

The morphological dimension of municipal plans

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Abstract. *In the last decade an interdisciplinary field has emerged from the convergence of three European schools of thought within urban morphology. This paper explores one of the research interests in this field, mainly developed by the British school, the analysis of the relationship between urban morphology and town planning. The incorporation of morphological criteria in the Plano Director Municipal (Local Land-Use Plan) for Oporto is assessed, with reference to planning documents prepared by members of the Urban Morphology Research Group for British and French towns, and taking account of differences in legal systems. Issues addressed include the maintenance of the character of the city (Oporto is one of UNESCO's World Heritage sites) a form-based typological approach to zoning, and the introduction of design detail within the planning process.*

Key Words: municipal plans, city character, morphological criteria, typological zoning, Oporto, Portugal

Since the 1980s, there has been increasing emphasis on the physical form of cities within urban planning (Bell, 2005; Fainstein, 2000; Hall and Doe, 2000; Talen and Ellis, 2002). Fainstein (2000) and Talen and Ellis (2002) argue that a theory of good urban form should have a more prominent place in planning theory. There has also been a growing interest in the interrelationship of the British, French and Italian schools of urban morphology. Larkham (2005), Moudon (1997) and Whitehand (2001, 2005) identify the relationships between urban morphology and planning as one of the main concerns of the British school. The first part of this paper presents three plans developed in France (Mennecy, Asnières sur Oise, and St. Gervais-les-Bains) and some planning studies and design guides prepared in England (Stratford-on-Avon, Dacorum Borough, and Chelmsford). All of

these documents, co-ordinated by Karl Kropf, Ivor Samuels, and Tony Hall, all associated with the Urban Morphology Research Group (UMRG) in Britain, explore the link between urban morphology and town planning. They provide the context for the central part of the paper, which describes a recent Portuguese attempt, co-ordinated by Fernandes de Sá, to link urban morphology and planning. The paper concludes with some reflections on the similarities and differences between the Portuguese approach and the approaches of Kropf, Samuels and Hall.

Recent experiences in France and England

The preparation of a new *Plan d'Occupation des Sols* (POS) – Local Land-Use Plan – for Mennecy was motivated by several complaints

by associations of residents about the existing POS. The main concern was the erosion of historical and regional character due to excessive and inappropriate urban development. Accordingly, the fundamental objective of the plan co-ordinated by Samuels and Kropf was to provide a zoning structure and a set of regulations for the central area of Mennecy, which were able to maintain the character of the town, while still allowing for new development and change. A typological approach to zoning was taken. The main idea of this approach is that information gained in the study of existing towns can be used within the framework of zoning to improve the zoning system and to maintain the character of towns (Kropf, 1996). In this context, Kropf (1997) highlights three principles of the Italian school of urban morphology that can be used to improve the zoning system. First, existing forms are the product of learning and a record of past experiences in accommodating human activities and needs. Secondly, built forms and human activities are interrelated but the relation is not fixed. Thirdly, the structure and character of a town result from both continuity and change, at various levels. These principles led to three working assumptions: zoning regulations should take local and regional forms as the starting point for prescription; allow for mixed uses; and permit both continuity and change. In the POS for Mennecy, Kropf uses a synthetic conception of the urban tissue as an organic whole, whose form can be described at distinct levels of resolution: streets and blocks, plots, buildings, rooms or spaces, structures, and materials. He shows how urban tissues can be systematically defined at different levels of specificity by describing the constituent elements through different levels of resolution (Kropf, 1996). He also highlights the flexibility of the POS in its ability to incorporate morphological criteria.

The *Stratford-on-Avon District Design Guide*, co-ordinated by Kropf, was adopted as Supplementary Planning Guidance in 2000. This design guide stated that new developments in the Stratford-on-Avon District were diminishing the quality and accessibility of the public realm, eroding the character and

identity of places, and putting its long-term health at risk. The main goal of the document was to improve the quality of the environment and to achieve development that was local, sustainable and equitable. To achieve its objectives, the guide emphasized the distinctive qualities of the district. New urban developments should share some of the features that define the different areas within the district. The guide established general principles and methods (Stratford-on-Avon District Council, 2001).

The opening chapters of the guide present the main concerns behind its preparation, and provide a discussion of a map of character for the district and some basic design principles. Subsequent chapters deal with six levels of resolution: the settlements, the streets, the open spaces and plot series, the plots, the buildings, and the architectural details and materials. The concept of urban tissue (Kropf, 1996) was also used. The preparation of design guides is a well-established aspect of British planning that does not have an equivalent in France.

