaucratic proceedings of urban design plans; (5) limited public participation in the planning process; (6) lack of unambiguous criteria and good references to review the design quality of urban development projects; (7) lack of coordination between infrastructure projects and urban development plans; (8) pervasiveness of outdated models of urban development.

[109] A photo survey of all the neighborhoods is included on Appendix I.

Both inquiries suggested the need of a greater control over development processes in order to enhance the quality of the suburban environment, and the need to plan new urban areas in line with more sustainable patterns. But what exactly do those directly involved on urban planning and development processes in Portugal recognize as good urban design patterns? In order to answer this question I developed and conducted the Urban Design Criteria Survey, which is fully described in the next chapter.

VI. ASSESSING THE EXPERTS' OPINION–THE URBAN DESIGN CRITERIA SURVEY

Survey Design and Implementation

On Chapter III, the four key dimensions of urban design—the functional, social, morphological, and temporal—were systematized and described in terms of neo-traditional principles, as advocated by New Urbanism for the creation of good urban places. In order to probe the relevance of such principles for those directly involved on urban planning and development processes in Portugal, a survey questionnaire was developed based on a thorough selection of the foremost attributes of good urban design. This selection resulted in the following set of normative principles:

- Urban areas should have a diversity of uses;
- Urban areas should be dense enough as to ensure a transit system and commercial activity;
- Urban areas should have denser multiple-use centers surrounded by less dense residential areas, at walking distance from the center;
- Public spaces should include small parks, squares and plazas interconnected by walkable tree-lined streets;
- Urban areas should be socially heterogeneous, in terms of income and age;
- There should be places that sustain an informal public life, such as cafes and restaurants, sidewalk cafes, and neighborhood corner stores;
- Safety in public spaces should be achieved through passive surveillance (the citizens "eyes on the street");
- Urban areas should be structured by grid-like networks of interconnected streets, providing alternative routes between places;
- Public spaces should be "enclosed," with facades of buildings shaping streets and squares;

- Urban areas should be predominantly structured by small blocks, providing many intersections and alternative paths between places;
- The architecture of new buildings should respect local tradition;
- Urban change should be incremental;
- Buildings should be "robust" (i.e., adaptable to diverse uses over time);
- Central urban places should have "around-the-clock" urban life.

These fourteen principles were translated into 30 statements that made up the Urban Design Criteria Survey (UDCS) questionnaire.[110] Most principles were assessed by more than one statement in order to probe the respondents' attitude with regard to contradictory views. For example, regarding the morphology of public spaces it was important to include two conflicting options, one affirming a neo-traditional stance: "Public space is defined by the façades of buildings, shaping streets and squares, and promoting spatial enclosure;" and another one reflecting a typically Modernist preference: "Buildings do not shape streets and squares, and public space is the open space around buildings."

The UDCS was conducted online in Portugal over the summer and fall of 2008. It was directed to key agents of urban development—including planning professionals of diverse areas of expertise, as well as developers and realtors. The UDCS major purpose was to assess and compare the attitudes of these diverse agents regarding the attributes of good urban design according to the fourteen principles enunciated above. In response to the question:

> *Considering that you are evaluating the quality of a development plan for a new urban area, how would you rate each one of the following features of urban design?*

[110] The UDCS questionnaire is included in Appendix III.

respondents were asked to rate each statement on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

A description of the study with a link to the survey was published on the leading Portuguese urban planning website *Forum do Urbanismo* ("Urbanism Forum"[111]) and on the website of the *Associação Nacional de Municípios Portugueses*[112] (National Association of Portuguese Municipalities). It was also e-mailed for all members of the *Associação de Urbanistas Portugueses* (Portuguese Urbanists Association), as well as divulged on an online discussion forum of Portuguese geographers, *Geografia-PT* (Geography-Portugal).

As these websites and associations did not capture the universe of developers and realtors, several contacts were made in order to publish the link to the survey on the websites of two major professional associations. Despite their executive directors' agreement, and regardless a close follow-up, the announcement never showed up in the websites. This way, I opted for e-mailing directly to all firms and offices of builders, developers, promoters, and real estate mediators listed on the Portuguese business email directory *Guianet*.[113] Of the 640 sent emails there were 99 valid responses. The total number of valid responses to the survey, including all professional categories, was 602 (see Table I).

Methodological Limitations

As an opinion poll, the UDCS was conducted in order to measure the group attitudes of diverse urban development agents regarding a series of principles of "good" urban design. The interpretation of the UDCS results, as expressed on the following pages, used simply descriptive statistics—namely frequency distributions and

[111] http://www.forumdourbanismo.info/index.php
[112] http://www.anmp.pt/
[113] http://www.cylex.pt/

percentages—to describe what the respondents think about the foremost neo-traditional features of urban design. The variables' measurement used only three mutually exclusive categories (agree, neutral, disagree), ensuring a merely categorical level of measurement. Even though descriptive statistics were used, the data yielded are largely qualitative and were not intended to give rise to questions of statistical significance, but rather serve as an illustrated narrative commentary.

The sheer size and heterogeneity of the target population—including many and diverse experts like architects, landscape architects, urbanists, planners, geographers, sociologists, economists, civil and environmental engineers, as well as developers, builders, and real estate agents; both from the public and the private sector; from all around the country—conditioned from the start the sample design. Thus, the survey relied on respondents selected by purposive and convenience sampling. Like all non-probability samples, in which potential respondents are not randomly selected, this sample is not statistically representative of the entire population, which inevitably weakens the survey's external validity.

There are also issues of validity regarding the survey's online format. First, the study population transcends the online community, which raises problems of representativeness and precision. Moreover, given that the link for the survey was published on several "open" sites,[114] and because of the survey tools available,[115] it was impossible to estimate the response rate. Concurrently, since non-respondents tend to differ in important ways from the respondents, the possibility of non-response bias must be acknowledged.

[114] Meaning that potentially everyone on the internet could have had access to the survey.
[115] The survey used an online service (freeonlinesurveys.com) which did not offer the option of tracing the source of each respondent.

Data Treatment

1) Respondents were grouped into four major areas of expertise, according to their main professional field.

Table 1 – Respondents by Area of Expertise

		Frequency	Percent
1. DESIGN	Architects and Urbanists	175	29.1
	Landscape Architects	26	4.3
	Sub-total:	201	33.4
2. SOCIO-ECONOMY	Territorial Planners	81	13.3
	Geographers	76	12.6
	Sociologists	13	2.2
	Economists	12	2.0
	Sub-total:	182	30.2
3. ENGINEERING	Territorial and Environmental Engineers	66	11.0
	Civil Engineers	54	8.9
	Sub-total:	120	19.9
4. REALTY & DEVELOPMENT	Developers and Builders	43	7.1
	Real Estate Agents	40	6.6
	Real Estate Appraisers	16	2.7
	Sub-total:	99	16.5
	Total	602	100.0

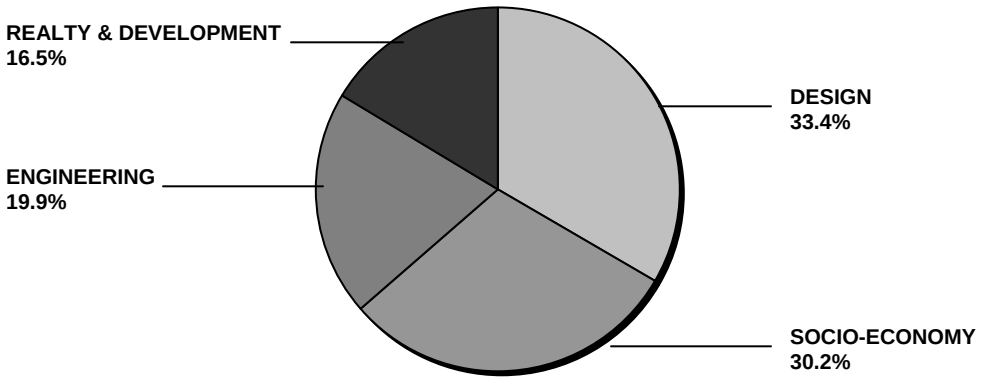
• Design Professionals, including architects, urbanists, and landscape architects, accounted for 33.4% of all respondents;

• Socio-Economy Professionals, including planners, geographers, sociologists, and economists accounted for 30.2% of all respondents;

• Engineering Professionals, including civil engineers, and environmental engineers, accounted for 19.9% of all respondents;

• Realtors and Developers, including developers, builders, real estate agents, and real estate appraisers, accounted for 16.5% of all respondents.

Chart 1 – Respondents by Area of Expertise



2) Respondents were also grouped into four major professional sectors.[116]

Table 2 – Respondents by Professional Sector
(excluding realtors and developers)

		Frequency	Percent
1. PRIVATE SECTOR	Private firms and independent consultants	212	44.9
2. PUBLIC SECTOR	Municipal services and public institutes	202	42.8
3. PUBLIC OFFICIALS OF ÉVORA	Municipal services of Évora	10	2.1
4. ACADEMICS	Universities and university research centers	48	10.2
	Total	472	100.0

• Private Sector, including professionals working for private planning firms, as well as independent consultants, accounted for 44.9% of all respondents;

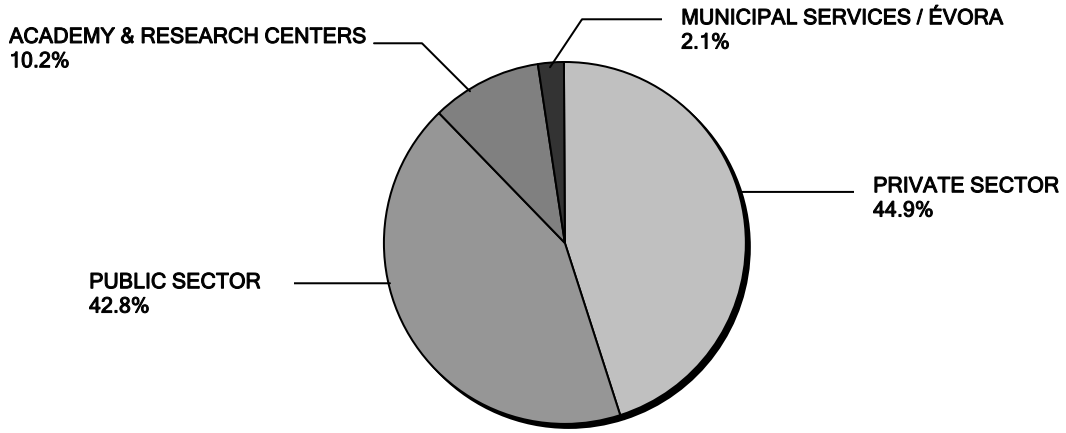
• Public Sector, including professionals working for municipal planning offices (except Évora) or for public planning institutes, accounted for 42.8% of all respondents;

• Public Officials of Évora[117] (namely those directly in charge of urban planning and development control–a particular sub-group of the public sector), accounted for 2.1% of all respondents;

[116] The private sector excludes realtors and developers in order to cluster only those agents directly involved in urban planning and development control.

• Academics, working for universities and university research centers, accounted for 10.2% of all respondents.

Chart 2 – Respondents by Professional Sector



3) Answers were grouped into three general categories: agreement (scores = 4 and 5); neither agreement nor disagreement (scores = 3); disagreement (scores = 1 and 2).

4) Within each one of the four dimensions of urban design (functional, social, morphological, and temporal) the statements were grouped under a few major topics:

A) Functional Dimension

- Zoning
- Density
- Public spaces

B) Social Dimension

- Social mix
- Meeting places
- Cultural places

[117] This group's responses to the questionnaire were obtained in the course of individual interviews.

- Surveillance of public spaces

C) Morphological Dimension

- Street grids vs. hierarchical road systems
- Morphology of public space
- Size of blocks
- Architecture and local tradition

D) Temporal (Evolutional) Dimension

- Urban change
- Adaptability of buildings
- Around-the-clock urban life

The UCDS primary results were summarized in frequency tables that can be consulted on Appendix III. In order to improve and facilitate the analysis, however, another set of charts was devised where the statements were rephrased so as to always reflect conformity with New Urbanism design principles, and thus evaluate the respondents' positive level of agreement with such principles on each topic. This is patent in the headings of all charts included and described on the following pages. Each chart summarizes the percentage of respondents in favor of a specific New Urbanism design principle, or against a design principle opposed by New Urbanism,[118] and compares the attitudes of diverse urban development agents across areas of expertise and professional sectors.

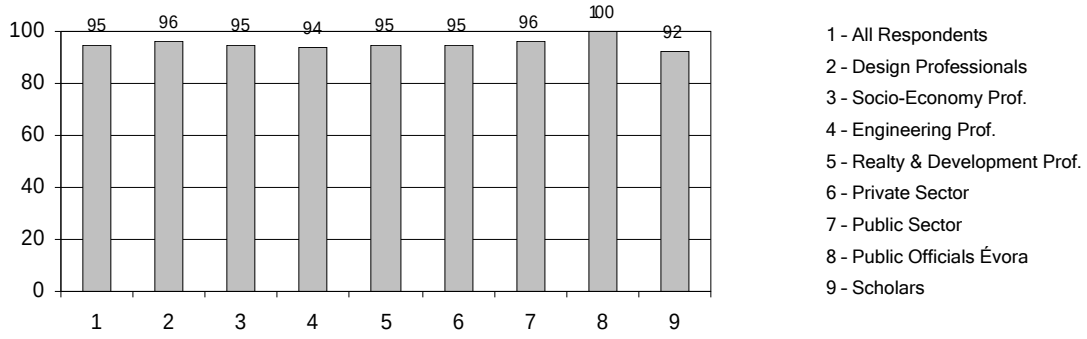
[118] This way, for all charts, the higher the bars the higher the respondents' conformity with New Urbanism design principles.

UDCS Results–Data Analysis[119]

A) FUNCTIONAL DIMENSION

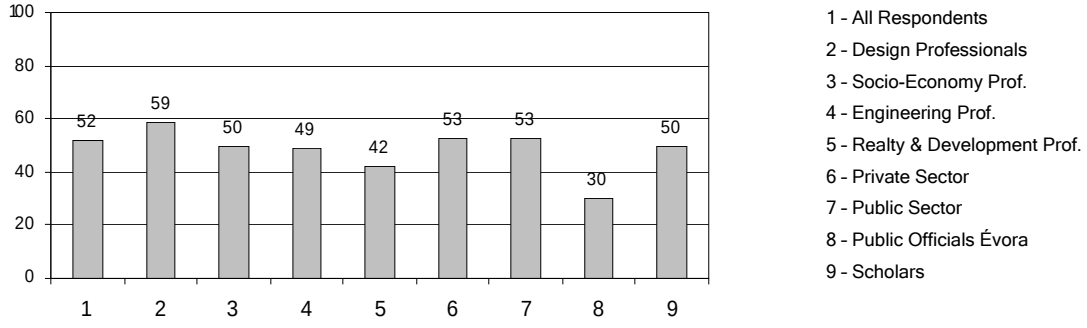
• ZONING

Chart 3 – Percentage of respondents in favor of multiple-use urban areas



When simply asked about their support for multiple-use urban environments, respondents were nearly unanimous, with about 95% of all respondents stating that it is a positive feature of urban design.

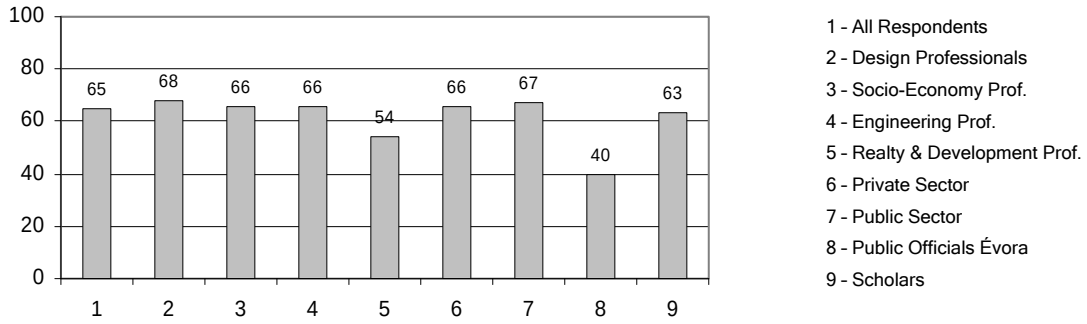
Chart 4 – Percentage of respondents that disagree with the development of exclusively residential urban areas



However, when asked about their support for exclusively residential areas served by other functional areas only accessible by car, just a little more than a half of all respondents (52%) were against it. Disagreement was higher among design professionals (59%) and lower among Évora's public officials (30%).

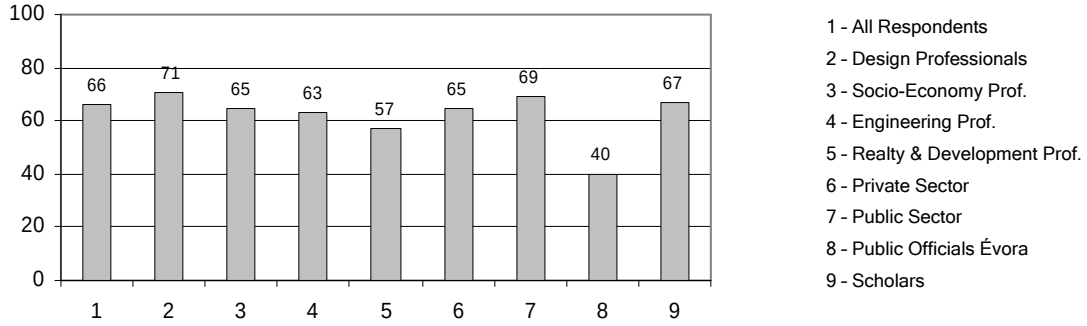
[119] All the figures cited in this section can be checked either on the charts included along the text or on the frequency tables of Appendix IV.

Chart 5 – Percentage of respondents that disagree with the development of exclusively commercial urban areas ("shopping centers")



A larger majority of all respondents opposed exclusively commercial areas only accessible by car (65%). Évora's public officials were those expressing less opposition to "shopping centers" (40%), followed by realtors and developers (54%).

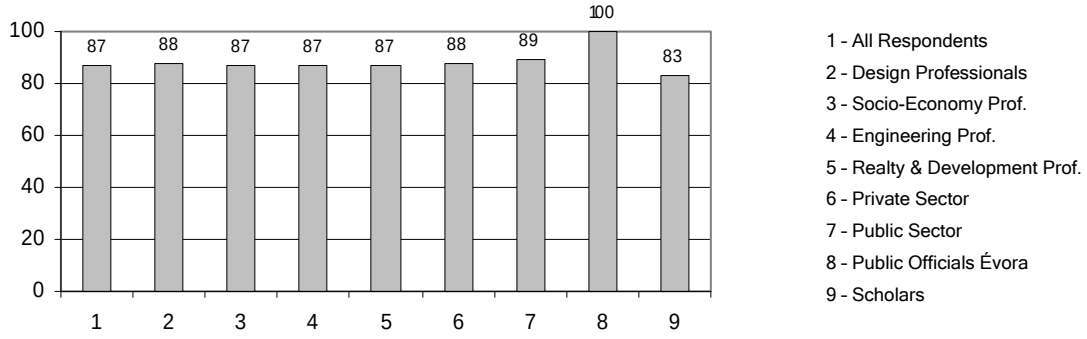
Chart 6 – Percentage of respondents that disagree with the development of exclusively office-oriented urban areas ("office centers")



Relatively similar results were found in regard to exclusively business areas only accessible by car, with 66% of all respondents expressing disagreement with this feature. Again, only 40% of Évora's public officials expressed opposition to "office centers," contrasting with the other public sector professionals, which were predominantly (69%) against it.

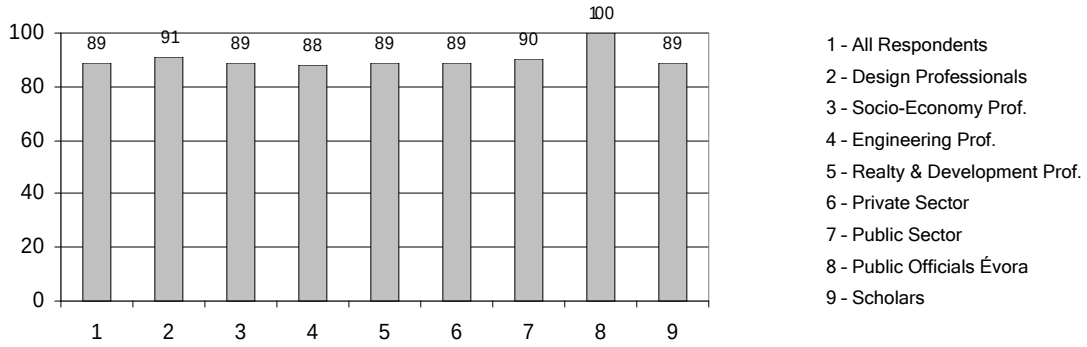
• DENSITY

Chart 7 – Percentage of respondents in favor of urban areas dense enough as to ensure a transit system and commercial activity



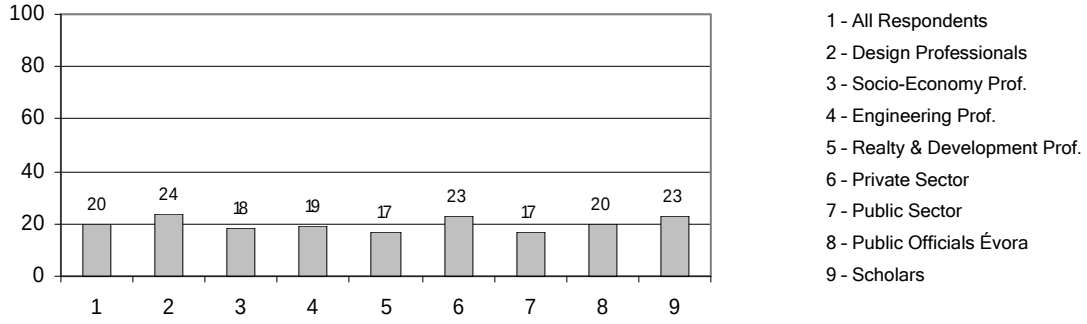
A large majority of all respondents (87%) expressed support for residential areas dense enough so as to allow for commercial activity and ensure a transit system.

Chart 8 – Percentage of respondents in favor of denser multi-use centers surrounded by less dense residential areas, at walking distance from the center



An even larger majority (89%) was in support of denser central areas with focal activities within walking distance of surrounding residential areas.