The POS for Asnières sur Oise was prepared in 1992 under the co-ordination of Samuels and Kropf. This small *commune* located near Paris had suffered considerable development pressure, which motivated the local mayor to take action in order to prevent a phenomenon of suburbanization similar to that on the northern fringe of the French capital. The main objectives of this POS were to protect the potential of built and natural heritage; to regenerate the older districts and to reinforce traditional shopping; to regenerate abandoned industrial areas; and to integrate new residential estates with the rest of the settlement (Samuels, 1993). An approach was taken similar to that in Mennecy, a scheme of zoning according to built form rather than land use being adopted. Seven zones were recognized and specific design controls were established for each one, incorporating the particular characteristics of the town according to six levels of resolution – the whole *commune*, districts, streets and plot series, plots, building form, and elements of construction. Samuels and Pattacini (1997)

argue that this approach would have been impossible in a British local plan. They suggest that the countries most receptive to it were those with planning systems based on Roman law and prescriptive legal zoning plans, as opposed to case law and discretion in making decisions. They highlight a number of attempts at the systematic application of morphological methods to plan making in France. This is part of the rejection of modernist urbanism. It is the search for the *POS qualitatif* which rejects the controls of plot ratio in favour of more subtle measures of local character.

The preparation of the POS for St. Gervais-les-Bains followed two attempts at preparation of a local plan during the 1980s and 1990s. The last one was severely contested by local environment associations because of the amount of land zoned as urban. The fundamental aim of the new POS for this French alpine resort was the promotion of built forms which could maintain the qualities of the natural environment and the distinctive character of the settlement whilst allowing the development of tourism. A careful analysis was carried out and information recorded concerning the way in which each of the fifteen building types related to the public realm, the range of the main dimensions, the position on plots, the relation to topography, the access arrangements, the roof form, the façade design and the constructional materials. Some aspects, usually the building envelope or its relation to the slope, were considered immutable, while other elements, such as the façade design, could be modified. In a way, the work at St. Gervais-les-Bains represented a step back from the degree of design control attempted at Asnières sur Oise (Samuels, 1999). Nevertheless, it went further than the earlier plan, making detailed proposals in the *Plan de Masse* (a part of the POS that defines the building envelopes, the routes, and the public spaces) for one resort complex, the Bettex. It showed how typo-morphological concepts can be used to inform the construction of arguments at various stages of the planning process (Samuels, 1999).

The Design Area Approach was conceived

by Hall as an answer to a need that had, he argued, been felt since the middle of the 1980s – the development of operative methods within the planning system to deal with the growing importance of aspects of urban form. This approach was introduced into planning practice by Doe in the Residential Area Character Study included in the Dacorum Local Development Plan (Dacorum Borough Council, 1995). Dacorum Borough Council considered that the Local Plan needed additional elements for a development control policy that would deal with issues of restraint and local character in the different towns of the Borough. The fundamental goal of this study was to use the development control process to improve, maintain and, if considered necessary, change the character and appearance of certain residential areas in the Borough. The main features of the Design Area Approach are emphasis on the definition of specific objectives for small urban areas, an initial flexibility in the territorial boundaries of the area (gradually determined through the interaction between the nature of the design objective and the existing urban form), and variation of control intensity according to different zones. Although there was some resistance at the level of the relevant central government department to the incorporation of design detail in the Local Development Plan, it was approved and is being implemented (Hall and Doe, 2000).

Hall (2005) presents his experience as Chairman of the Planning Committee of Chelmsford Borough Council. After years of production of poorly-designed built forms and the loss of some historic buildings in Chelmsford, a new political administration began, in the mid 1990s, the process of achieving higher standards of quality and sustainability in the built environment. The four essential components developed in Chelmsford Borough Council's new approach were an investment in staff, the publication of a local design policy (which included a clear physically-based spatial strategy, strong and clear design principles, the adoption of the revised 'Essex Design Guide' (Essex Planning Officers Association, 1997), and the

preparation of design briefs for all the significant sites), the definition of a long-term vision, and finally, greater co-operation between the different professions within the Borough Council and agencies involved in the development process. In 1996, the first planning brief was prepared for a major housing site within the 1991-2001 Local Plan. Though the first design briefs were rather general, they already included some important urban design principles. Hall (2005) states that, over time, there was a steady increase in the amount and degree of prescription of published policy relating to design control. As the several tools of design control became more detailed, clearer and more purposeful, so the quality of the physical results improved.