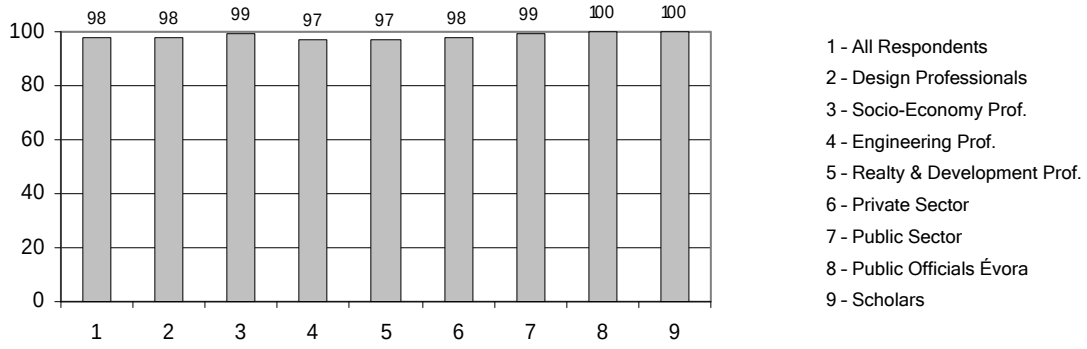
Chart 9 – Percentage of respondents that disagree with the development of uniformly dense urban areas



Nonetheless, and somewhat paradoxically, only 20% of all respondents were against uniformly dense urban areas, with a relatively high percentage (40%) considering it a desirable feature of urban design.[120] In all the answers about density, there was little variation among professional groups. A high percentage of all respondents (40%) however, expressed indifference, or a neutral position, regarding the development of uniformly dense urban areas.[121]

• PUBLIC SPACES

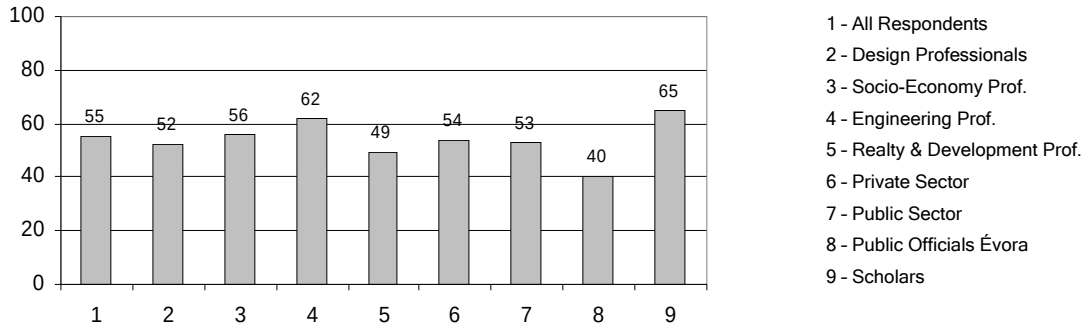
Chart 10 – Percentage of respondents in favor of public spaces like small parks, squares, and plazas interconnected by walkable tree-lined streets



Respondents in all professional groups were almost unanimously (98%) in favor of walkable public spaces—including small parks, squares and plazas—interconnected by tree-lined streets.

[120] See Appendix IV.
[121] Ibid.

Chart 11 – Percentage of respondents that disagree with the concentration of public open space in a large park only accessible by car

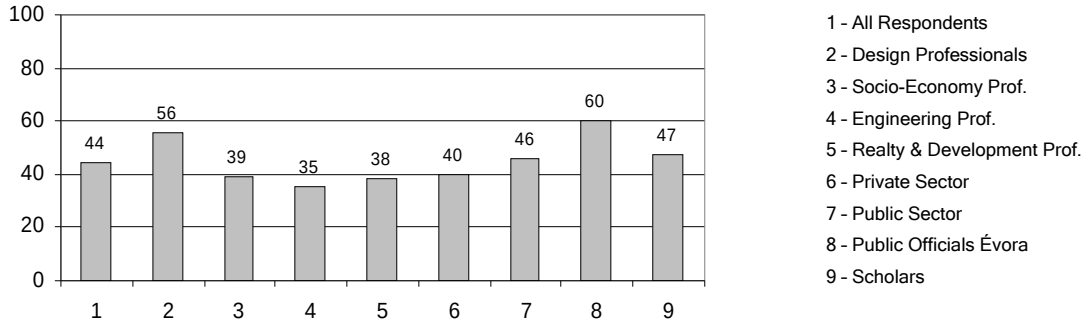


On the other hand, only a slight majority of all respondents (55%) disagreed with the concentration of public open space in large parks only accessible by car. Less than half of Évora's public officials (40%), as well as realtors and developers (49%) opposed this feature of urban design.

B) SOCIAL DIMENSION

• SOCIAL MIX

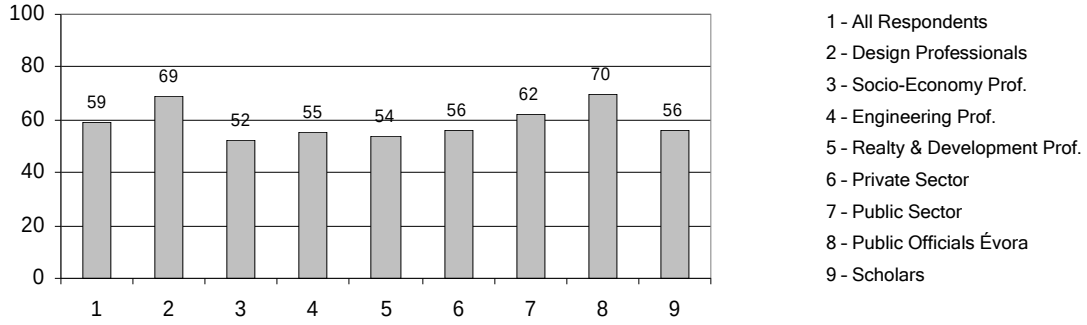
Chart 12 – Percentage of respondents that disagree with socially homogenous urban areas in terms of income



Only less than half of all respondents (44%) opposed socially homogenous residential areas in terms of income. Of all groups, only Évora's public officials, as well as design professionals were in majority against it (60% and 56% respectively). Those

less against it were the engineers (35%), realtors and developers (38%), and socio-economy professionals (39%).

Chart 13 – Percentage of respondents that disagree with socially homogenous urban areas in terms of age

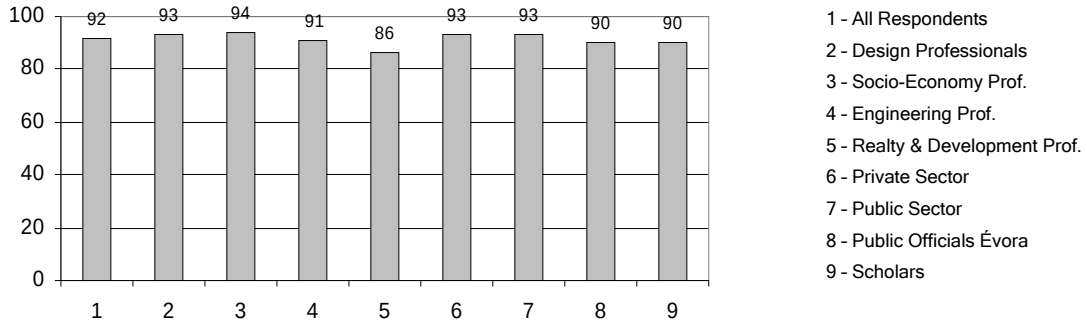


On the other hand, a majority of all respondents (59%) disagreed with socially homogenous residential areas in terms of age. Those more against it were Évora's public officials (70%) and the design professionals (69%). Those less opposed were the realtors and developers (54%), and the socio-economy professionals (52%). A significant number of all respondents, however, expressed indifference, or a neutral position, both regarding homogenous residential areas in terms of age (32%), and in terms of income (30%).[122]

[122] See Appendix IV.

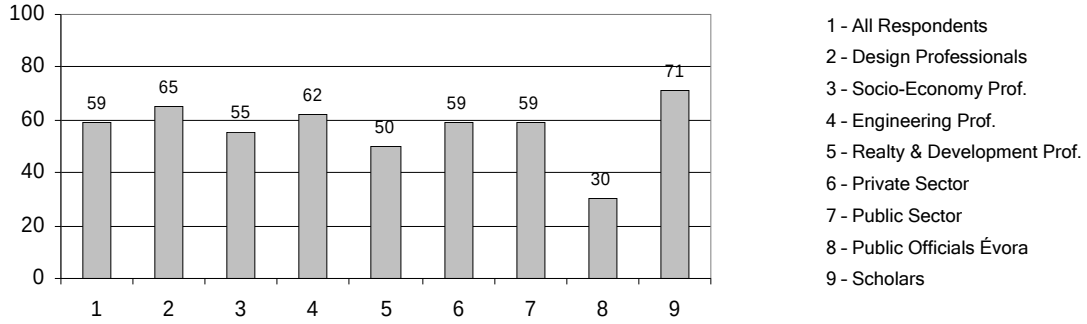
• MEETING PLACES

Chart 14 – Percentage of respondents in favor of central places that sustain an informal public life



There was a wide consensus among all respondents (92% in favor) regarding the importance of central places that sustain an informal public life, such as cafes, sidewalk cafes, and neighborhood corner stores.

Chart 15 – Percentage of respondents that disagree with having a shopping mall as the community's primary meeting place

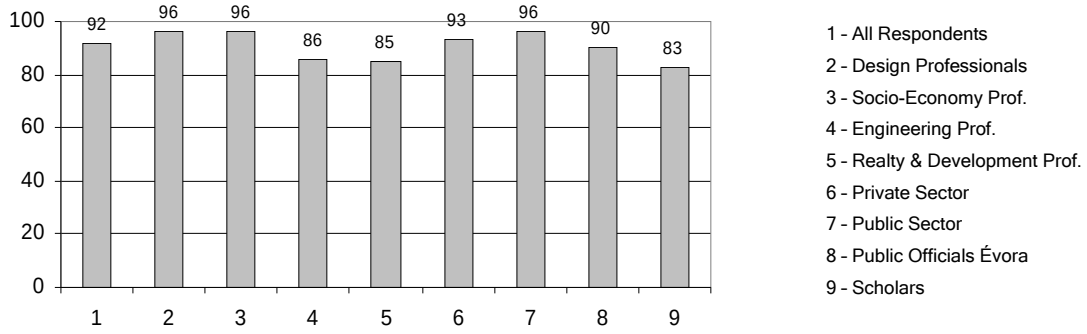


As for having a shopping mall as the community's primary meeting place, 59% of all respondents considered it a negative attribute. Scholars were the professional group more opposed to it (71%) while, on the other hand, only 30% of Évora's public officials expressed disagreement with this feature. A considerable number of respondents (29%) expressed indifference, or a neutral position, on the issue.[123]

[123] See Appendix IV.

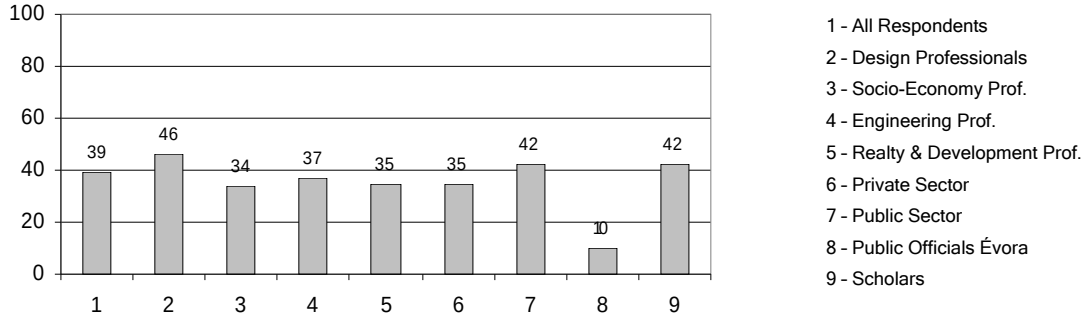
• CULTURAL PLACES

Chart 16 – Percentage of respondents in favor of central and accessible cultural places



There was a wide consensus among all respondents (92% in favor) regarding the importance of central and easily accessible cultural places, such as movie theaters, theater houses, public libraries, art galleries, museums, and so on.

Chart 17 – Percentage of respondents that disagree with the concentration of cultural places on a single location only accessible by car

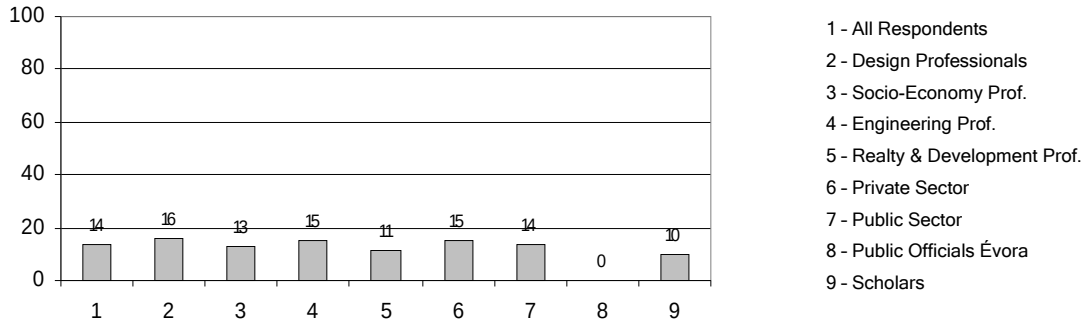


Nonetheless, and rather contradictorily, only 39% of all respondents disagreed with the concentration of cultural places on a single location only accessible by car. Especially significant is the opinion of Évora's public officials, with only 10% opposing this feature of urban design. A considerable number of all respondents (27%) expressed indifference, or a neutral position, on the issue.[124]

[124] See Appendix IV.

• SURVEILLANCE OF PUBLIC SPACES

Chart 18 – Percentage of respondents that disagree with the surveillance of public spaces by means of specialized security systems

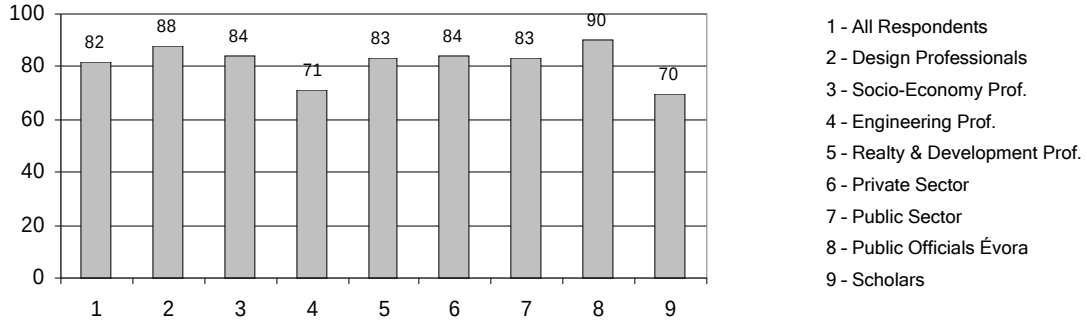


Only 14% of all respondents disagreed with the surveillance of public spaces by means of specialized, human and/or technological security systems, while a clear majority (61%) was plainly in favor of it.[125] Notably, no one among Évora's public officials was against this feature. A considerable number of respondents (26%), however, expressed indifference, or a neutral position, on the issue.[126]

C) MORPHOLOGICAL DIMENSION

• STREET GRIDS VS. HIERARCHICAL ROAD SYSTEMS

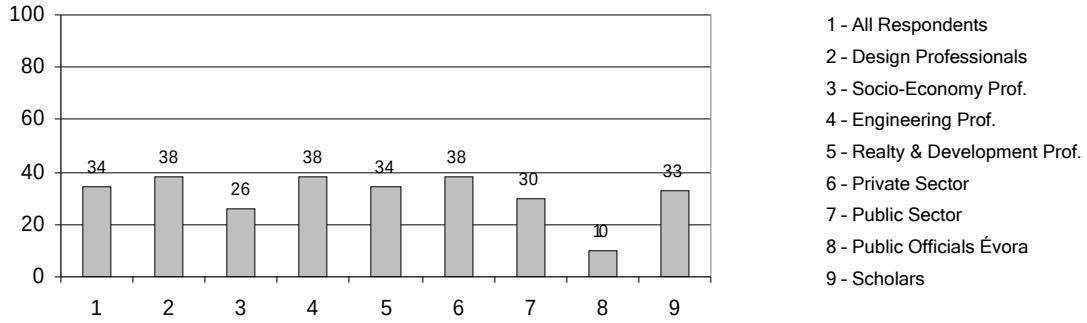
Chart 19 – Percentage of respondents in favor of grid-like networks of interconnected streets



[125] See Appendix IV.
[126] Ibid.

A large majority of all respondents (82%) said they were in favor of grid-like networks of interconnected streets (such as in a traditional city), allowing alternative routes between places.

Chart 20 – Percentage of respondents that disagree with hierarchical street systems served by main collector roads

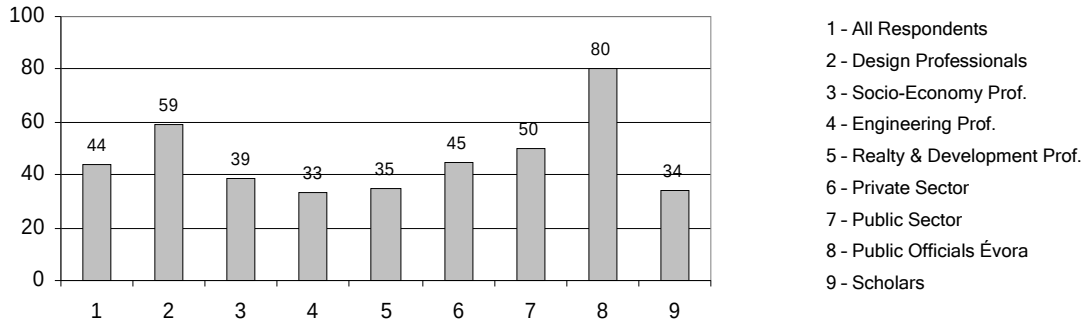


However, and quite inconsistently, only about one-third of all respondents disagreed with a hierarchical (dendritic) street system where a collector road must support all trips between places. Overall, more respondents were in favor (38%)[127] of this feature than against it (34%). Évora's public officials expressed the lowest disapproval rate (10%). Socio-economy professionals expressed a higher support for hierarchical street systems, with 43% in favor and just 26% against it, while all other professional groups' opinion was evenly divided, with an average of 36% in favor and 37% against.[128] A considerable number of respondents (28%) expressed indifference, or a neutral opinion, on the issue.

[127] See Appendix IV.
[128] Ibid.

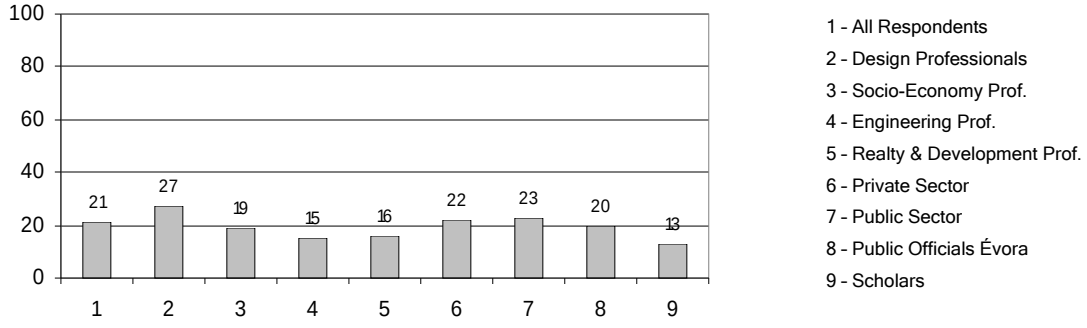
• MORPHOLOGY OF PUBLIC SPACE

Chart 21 – Percentage of respondents in favor of enclosed public spaces with facades of buildings shaping streets and squares



Enclosed public space with façades of buildings shaping streets and squares was a feature of urban design approved by 44% of all respondents, while 25% said that they were against it.[129] Those more patently in favor of this feature were Évora's public officials (80%). Among realtors and developers, scholars, and engineers, the opinions were evenly divided, with about 34% approving and 35% disapproving, on average. Design professionals, on the other hand, showed a much higher rate of approval, with 59% in favor of enclosed public spaces and only 11% against.[130]

Chart 22 – Percentage of respondents that disagree with open public spaces around isolated buildings, which do not shape streets and squares



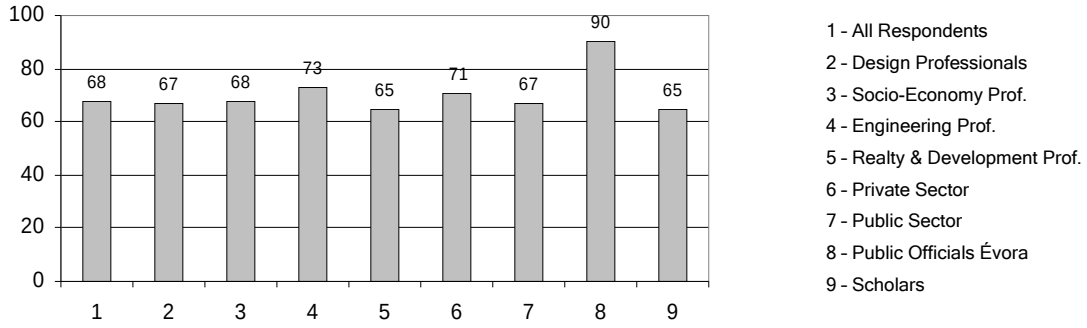
Nevertheless, when asked precisely the opposite, i.e. how much did they approve of open public spaces around isolated buildings, which do not shape streets and

[129] See Appendix IV.
[130] Ibid.

squares, half of all respondents (50%) were in favor[131] and only 21% against it. A considerably high number of respondents expressed indifference, or a neutral position, regarding both public space enclosed by buildings (32%) and public space surrounding isolated buildings (30%).[132]

• SIZE OF BLOCKS

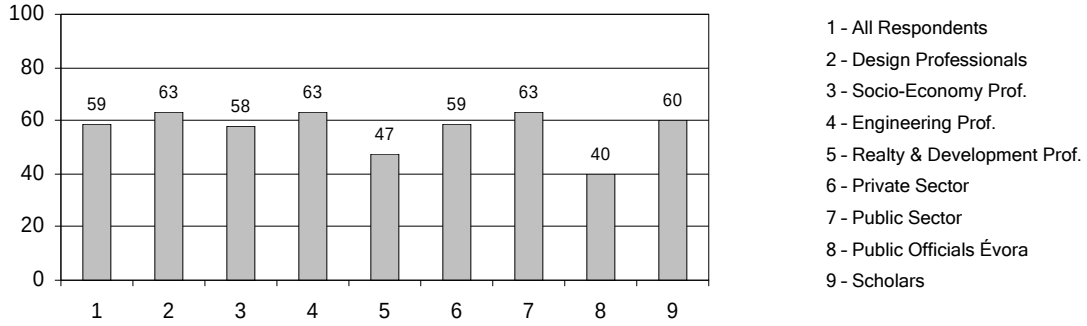
Chart 23 – Percentage of respondents in favor of small blocks



A large majority of all respondents (68%) were in favor of small blocks, while only 7% were against this feature of urban design.[133] Notably, Évora's public officials expressed the highest rate of approval (90%).

[131] See Appendix IV.
[132] Ibid.
[133] Ibid.

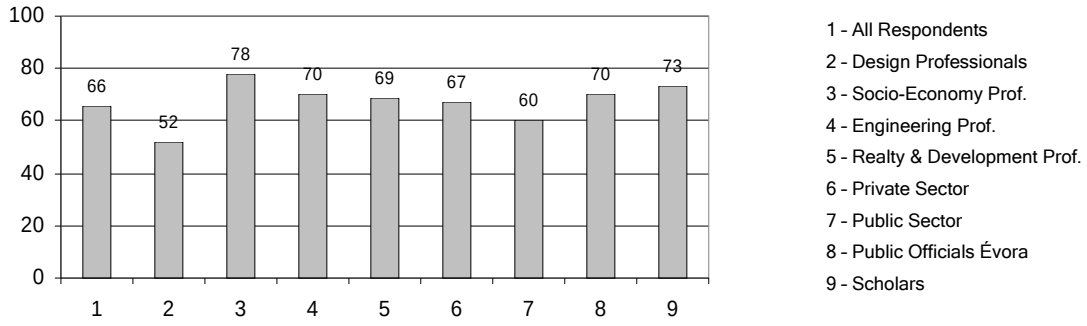
Chart 24 – Percentage of respondents that disagree with large "super-blocks" with internal service roads, surrounded by wide thoroughfares for traffic



A majority of all respondents (59%) were against large "super-blocks" with internal service roads, surrounded by wide thoroughfares for traffic. Only 15% were in favor of super-blocks.[134] Despite their high rate of approval of small blocks, only 40% of Évora's public officials disagreed with the idea of "super-blocks," which seems somewhat contradictory. On the other hand, a significant number of all respondents expressed indifference, or a neutral position, regarding both small blocks (24%) and super-blocks (26%).[135]

• ARCHITECTURE AND LOCAL TRADITION

Chart 25 – Percentage of respondents in favor of new buildings with an architecture that respects local tradition

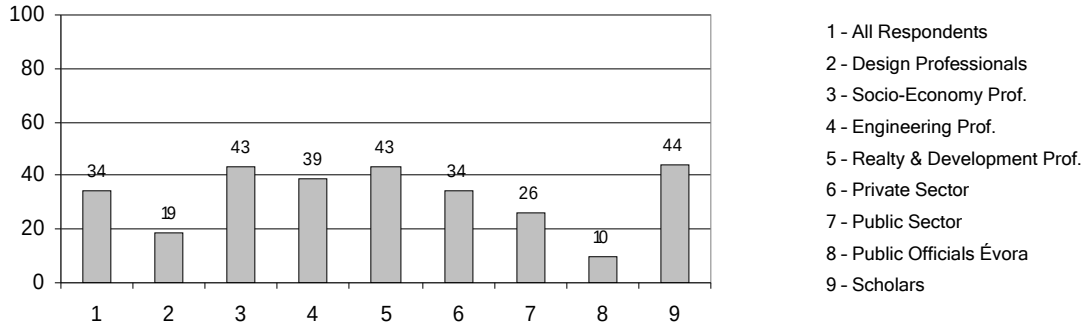


A majority of all respondents (66%) agreed that the architecture of new buildings should respect local tradition (in forms, details, textures, materials, colors), and only 7%

[134] See Appendix IV.
[135] Ibid.

said it should be otherwise.[136] Design professionals differed to some extent from the other professional groups, with just 52% supporting local tradition as an inspiring style for new buildings, 11% against it, and a very high percentage (38%) of undecided or neutral. Socio-economy professionals, in contrast, were 78% in favor, and only 3% against it. Overall, a relatively high number of respondents (27%) expressed indifference, or a neutral position regarding this feature of urban design.[137]

Chart 26 – Percentage of respondents that disagree with new buildings that contrast stylistically with the local traditional architecture



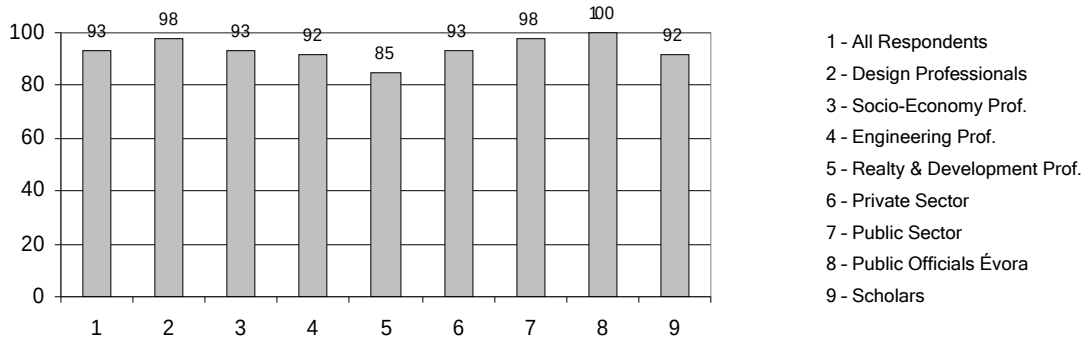
Only 34% of all respondents disagreed with an architecture of new buildings that contrasts stylistically with the traditional architecture of old buildings; 26% found it a positive feature; and a very high number of respondents (40%) expressed neutrality on the issue.[138] Notably, most Évora's public officials (50%), as well as design professionals (48%) were neutral, and only 10% and 19%, respectively, were against it. Conversely both socio-economy professionals and realtors and developers were less neutral (33%), with about 43% against stylistically contrasting architectures.[139]

[136] See Appendix IV.
[137] Ibid.
[138] Ibid.
[139] Ibid.

D) TEMPORAL DIMENSION

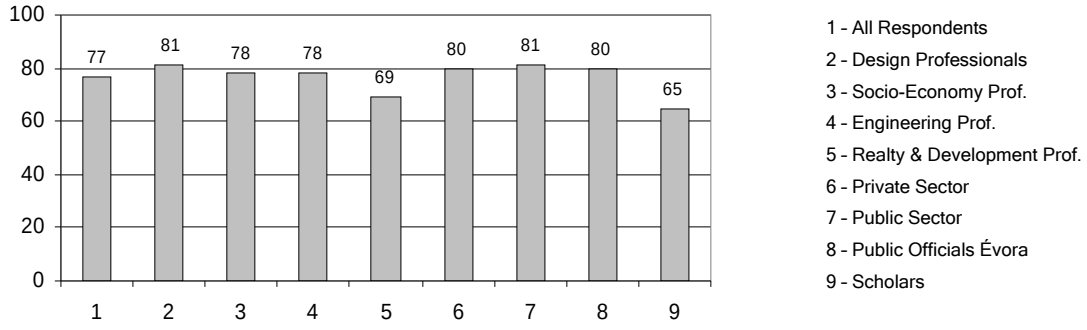
• URBAN CHANGE

Chart 27 – Percentage of respondents in favor of incremental urban change



There was a wide consensus among all respondents regarding incremental change, or the way new urban projects accommodate pre-existences and promote the co-existence of older structures and previous uses with newer ones, with 93% in favor of this feature of urban design.

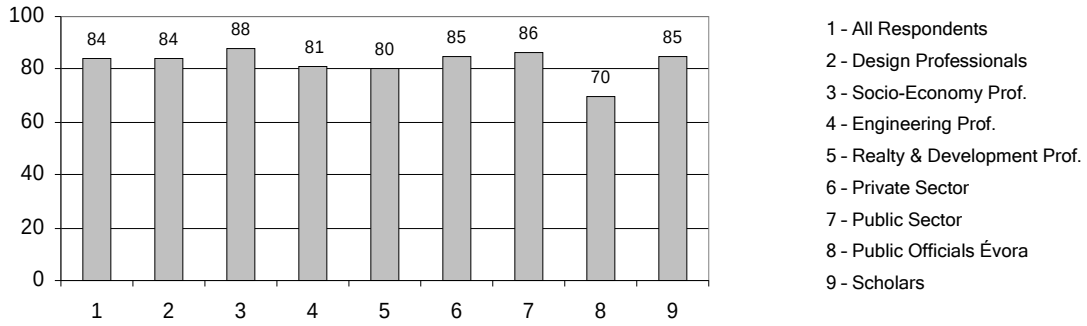
Chart 28 – Percentage of respondents that disagree with abrupt urban change



Regarding the opposite view, i.e. new urban projects that promote a full replacement of previous structures and former uses, a large majority of all respondents (77%) were against it. The answers to these last two questions were consistent, and there was not a great variation of opinion among professional groups.

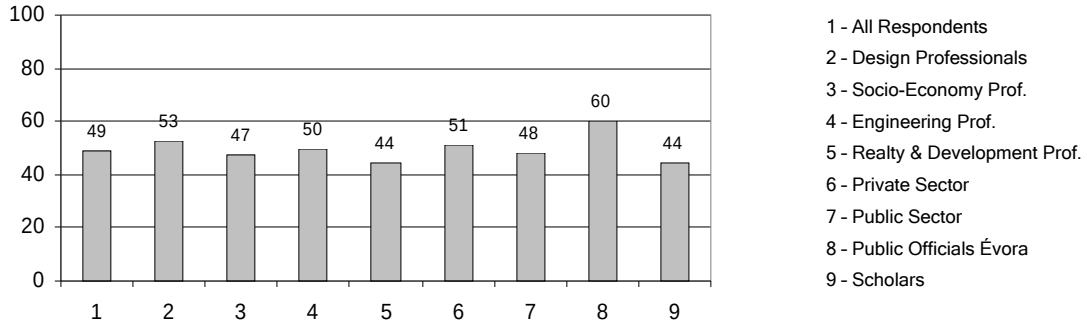
• ADAPTABILITY OF BUILDINGS

Chart 29 – Percentage of respondents in favor of "robust" buildings that can be adapted to accommodate diverse uses over time



When asked if they favored "robust" buildings—i.e. buildings that have charm and character justifying their prolonged preservation, and thus can be adapted to accommodate diverse uses over time—a large majority of all respondents (84%) were in favor and only 3% against it,[140] with little variation among professional groups.

Chart 30 – Percentage of respondents that disagree with "generic" buildings easier to replace in the short run by other, more modern buildings



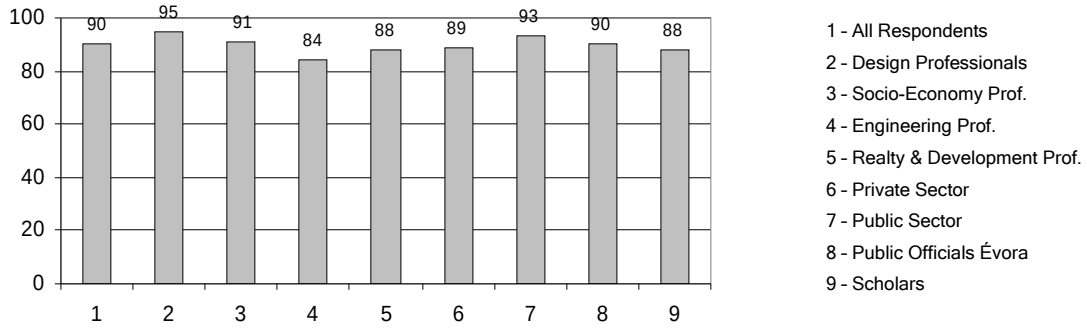
When asked if they favored "generic" architectures—i.e., relatively ordinary and unremarkable buildings easier to replace in shorter cycles by other, more modern buildings—49% of all respondents were against it and only 15% in favor.[141] The level of disagreement was higher among Évora's public officials (60%), and lower among both

[140] See Appendix IV.
[141] Ibid.

scholars and realtors (44%). Overall, a relatively high number of respondents (36%) expressed indifference, or a neutral position, regarding this feature of urban design.[142]

• "AROUND-THE-CLOCK" URBAN LIFE

Chart 31 – Percentage of respondents in favor of central places with multiple uses providing "around-the-clock" urban life



There was a wide consensus among respondents regarding "around the clock" urban life, with 90% of all respondents in favor of urban environments with a good level of activity at different times of the day, and also nightlife.

[142] See Appendix IV.

Major Findings[143]

On the whole, respondents expressed a reasonably high level of agreement with many of the neo-traditional principles of urban design, with no major divergences between areas of expertise or professional sectors. Summarizing the positive results on the various dimensions, there was a near unanimity in favor of multiple-use urban areas with public spaces interconnected by tree-lined streets, structured by centers dense enough so as to ensure transit, retail, accessible cultural places, and places that sustain an informal public life, surrounded by less dense residential areas at walking distance from those centers, which should have "around-the-clock" urban life. There was also a strong agreement among all respondents on issues like incremental urban change, robust buildings that respect traditional architectures, small blocks, and grid-like networks of interconnected streets.

It sounds as if nearly all the agents of urban development in Portugal, or at least nearly all of those surveyed, are familiar with—and enthusiasts of—most key tenets of New Urbanism. A closer reading of the survey outputs, however, reveals a series of major, sometimes highly problematic contradictions on the respondents' opinions regarding several dimensions of urban design.

On the subject of zoning, the near unanimity in favor of multiple-use urban areas was challenged by a relatively large number of respondents (more than 1 in 4, or 27%) that supported exclusively residential, car-dependent, urban areas. Moreover, only about one-half of all respondents (52%) frontally opposed residential zoning. Évora's public officials, in particular, showed the least opposition—not just to residential zoning (only 30%), but also to commercial zoning (40%) and zoning of offices (40%).

On the subject of density the disparities were even bigger. A large majority of all respondents (89%) expressed their support for "denser multiple-use centers surrounded

[143] All the figures cited in this section may be consulted on the frequency tables of Appendix IV.

by less dense residential areas." However, as many as 40% were also in favor of "uniformly dense urban areas," while only as few as 20% coherently disagreed with this feature of urban design.

Regarding meeting places, even though 92% of all respondents expressed their agreement with the existence of many central places that sustain an informal public life, only 59% were against having a suburban shopping mall as the community's primary meeting place. The number of those against the latter kind of meeting place among Évora's public officials was considerably lower (only 30%).

With concern to cultural places, while as many as 92% of all respondents were supportive of central cultural places accessible by walking, just as few as 39% disagreed with the concentration of cultural places on one single location only accessible by car. Among Évora's public officials the number of those against this kind of car-dependent cultural zoning was even lower (just 10%).

On the topic of street grids vs. hierarchical road systems, a sizeable majority of all respondents (82%) expressed their support for grid-like networks of interconnected streets (such as in a traditional city), allowing alternative routes between places. However, as many as 38% were also in favor of the opposite type of street system (i.e., a hierarchical street system with a collector road supporting all trips between places). Among Évora's public officials, even though 90% expressed support for the former type of street system only 10% openly opposed the latter.

Regarding architectural styles, about two-thirds of all respondents (66%) were in favor of new buildings with an architecture that respects the local tradition (in forms, details, textures, materials, colors). Conversely, only about half that number (34%) opposed architectural styles that contrast with the local traditional architecture. The public officials of Évora and (remarkably) the design professionals were the two groups less opposed to contrasting architectures (10% and 19% respectively).

Finally on the subject of adaptability of buildings, a large majority of all respondents (84%) expressed their support for "robust" buildings whose charm and character justifies their prolonged preservation and adaptation to diverse uses over time. On the other hand, only less than half (49%) disagreed with "generic," or relatively ordinary and unremarkable buildings, easier to replace in the short/medium term by other, more up to date buildings.

In short, these results show a great deal of inconsistency with regard to respondents' attitudes. In seven out of fourteen issues of urban design the large majority (and sometimes a near unanimity) of respondents in favor of one neo-traditional feature is challenged by a considerable number of the same respondents that do not disagree with an opposite view. Several respondents thus seem to oscillate between two conflicting views, or two contradictory beliefs, on the same topic.

On the whole, these sort of inconsistent judgments were evenly present among all professional groups, with greater incidence, however, among Évora's public officials. Such observations suggest a great deal of unpredictability in terms of the outcomes of urban planning and development processes, not just regarding the quality of plans and projects but also on the way they are reviewed by the municipal officials in charge of development control.

On the other hand, on four specific topics, a majority of respondents expressed opinions against what New Urbanism theory endorses as good urban design attributes. First, regarding the surveillance of public space only a few respondents (14%) disagreed with the surveillance of public spaces by means of specialized (human and/or technological) security systems, while the majority (61%) agreed with this type of public surveillance. While this preference might be related with a recent increase in crime rates in the country, one would have expected that either Jane Jacobs' "eyes on the street" or

Oscar Newman's "defensible space," or both, could have had an impact on the beliefs of planning experts—which apparently did not.

Second, regarding the morphology of public space, exactly one-half of all respondents were in favor of open public spaces surrounding isolated buildings, while just as few as 1 in 5 explicitly disagreed with such a distinctively Modernist feature of urban design. This is a rather upsetting outcome, which suggests a perceptual problem, and illustrates the pervasiveness of the Modernist canon among urban planning professionals.

Third, regarding density, only a few respondents (20%) disagreed with uniform building densities, while 40% were in favor and another 40% had no definite opinion. These figures suggest that among planning professionals "density" is a poorly understood aspect of the built environment, moreover when 89% of respondents expressed their support for uneven densities on an earlier question.

Finally, regarding the streets typology, 38% of all respondents were in favor of hierarchical street networks, while only 34% disagreed with that type of street design. Given that on a matching question respondents were overwhelmingly (82%) in favor of networks of interconnected streets, this is apparently another feature of urban design seriously misunderstood by planning experts.

As it was said before, the answers were fairly uniform among all groups of expertise and professional sectors, with only a few minor divergences on a small number of topics. It is, however, worth mentioning the fact that—differently from the other groups of respondents—one-half or more of Évora's public officials expressed a neutral position (neither agreed nor disagreed) on a large number of topics[144]. This higher level of non-commitment to a definite attitude might be explained by a reaction to the presence of an

[144] Including: density, public spaces, meeting places, cultural places, surveillance of the public realm, the street network, the morphology of public space, the size of blocks, and architectural styles.

interviewer.[145] However, it certainly reflects the same type of caution and deferral of judgment that these municipal agents of development control tend to exert while reviewing a private development project. The absence of clear and unambiguous sets of rules for development in such critical aspects as density, the street network, or the morphology of public space—to name just a few—might be responsible, thus, not only for a lack of transparency in municipal goals, but also for discretionary interpretations of current municipal plans, and inconsistent reviews of development projects.

Admittedly, some of the survey topics—such as the best type of meeting places or the adoption of neo-traditional architectural styles—might be controversial. However, there are some fundamental issues—like, for example, the use of zoning to organize urban growth, or the dendritic street network to carry traffic—which should be more consensual among professionals, since a growing body of theoretical and empirical evidence has already shown that functional zoning and highly specialized hierarchical street networks tend to generate non-sustainable urban environments in the long run.

* * *

While this chapter's UDCS investigated the attitudes of planning experts regarding the attributes of good urban design, the next chapter's VPS™ (Visual Preference Survey™) evaluates the opinion of laypersons—which either live or work in Évora, or know the city well—in terms of their preferential city image.

[145] While most responses were given online and thus anonymously, these respondents' answers to the questionnaire were obtained in the course of interviews.

VII. ASSESSING THE PUBLIC OPINION–EVORA'S VISUAL PREFERENCE SURVEY

Survey Design and Implementation

In addition to the experts' attitudes regarding neo-traditional urban design principles it also was important for this study to evaluate the general public's opinion vis-à-vis tangible urban design solutions. As previously noted on Chapter IV, the use of pictures has proven to be an effective way to get laypersons to convey their views on complex urban design issues. Thus, in order to assess the citizens' preference in terms of city image, I developed a Visual Preference Survey (VPS™) especially designed for the city of Évora.[146]

The Évora VPS was built from a selection of images of Évora (both from the central city and the suburban neighborhoods), as well as significant images from other locations. The majority of images included in the survey were captured during the fieldwork conducted in Portugal in the summer of 2008, both in Évora and in other Portuguese towns. A total of 73 pictures were organized into eight categories:

- Residential Streets and Buildings (14 pictures)
- Commercial Streets and Buildings (11)
- Office Streets and Buildings (9)
- Green Spaces (12)
- Public Spaces and Meeting Places (12)
- Architectural Styles (8)
- Safety and Surveillance of Public Space (5)
- Cycles of Urban Activity (2)

With the following question in mind: *"How appropriate is this image for the future of Évora?"* respondents were asked to rate each picture, on each category, on a scale of +10 (very appropriate) to -10 (very inappropriate). The survey also included a

[146] A detailed explanation of this photo elicitation technique is included in Chapter IV, under the rubric "Public Participation."

questionnaire designed to collect respondents' background data such as age, gender, education and profession; as well as a few questions to determine if the respondent is a resident of Évora, and how well does he or she know the city.

The Évora VPS was conducted online in Portugal in June and July 2009. Along this two-month period the digital survey—developed in collaboration with the Edward J. Bloustein Information Technology Services—was posted on several key local websites, such as the institutional website of the *Câmara Municipal de Évora* (Municipal City Council of Évora)[147], the institutional website of the *Associação de Municípios do Distrito de Évora* (Association of Municipalities of the District of Évora)[148], the official website of *Junta de Freguesia de Horta das Figueiras* (Horta das Figueiras Township Council)[149], and the popular pioneer website *Évora—Distrito Digital* (Évora—Digital District)[150]. During this same period the survey was also published on three major regional online newspapers: *Diário do Sul*[151], *Notícias Alentejo*[152], and *UEline*–the newspaper of Évora's University[153].

The total number of valid responses to the Évora VPS varied between categories, ranging between 887 in the first category and 778 in the last one.[154]

Methodological Limitations

The interpretation of the Évora VPS results, as exposed on the following pages, used simple descriptive statistics, such as frequencies and percentages to describe the composition of the pool of respondents; as well as means and standard deviations to

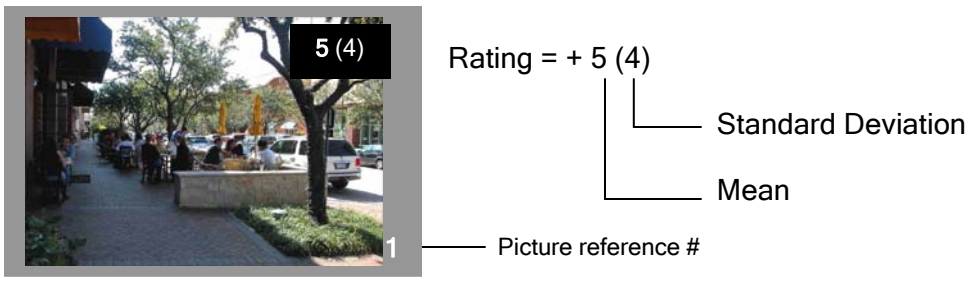
[147] www.cm-evora.pt
[148] www.amde.pt
[149] www.evora.net/jfhortafigueiras
[150] www.evoradistritodigital.pt
[151] www.diariodosul.com.pt
[152] www.noticiasalentejo.pt
[153] www.ueline.uevora.pt
[154] Probably given the large quantity of images included on the survey, a number of respondents dropped out after reacting to the images on the initial categories.

quantify the respondents' reaction to each picture. The elusiveness of the target population (namely all citizens and stakeholders with an interest in Évora's urban future), as well as the chosen data collection method (an online survey), were determinant of the sample design. Because potential respondents were not randomly selected, the sample is not statistically representative of the entire population, which predictably weakens the survey's external validity.

Like in the UDCS, there are also issues of validity regarding the VPS online format. Because the study population transcends the online community, and many people still don't use the net, the sample's representativeness is, to some degree, lower than the ideal. Moreover, the survey was published on several "open" sites,[155] making it impossible to estimate the response rate. Concurrently, since non-respondents tend to differ in important ways from respondents, the possibility of non-response bias must also be acknowledged.

Data Treatment and Analysis

Two statistics were used to rate the intensity of the respondents' reaction to each image: the mean, or the average score generated by all the respondents, and the standard deviation, or the approximate range of the respondents' scores. To better understand the degree of consensus on a given image, one should add or subtract the standard deviation from the mean; smaller standard deviations suggest a greater consensus.



[155] Meaning that potentially everyone on the internet could have had access to the survey.

This section begins with a brief description of the respondents' demographics and background. Subsequently, it summarizes the survey results. The highest rated and the lowest rated images on each VPS category are analyzed in order to highlight the most appropriate and the least appropriate design features for the future of Évora, according to the respondents. Finally it compares the scores of experts and non-experts, whenever these two groups' scores on a particular image were significantly different.

1) Respondents' Demographics and Background[156]

Of the almost 800 survey respondents 56% were female and 44% male, with an average age of 39.5 years.[157] The vast majority of the respondents said that they know the city of Évora well. About one-half (49%) stated that they either live, work, or study in Évora; and 88% of the other half (those who don't live, work, or study in Évora) stated that they nevertheless know the city well. Overall, only less than 6% of all respondents reported that they do not know the city.