The planning documents co-ordinated by Kropf, Samuels and Hall underline a number of major themes in the agenda of the morphological debate: the concept of city character, a typological approach to zoning, the concern for urban tissue and levels of resolution, definition of sources for the prescription of urban forms, control of design detail and variation of intensity of control according to different zones, the definition of strong principles and clear objectives for the town, and the definition of boundaries for each particular area.

The *Plano Director Municipal* for Oporto

The Portuguese planning system

In a manner similar to the French legal framework, the Portuguese legal system draws on the previous codification of abstract principles. Local government, by the *Câmara Municipal* (City Council), has significant powers, despite the high degree of centralization of government. The co-ordination between national, regional and municipal levels of the planning system is defined by the *Decreto-Lei* (Law) 380/99. This law establishes three types of plan at the municipal level: the *Plano Director Municipal* (PDM or Local Land-Use Plan), the *Plano de Urbanização* (PU or Urban Development

Plan), and the *Plano de Pormenor* (PP or Detailed Plan). As the main tool for urban planning, the PDM (very similar to the POS) establishes the model for the spatial structure of the municipal territory, and defines the strategy for local development, including the relevant national and regional guidance. The PDM is in three parts: regulations, zoning plan, and a plan showing land set aside for services and other public utilities. Preparation of the plan is initiated by the local authority. After its approval by the municipal assembly, the PDM has to be ratified by central government. Planning proposals have to conform to the regulations of the PDM.

As a recent field of research in Portugal, urban morphology has been attracting only modest resources and it involves, currently, only a small number of researchers. Nevertheless, an interesting group of studies on a number of Portuguese cities was produced during the 1990s, and some plans, such as the PDM of 1994 for Lisbon (*Câmara Municipal de Lisboa*, 1994), were already trying to link urban morphology and town planning.

The case of Oporto

Oporto is the second-largest city of Portugal. It recorded its maximum population (327 000) at the beginning of the 1980s. This had fallen to 263 000 in 2001. This population decline was mainly a reflection of the relocation of population within the metropolitan area of Oporto. The inhabitants of Oporto have been moving out of the city, particularly to the surrounding cities of Maia and Gaia which, in the period between 1991 and 2001, had population increases of 29 per cent and 16 per cent. The preparation of the previous PDM for Oporto began in 1978, but it was ratified by the central government only in 1993. When the implementation of the plan began in the early 1990s, there were already a number of significant problems. The plan classified most of the city as a residential zone, regulated by a plot ratio (building volume / plot area) of 2.5:1 or 5.0:1. It also defined areas that were to be protected, but this was not an effective

planning instrument because of the lack of rigorous criteria for its application. Preparation of the new PDM for Oporto began in 2001 under the co-ordination of Fernandes de Sá – a professor in the University of Oporto – during a Socialist administration. After three periods of public discussion the PDM was approved by the municipal assembly in 2005 and ratified by the central government in 2006. The main goal of the plan was to maintain the character and the urban identity of Oporto. To achieve this main goal, the plan proposes the conservation of the existing urban tissues, sensitive design of new urban forms and buildings, control of densities and volumes, and the safeguarding of the built heritage and the image of the city. Other strategic goals of the plan are the rehabilitation of public space and the built environment, the rationalization of transport systems, reduction of existing urban imbalances, and promotion of historic quarters and the central area. These strategic objectives were highlighted by the election of a new political administration at the end of 2001. This Conservative administration, which has accused the former Socialist administration of being too permissive in development control, introduced changes in the planning proposals in the first version of the PDM to make them more strict.

From description to prescription

After the definition of the main goals of the PDM, a typo-morphological analysis was carried out to identify the distinct tissues constituting the city of Oporto. Data sources included historical and contemporary maps, archival material, cadastral data, current building applications, and direct observation. In addition, twenty areas of the city (with an average area of 50 000m²), representing several types of urban tissue, were selected and thoroughly analysed, in terms of plot area, dimension of plot frontage, building coverage, type of building, number of storeys, uses, conservation conditions of the building, and a construction indicator (total floor area / plot area). Figure 1 presents examples of urban

tissues, and Figure 2 shows these tissues in part of Oporto, the Praça da República. Ten tissues were identified, and their main characteristics formed the basis for different regulations. The characteristics of the ten tissues, and the prescriptions for the areas in which they occur are summarized in the following paragraphs.