Regarding the level of education, 69% of all respondents reported that they have at least a college degree.[158] Such figure reveals a substantial divergence between the survey sample and the general population, as the percentage of people with at least a college degree nationwide is just about 10%.[159] Thus, it must be taken into account that the survey respondents are considerably more educated than the general population, which is not unusual on online questionnaires.

The respondents were also asked about their occupation. For analytical purposes, the diverse professions reported were grouped into two major categories: "experts" (representing 17% of all respondents) and "non-experts" (representing 83% of

[156] Detailed results are included on Appendix V.
[157] With a standard deviation of 12.5.
[158] 44.5% reporting a college degree; 14.7% a master degree; and 9.7% a PhD degree.
[159] Source: INE (National Statistics Institute), Employment Statistics, March 2006.

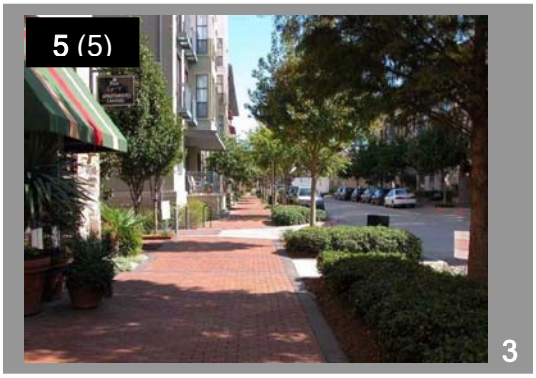
all respondents). “Experts” include all those with a profession related with matters of urban design, such as architects, landscape architects, planners, urbanists, civil and environmental engineers, geographers, developers, and real estate professionals.[160]

2) What People Want

The following pages display an ordered selection of the most valued and the less valued images on each survey category[161], together with a summary of the key urban design features which they portray. For each category, positive ratings suggest what should be the planning priorities and the development options in terms of urban form, while negative ratings illustrate examples of unacceptable typologies, which should be avoided in the future.

[160] These are basically the same fields of expertise of the professionals surveyed on the Urban Design Criteria Survey of Chapter VI.
[161] For all pictures and respective ratings see Appendix V.

CATEGORY 1 – RESIDENTIAL STREETS AND BUILDINGS – POSITIVE IMAGES



• Traditional streets and traditional buildings scored the best in this category.

• The highest ranked images display identifiable building widths (IBW—a linear façade subdivided into building modules).

• Preferred streets are 2-3 stories high, with vertical fenestration and variations on buildings' height accentuating the perception of IBW.

• The relationship between buildings' high to street width is 1:1 or 2:1. Whenever this relationship is wider than 1:1 the street is lined by trees, which compensate for the excessive width and contribute to the sense of enclosure.

• In terms of uses, pictures 1 and 3 highlight a preference for mixed-use buildings and multiple use environments. Additionally, picture 4 reveals a further preference for less dense residential areas, with traditional single-family houses in tree-lined streets.

• Streets are mostly one-way with parallel parking along the sidewalks, at least on one side.

• All streets have terminated vistas.

CATEGORY 1 – RESIDENTIAL STREETS AND BUILDINGS – NEGATIVE IMAGES

• Recent architectural typologies scored the worst in this category.

• Streets display repetitive and monotonous architectures, with the same building project repeated several times along the street.

• The individuality of different buildings is hardly, or not at all perceptible. Continuous linear façades with horizontal fenestration contribute to the lack of identifiable building widths (IBW).

• Streets have no landscaping and no trees.

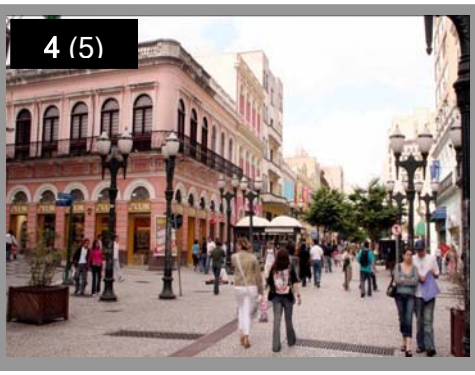
• In terms of uses, except on image 3 all other cases depict single-use buildings in single-use neighborhoods.

• Some streets have perpendicular parking too close to the buildings.

• The street lamps are noticeably more appropriate to roads than to urban streets.

• Streets do not have terminated vistas.

CATEGORY 2 – COMMERCIAL STREETS AND BUILDINGS – POSITIVE IMAGES



• The most valued images in this category are predominantly from multiple-use urban areas, typical of old downtowns, with mixed-use buildings combining homes and offices above street-level stores.

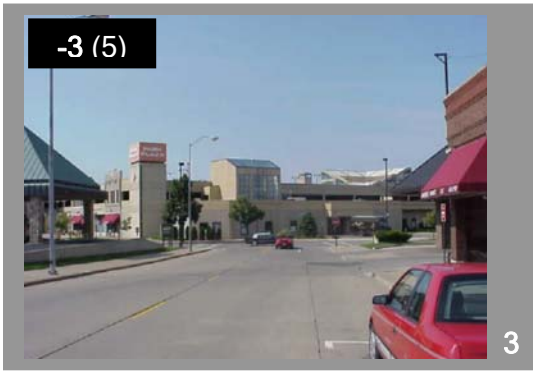
• Shops are located on exclusively pedestrian streets. There are no cars, either passing by or parked.

• Streets are lined by contiguous but individualized buildings with unique traditional architectures.

• Streets have textured pavements, proper urban furniture, and shaded areas (by trees, awnings, parasols, canopies), which enhance the experience of place and contribute to pedestrian comfort.

• One of the highest ranked images is from a traditional indoor market (picture 4), confirming the popularity of this commercial typology.

CATEGORY 2 – COMMERCIAL STREETS AND BUILDINGS – NEGATIVE IMAGES



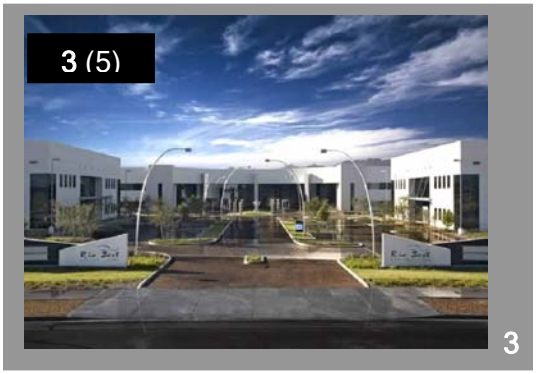
• The least valued images in this category are from single-use suburban car-oriented environments.

• The commercial facilities depicted on the images are located in isolated places, close to major thoroughfares and are only accessible by car.

• Individual stores and mega-stores are located inside exclusively commercial compounds, perhaps internally efficient but unresponsive to their surroundings.

• Like all typical big box retail facilities, the external architecture of the lowest ranked images is dull, with dead façades, un-walkable sidewalks, and business advertisement as their only decorative feature.

CATEGORY 3 – OFFICE STREETS AND BUILDINGS – POSITIVE IMAGES



• Multiple-use old city centers, with mixed-use buildings with retail on the ground floor and a vibrant pedestrian life ranked the best in this category.

• The most positive images suggest a clear preference for traditional streets, traditional buildings, and pedestrian friendly plazas as the best location for offices.

• Even if less popular, the location of offices in well organized and landscaped business complexes (single-use suburban areas) of low-rise buildings and modern architecture was also considered acceptable.

• Positive images also suggest a preference for enclosed public spaces.

CATEGORY 3 – OFFICE STREETS AND BUILDINGS – NEGATIVE IMAGES

• The couple of images that ranked worst in this category exemplify two different typologies:

- Low-rise office buildings sprawled along a highway in a suburban area;
- A more urban, high-density office park composed of mid-rise modern buildings.

• Isolated office buildings surrounded by parking (picture 3) and clustered office buildings served by a highway (picture 4) obtained a mean score of zero, which rank these typologies at least as problematic.

• All negative and “neutral” images depict single-use, car-dependent office areas.

CATEGORY 4 – GREEN SPACES – MOST POSITIVE IMAGES

• In this category there were no images with a negative score; all pictures of green areas ranked positive.

• The highest ranked images include:

- A traditional public gardens with an elegant antique gazebo or bandstand;
- A wide open space with large meadows, picnic fields and mature, indigenous oak trees;
- A small park with local referential elements, such as scattered limestone boulders, low white walls, and indigenous olive trees;
- A small urban park with benches providing a place for relaxation in close contact with the surrounding streets and buildings.

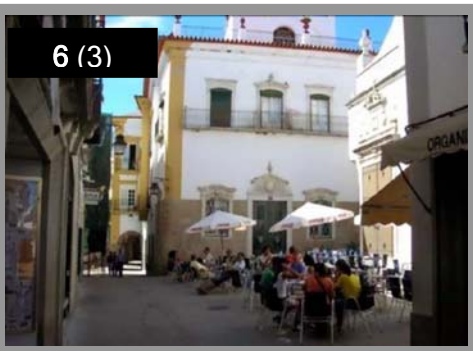
CATEGORY 4 – GREEN SPACES – LEAST POSITIVE IMAGES

• The least positive image in this category refers to a golf course.

• Also ranking low, even if still positive, picture 2 represents a wide open space with a sophisticated landscape design.

CATEGORY 5 – PUBLIC SPACES AND MEETING PLACES – POSITIVE IMAGES

1



2

3

4

• The images that scored the best in this category are all from time-honoured places with a unique character.

• Ranking high as great public spaces and meeting places, pictures 1 to 4 show:

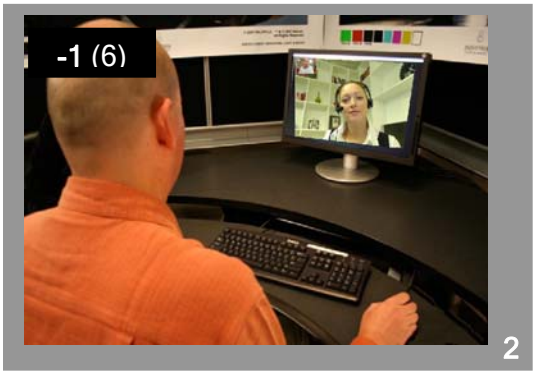
- Central plazas with outdoor seating areas, outdoor cafes and great public art;

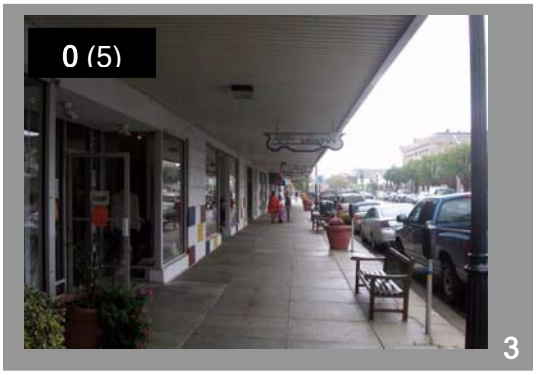
- Small squares with outdoor cafes providing informal places for meeting others, for relaxation, and for people-watching;

- Walk-through arcades, protected from the elements, where people can meet each other; and

- Public parks with grown trees for shadow and traditional gazebos for relaxation and entertainment.

CATEGORY 5 – PUBLIC SPACES AND MEETING PLACES – NEGATIVE IMAGES





• The lowest rated image in this category demonstrates that in general people don't consider shopping malls as great public spaces and meeting places.

• Similarly, the internet as "meeting" place rated low on people's preference.

• A couple of images obtained the ambivalent score of zero. In both cases there are places for relaxation and meeting others, however there is something missing. Picture 3 displays a plain commercial façade shaded by a plain continuous horizontal slab; while picture 4 exhibits a wide sidewalk with an arrangement of bulky concrete bollards close to an urban park. Given their scoring, such places have a high potential for improvement.

CATEGORY 6 – ARCHITECTURAL STYLES – POSITIVE IMAGES

• The most valued images in this category are from traditional and neo-traditional architectures.

• Roofs are covered with red clay portuguese-tiles, while the façades' surfaces are of white stucco with large ochre friezes along the bottom and thinner ochre stripes framing the windows—all typical features of the local traditional architecture.

• Elevations show a predominantly vertical and rhythmic fenestration; windowpanes have white frames subdivided in small squared glass-panes; small iron-fenced balconies face a few individual windows.

CATEGORY 6 – ARCHITECTURAL STYLES – NEGATIVE IMAGES

• The least valued images in this category are from modern architectures, with few or no references to traditional forms and materials.

• Buildings use "new" materials such as glass on balcony parapets, black aluminium on window frames, and black or beige stone covering the façades.

• Buildings have flat (non-visitable) roofs, and predominantly plain façades.

• On the least valued image, the elevation's composition—with an irregular fenestration and an assortment of differently shaped windows—doesn't convey a sense of rhythm or formal harmony.

• Pictures 1 and 2, with negative and "neutral" scores, represent two of the newest buildings recently erected close to the medieval walls of Évora.

CATEGORY 7 – SAFETY AND SURVEILLANCE – POSITIVE IMAGES

• In the category “safety and surveillance of public space” the image that scored the best, and quite ahead of all the others, shows typical Portuguese policemen and has a caption reading: “Surveillance of public spaces is ensured by traditional public safety forces.”

• Three other images/captions also attained a positive score. Evocative pictures were accompanied by the following captions:

- Surveillance of public spaces is ensured by private security firms;

- Surveillance of public spaces is ensured by video cameras; and

- Surveillance of public spaces is ensured via satellite.

CATEGORY 7 – SAFETY AND SURVEILLANCE – NEGATIVE IMAGES

• The single image that scored negative was the one representing a public space without any form of direct surveillance. The caption read: “Absence of formal/official surveillance.”

CATEGORY 8 – CYCLES OF URBAN ACTIVITY – POSITIVE IMAGES

+7 (3)

CATEGORY 8 – CYCLES OF URBAN ACTIVITY – NEGATIVE IMAGES

-4 (5)

• There were only two pictures in this category, one expressing an urban place with daytime and also nighttime life, and the other one showing the same place with daytime but not nighttime life. Captions read respectively: “Daytime life/Nighttime life,” and “Daytime life/Absence of nighttime life.”

• The former image got a very positive rating, while the latter obtained a fairly negative score.

3) Comparing Experts with Non-experts[162]

It was also important for this study to investigate if experts and non-experts shared the same preferences with regard to the VPS images. A thorough analysis of these two groups' results shows that in most cases the opinions are generally the same. In a few images, however, there were significant divergences. The following paragraphs describe the cases in which there was a statistically significant difference in scores between the two groups.

In the "Residential Streets and Buildings" category, experts and non-experts' opinion was significantly different on the image of an actual street of the *Malagueira* neighborhood of Évora, depicting a row of white 1-story houses of simple geometry and a rural feel. Experts considered it moderately positive, and non-experts slightly negative. Conversely, the image of a street bordered by 4-story apartment buildings with terraces and a "Mediterranean" feel was rated negative by experts and moderately positive by non-experts.

[162] Appendix VI includes the comparative output tables for "All Respondents," "Experts" and "Non-experts" on each VPS category, as well as T-tests comparing the mean scores of the two groups on specific images.

In the “Commercial Streets and Buildings” category, experts rated the image of a typical shopping mall with big-box retail units considerably lower than non-experts.

As for “Green Spaces,” the image of a golf course scored slightly positive among non-experts and slightly negative among experts.

In the “Public Spaces & Meeting Places” category, the image of the interior of a shopping mall scored negative on both groups, but considerably lower among experts than among non-experts.

Finally, regarding “Architectural Styles” the image of a 3-story apartment building with a “high-tech” look, recently built in the vicinity of Évora’s medieval walls was considered fairly positive by experts, while moderately negative by non-experts.

In all the six cases above, the t-tests (included on Appendix VI) show that the difference between the two groups is statistically significant, meaning that it did not occur by chance alone.

Major Findings

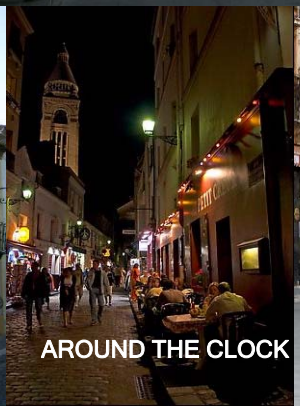
The assemblage of the highest rated images on all categories conveys an overall picture of what respondents want in terms of city image. It represents a consensual vision for the community's urban future. As evident in the next page photo collage, what laypeople elected as great urban places and great urban typologies on each and all survey categories—is basically the traditional European town.

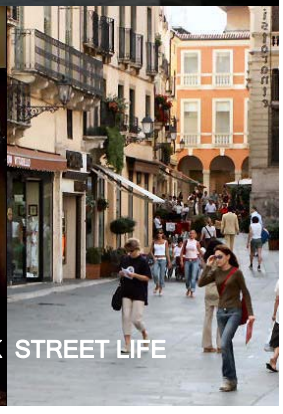
The collage suggests an unmistakable preference for traditional urban design solutions, typical of old downtowns, where streets and plazas configure multiple-use civic centres and where the public space is primarily enclosed with mixed-use buildings of traditional architecture employing local materials and colours, combining homes and offices above street-level retail, along pedestrian friendly, well-dimensioned streets. It also highlights a clear preference for public spaces such as traditional public gardens, as well as squares and plazas of diverse sizes, with public art, outdoor cafes, and a round-the-clock, vibrant pedestrian life.

On the other hand, the collage of the lowest rated images, on the following page, shows that people's distaste goes to modern urban typologies such as residential streets that replicate several times the same building project of unremarkable modern architecture; streets that do not have terminated vistas; car-oriented environments, such as shopping malls or suburban office buildings served by highways; golf courses instead of parks; shopping malls and the internet as places for socializing; and city streets that are dead at night.

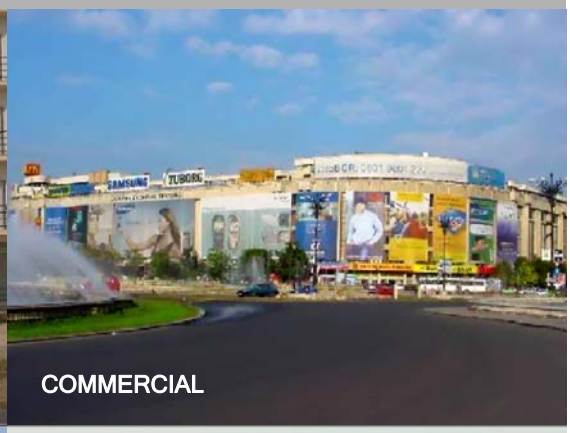
Regarding the foremost divergences between experts and non-experts, findings suggest that the former tend to consider modern architectures somewhat more acceptable than the latter. Compared with non-experts, they also tend to find shopping malls to be less acceptable both as commercial typology and as meeting place. Finally, they also think that golf courses fare worst as "green spaces" than non-experts.

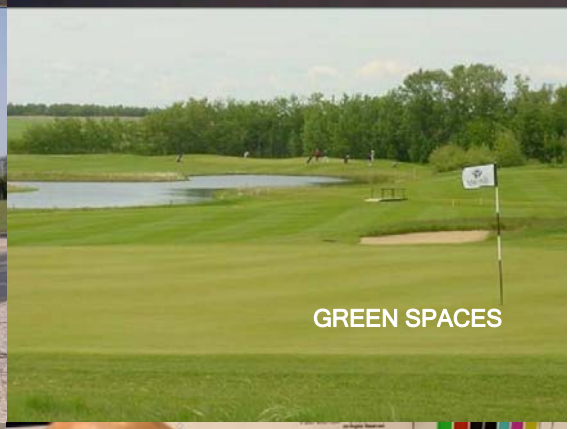
HIGHEST RATED IMAGES IN EACH CATEGORY

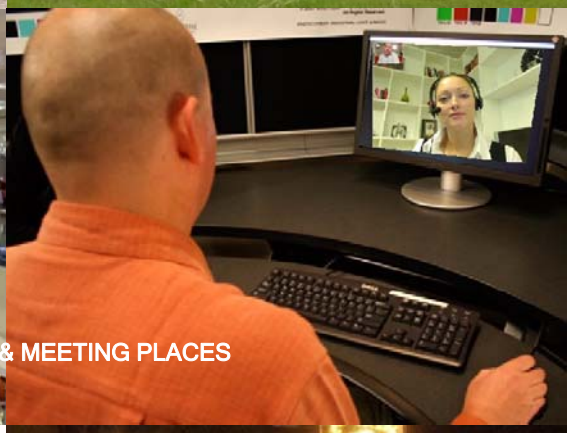


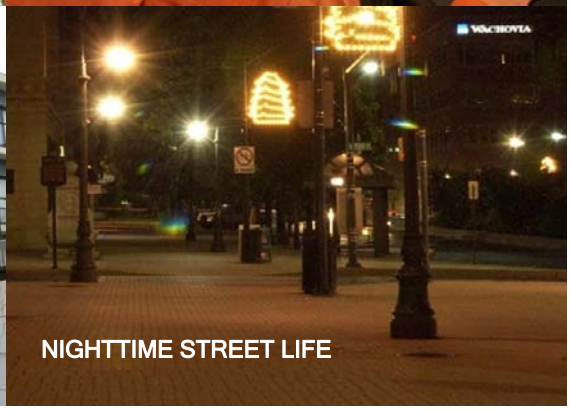


LOWEST RATED IMAGES IN EACH CATEGORY









A striking fact emerges from a comparison between the two collages of the previous pages, which encapsulate the survey results: while people eventually do prefer the patterns and morphologies of the traditional city with its enclosed and lively public spaces, the new suburbs are being shaped by formal and functional typologies—essentially car-oriented, mono-functional environments with unremarkable modern buildings which tend to produce dead public space—that people find unacceptable. The way contemporary urbanization is being carried out not only reveals a disregard for historic precedents but also a bold disregard for people's preferences.

While there are certainly many factors influencing the way urban development currently takes place, such as the economic environment, political choices, technological innovation, and accelerated social change, people's preference in terms of urban design—if not the established theories of good city form, or the plain good sense of not discarding the lessons of history altogether—should play a more decisive role in the processes of contemporary urbanization. In this sense, the urban design content of the highest rated images on the Évora VPS might be understood as the local DNA for the development of future urban areas, as well as a set of clues about what consumers want in terms of urban environment for all those involved on urbanization processes or the production of public space.

* * *

After establishing the theoretical basis of this study (Chapters II and III); examining the conditions under which urban design and planning processes are intertwined in the Portuguese planning system (Chapter IV); analysing the city of Évora, both by means of a spatial survey of its neighbourhoods and a systematic inquiry close to the public officials in charge of urban planning and development control (Chapter V); evaluating the opinions of experts (Chapter VI) and the general public (Chapter VII) on matters of urban design, in the next and final Chapter I will bring all the findings together

in order to draw the appropriate policy inferences. Following the conclusions, I will also suggest possible directions for future research, so as to advance the knowledge of urban design as a tool for public policy.

VIII. CONCLUSIONS, POLICY INFERENCES AND RECOMMENDATIONS

In previous chapters, I have ascertained that New Urbanism is the preferred movement towards the reform of growing Modernist suburbs in Portugal because it tries to rationalize land use and settlement patterns while advancing practical proposals for a more sustainable urban environment. Whenever, along this study, one speaks of "good" urban design and a "better" urban environment the emphasis is always on sustainability. A more sustainable urbanism is one that reduces the impact of urbanization on the natural environment; produces a low carbon footprint; saves energy; respects local differences; reinforces the identity of place; and promotes social integration. A more sustainable urbanism is one that must challenge most, if not all the principles advanced by the Athens Charter of 1933. A more sustainable urbanism must be necessarily *normative* if we want to succeed in offsetting the highly normative status quo of Modernism, which continues to generate high energy consuming, high carbon footprint car-dependent cities and suburbs that are perceived by people as negative and unacceptable. By contrast, *the principles* of New Urbanism try to make a difference by addressing all the sustainability issues that are becoming ever more urgent if we want to counteract the perverse effects of laissez faire urbanism according to Modernist principles.

A number of authors tend to equate the idea of neo-traditional planning and design with bucolic villages of pastiche architecture, "fake" urban environments and "theme parks." This attitude was—and still is—a primary reaction against some of the early American neo-traditional neighborhoods, which to get funded had to be marketed to an affluent upper middle-class. However, it is a mistake to identify New Urbanism with only these early marketed developments. New Urbanism's *principles*—if not a number of exemplar developments—transcend the questions raised by developments such as Seaside or Celebration. They also transcend the question of Prince Charles'

endorsement, which has biased many people's views of New Urbanism. The *principles* of New Urbanism are historical, classical, and proven in many older towns; they are versatile; they are applicable to many different circumstances and at different scales (from the street to the region). Neo-traditional principles may be applied to greenfields, but also to the re-structuring of dispersed suburbs, abandoned malls, and infill development in central areas. Moreover, from a social-economic point of view there is absolutely nothing inherently exclusionary on New Urbanism *principles* and typically now most neo-traditional developments include a range of price points.

Before advancing the analysis of this study's findings, I must acknowledge the fact that my units of analysis were individuals, as I was concerned with personal attitudes and preferences of experts (albeit grouped by professional sectors) as well as laypersons. Therefore, I did not probe into the workings and trends of larger structural and institutional arrangements. As stated on the introduction, city planning is political. There are always options for urban development, some eventually better than others, and the discussion of these options is necessarily political. Contextual factors such as public finances and taxes; fiscal incentives and public programs; the way municipal budgets are allocated; or the political setting, are all fundamental features of the decision-making process and have a decisive influence on developers' options and choices, and as such on the outcomes of planning processes.

The results of this study are intended to be the beginning of a political dialogue to change policy. The role of political processes interacting with the conditions for local regulation and governance, or the role of financial institutions on the outcomes of urbanization processes, could have been possible developments of this study—and are certainly topics that point out necessary directions for further research. However, I chose to focus more on urban design theories with a substantive content than on procedural social science theories, because urban morphologies are being decided and developed

on a daily basis mostly by people that tend to ignore theories that do not offer practical solutions. Theories without a substantive content, or a vision of an appropriate future, are of no use for developers. If we do not advance and suggest sensible alternatives towards "better" planning outcomes—i.e., towards more sustainable built environments—we might be simply contributing to an irrational continuity of "business as usual" on urbanization processes. In that sense, this work tries to develop a theoretical framework that supports the adoption of a number of straightforward urbanistic best practices.

I have stated, on a former chapter, that the choice of Évora as a case study was due to the unique qualities of the city. In fact, contrary to many other cities of comparable size, Évora has been developed on relatively consistent ways along the last decades; not only its center has preserved a strong condition of centrality, but suburban growth has proceeded according to currently acceptable morphological patterns (i.e., a rather "contained" albeit auto-oriented sprawl). However, the conclusions of this study—mainly with respect to the processes and the workings of the planning and development control systems—may be generalized to many other Portuguese cities of similar size. In fact, it is my conviction that the pressing requirements of sustainability will compel most European and North American municipalities to adopt innovative urban design strategies, such as those here described, in a very near future. In Portugal, however, the lack of a sufficient number of cases where the principles New Urbanism were explicitly applied makes it difficult at this moment to evaluate the conditions for the success or failure of such principles in practice.

There will be many barriers to implementation of New Urbanism in Portugal, the largest being the status quo "relationship" between developers and politicians, currently accepted highway/street engineering standards, and the lack of a popular understanding or education as to the alternatives inherent to neo-traditional planning. Nonetheless it is clear from this sample that an alternative is desirable and acceptable.

Before advancing the policy proposals suggested by the joint analyses of this study it is important to understand the major constraints to the implementation of New Urbanism principles in Portugal, as summarized in the following table.

Table 3 – Major constraints to the implementation of New Urbanism in Portugal

▪ Lack of an integrated "vision" for urban development	The absence of a clear indication of design expectations to planners and investors makes room for casuistic interpretations of vague zoning plans.
▪ Absence of consistent design criteria for the review of development projects	Without clear sets of rules like design guidelines, or local design guidebooks, the review of development proposals offers room for equivocal evaluations of design quality.
▪ Resistance to the implementation of Local Design Plans (PP)	*Loteamento* operations constitute the learned routine of development control; on the other hand, Local Design Plans are hard to get approved and to manage.
▪ Lack of a clear understanding of the alternatives inherent to neo-traditional planning	A pervasive lack of awareness of good practices of urban design among planning and development professionals leads to the continual adoption of non-sustainable solutions.
▪ Technical biases of planners, architects and road engineers	Planning professionals educated under Modernist paradigms tend to resist the adoption of new models; they use dated criteria and continue to spread outdated formulas through their projects.
▪ Resistance by the political/financier establishment	Current urban planning's status quo inhibits innovation; politicians, investors and financial institutions have an intrinsic reluctance to depart from usual modes of production.
▪ Outdated legislation	Technical legislation (like the RGEU,[163] or the engineering norms for urban streets) comprises obsolete rules that contribute to the propagation of non-sustainable standards.
▪ Lack of true public participation on planning processes	Public participation is seen by politicians and developers an a processual hindrance; community aspirations are seldom taken into account in spatial decision-making processes.

[163] The *RGEU – Regulamento Geral das Edificações Urbanas* (General Statutes of Urban Edifications) is a general by-law regulating the acts of building and construction; it was enacted in 1951, and despite a few amendments it still includes several outdated rulings that inhibit urbanization solutions appropriate to contemporary conditions.

The planning system has the responsibility for delivering a quality urban environment, and in Portugal the statutory framework and the democratic apparatus to do so are already in place. In fact, most of the tools we need to influence the quality of urban design already exist, albeit underutilized, within the present planning system. Why then do we continue to develop so many low-quality new urban areas? And what are the prospects for the adoption of New Urbanism principles in Portugal? The joint analysis of the facts and figures exposed on this study—namely on Chapters IV to VII—helps to shed light on these challenging questions.

In brief, the data suggests three major fields where constructive policy advice is necessary in order to maximize the planning system's potential for delivering a better urban environment: first, the field of urban planning and development control; second, the field of public participation; and third, the field of environmental education, and in particular urban design education.

Urban Planning and Development Control

> The central function of planning ... is to regulate change, in terms of maximizing its potential for the public good. ... [Its] central capability must be that of controlling land use and of shaping the physical environment.
>
> Parfect and Power, *Planning for Urban Quality*

As explained on a previous section (Chapter IV), current urban development in Portugal is predominantly regulated at municipal level by Municipal Structure Plans (PDM) or by Local Zoning Plans (PU), both planning instruments in which—given their own legal framework—matters concerning the quality and shape of the physical environment are either vague or entirely omitted. Only Urban Design Plans (PP) have the authority to positively define public space, but this type of plan has been seldom implemented in the country. Meanwhile, the possibility of urbanizing through simple

loteamento operations—typically of small size—without the framework of an Urban Design Plan, is arguably the main reason for the chaotic piecemeal development which is not only disfiguring most of our cities, but also turning our suburbs into the dysfunctional, economically unsustainable, and physically incoherent less-than-urban areas where most people live.

The study also identified (on Chapter V) a lack of clear urban design criteria for the licensing of such *loteamento* operations, which makes development control a rather casuistical game, open to all sort of pressures from developers and building companies. On the other hand, it was also evident on the interviews with the local planning authorities an entrenched resistance to the implementation of Urban Design Plans, because they take too long to develop and to get approved; because they are hard to manage; or even because *loteamento* operations constitute the learned, deep-rooted and hard to change routine of development control. It is only fair to acknowledge, however, that local planning authorities also face a major hardship, which is a critical lack of resources, both financial and of skilled human capital. Without proper financing and enough personnel with the relevant skills it is hard to advance less bureaucratic and more creative approaches to planning and development control.

In face of these conclusions and in line with the assumptions of the study, it seems critical that Portuguese municipal planning authorities start endorsing and developing a series of closely linked urban design strategies, which are summarized on the following sections.

Create a Vision before the Plan

Local authorities, developers, agencies and communities need to develop a shared vision of their urban future that might help them work together towards common goals. Then again, practical and feasible visions are only achievable if the visioning

process is a truly participatory one, and not the work of a team of experts working on their own, as it usually happens with Municipal Plans. Hence, the visioning process—which must be more than the drafting of a Plan—should be a genuine two-way process, not just a top-down exercise.

By projecting a concrete—and consensual—vision of what the city should be in the future, local planning authorities are providing a clear indication of design expectations to planners and development agents, which in turn creates a substantive platform for decision-making and expedites the licensing process.

Creating a vision for a place is a balancing act between the talent and experience of the designers and the interest and participation of the community; thereby it should include a variety of professionals, governmental and non-governmental agencies, politicians, land proprietors, interested developers, community associations, and local public. In Portugal, given a markedly weak culture of public participation, the effort of bringing together all these diverse actors might seem a major challenge. There are, however, many useful techniques, already tested elsewhere with success, which might be promoted in order to encourage and stimulate civic engagement. These can include public meetings and presentations, public exhibitions, advertising campaigns, oriented focus groups, design workshops and charrettes, community preference surveys, or straightforward methods similar to UDAL's "Placecheck," that may be assembled in composite visioning processes.[164] An urban design plan should always be the end result of such exercise in order to become an achievable vision.[165]

[164] A detailed description of these techniques may be consulted on Chapter V.
[165] Bringing the community together to create a shared vision for their urban future is further developed on the section "Public Participation" below in this Chapter.

Provide design guidance

Guidance on good practice in urban design enables the planning process to be proactive in delivering environmental quality. As Matthew Carmona has noted, "[in England] surveys of local authorities have been carried out on the perceived usefulness of design guidance, and it has been found that production of design guidance was the most successful type of initiative in improving quality of design" (cited in Paterson, 2006).

Local planning authorities have the power, via municipal statutes,[166] to enact best practice guides, which can operate as standard-setting urban design tools. Design guidelines should include a clear set of instructions regarding the overarching goals of the municipal spatial policy, along with supplementary guidance for a variety of details both for buildings and the public space (e.g., the use of certain materials and colors, building types, notions of proportion and articulation, rhythms of fenestration, typologies of verandas and porches, typologies of roofs, shop fronts, signage and street furniture, the layout of parking spaces, tree planting, hard and soft landscaping, and so on). The New Urbanism model of the transect[167]—with its neat separation of sectors from urban to rural, and a clear depiction of the appropriate typologies for each sector—might provide a helpful conceptual basis for the development of local design guidelines.

Well-produced, comprehensible and consistent "books of rules" issued by local planning authorities constitute a valuable guidance for developers, as well as the starting point of the architects' design, against which projects are to be tested.

Design guidelines might be approved as general rules for all new developments or as development briefs tailored for specific sites. They might include a concise

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[166] *Regulamentos Municipais*.

[167] A transect is a cross-section along a continuum—in this case a territorial continuum ranging from urban to rural—in which each transect zone varies in its level of urban intensity. Along this continuum the mixing of elements—a rural element in an urban environment and vice-versa—is avoided (Talen, 2002). Each transect zone is envisaged as an *immersive environment*, that is, a place internally coherent in its diversity, where all the elements reinforce each other in order to intensify a specific character and create a strong sense of place (Duany, 2002).

checklist of urban design issues to be addressed in the new projects, which greatly facilitates the review process. Moreover, a consistent set of design rules providing a framework to prospective schemes affords greater certainty to all those involved in the design and development process.

Local design guides should also be concise and easy to interpret, relying more on imagery than on text, with illustrative examples of good practice and expressive diagrams contrasting ‘good’ and ‘bad’ solutions.

Desirable standards of urban design, of course, should always be evolved through public consultation before being adopted.

Develop pilot projects

Perhaps the best way to persuade private developers to invest on urban design excellence is by setting the example through high-quality public projects. A single pilot project for a well chosen area of priority development might provide the necessary laboratory to test innovative approaches to design-led planning, as well as a rehearsal ground for novel administrative procedures and public participation.

Lessons from this project would help to elucidate viable procedures, to improve future planning processes, and to suggest practical examples to be included on future design guidelines and development briefs.

Improve design control

Good urban design should not be seen as some kind of planning luxury—it should always be a basic expectation and a fundamental requirement of every development project. Municipal planning boards should overcome their usual reluctance to refuse a scheme solely on the basis of its design. By explicitly making urban design quality a material consideration towards the grant of approval, planning authorities might

convey the message to developers that good design is not only a good form of investment but it also helps to speed the review process and to secure planning consent.

Pre-application negotiations on design quality, with the active involvement of planning officers in the draft proposals stage (prior to the applicant's formal submission of a scheme for planning approval) may be an important means towards this end. A process of constructive compromise initiated at the onset of a development proposal is essential if best design results are to be obtained.

Little attention is usually paid to context in development proposals, especially with respect to the space between buildings which is often omitted from consideration. Proposals submitted for approval (*loteamento* operations included) should place development sites in context. This might be done by means of an "environmental report" including a detailed examination of the urban context and the relationships between new and existing buildings, between new and existent urban areas, and/or between urban and rural/environmental areas. Concurrently, in the development phase of urban design plans and *loteamento* projects, the implementation of public spaces and landscaping should always come first, prior to the development of buildings.

Design for context also means the use, wherever possible, of local materials in buildings and indigenous vegetation in landscaping, in order to ensure good (sustainable) architectural and environmental standards—and both issues should be envisioned as an important and legitimate consideration in the granting of development permits.

Performance indicators are another important tool for development control. A consistent set of performance indicators, using for instance a composite system of points, should be devised in order to measure the quality of development projects. This might be done at two different stages: at the review process and after the project is built. Performance ratings would give clear indications of how well a development did in terms

of design quality. Moreover, associating performance indicators with a system of rewards for actual good ratings would be an effective way of providing incentives to deliver good quality urban design.

Perhaps the most powerful tool for design control using performance indicators is a rating system for certifying sustainable neighborhoods known as LEED-ND (Leadership in Energy and Environmental Design for Neighborhood Development), which is presently being developed in the U.S. by the joint efforts of CNU (Congress for the New Urbanism), the USGBC (U.S. Green Building Council) and the NRDC (Natural Resource Defense Council).[168] As stated in CNU's website: "LEED-ND integrates the principles of new urbanism, green building, and smart growth into the first national standard for neighborhood design, expanding LEED's scope beyond individual buildings to a more holistic concern about the context of those buildings."[169]

In order to get an effective control over urban development it is also necessary to have clearly structured decision making bodies of manageable size in place. An excessive division of competencies between municipal departments might accentuate the extant, but most of the time counterproductive separation between the urban planning system and the development control system. Overlapping authority over development projects seems to contribute to the maintenance of a regime where long term planning (carried on by planning departments) is disconnected from the daily management of urban growth (carried on by departments that manage private development projects). It is thus required to devise administrative routines that make the necessary bridges between the two scales of intervention in order to deliver consistent planning policies over time.

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[168] In September 2009 a final ballot was conducted online (among the members of CNU, USGBC and NRDC), to evaluate and ultimately approve the LEED for Neighborhood Development 2009 rating system.

[169] In: http://www.cnu.org/leednd

Another related aspect of departmental management is the available staff. Planning officers, particularly the more senior staff, bear a centrally important responsibility in dealing with applicants' design proposals. However, senior staff, especially architect-planners, is in relatively short supply in local government. Despite the proverbial constrains of limited municipal budgets, chief/senior planning officers should be freed from the time-consuming bureaucratic routines of their departments in order to be able to devise innovative approaches to planning and to provide the necessary design advice input to the development control process.

Expedite the review process of Urban Design Plans

The Urban Design Plan (PP) is the single planning tool that shapes a concrete "vision" of the urban future and the criteria to achieve it; it articulates the public and private spaces of several properties in coherent ways; and it establishes the overall design of public spaces. A dependable Urban Design Plan confers on local planning authorities a high degree of control over the quality and coherence of the urban ensemble. However, the typical review process of an Urban Design Plan is extremely bureaucratized and time-consuming when compared with the review process of a *loteamento* operation of similar dimension.

Hence, in order to increase the use of Urban Design Plans and gradually improve a lesser model of urban development based on *loteamento* projects, it seems crucial to expedite their review process. This could be done in a number of ways, but the most sensible alternative seems to be a change in (national) legislation with the purpose of assigning more responsibility to local (municipal) authorities in the process while reducing the intervention of supra-municipal authorities which have to review the plans today. This should be done, however, only after the municipality has put in place its own

dependable planning review board, equipped with officially approved local design guidelines.[170]

Because Urban Design Plans usually involve numerous properties and several owners, one of the fundamental tasks of the planning review board would be to sit together all interested parties—both land proprietors and project developers—and discuss alternative scenarios at a very preliminary stage, before initiating the plan itself. While the plan evolves follow-up meetings should occur whenever necessary, so as to discuss the inputs of other development agents and the community—collected at independent meetings/workshops, also moderated by the planning review board.[171]

Mobilize resources

In a situation where money is always tight and the statutory aspects of planning take over most of the available time and energy of the municipal departments' staff, functions such as urban design and environmental improvement tend to be regarded as secondary, peripheral, or non-essential. Therefore they are ascribed a minor share, if any, of the municipal budget. Unless the funding basis for municipalities can be widened not much of the proposed policies will be possible, and it is about time this situation is fully recognized and addressed at (central) government level.

Mobilization of more substantive resources for local planning and development control—an essential measure to curb reckless sprawl—requires a continued lobbying and political pressure close to governmental bodies both at national level and next to the European administration. There are weighty arguments in favor of improving planning and development control—such as the requirements of environmental sustainability and preservation of open space, or the need for more energy efficient, low carbon footprint urban areas—which are by now on most governments' agendas and might be taken

[170] See the above section "Provide design guidance."
[171] See the above section "Create a Vision."

advantage of by local governments. Most importantly, classic public policies for the rehabilitation of central areas must be matched by equivalent policies for the suburbs.

Concurrently, local governments should be prepared to be flexible and consider well-tailored private sector partnerships for the qualification and maintenance of public spaces, which in turn would liberate budgetary funds that could be applied on the tasks of planning and development control.

It would also be advantageous for municipal authorities to hire more well-prepared staff (competent planners, urban designers and architects) that could develop more urban design plans locally, instead of outsourcing most of these to private planning firms, which ordinarily don't understand as well the local realities, spend little time with the community, and don't care enough for local distinctiveness.

Public Participation

> Citizens want traditional urbanism, but institutions still tend to promote only Modernism.
>
> Langdon, *New Urban News*

> Too often, design is imposed on communities rather than involving them. Community groups and local representatives are still excluded from the decision-making process ... They are rarely involved ... in the development of design briefs and are often excluded from selection panels.
>
> Urban Task Force, *Towards a Strong Urban Renaissance*

There is a large deficit of public participation on planning processes in Portugal. Even though local authorities are required by law to consult with the community while preparing municipal plans or when considering certain private development projects, the participation of citizens and public interest organizations is typically very weak and insufficiently encouraged.

A major result of this lack of public engagement is that people are increasingly living and working in places they don't really like. As the Évora VPS has unmistakable shown (on Chapter VII) people have a strong preference for traditional urban design and architecture. On the other hand, most of the VPS modern typologies which have scored poorly are precisely those that are being implemented in our cities and suburbs.

There is an evident lack of perception of the importance of urban design in the ways we shape our environment. However, as a high number of interested respondents to the Évora VPS have shown, the public has a healthy concern about the impact of design on the environment. In fact, they only need new tools and the adequate channels to express their opinions. Hence, we need to develop better procedures that help to articulate community aspirations within the planning process.

Improve public participation

Public participation must be seen as an investment, and not as one more processual hindrance. Beyond the compliance with minimum statutory requirements (a 60 days mandatory period for public discussion before formal approval, at a plan's final phase) it would be more constructive to bring the community together from the onset of the design and decision-making processes. If the public learns of an important design decision only at the time it is about to been made, interest groups and concerned citizens cannot truly influence it; they can only give their endorsement or disapproval after the fact, with minimal, if any consequence.

Local governments must improve their commitment to involving local communities in spatial decision-making processes. They need to create a variety of innovative mechanisms that ensure public participation in the development of urban vision statements. There are many methods and original techniques for stimulating

public interest and involvement, as exposed above[172] and described in detail on Chapter V. In short, any initiative that increases public awareness of urban design issues and can help in negotiating and validating decisions should be welcomed.

Besides the routine of public meetings and presentations (the most frequent initiatives) local governments need to institute design workshops and charrettes (virtually unheard of in Portugal) at key stages of project development. Handled by professional facilitators and qualified designers, such public work sessions are intended to bring together community groups, landowners and developers and help them reach a shared vision. Likewise, community preference surveys such as the VPS™ (Nelessen, 1994), as well as initiatives carried out by interested local groups such as "Placecheck" (UDAL, 2005) are very practical techniques[173] that might contribute to translate laypeople aspirations into concrete urban design statements.

Other initiatives should be directed at increasing civic awareness of impending urban projects while persuading the public that "urban design matters." One such initiative could be to introduce mandatory billboards with 3D images of proposed projects (either buildings or *loteamento* projects) close to the construction site, *while the project is still under discussion*. Billboards should include clear information on how residents might "vote" and express their views on the project, and these opinions should be taken into consideration by municipal authorities during the review process.

It would also be beneficial to insulate planning processes as much as possible from political processes. Even though one might consider that all planning decisions are ultimately political, there are nuances and different approaches to this rule. Most of all, party politics should be absent from planning decision-making since people tend to take factional positions in line with party politics regardless of the

[172] In this Chapter, see section "Urban Planning and Development Control."
[173] A detailed description of these techniques may be consulted on Chapter V.

merits of a given proposal. True participation must be open-minded and unprejudiced, and the long-term goals of planning should never be compromised by the immediate ambitions of electoral cycles.

Environmental Education and Urban Design Expertise

> Built environment education has a key part to play in enabling people to make linkages between their aspirations and planning issues. We need to equip people to be consulted.
>
> Hughes, *Urban Design—A Seminar*

> Action is required at all levels and across all built environment disciplines to ensure the acquisition of the design skills necessary to deliver urban renaissance.
>
> DTLR/CABE, *Report to the Minister for Housing, Planning and Regeneration*

The experts involved in urban design at practical level come from a wide range of professional fields. As the findings of the Urban Design Criteria Survey have shown (on Chapter VI) these professionals' criteria for the evaluation of the built environment are all but consistent, across all fields of practice. A large number of experts expressed inconsistent judgments about several key design principles, some of them universally recognized today as elemental requirements of quality urban environments. This fact suggests a pervasive lack of awareness about good practices of urban design among planning and development professionals. At postgraduate and undergraduate levels, appropriate urban design education should be provided, not by making urban design another separate discipline of the planning field, but via an integrated approach to urban design that should be part of every curriculum of urban planning/development related disciplines. Concurrently, continuing professional development initiatives should be provided to practitioners already working in the field.

On the other hand, at the community level there is a recognized lack of knowledge and skills that are needed for genuine public engagement. To endow people with the basic ability to read and interpret the built environment proper environmental education must be provided at all levels of formal schooling.

It seems thus necessary to advance new educational policies directed both to the general public and the experts in order to promote widespread awareness of urban design matters, and more in-depth instruction to all those directly dealing with the built environment.