With a medieval genesis, the *Áreas Históricas* (Historical Areas) correspond to the most ancient urban fabric of Oporto. The streets and plot series of this urban tissue are very irregular (Figure 1). There is a high building density. Buildings are narrow, normally three storeys high, although some are five storeys high (Figure 3). Although buildings are always positioned on the frontage of the plot, building coverage is very high. This is a part of the city where change has been, and should continue to be, slow. Mouzinho da Silveira, at the end of the nineteenth century, and D. Afonso Henriques, in the middle of the twentieth century, were the last streets to be built. The PDM requires the maintenance of streets, plot series, plots, and buildings. If the rehabilitation of an existing building proves to be impossible, new building should maintain the height, the alignment, the type of roof, the façade design, and the materials of the existing buildings of its block. Mixed uses are allowed in this zone.

The *Áreas de Frente Urbana Continua Consolidada* (Areas of Continuous Building Frontages and Largely Replete Plots) are a part of the city that was partly built according to plans prepared in the second half of the eighteenth century, and include buildings dating from then until the beginning of the twentieth century. In this zone, streets and blocks are regular (see Figures 1 and 4), the plot is normally a rectangle with an average width of 6m and a depth that can attain 100m. Most of the blocks of this tissue have a continuous commercial use on the ground floor. The characteristics found in the analysis provided the basis for the prescriptions: the new buildings should maintain the heights and alignments (front and rear alignment) of the bordering buildings; the existing relationship between these buildings and the public spaces



Figure 1. Examples of urban tissues in Oporto.

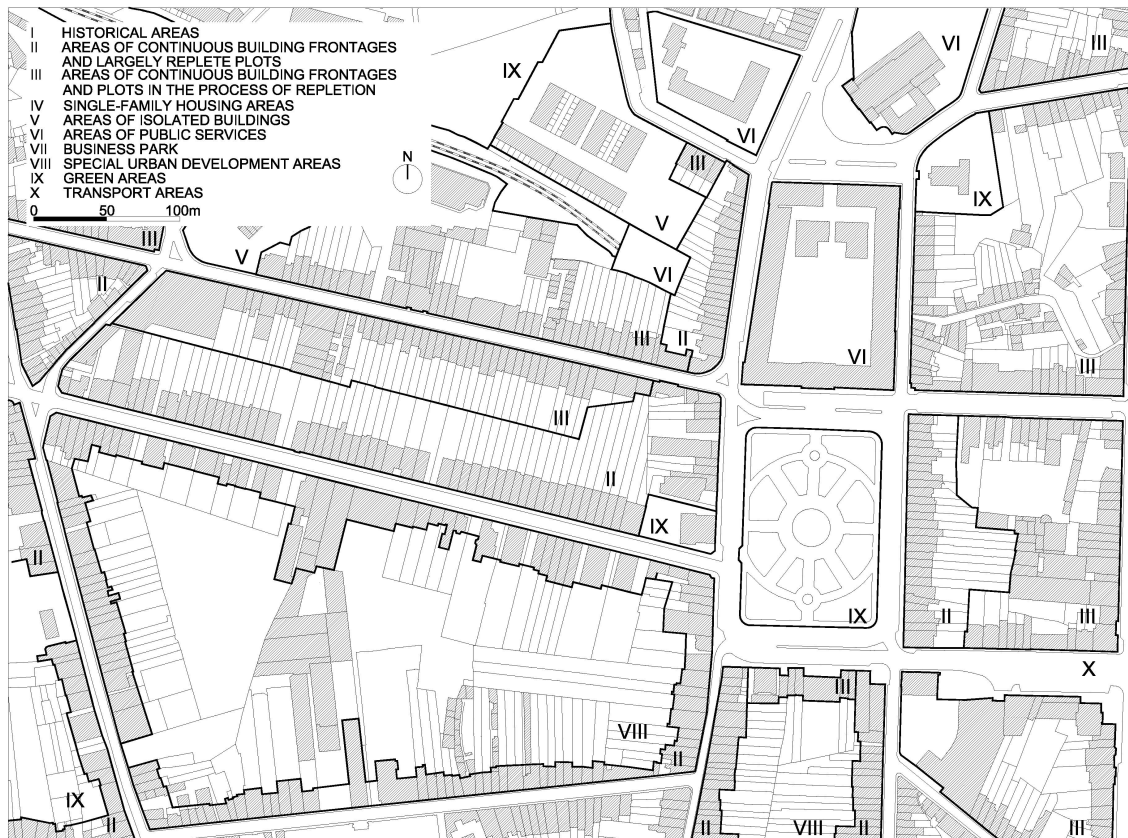


Figure 2. Part of the proposed zoning plan for Oporto.



Figure 3. Historical Area.

should be maintained; and the interior of the blocks should consist of private green spaces. As in the Historical Areas, mixed uses are allowed.