Educate the public

Environmental education should start as soon as primary school. The built environment, its buildings and the spaces between them constitute a rich learning resource for schoolchildren, which might be used to stimulate their critical curiosity about their surroundings, promote visual awareness, develop the knowledge of the built environment, and cultivate a familiarity with simple architectural terms. Publications such as “Our Street—Learning to See” (CABE, 2007) are valuable teaching tools for primary school teachers interested in enhancing their pupils’ environmental awareness while enabling them to become more critical about the quality of their physical surroundings.

At secondary school topical issues of urban design are relevant to many of the subjects taught at this level, such as geography, art, design, history, or environmental studies. The key objective is also to raise the students’ awareness of their physical environment, even though at this level each field of study should introduce its own approach by bringing in specific topics such as environmental sustainability, the study of architectural details, the analysis of maps, or comparative studies of different urban realities. Guided field trips to analyze good and bad examples of urban design are

recommended at this stage, so as to develop students' critical thinking and fieldwork skills.

As for persuading the general public of the importance of urban design, the media—especially the TV and the local/national press—remain the most powerful educators. Hence, it seems essential to mobilize governmental commitment and resources, at central and local levels, in order to get underway sensitizing campaigns in planning, development and environmental matters via those media.

Educate the experts

At undergraduate level urban design should be taught mainly as individual courses or modules built into all relevant programs (e.g., architecture, urban planning, geography, engineering, or real estate). At postgraduate level urban design must serve two distinct purposes, and individual courses and programs of study should be tailored accordingly: it must serve those who need to have a general comprehension of urban design topics but do not have the intention of working as urban designers, such as future geographers, traffic engineers, economists or realtors; and it must also serve all those who wish to become professional urban designers, mainly in design-oriented programs like architecture and landscape architecture.

Given the recent proliferation of new programs tangentially related to urban design in many Portuguese universities[174] and the relative confusion of professional competencies set off by such a diversity on a field traditionally belonging to architects and landscape architects, it seems advisable to appoint an independent review team that might recommend the necessary curricular adjustments to ensure a more integrated approach to planning and design. One of its foremost tasks should be to clarify which

[174] Among others of recent implementation, we have now the programs of urbanism, planning, urban planning, territorial planning, environmental planning, development control, environmental engineering, and territorial engineering.

specialists may become the designers of the urban environment, and which professionals may work as advisers in planning teams but do not have the indispensable training to become urban designers.

Meanwhile, continuing professional development on urban design should be available for improving the skills of all those already working in the field. Additional training should be accessible to technical staff in planning, traffic, housing, environment, and urban rehabilitation departments, both in the public and the private sectors. Central and local governments, as well as business firms should create training opportunities and ensuring that funding, as well as time, is made available to their staff for personal improvement. Design workshops, inter-professional seminars or conferences, self-learning toolkits and online modules, as well as exchanges of best practice with overseas institutions are some of the potential alternatives to continuing professional learning.

Last but not least, given that in general politicians do not have a background in design or visual arts, urban design training modules should be developed expressly for them. A clear explanation of the importance of urban design for the economy, for instance, would certainly be a decisive influence on economy-minded politicians. It is thus important for the community that mayors and other key political decision-makers gain some more knowledge about the importance of urban design for the built environment.

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The table on the following page includes a summary of the proposed planning policies, the necessary key actions, and the major agents that should be involved in each policy. It is clear that many factors have to work together to help ensure good urban design outcomes, and there is no quick fix to correct the imperfections of the planning system. Urban planning is a long-term investment that awards few short-term returns,

and planning processes have become increasingly complex, protracted and hard to manage. However, strategic policies such as those outlined here are substantive contributes to induce incremental changes in the planning system so as to improve the quality of urban design outcomes, and ultimately to improve people's quality of life.

Table 4 – Advisable Policies, Key Actions and Agents

Planning Policies	Key Actions	Key Agents
▪ Create a Vision	design workshops; advertising campaigns; charrettes; design contests; public meetings and presentations; public exhibitions; community preference surveys	municipal authorities, land proprietors, developers, governmental agencies, non-governmental organizations, politicians, community organizations, local residents
▪ Provide design guidance	design guidelines; development briefs; checklists	planning authorities (municipal and/or national)
▪ Develop pilot projects	pilot project for an area of priority development	municipal planning authorities
▪ Improve design control	pre-application negotiations performance indicators; environmental impact reports; well-prepared staff and efficient organization	municipal planning authorities, third-party evaluators
▪ Expedite Urban Design Plans	expedite the review process review legislation; develop design guidelines	municipal authorities central government
▪ Mobilize resources	exert political pressure on governmental bodies at national level and at the European Union; consider partnerships with the private sector	municipal authorities, central government, central European government, private sector
▪ Improve public participation	increase public awareness of urban design issues; insulate planning processes form political processes; stimulate public interest and involvement by using the methods described in the above policy “create a vision”	municipal government, community organizations, non-governmental organizations, developers, politicians, local residents

Planning Policies	Key Actions	Key Agents
▪ Educate the public	environmental education on primary school; urban design topics as part of other courses' curricula on secondary school; sensitizing campaigns on the media	central government, ministry of education, local boards of education
▪ Educate the experts	urban design modules built into relevant programs, at undergraduate level; urban design courses tailored to specific programs, at graduate level; certify urban design competency; elucidate politicians on the importance of good urban design	universities, independent review boards, central and local governments, private sector

Possible Directions of Future Research

Possible directions of future research include procedural improvements to the methods employed in this study and further inquiries that might add to our knowledge of urban development processes.

The format of the Visual Preference Survey method could be enhanced in several ways. First, in addition to a general online survey it would be useful to carry out a number of public sessions with specific community groups, which would allow for comparing scores from different groups. Next, regarding the format of the VPS pictures, a greater control over image variables could be attained by way of digital manipulation. For example, a given image could be manipulated in order to obtain two different scenes for the same site (keeping some features and changing others), which would help eliminating confounding variables and thus reveal the key features that cause certain scenes to be preferred. Another potential improvement would be to add the time and movement dimensions, by inserting a few short films in the VPS instead of still pictures. Lastly, on selected images one could use more sophisticated statistical methods, like multiple regression or logistic regression to study the effects of scene differences on scores while controlling for viewer effects or, conversely, to study the effects of viewer differences on scores while controlling for scene effects.[175]

Further surveys might be of great significance, such as Residential Satisfaction Surveys to evaluate and compare residents' degree of approval of diverse neighborhoods, and help uncover preferred urban design features from the residents' point of view. A combination of surveys and interviews could also be used to identify examples of "good" and "bad" urbanism according to consistent indicators.[176]

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[175] On a recent article (Ewing et al, 2005) it is also suggested the use of a hierarchical model—a cross-classified random effects model—instead of a regression model to examine VPS scenes.

[176] Elaine Paterson (2006) for example, describes a study where survey questionnaires were sent to local civic societies to identify "successful" and "unsuccessful" examples of recent

Additionally, there is also the need for studies with a focus on the organizational structure of decision-making bodies dealing with urban planning, such as municipal planning and development control departments and their linkages to regional and national planning boards. It is important to acquire a better understanding of the roles of key public officials and their staff, as well as to study the way in which organizational structure influences the negotiation process and ultimately its end result: the physical design of the public realm.

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developments in their own town according to dependable criteria, followed by interviews with key decision makers for each case to understand why things went well or not.

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APPENDIX I

Photo Survey of Évora - Historic Center and Suburban Neighborhoods

HISTORIC CENTER (1)






GROUP 1

HISTORIC CENTER (2)





GROUP 1

BAIRRO “DA CÂMARA” (Zona de Urbanização No1)






GROUP 2

BACELO






GROUP 3 / GROUP 4

GRANITO




GROUP 3 / GROUP 4

FREI ALEIXO






GROUP 3 / GROUP 4

MALAGUEIRA






GROUP 4

VILA LUSITANO






GROUP 4

CORUNHEIRAS

GROUP 4

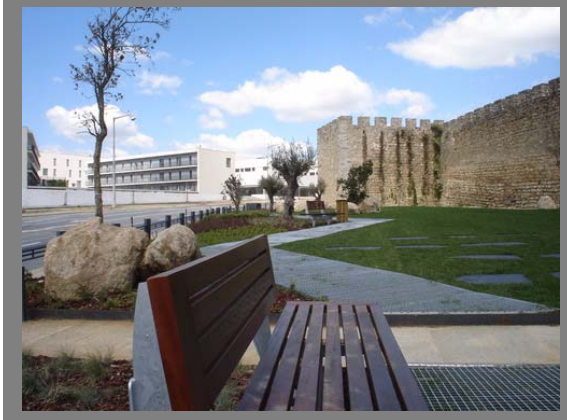
QUINTA DA SOEIRA






GROUP 4

NEW CONDOMINIUMS AT THE GATES OF ÉVORA



GROUP 5

TENENTE PEREIRA






RURAL SETTLEMENT AT THE GATES OF ÉVORA

APPENDIX II

Interviews' Questionnaire

Interview Questionnaire

A series of twelve exploratory interviews were conducted in Évora between July 17th and July 24th, 2007 with the department directors and the chiefs of division of all the key municipal services directly dealing with urban planning and development control. All interviews, lasting between forty minutes and one hour, were recorded and afterward (partially) transcribed. The interviews' questionnaire, consisting on a list of eight major "open-ended" questions, is stated below. Follow-up questions were used whenever necessary to pursue new relevant issues raised by the respondents. The most significant themes, emergent from the interviews, are exposed on Chapter V.

Interview questions:

1. What are the major duties of the department/division–in the context of urban planning and development control?

2. How does the department/division review a "loteamento" project? What are your main evaluation criteria?

3. Beyond the general parameters of a PDM[177] or a PU[178] (e.g., primary uses, FAR, number of floors, etc.) how do you control/evaluate more detailed issues of urban design (e.g., the design of public spaces; the parking layouts; the spatial distribution of buildings; the relationships with adjacent areas; etc.)?
- i.e., how do you evaluate the urban design of a "loteamento" project?

[177] PDM – *Plano Director Municipal* (Municipal Structure Plan)
[178] PU – *Plano de Urbanização* (Zoning Plan)

4. Are the applicants informed of the municipal expectations in regard to urban design on the initial phase of the application process?

5. According to municipal data, the typical dimension of the “loteamento” operations is very small (over the last 30 years about 80% of the permits were issued for urban projects for areas with less than 2 acres / and only 6% had more than 8 acres).
- What do you think of this?

6. From your experience in the department/division, do you consider the typical procedure (“loteamento” projects regulated by PUs or PDMs) adequate? Or do you see any advantages on a process primarily regulated by PP[179]?

7. On the subject of public participation on planning processes—do you consider that the current formula (and level of participation) adequate?

8. What are the major challenges/difficulties of the department/division on matters of development control?

[179] PP – *Plano de Pormenor* (Urban Design Plan)

APPENDIX III

Urban Design Criteria Survey (UDCS) – Questionnaire

Urban Design Criteria Survey (UDCS) – Questionnaire

Introduction:

The survey is organized into four brief sections, respecting the functional, social, morphological, and temporal/evolutional dimensions of urban design. In each section, questions refer to a set of features that influence the quality of public space. We want to assess your opinion about each one of those features.

QUESTION:

"Considering that you are evaluating the quality of a development plan for a new urban area, how would you rate each one of the following attributes, in the following scale?"

1 = Strongly disagree 2 = Disagree 3 = Neither agree / Nor disagree 4 = Agree 5 = Strongly agree

Functional dimensions

A1. The urban area is multi-functional, with residences and retail, as well as businesses, green areas for recreation, and public services/buildings

A2. The urban area is exclusively residential and urban activities (retail, business, public buildings, recreation areas) are easily accessible by car

A3. The urban area is exclusively commercial ("shopping center") and easily accessible by car

A4. The urban area is exclusively business-oriented ("office center") and easily accessible by car

A5. Residential density is enough to ensure a transit system and commercial activity

A6. The building density is uniform all over the urban area

A7. The urban area has a denser center with focal activities, including the offer of daily goods (groceries, etc.), within walking distance of most dwellings

A8. Public green areas are concentrated in a large park, easily accessible by car

A9. Public spaces include small parks, squares and plazas interconnected by tree-lined streets, easily accessible by foot

Social dimensions

B1. Given the supply of housing types, unit sizes, and market prices the urban area concentrates residents of the same socio-economic group

B2. Given the supply of housing types, the urban area concentrates residents of the same age group

B3. There are places that sustain an informal public life, such as cafes, sidewalk cafes, and neighborhood corner stores

B4. There are central cultural places - such as movie theaters, theater houses, public libraries, art galleries, museums, etc.

B5. A modern shopping mall constitutes the community's social focus and meeting place

B6. Movie theaters, theater houses, public libraries, art galleries and museums are concentrated in a "cultural center" easily accessible by car

B7. Public spaces are surveilled by means of specialized security systems (human and/or technological)

Morphological dimensions

C1. The street system is a grid-like network of interconnected streets (such as in a traditional city), allowing alternative routes between places

C2. The street system is hierarchical, and a main collector road supports all trips between places

C3. Public space is defined by the facades of buildings, shaping streets and squares, and promoting spatial enclosure

C4. Buildings do not shape streets and squares, and public space is the open space around buildings

C5. Buildings are organized into "super-blocks" with internal service roads, surrounded by large thoroughfares that channel the main fluxes of traffic

C6. Buildings are organized into blocks of relatively small dimensions

C7. The architecture of new buildings respects local tradition (in forms, details, textures, materials, colors)

C8. The architecture of new buildings contrasts stylistically with the traditional architecture of old buildings

Temporal dimensions

D1. The urban project accommodates and integrates pre-existences, facilitating the co-existence of older structures and previous uses with newer ones

D2. The urban project proposes a comprehensive replacement of all previous structures and former uses

D3. The architecture of buildings is “generic”, or relatively ordinary and unremarkable, facilitating their replacement in the short/medium term by other, more modern buildings

D4. Buildings are robust, i.e. (besides structural resistance) they have charm and character enough to justify their prolonged preservation, and can be adapted to accommodate diverse uses in time

D5. The urban project promotes a good level of activity at different times of the day, and night life is also ensured by the presence of entertainment and convivial activities in central places

IF YOU WHISH you may add any other attribute that you consider positive or very positive.

Background data

Main Activity:

- ❑ Architect
- ❑ Architect-Urbanist
- ❑ Landscape Architect
- ❑ Economist
- ❑ Other (please specify) _____
- ❑ Engineer (please specify your specialty)
- ❑ Engineer of the Territory
- ❑ Geographer
- ❑ Jurist / Lawyer
- ❑ Real estate mediator
- ❑ Real estate promoter
- ❑ Urban planner
- ❑ Sociologist
- ❑ Urbanist

Sector:

- ❑ Private sector
- ❑ Public sector
  - ❑ The public organization is a Municipality _____
- ❑ Independent
- ❑ Academic
- ❑ Other (please specify)

Years in Profession:

Approximately for how many years do you practice your main activity: _____

Thank you for participating in this survey.

APPENDIX IV

Urban Design Criteria Survey (UDCS) – Frequency Tables

Urban Design Criteria Survey (UDCS) – Frequency Tables

In all tables, columns with a gray background reflect conformity with neo-traditional design principles, while figures in bold represent the majority's opinion.

Functional dimensions

A1. The urban area is multi-functional, with residences and retail, as well as businesses, green areas for recreation, and public services/buildings.

A1	Disagree	Neutral	Agree	Total Responses
All Respondents	16 (2.7%)	13 (2.2%)	**573 (95.2%)**	602 (100%)
Design	4 (2.0%)	4 (2.0%)	**193 (96.0%)**	201 (100%)
Socio-Economy	6 (3.3%)	3 (1.6%)	**173 (95.1%)**	182 (100%)
Engineering	4 (3.3%)	3 (2.5%)	**113 (94.2%)**	120 (100%)
Realty & Development	2 (2.0%)	3 (3.0%)	**94 (94.9%)**	99 (100%)
Private Sector	6 (2,8%)	4 (1.9%)	**202 (95.3%)**	212 (100%)
Public Sector	4 (2.0%)	4 (2.0%)	**194 (96.0%)**	202 (100%)
Public Officials CME	0 (0.0%)	0 (0.0%)	**10 (100%)**	10 (100%)
Scholars	2 (4.2%)	2 (4.2%)	**44 (91.7%)**	48 (100%)

A2. The urban area is exclusively residential and urban activities (retail, business, public facilities, recreation areas) are easily accessible by car.

A2	Disagree	Neutral	Agree	Total Responses
All Respondents	**311 (51.7%)**	128 (21.3%)	162 (27.0%)	601 (100%)
Design	**119 (59.2%)**	43 (21.4%)	39 (19.4%)	201 (100%)
Socio-Economy	**91 (50.3%)**	37 (20.4%)	53 (29.3%)	181 (100%)
Engineering	**59 (49.2%)**	29 (24.2%)	32 (26.7%)	120 (100%)
Realty & Development	**42 (42.4%)**	19 (19.2%)	38 (38.4%)	99 (100%)
Private Sector	**112 (53.1%)**	44 (20.9%)	55 (26.1%)	211 (100%)
Public Sector	**106 (52.5%)**	46 (22.8%)	50 (24.8%)	202 (100%)
Public Officials CME	3 (30.0%)	3 (30.0%)	**4 (40.0%)**	10 (100%)
Scholars	**24 (50.0%)**	11 (22.9%)	13 (27.1%)	48 (100%)

A3. The urban area is exclusively commercial ("shopping center") and easily accessible by car.

A3	Disagree	Neutral	Agree	Total Responses
All Respondents	**386 (64.5%)**	110 (18.4%)	102 (17.1%)	598 (100%)
Design	**136 (67.7%)**	41 (20.4%)	24 (11.9%)	201 (100%)
Socio-Economy	**118 (65.6%)**	30 (16.7%)	32 (17.8%)	180 (100%)
Engineering	**79 (66.4%)**	19 (16.0%)	21 (17.6%)	119 (100%)
Realty & Development	**53 (54.1%)**	19 (19.4%)	26 (26.5%)	98 (100%)
Private Sector	**140 (66.4%)**	39 (18.4%)	32 (15.2%)	211 (100%)
Public Sector	**134 (67.0%)**	35 (17.5%)	31 (15.5%)	200 (100%)
Public Officials CME	**4 (40.0%)**	3 (30.0%)	3 (30.0%)	10 (100%)
Scholars	**30 (62.5%)**	9 (18.8%)	9 (18.8%)	48 (100%)

A4. The urban area is exclusively business-oriented ("office center") and easily accessible by car.

A4	Disagree	Neutral	Agree	Total Responses
All Respondents	**393 (65.7%)**	118 (19.7%)	87 (14.5%)	598 (100%)
Design	**143 (71.1%)**	35 (17.4%)	23 (11.4%)	201 (100%)
Socio-Economy	**116 (65.2%)**	38 (21.3%)	24 (13.5%)	178 (100%)
Engineering	**76 (63.3%)**	26 (21.7%)	18 (15.0%)	120 (100%)
Realty & Development	**58 (58.6%)**	19 (19.2%)	22 (22.2%)	99 (100%)
Private Sector	**138 (65.4%)**	45 (21.3%)	28 (13.3%)	211 (100%)
Public Sector	**137 (68.8%)**	38 (19.1%)	24 (12.1%)	199 (100%)
Public Officials CME	**4 (40.0%)**	2 (20.0%)	**4 (40.0%)**	10 (100%)
Scholars	**32 (66.7%)**	9 (18.8%)	7 (14.6%)	48 (100%)

A5. Residential density is enough to ensure a transit system and commercial activity.

A5	Disagree	Neutral	Agree	Total Responses
All Respondents	17 (2.8%)	59 (9.8%)	**523 (87.3%)**	599 (100%)
Design	6 (3.0%)	18 (9.0%)	**177 (88.1%)**	201 (100%)
Socio-Economy	6 (3.3%)	17 (9.4%)	**158 (87.3%)**	181 (100%)
Engineering	3 (2.5%)	13 (10.9%)	**103 (86.6%)**	119 (100%)
Realty & Development	2 (2.0%)	11 (11.2%)	**85 (86.7%)**	98 (100%)
Private Sector	7 (3.3%)	19 (9.0%)	**185 (87.7%)**	211 (100%)
Public Sector	4 (2.0%)	19 (9.5%)	**178 (88.6%)**	201 (100%)
Public Officials CME	0 (0.0%)	0 (0.0%)	**10 (100%)**	10 (100%)
Scholars	1 (2.1%)	7 (14.6%)	**40 (83.3%)**	48 (100%)

A6. The building density is uniform all over the urban area.

A6	Disagree	Neutral	Agree	Total Responses
All Respondents	119 (19.9%)	**240 (40.1%)**	**240 (40.1%)**	599 (100%)
Design	48 (24.0%)	**96 (48.0%)**	56 (28.0%)	200 (100%)
Socio-Economy	32 (17.6%)	63 (34.6%)	**87 (47.8%)**	182 (100%)
Engineering	22 (18.5%)	46 (38.7%)	**51 (42.9%)**	119 (100%)
Realty & Development	17 (17.3%)	35 (35.7%)	**46 (46.9%)**	98 (100%)
Private Sector	48 (22,9%)	73 (34.8%)	**89 (42.4%)**	210 (100%)
Public Sector	34 (16.8%)	**95 (47.0%)**	73 (36.1%)	202 (100%)
Public Officials CME	2 (20.0%)	**5 (50.0%)**	3 (30.0%)	10 (100%)
Scholars	11 (22.9%)	**21 (43.8%)**	16 (33.3%)	48 (100%)

A7. The urban area has a denser center with focal activities, including the offer of daily goods (groceries, etc.), within walking distance of most dwellings.

A7	Disagree	Neutral	Agree	Total Responses
All Respondents	18 (3.0%)	46 (7.7%)	**535 (89.3%)**	599 (100%)
Design	5 (2.5%)	14 (7.0%)	**181 (90.5%)**	200 (100%)
Socio-Economy	5 (2.8%)	15 (8.3%)	**161 (89.0%)**	181 (100%)
Engineering	5 (4.2%)	9 (7.5%)	**106 (88.3%)**	120 (100%)
Realty & Development	3 (3.1%)	8 (8.2%)	**87 (88.8%)**	98 (100%)
Private Sector	5 (2.4%)	19 (9.0%)	**187 (88.6%)**	211 (100%)
Public Sector	5 (2.5%)	15 (7.4%)	**182 (90.1%)**	202 (100%)
Public Officials CME	0 (0.0%)	0 (0.0%)	**10 (100%)**	10 (100%)
Scholars	2 (4.3%)	3 (6.4%)	**42 (89.4%)**	47 (100%)

A8. Public green areas are concentrated in a large park, easily accessible by car.

A8	Disagree	Neutral	Agree	Total Responses
All Respondents	**323 (54.7%)**	145 (24.5%)	123 (20.8%)	591 (100%)
Design	**103 (51.8%)**	57 (28.6%)	39 (19.6%)	199 (100%)
Socio-Economy	**100 (55.9%)**	40 (22.3%)	39 (21.8%)	179 (100%)
Engineering	**73 (62.4%)**	27 (23.1%)	17 (14.5%)	117 (100%)
Realty & Development	**47 (49.0%)**	21 (21.9%)	28 (29.2%)	96 (100%)
Private Sector	**113 (54.1%)**	53 (25.4%)	43 (20.6%)	209 (100%)
Public Sector	**105 (53.3%)**	51 (25.9%)	41 (20.8%)	197 (100%)
Public Officials CME	4 (40.0%)	**5 (50.0%)**	1 (10.0%)	10 (100%)
Scholars	**31 (64.6%)**	12 (25.0%)	5 (10.4%)	48 (100%)

A9. Public spaces include small parks, squares and plazas interconnected by tree-lined streets, easily accessible by foot.

A9	Disagree	Neutral	Agree	Total Responses
All Respondents	7 (1.2%)	6 (1.0%)	**588 (97.8%)**	601 (100%)
Design	2 (1.0%)	2 (1.0%)	**197 (98.0%)**	201 (100%)
Socio-Economy	1 (0.6%)	1 (0.6%)	**179 (98.9%)**	181 (100%)
Engineering	3 (2.5%)	1 (0.8%)	**116 (96.7%)**	120 (100%)
Realty & Development	1 (1.0%)	2 (2.0%)	**96 (97.0%)**	99 (100%)
Private Sector	2 (0.9%)	3 (1.4%)	**207 (97.6%)**	212 (100%)
Public Sector	2 (1.0%)	1 (0.5%)	**199 (98.5%)**	202 (100%)
Public Officials CME	0 (0.0%)	0 (0.0%)	**10 (100%)**	10 (100%)
Scholars	0 (0.0%)	0 (0.0%)	**48 (100%)**	48 (100%)

Social dimensions

B1. Given the supply of housing types, unit sizes, and market prices the urban area concentrates residents of the same income group.

B1	Disagree	Neutral	Agree	Total Responses
All Respondents	**261 (43.7%)**	176 (29.5%)	160 (26.8%)	597 (100%)
Design	**112 (56.0%)**	53 (26.5%)	35 (17.5%)	200 (100%)
Socio-Economy	**71 (39.2%)**	59 (32.6%)	51 (28.2%)	181 (100%)
Engineering	41 (34.5%)	**43 (36.1%)**	35 (29.4%)	119 (100%)
Realty & Development	37 (38.1%)	21 (21.6%)	**39 (40.2%)**	97 (100%)
Private Sector	**84 (40.0%)**	59 (28.1%)	67 (31.9%)	210 (100%)
Public Sector	**92 (45.5%)**	75 (37.1%)	35 (17.3%)	202 (100%)
Public Officials CME	**6 (60.0%)**	1 (10.0%)	3 (30%)	10 (100%)
Scholars	**22 (46.8%)**	13 (27.7%)	12 (25.5%)	47 (100%)

B2. Given the supply of housing types, the urban area concentrates residents of the same age group.

B2	Disagree	Neutral	Agree	Total Responses
All Respondents	**351 (58.7%)**	190 (31.8%)	57 (9.5%)	598 (100%)
Design	**138 (69.3%)**	48 (24.1%)	13 (6.5%)	199 (100%)
Socio-Economy	**95 (52.2%)**	69 (37.9%)	18 (9.9%)	182 (100%)
Engineering	**65 (54.6%)**	40 (33.6%)	14 (11.8%)	119 (100%)
Realty & Development	**53 (54.1%)**	33 (33.7%)	12 (12.2%)	98 (100%)
Private Sector	**117 (55.5%)**	69 (32.7%)	25 (11.8%)	211 (100%)
Public Sector	**123 (61.5%)**	64 (32.0%)	13 (6.5%)	200 (100%)
Public Officials CME	**7 (70.0%)**	1 (10.0%)	2 (20%)	10 (100%)
Scholars	**27 (56.3%)**	16 (33.3%)	5 (10.4%)	48 (100%)

B3. There are places that sustain an informal public life, such as cafes, sidewalk cafes, and neighborhood corner stores.

B3	Disagree	Neutral	Agree	Total Responses
All Respondents	5 (0.8%)	45 (7.5%)	**548 (91.6%)**	598 (100%)
Design	2 (1.0%)	12 (6.0%)	**187 (93.0%)**	201 (100%)
Socio-Economy	1 (0.6%)	10 (5.5%)	**170 (93.9%)**	181 (100%)
Engineering	1 (0.9%)	10 (8.5%)	**106 (90.6%)**	117 (100%)
Realty & Development	1 (1.0%)	13 (13.1%)	**85 (85.9%)**	99 (100%)
Private Sector	1 (0.5%)	13 (6.2%)	**195 (93.3%)**	209 (100%)
Public Sector	2 (1.0%)	12 (5.9%)	**188 (93.1%)**	202 (100%)
Public Officials CME	0 (0.0%)	1 (10.0%)	**9 (90.0%)**	10 (100%)
Scholars	0 (0.0%)	5 (10.4%)	**43 (89.6%)**	48 (100%)

B4. There are central cultural places - such as movie theaters, theater houses, public libraries, art galleries, museums, etc.

B4	Disagree	Neutral	Agree	Total Responses
All Respondents	23 (3.8%)	25 (4.2%)	**552 (92.0%)**	600 (100%)
Design	3 (1.5%)	6 (3.0%)	**191 (95.5%)**	200 (100%)
Socio-Economy	4 (2.2%)	3 (1.7%)	**174 (96.1%)**	181 (100%)
Engineering	11 (9.2%)	6 (5.0%)	**103 (85.8%)**	120 (100%)
Realty & Development	5 (5.1%)	10 (10.1%)	**84 (84.8%)**	99 (100%)
Private Sector	9 (4.2%)	5 (2.4%)	**198 (93.4%)**	212 (100%)
Public Sector	3 (1.5%)	5 (2.5%)	**193 (96.0%)**	201 (100%)
Public Officials CME	0 (0.0%)	1 (10.0%)	**9 (90.0%)**	10 (100%)
Scholars	5 (10.4%)	3 (6.3%)	**40 (83.3%)**	48 (100%)

B5. A modern shopping mall constitutes the community's social focus and meeting place.

B5	Disagree	Neutral	Agree	Total Responses
All Respondents	**350 (58.6%)**	174 (29.1%)	73 (12.2%)	597 (100%)
Design	**129 (64.5%)**	52 (26.0%)	19 (9.5%)	200 (100%)
Socio-Economy	**99 (54.7%)**	57 (31.5%)	25 (13.8%)	181 (100%)
Engineering	**74 (61.7%)**	35 (29.2%)	11 (9.2%)	120 (100%)
Realty & Development	**48 (50.0%)**	30 (31.3%)	18 (18.8%)	96 (100%)
Private Sector	**124 (58,8%)**	60 (28.4%)	27 (12.8%)	211 (100%)
Public Sector	**119 (58.9%)**	63 (31.2%)	20 (9.9%)	202 (100%)
Public Officials CME	3 (30.0%)	**7 (70.0%)**	0 (0.0%)	10 (100%)
Scholars	**34 (70.8%)**	9 (18.8%)	5 (10.4%)	48 (100%)

B6. Movie theaters, theater houses, public libraries, art galleries and museums are concentrated in a "cultural center" easily accessible by car.

B6	Disagree	Neutral	Agree	Total Responses
All Respondents	**232 (38.8%)**	164 (27.4%)	202 (33.8%)	598 (100%)
Design	**92 (46.0%)**	53 (26.5%)	55 (27.5%)	200 (100%)
Socio-Economy	61 (33.7%)	54 (29.8%)	**66 (36.5%)**	181 (100%)
Engineering	**44 (37.3%)**	33 (28.0%)	41 (34.7%)	118 (100%)
Realty & Development	35 (35.4%)	24 (24.2%)	**40 (40.4%)**	99 (100%)
Private Sector	73 (34.9%)	56 (26.8%)	**80 (38.3%)**	209 (100%)
Public Sector	**84 (41.8%)**	60 (29.9%)	57 (28.4%)	201 (100%)
Public Officials CME	1 (10.0%)	**5 (50.0%)**	4 (40.0%)	10 (100%)
Scholars	**20 (41.7%)**	14 (29.2%)	14 (29.2%)	48 (100%)

B7. Public spaces are surveilled by means of specialized security systems (human and/or technological).

B7	Disagree	Neutral	Agree	Total Responses
All Respondents	83 (13.8%)	153 (25.5%)	**364 (60.7%)**	600 (100%)
Design	31 (15.6%)	64 (32.2%)	**104 (52.3%)**	199 (100%)
Socio-Economy	23 (12.6%)	41 (22.5%)	**118 (64.8%)**	182 (100%)
Engineering	18 (15.0%)	30 (25.0%)	**72 (60.0%)**	120 (100%)
Realty & Development	11 (11.1%)	18 (18.2%)	**70 (70.7%)**	99 (100%)
Private Sector	32 (15.2%)	47 (22.4%)	**131 (62.4%)**	210 (100%)
Public Sector	29 (14.4%)	57 (28.2%)	**116 (57.4%)**	202 (100%)
Public Officials CME	0 (0.0%)	**5 (50.0%)**	**5 (50.0%)**	10 (100%)
Scholars	5 (10.4%)	13 (27.1%)	**30 (62.5%)**	48 (100%)

Morphological dimensions

C1. The street system is a grid-like network of interconnected streets (such as in a traditional city), allowing alternative routes between places.

C1	Disagree	Neutral	Agree	Total Responses
All Respondents	38 (6.4%)	67 (11.2%)	**492 (82.4%)**	597 (100%)
Design	9 (4.5%)	15 (7.5%)	**175 (87.9%)**	199 (100%)
Socio-Economy	10 (5.5%)	19 (10.5%)	**152 (84.0%)**	181 (100%)
Engineering	11 (9.2%)	24 (20.2%)	**84 (70.6%)**	119 (100%)
Realty & Development	8 (8.2%)	9 (9.2%)	**81 (82.7%)**	98 (100%)
Private Sector	12 (5.7%)	22 (10.5%)	**175 (83.7%)**	209 (100%)
Public Sector	15 (7.4%)	20 (9.9%)	**167 (82.7%)**	202 (100%)
Public Officials CME	0 (0.0%)	1 (10.0%)	**9 (90.0%)**	10 (100%)
Scholars	2 (4.3%)	12 (25.5%)	**33 (70.2%)**	47 (100%)

C2. The street system is hierarchical, and a main collector road supports all trips between places.

C2	Disagree	Neutral	Agree	Total Responses
All Respondents	201 (33.8%)	167 (28.1%)	**226 (38.0%)**	594 (100%)
Design	**76 (38.0%)**	53 (26.5%)	71 (35.5%)	200 (100%)
Socio-Economy	47 (26.0%)	57 (31.5%)	**77 (42.5%)**	181 (100%)
Engineering	44 (37.6%)	28 (23.9%)	**45 (38.5%)**	117 (100%)
Realty & Development	33 (34.4%)	29 (30.2%)	**34 (35.4%)**	96 (100%)
Private Sector	**80 (38.1%)**	54 (25.7%)	76 (36.2%)	210 (100%)
Public Sector	60 (30.2%)	50 (25.1%)	**89 (44.7%)**	199 (100%)
Public Officials CME	1 (10.0%)	**5 (50.0%)**	4 (40.0%)	10 (100%)
Scholars	16 (33.3%)	**18 (37.5%)**	14 (29.2%)	48 (100%)

C3. Public space is defined by the facades of buildings, shaping streets and squares, and promoting spatial enclosure.

C3	Disagree	Neutral	Agree	Total Responses
All Respondents	148 (25.0%)	187 (31.5%)	**258 (43.5%)**	593 (100%)
Design	21 (10.7%)	60 (30.5%)	**116 (58.9%)**	197 (100%)
Socio-Economy	53 (29.1%)	59 (32.4%)	**70 (38.5%)**	182 (100%)
Engineering	**40 (34.2%)**	39 (33.3%)	38 (32.5%)	117 (100%)
Realty & Development	**34 (35.1%)**	29 (29.9%)	**34 (35.1%)**	97 (100%)
Private Sector	46 (22,1%)	68 (32.7%)	**94 (45.2%)**	208 (100%)
Public Sector	40 (20.0%)	61 (30.5%)	**99 (49.5%)**	200 (100%)
Public Officials CME	1 (10.0%)	1 (10.0%)	**8 (80.0%)**	10 (100%)
Scholars	13 (27.7%)	**18 (38.3%)**	16 (34.0%)	47 (100%)

C4. Buildings do not shape streets and squares, and public space is the open space around buildings.

C4	Disagree	Neutral	Agree	Total Responses
All Respondents	123 (20.6%)	176 (29.5%)	**298 (49.9%)**	597 (100%)
Design	54 (27.3%)	72 (36.4%)	**72 (36.4%)**	198 (100%)
Socio-Economy	35 (19.2%)	54 (29.7%)	**93 (51.1%)**	182 (100%)
Engineering	18 (15.3%)	28 (23.7%)	**72 (61.0%)**	118 (100%)
Realty & Development	16 (16.2%)	22 (22.2%)	**61 (61.6%)**	99 (100%)
Private Sector	46 (22,1%)	65 (31.3%)	**97 (46.6%)**	208 (100%)
Public Sector	47 (23.4%)	61 (30.3%)	**93 (46.3%)**	201 (100%)
Public Officials CME	2 (20.0%)	**5 (50.0%)**	3 (30.0%)	10 (100%)
Scholars	6 (12.5%)	16 (33.3%)	**26 (54.2%)**	48 (100%)

C5. Buildings are organized into "super-blocks" with internal service roads, surrounded by large thoroughfares that channel the main fluxes of traffic.

C5	Disagree	Neutral	Agree	Total Responses
All Respondents	**347 (58.7%)**	154 (26.1%)	90 (15.2%)	591 (100%)
Design	**123 (62.8%)**	51 (26.0%)	22 (11.2%)	196 (100%)
Socio-Economy	**104 (57.8%)**	44 (24.4%)	32 (17.8%)	180 (100%)
Engineering	**74 (62.7%)**	23 (19.5%)	21 (17.8%)	118 (100%)
Realty & Development	**46 (47.4%)**	36 (37.1%)	15 (15.5%)	97 (100%)
Private Sector	**123 (59.4%)**	52 (25.1%)	32 (15.5%)	207 (100%)
Public Sector	**126 (63.3%)**	42 (21.1%)	31 (15.6%)	199 (100%)
Public Officials CME	4 (40.0%)	**5 (50.0%)**	1 (10.0%)	10 (100%)
Scholars	**29 (60.4%)**	13 (27.1%)	6 (12.5%)	48 (100%)

C6. Buildings are organized into blocks of relatively small dimensions.

C6	Disagree	Neutral	Agree	Total Responses
All Respondents	45 (7.6%)	144 (24.2%)	**405 (68.2%)**	594 (100%)
Design	7 (3.5%)	58 (29.1%)	**134 (67.3%)**	199 (100%)
Socio-Economy	17 (9.4%)	41 (22.8%)	**122 (67.8%)**	180 (100%)
Engineering	7 (5.9%)	25 (21.2%)	**86 (72.9%)**	118 (100%)
Realty & Development	14 (14.4%)	20 (20.6%)	**63 (64.9%)**	97 (100%)
Private Sector	10 (4,8%)	50 (24.2%)	**147 (71.0%)**	207 (100%)
Public Sector	15 (7.5%)	52 (25.9%)	**134 (66.7%)**	201 (100%)
Public Officials CME	0 (0.0%)	1 (10.0%)	**9 (90.0%)**	10 (100%)
Scholars	2 (4.2%)	15 (31.3%)	**31 (64.6%)**	48 (100%)

C7. The architecture of new buildings respects local tradition (in forms, details, textures, materials, colors).

C7	Disagree	Neutral	Agree	Total Responses
All Respondents	40 (6.7%)	163 (27.3%)	**393 (65.9%)**	596 (100%)
Design	21 (10.5%)	76 (38.0%)	**103 (51.5%)**	200 (100%)
Socio-Economy	5 (2.8%)	35 (19.6%)	**139 (77.7%)**	179 (100%)
Engineering	5 (4.2%)	31 (26.1%)	**83 (69.7%)**	119 (100%)
Realty & Development	9 (9.2%)	21 (21.4%)	**68 (69.4%)**	98 (100%)
Private Sector	14 (6.7%)	55 (26.3%)	**140 (67.0%)**	209 (100%)
Public Sector	12 (6.0%)	69 (34.3%)	**120 (59.7%)**	201 (100%)
Public Officials CME	0 (0.0%)	3 (30.0%)	**7 (70.0%)**	10 (100%)
Scholars	3 (6.3%)	10 (20.8%)	**35 (72.9%)**	48 (100%)

C8. The architecture of new buildings contrasts stylistically with the traditional architecture of old buildings.

C8	Disagree	Neutral	Agree	Total Responses
All Respondents	205 (34.2%)	**241 (40.2%)**	153 (25.5%)	599 (100%)
Design	39 (19.4%)	**96 (47.8%)**	66 (32.8%)	201 (100%)
Socio-Economy	**77 (42.5%)**	62 (34.3%)	42 (23.3%)	181 (100%)
Engineering	47 (39.2%)	**52 (43.3%)**	21 (17.5%)	120 (100%)
Realty & Development	**42 (43.3%)**	31 (32.0%)	24 (24.7%)	97 (100%)
Private Sector	71 (33.6%)	**90 (42.7%)**	50 (23.7%)	211 (100%)
Public Sector	52 (25.7%)	**87 (43.1%)**	63 (31.2%)	202 (100%)
Public Officials CME	1 (10.0%)	**5 (50.0%)**	4 (40.0%)	10 (100%)
Scholars	**21 (43.8%)**	20 (41.7%)	7 (14.6%)	48 (100%)

Temporal dimensions

D1. The urban project accommodates and integrates pre-existences, facilitating the co-existence of older structures and previous uses with newer ones.

D1	Disagree	Neutral	Agree	Total Responses
All Respondents	11 (1.8%)	31 (5.2%)	**553 (92.9%)**	595 (100%)
Design	3 (1.5%)	2 (1.0%)	**194 (97.5%)**	199 (100%)
Socio-Economy	2 (1.1%)	11 (6.1%)	**167 (92.8%)**	180 (100%)
Engineering	1 (0.8%)	8 (6.7%)	**110 (92.4%)**	119 (100%)
Realty & Development	5 (5.2%)	10 (10.3%)	**82 (84.5%)**	97 (100%)
Private Sector	3 (1.4%)	12 (5.7%)	**195 (92.9%)**	210 (100%)
Public Sector	0 (0.0%)	5 (2.5%)	**195 (97.5%)**	200 (100%)
Public Officials CME	0 (0.0%)	0 (0.0%)	**10 (100%)**	10 (100%)
Scholars	1 (2.1%)	3 (6.4%)	**43 (91.5%)**	47 (100%)

D2. The urban project proposes a comprehensive replacement of all previous structures and former uses.

D2	Disagree	Neutral	Agree	Total Responses
All Respondents	**464 (77.2%)**	109 (18.1%)	28 (4.7%)	601 (100%)
Design	**162 (80.6%)**	34 (16.9%)	5 (2.5%)	201 (100%)
Socio-Economy	**141 (77.9%)**	33 (18.2%)	7 (3.9%)	181 (100%)
Engineering	**93 (77.5%)**	21 (17.5%)	6 (5.0%)	120 (100%)
Realty & Development	**68 (68.7%)**	21 (21.2%)	10 (10.1%)	99 (100%)
Private Sector	**170 (80.2%)**	32 (15.1%)	10 (4.7%)	212 (100%)
Public Sector	**162 (80.6%)**	36 (17.9%)	3 (1.5%)	201 (100%)
Public Officials CME	**8 (80.0%)**	2 (20.0%)	0 (0.0%)	10 (100%)
Scholars	**31 (64.6%)**	11 (22.9%)	6 (12.5%)	48 (100%)

D3. The architecture of buildings is "generic", or relatively ordinary and unremarkable, facilitating their replacement in the short/medium term by other, more modern buildings.

D3	Disagree	Neutral	Agree	Total Responses
All Respondents	**294 (49.2%)**	214 (35.8%)	90 (15.1%)	598 (100%)
Design	**106 (52.7%)**	72 (35.8%)	23 (11.4%)	201 (100%)
Socio-Economy	**85 (47.0%)**	63 (34.8%)	33 (18.2%)	181 (100%)
Engineering	**60 (50.4%)**	45 (37.8%)	14 (11.8%)	119 (100%)
Realty & Development	**43 (44.3%)**	34 (35.1%)	20 (20.6%)	97 (100%)
Private Sector	**108 (51.2%)**	75 (35.5%)	28 (13.3%)	211 (100%)
Public Sector	**96 (47.8%)**	74 (36.8%)	31 (15.4%)	201 (100%)
Public Officials CME	**6 (60.0%)**	3 (30.0%)	1 (10.0%)	10 (100%)
Scholars	**21 (43.8%)**	17 (35.4%)	10 (20.8%)	48 (100%)

D4. Buildings are robust, i.e. (besides structural resistance) they have charm and character enough to justify their prolonged preservation, and can be adapted to accommodate diverse uses in time.

D4	Disagree	Neutral	Agree	Total Responses
All Respondents	19 (3.2%)	75 (12.7%)	**498 (84.1%)**	592 (100%)
Design	4 (2.0%)	27 (13.7%)	**166 (84.3%)**	197 (100%)
Socio-Economy	4 (2.2%)	17 (9.4%)	**159 (88.3%)**	180 (100%)
Engineering	6 (5.1%)	17 (14.4%)	**95 (80.5%)**	118 (100%)
Realty & Development	5 (5.2%)	14 (14.4%)	**78 (80.4%)**	97 (100%)
Private Sector	6 (2,9%)	26 (12.6%)	**175 (84.5%)**	207 (100%)
Public Sector	5 (2.5%)	23 (11.5%)	**172 (86.0%)**	200 (100%)
Public Officials CME	1 (10.0%)	2 (20.0%)	**7 (70.0%)**	10 (100%)
Scholars	1 (2.1%)	6 (12.5%)	**41 (85.4%)**	48 (100%)

D5. The urban project promotes a good level of activity at different times of the day, and night life is also ensured by the presence of entertainment and convivial activities in central places.

D5	Disagree	Neutral	Agree	Total Responses
All Respondents	24 (4.0%)	35 (5.9%)	**538 (90.1%)**	597 (100%)
Design	4 (2.0%)	7 (3.5%)	**189 (94.5%)**	200 (100%)
Socio-Economy	5 (2.8%)	12 (6.6%)	**164 (90.6%)**	181 (100%)
Engineering	11 (9.2%)	8 (6.7%)	**100 (84.0%)**	119 (100%)
Realty & Development	4 (4.1%)	8 (8.2%)	**85 (87.6%)**	97 (100%)
Private Sector	12 (5.7%)	12 (5.7%)	**186 (88.6%)**	210 (100%)
Public Sector	4 (2.0%)	10 (5.0%)	**188 (93.0%)**	202 (100%)
Public Officials CME	0 (0.0%)	1 (10.0%)	**9 (90.0%)**	10 (100%)
Scholars	3 (6.3%)	3 (6.3%)	**42 (87.5%)**	48 (100%)

APPENDIX V

Évora VPS Results – Demographics and Images Ratings

Évora VPS Results – Demographics and Images Ratings

BACKGROUND QUESTIONNAIRE

1. ***Do you live, work, or study in Évora?*** *(If YES, go to question 4)*

49% YES
51% NO

2. ***You don't live, work, or study in Évora but know the city well*** *(If YES, go to question 4)*

88% YES

3. ***You don't know the city***

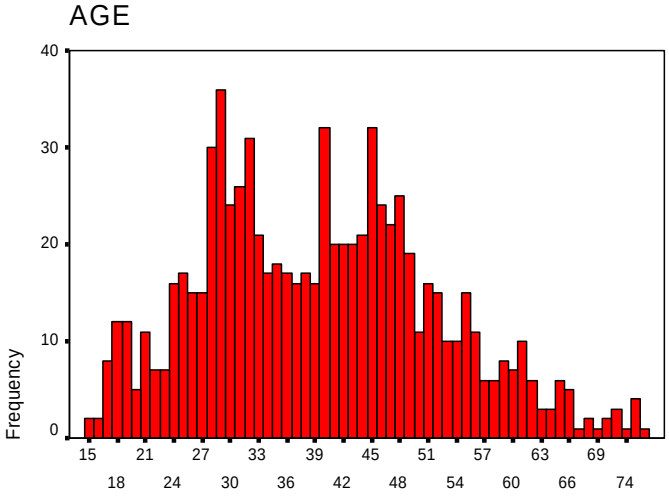
12% YES

4. ***Gender***

56% FEMALE
44% MALE

5. ***Age***

Mean	39.6
Median	39.5
St.Dev.	12.5



6. *Education* *(choose only one)*

1.4%	Some Primary School
0.5%	Completed Primary School
2.4%	Some Secondary School
10.8%	Completed Secondary School
5.7%	Completed a Technical Degree
10.3%	Some College
44.5%	Completed College
14.7%	Master Degree
9.7%	PhD Degree

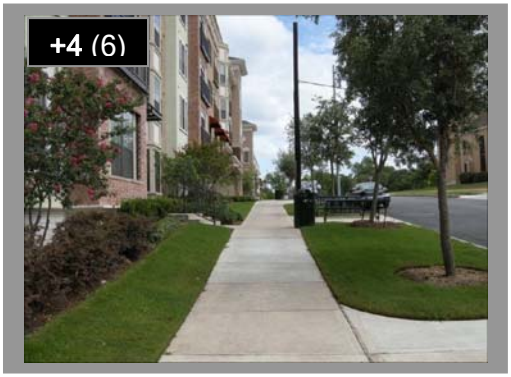
7. *Profession*

83%	NON-EXPERT
17%	EXPERT

IMAGES RATINGS

CATEGORY 1 – RESIDENTIAL SREETS AND BUILDINGS

1



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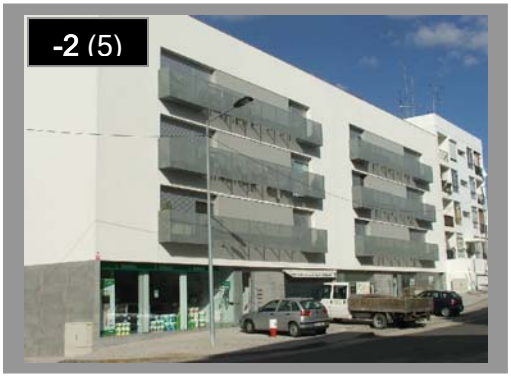

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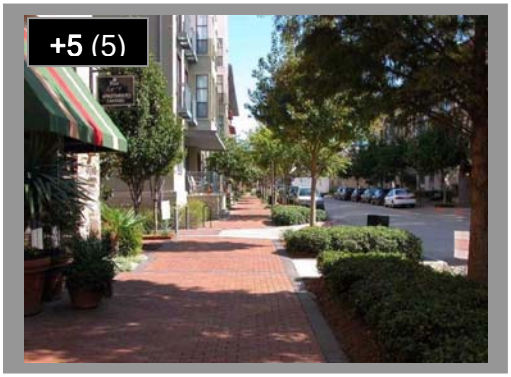


8

RESIDENTIAL SREETS AND BUILDINGS (CONT.)

9

10

11

12

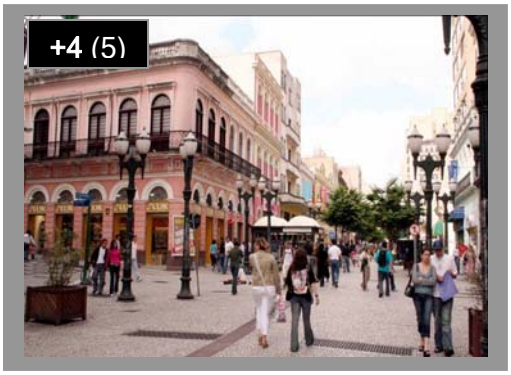
13

14

CATEGORY 2 – COMMERCIAL SREETS AND BUILDINGS

1

2



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4

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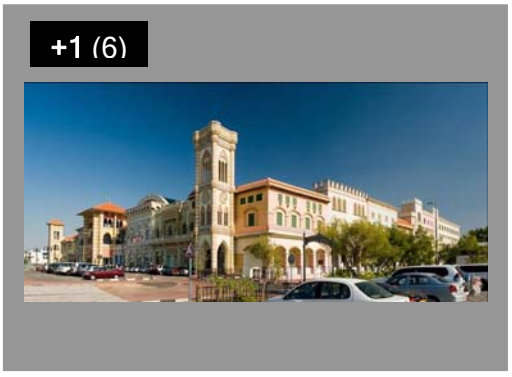

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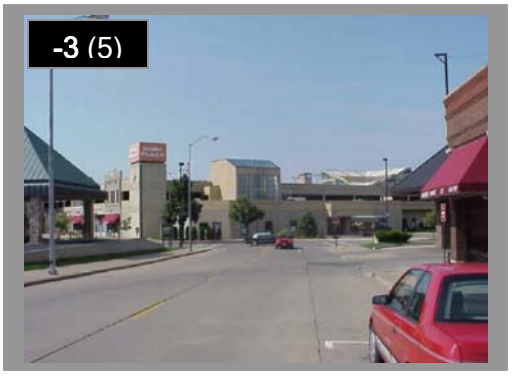

7

8

COMMERCIAL SREETS AND BUILDINGS (CONT.)

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11

CATEGORY 3 – OFFICE SREETS AND BUILDINGS

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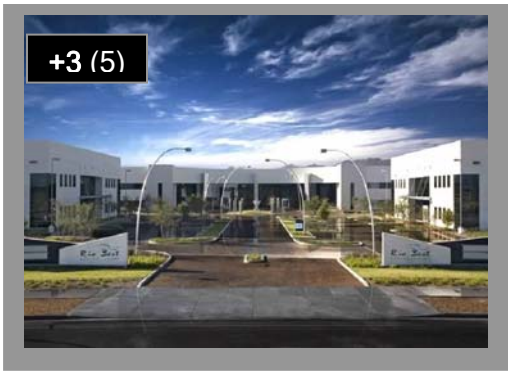
OFFICE SREETS AND BUILDINGS (CONT.)



9

CATEGORY 4 – GREEN SPACES

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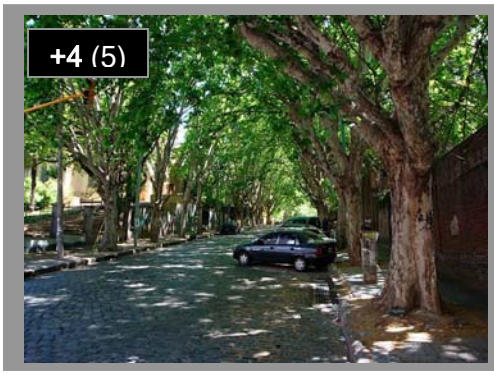
4



5

6

7

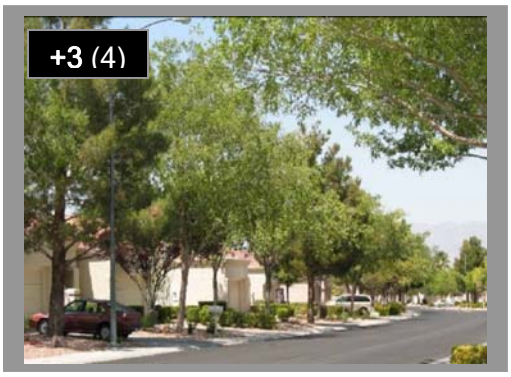
8

GREEN SPACES (CONT.)

9

10

11



12

CATEGORY 5 – PUBLIC SPACES AND MEETING PLACES

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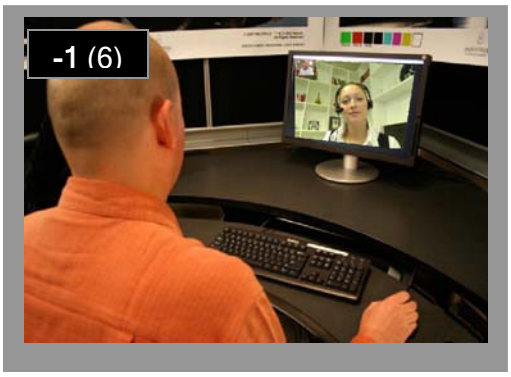
PUBLIC SPACES AND MEETING PLACES (CONT.)

9

10

11



12

CATEGORY 6 – ARCHITECTURAL STYLES

1

2

3

4

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6

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8

CATEGORY 7 – SAFETY AND SURVEILLANCE OF PUBLIC SPACE

1

2

3

4

5

CATEGORY 8 – CYCLES OF URBAN ACTIVITY

1

2

APPENDIX VI

Évora VPS Results – Output Tables and T-tests

CATEGORY 1 – RESIDENTIAL SREETS AND BUILDINGS

ALL RESPONDENTS

	N	Mean	Std. Deviation
A1P1	929	3.81	5.703
A1P2	932	-3.01	5.255
A1P3	928	.25	5.551
A1P4	935	-1.94	5.397
A1P5	936	-2.16	5.185
A1P6	935	5.79	3.926
A1P7	934	4.61	4.990
A1P8	927	2.71	4.938
A1P9	931	3.88	4.423
A1P10	936	-.80	5.892
A1P11	933	5.55	4.397
A1P12	935	.16	5.687
A1P13	931	-.74	6.055
A1P14	933	-1.30	6.507
Valid N (listwise)	887		

EXPERTS

	N	Mean	Std. Deviation
A1P1	121	2.35	5.979
A1P2	123	-4.04	4.696
A1P3	124	1.29	5.331
A1P4	123	-1.01	5.422
A1P5	124	-1.42	4.959
A1P6	123	6.50	3.586
A1P7	124	3.66	5.086
A1P8	122	.81	5.113
A1P9	124	4.14	3.916
A1P10	124	1.19	5.780
A1P11	124	6.22	4.133
A1P12	124	-2.01	5.444
A1P13	124	-2.41	6.083
A1P14	123	-3.30	6.399
Valid N (listwise)	116		

NON-EXPERTS

	N	Mean	Std. Deviation
A1P1	808	4.03	5.632
A1P2	809	-2.85	5.320
A1P3	804	.09	5.570
A1P4	812	-2.09	5.383
A1P5	812	-2.27	5.212
A1P6	812	5.68	3.966
A1P7	810	4.75	4.962
A1P8	805	3.00	4.850
A1P9	807	3.84	4.496
A1P10	812	-1.11	5.853
A1P11	809	5.45	4.430
A1P12	811	.50	5.654
A1P13	807	-.48	6.013
A1P14	810	-1.00	6.473
Valid N (listwise)	771		

CATEGORY 2 – COMMERCIAL SREETS AND BUILDINGS

ALL RESPONDENTS

	N	Mean	Std. Deviation
A2P1	872	1.26	5.733
A2P2	877	-.76	5.713
A2P3	878	4.43	4.898
A2P4	875	-4.04	4.929
A2P5	875	-4.48	5.356
A2P6	876	.48	6.076
A2P7	875	-2.57	5.125
A2P8	875	3.93	4.253
A2P9	874	-.21	5.415
A2P10	868	4.40	4.646
A2P11	876	6.46	3.398
Valid N (listwise)	838		

EXPERTS

	N	Mean	Std. Deviation
A2P1	124	-.36	5.478
A2P2	124	-2.39	5.263
A2P3	125	3.82	4.798
A2P4	124	-4.67	4.506
A2P5	125	-5.21	4.774
A2P6	125	-1.68	6.167
A2P7	124	-4.48	4.826
A2P8	125	4.33	3.767
A2P9	124	-2.20	5.359
A2P10	123	4.50	4.491
A2P11	125	6.62	3.066
Valid N (listwise)	119		

NON-EXPERTS

	N	Mean	Std. Deviation
A2P1	748	1.53	5.733
A2P2	753	-.49	5.743
A2P3	753	4.53	4.910
A2P4	751	-3.93	4.991
A2P5	750	-4.36	5.441
A2P6	751	.84	5.990
A2P7	751	-2.25	5.107
A2P8	750	3.86	4.328
A2P9	750	.12	5.357
A2P10	745	4.39	4.674
A2P11	751	6.44	3.452
Valid N (listwise)	719		

CATEGORY 3 – OFFICE SREETS AND BUILDINGS

ALL RESPONDENTS

	N	Mean	Std. Deviation
A3P1	835	2.12	4.965
A3P2	838	-.04	5.507
A3P3	839	-1.31	5.087
A3P4	838	-.61	5.362
A3P5	840	3.94	4.421
A3P6	839	1.10	4.566
A3P7	838	-.11	5.291
A3P8	837	5.86	3.679
A3P9	841	3.33	5.353
Valid N (listwise)	816		

EXPERTS

	N	Mean	Std. Deviation
A3P1	126	1.34	4.987
A3P2	126	-1.45	5.342
A3P3	127	-2.05	4.806
A3P4	127	-1.51	5.223
A3P5	126	4.06	4.282
A3P6	126	.67	4.449
A3P7	127	-1.84	4.937
A3P8	127	6.35	3.474
A3P9	127	1.78	5.473
Valid N (listwise)	123		

NON-EXPERTS

	N	Mean	Std. Deviation
A3P1	709	2.26	4.952
A3P2	712	.21	5.501
A3P3	712	-1.18	5.127
A3P4	711	-.44	5.374
A3P5	714	3.92	4.448
A3P6	713	1.18	4.585
A3P7	711	.20	5.295
A3P8	710	5.78	3.711
A3P9	714	3.61	5.288
Valid N (listwise)	693		

CATEGORY 4 – GREEN SPACES

ALL RESPONDENTS

	N	Mean	Std. Deviation
A4P1	823	6.35	3.428
A4P2	825	4.94	3.649
A4P3	824	4.66	3.866
A4P4	827	3.62	4.655
A4P5	824	4.09	4.291
A4P6	824	3.26	4.679
A4P7	820	3.56	4.404
A4P8	826	5.79	4.462
A4P9	825	.59	6.374
A4P10	824	1.90	6.049
A4P11	824	5.12	3.954
A4P12	825	3.33	4.116
Valid N (listwise)	792		

EXPERTS

	N	Mean	Std. Deviation
A4P1	125	5.76	3.286
A4P2	127	4.46	3.534
A4P3	127	3.94	3.931
A4P4	127	3.80	4.667
A4P5	127	3.33	4.541
A4P6	126	3.79	4.249
A4P7	125	3.08	4.272
A4P8	126	5.10	4.968
A4P9	127	-.62	6.228
A4P10	127	1.37	5.809
A4P11	127	5.57	3.814
A4P12	127	2.68	4.395
Valid N (listwise)	121		

NON-EXPERTS

	N	Mean	Std. Deviation
A4P1	698	6.45	3.445
A4P2	698	5.03	3.665
A4P3	697	4.79	3.843
A4P4	700	3.59	4.656
A4P5	697	4.23	4.232
A4P6	698	3.17	4.749
A4P7	695	3.65	4.424
A4P8	700	5.91	4.357
A4P9	698	.81	6.380
A4P10	697	2.00	6.091
A4P11	697	5.04	3.976
A4P12	698	3.45	4.055
Valid N (listwise)	671		

CATEGORY 5 – PUBLIC SPACES AND MEETING PLACES

ALL RESPONDENTS

	N	Mean	Std. Deviation
A5P1	799	4.07	3.714
A5P2	808	4.76	3.568
A5P3	805	-.02	4.583
A5P4	812	6.14	3.260
A5P5	806	5.39	3.762
A5P6	808	-1.68	5.680
A5P7	806	3.83	4.523
A5P8	810	5.68	3.300
A5P9	811	5.81	3.271
A5P10	811	4.60	4.673
A5P11	810	0.37	4.871
A5P12	803	-1.11	5.666
Valid N (listwise)	769		

EXPERTS

	N	Mean	Std. Deviation
A5P1	126	3.54	3.886
A5P2	128	4.95	3.492
A5P3	128	-.36	4.573
A5P4	128	6.12	3.114
A5P5	126	5.05	3.175
A5P6	127	-3.63	5.199
A5P7	128	2.96	4.468
A5P8	128	5.71	3.038
A5P9	128	6.28	2.700
A5P10	128	3.24	5.089
A5P11	127	0.19	4.668
A5P12	126	-.89	5.637
Valid N (listwise)	121		

NON-EXPERTS

	N	Mean	Std. Deviation
A5P1	673	4.17	3.675
A5P2	680	4.73	3.584
A5P3	677	.04	4.586
A5P4	684	6.14	3.289
A5P5	680	5.45	3.860
A5P6	681	-1.31	5.695
A5P7	678	4.00	4.518
A5P8	682	5.67	3.349
A5P9	683	5.72	3.362
A5P10	683	4.85	4.550
A5P11	683	0.41	4.910
A5P12	677	-1.16	5.674
Valid N (listwise)	648		

CATEGORY 6 – ARCHITECTURAL STYLES

ALL RESPONDENTS

	N	Mean	Std. Deviation
A6P1	796	-.09	5.168
A6P2	799	2.88	4.495
A6P3	801	-.30	5.109
A6P4	803	5.07	3.642
A6P5	802	-.55	4.971
A6P6	802	4.77	3.647
A6P7	803	2.10	4.593
A6P8	802	2.84	4.749
Valid N (listwise)	779		

EXPERTS

	N	Mean	Std. Deviation
A6P1	126	.52	4.849
A6P2	127	1.08	4.591
A6P3	127	1.49	4.677
A6P4	127	4.69	3.591
A6P5	127	.25	4.901
A6P6	127	5.04	3.382
A6P7	127	.54	4.606
A6P8	126	.65	5.101
Valid N (listwise)	125		

NON-EXPERTS

	N	Mean	Std. Deviation
A6P1	670	-.21	5.221
A6P2	672	3.23	4.397
A6P3	674	-.64	5.120
A6P4	676	5.14	3.650
A6P5	675	-.70	4.973
A6P6	675	4.72	3.695
A6P7	676	2.40	4.535
A6P8	676	3.24	4.570
Valid N (listwise)	654		

CATEGORY 7 – SAFETY AND SURVEILLANCE OF PUBLIC SPACE

ALL RESPONDENTS

	N	Mean	Std. Deviation
A7P1	786	1.74	5.789
A7P2	794	4.99	4.148
A7P3	793	1.85	5.254
A7P4	793	1.76	5.908
A7P5	795	-2.41	6.306
Valid N (listwise)	776		

EXPERTS

	N	Mean	Std. Deviation
A7P1	126	1.00	5.644
A7P2	129	4.97	4.194
A7P3	129	1.99	4.924
A7P4	129	1.44	5.511
A7P5	130	-1.02	6.377
Valid N (listwise)	124		

NON-EXPERTS

	N	Mean	Std. Deviation
A7P1	660	1.89	5.810
A7P2	665	5.00	4.142
A7P3	664	1.82	5.319
A7P4	664	1.82	5.984
A7P5	665	-2.68	6.260
Valid N (listwise)	652		

CATEGORY 8 – CYCLES OF URBAN ACTIVITY

ALL RESPONDENTS

	N	Mean	Std. Deviation
A8P1	781	-3.47	5.135
A8P2	793	7.02	3.366
Valid N (listwise)	778		

EXPERTS

	N	Mean	Std. Deviation
A8P1	127	-3.19	4.949
A8P2	129	7.19	2.978
Valid N (listwise)	127		

NON-EXPERTS

	N	Mean	Std. Deviation
A8P1	654	-3.52	5.172
A8P2	664	6.99	3.438
Valid N (listwise)	651		

T-TESTS OF STATISTICAL SIGNIFICANCE

Category 1 – Photos 10 and 12

Group Statistics

	EXPRT	N	Mean	Std. Deviation	Std. Error Mean
P10	1	812	-1.11	5.853	.205
	2	124	1.19	5.780	.519
P12	1	811	.50	5.654	.199
	2	124	-2.01	5.444	.489

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
P10	Equal variances assumed	.637	.425	-4.081	934	.000	-2.30	.563	-3.405	-1.194
	Equal variances not assumed			-4.119	163.927	.000	-2.30	.558	-3.402	-1.197
P12	Equal variances assumed	.053	.818	4.617	933	.000	2.50	.543	1.440	3.570
	Equal variances not assumed			4.748	166.229	.000	2.50	.528	1.463	3.547

P10: t = 4.1; p-value < 0.05 ⇨ Reject H_0 ⇨ there is a statistically significant difference between experts and non-experts.
P12: t = 4.6; p-value < 0.05 ⇨ Reject H_0 ⇨ there is a statistically significant difference between experts and non-experts.

Category 2 – Photo 7

Group Statistics

	EXPRT	N	Mean	Std. Deviation	Std. Error Mean
P7	1	751	-2.25	5.107	.186
	2	124	-4.48	4.826	.433

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
P7	Equal variances assumed	1.078	.299	4.546	873	.000	2.23	.491	1.269	3.198
	Equal variances not assumed			4.734	171.728	.000	2.23	.472	1.302	3.165

P7: t = 4.5; p-value < 0.05 ⇨ Reject H_0 ⇨ there is a statistically significant difference between experts and non-experts.

Category 4 – Photo 9

Group Statistics

	EXPRT	N	Mean	Std. Deviation	Std. Error Mean
P9	1	698	.81	6.380	.242
	2	127	-.62	6.228	.553

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
P9	Equal variances assumed	.096	.757	2.329	823	.020	1.43	.613	.225	2.632
	Equal variances not assumed			2.369	177.541	.019	1.43	.603	.238	2.619

P9: $t = 2.3$; p-value < 0.05 ⇨ Reject H_0 ⇨ there is a statistically significant difference between experts and non-experts.

Category 5 – Photo 6

Group Statistics

	EXPRT	N	Mean	Std. Deviation	Std. Error Mean
P6	1	681	-1.31	5.695	.218
	2	127	-3.63	5.199	.461

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
P6	Equal variances assumed	1.473	.225	4.263	806	.000	2.32	.543	1.249	3.382
	Equal variances not assumed			4.537	186.974	.000	2.32	.510	1.309	3.322

P6: t = 4.3; p-value < 0.05 ⇨ Reject H_0 ⇨ there is a statistically significant difference between experts and non-experts.

Category 6 – Photo 3

Group Statistics

	EXPRT	N	Mean	Std. Deviation	Std. Error Mean
P3	1	674	-.64	5.120	.197
	2	127	1.49	4.677	.415

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
P3	Equal variances assumed	3.086	.079	-4.353	799	.000	-2.13	.489	-3.087	-1.168
	Equal variances not assumed			-4.631	187.546	.000	-2.13	.459	-3.034	-1.221

P3: t = 4.4; p-value < 0.05 ⇨ Reject H_0 ⇨ there is a statistically significant difference between experts and non-experts.

Curriculum Vitae

Luis D. Balula

Education

2010 PhD in Planning and Public Policy, Rutgers University

1997 Master of Urban Affairs, Boston University

1984 Master of Architecture, University of Lisbon

Major Plans as Senior Urban Planner / Plan Coordinator

2008 Urban Design Model of the *Plano de Pormenor dos Leões*, Évora (475 acres)

2003 Intermunicipal Strategic Plan of Ria de Aveiro (10 Municipalities, 70 sq. miles)

1997-1999 Redevelopment Plans (PROCOM) for the Public Spaces and Commercial City Centers of 10 Portuguese cities and towns

1995 Zoning Plan of the City of Covilhã (10,000 acres)

Major Positions as Teacher

1991-2003 Professor at ESAI, the Graduate School of Real Estate of Lisbon

2000-2003 Assistant Professor at the Faculty of Architecture, University of Lisbon

Recent Publications

Spatial dialectics and the integrative power of urban design. *Cidades, Comunidades e Territórios* (Journal of the *Centro de Estudos Territoriais/ISCTE*), no.15, 2008.

Revitalizing the urban center: strategies for the renewal and management of commercial hubs (co-author: Carvalho, Luis Sanchez). *Malha Urbana* (Journal of Lusófona University), Vol. II, no. 2, 2006.

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