The *Áreas de Frente Urbana Continua em Consolidação* (Areas of Continuous Building Frontages and Plots in the Process of Repletion) include buildings from the eighteenth and nineteenth centuries, and the second half of the twentieth century. Rebuildings in the twentieth century, sometimes on a single plot, have created large disparities within some plot series, because of their excessive height and poor design (Figure 5). Commercial use tends to be retained on the ground floor in the core areas of Oporto, but away from these areas, the ground floor of many buildings is used for warehousing and there have been increases in building coverage. This tissue type is expected to change relatively quickly. Unlike the previous areas, some new streets are proposed in the PDM. The other main prescriptions are that new



Figure 4. Area of Continuous Building Frontages and Largely Replete Plots.

buildings should follow the existing alignments (front and rear) of the bordering buildings, the height of the new buildings should not exceed the width of the street, the building coverage should be less than 70 per cent of the plot area, the interior of blocks should consist of private green space, and finally, mixed uses are allowed.

The *Áreas de Habitação de Tipo Unifamiliar* (Single-Family Housing Areas) correspond, in general, to two different types of housing development. The first type occurred at the beginning of the twentieth century, at a time when life in the *ilhas*, a typical residential solution for the working class, was already of concern to the city in both social and health terms. The second type consists of a number of expensive houses built in different parts of the city. Both types of housing development created an urban tissue composed of streets with a regular pattern, plots with different sizes, and detached or semi-detached houses of two or three storeys surrounded by gardens or patios (Figure 6). The main prescriptions in the plan are for maintenance of the frontage of the plot series,



Figure 5. Area of Continuous Building Frontages and Plots in the Process of Repletion.

maintenance of the main alignments and heights of the surrounding buildings, and a maximum building coverage of 60 per cent of the plot area.

The *Áreas de Edificação Isolada com Prevalência de Habitação Colectiva* (Areas of Isolated Buildings) also consist of two different types of housing development – working-class houses and high-standard houses. Plot ratio was the main criterion for the application of the modernist model in Oporto. In almost all cases (see Figure 7 for one of the few exceptions, Alameda Eça de Queiroz) this has led to the production of an undefined public space. The PDM proposes a re-interpretation of the modernist model. The first part of the strategy for this part of the city is to provide a better street system. The main prescriptions for the buildings are that building coverage should be less than 65 per cent of the plot area, the main alignments of the surrounding buildings should be maintained, and a plot ratio of 0.8:1 (in this case building area / plot area, as distinct from building volume / plot area in the previous PDM) should be established.



Figure 6. Single-Family Housing Area.



Figure 7. Area of Isolated Buildings.

The *Áreas de Equipamento* (Areas of Public Services) include large plots that contain, or are proposed to contain, public buildings (see Figure 8). Other land uses are allowed under certain conditions. For new buildings, building coverage should be less than 75 per cent of the plot area.

The *Área Empresarial* (Business Park) comprises an industrial area planned in the 1940s by the Italian architect Giovanni Muzio (Figure 9). The strategic metropolitan location of this urban tissue – close to Leixões Seaport,

the International Airport, and also to Boavista, which is one of the most central areas of Oporto – led to the formulation of an ambitious project: to transform this industrial area into an entrepreneurial area. There are already business enterprises in this zone mixed with the industrial uses. It is proposed to create the conditions for the development of research and innovation activities connected to various business types.

The *Áreas de Urbanização Especial* (Special Urban Development Areas) consist of



Figure 8. Area of Public Services.



Figure 9. Business Park.

areas of residential expansion or urban restructuring. They correspond to the so-called *Unidades Operativas de Planeamento e Gestão* (UOPG or Operative Units for Urban Planning and Management) which will be described in the following paragraph. The nature of the *Áreas Verdes* (Green Areas) and the *Áreas de Circulação e Mobilidade* (Transport Areas) does not require amplification.

In addition to the ten types of tissues, the zoning plan of the PDM presents a number of UOPG. A UOPG – legally defined by Law 380/99 – corresponds to parts of the city with considerable complexity, needing a detailed morphological assessment. A UOPG can overlap any of the ten types of areas, although

it has greater incidence in the Special Urban Development Areas, because it is there that the greatest changes are proposed or expected. The physical limits of a UOPG are determined by the interaction between the objectives of the plan and the existing urban form. UOPG 18 for the wealthy area of Antas is the only one that has physical effects on the built environment. In addition to the stadium for the local football team – the key element of the proposal – a shopping centre, a light rail station, a transport interface, and some residential buildings are already built. In these new urban forms there is a return to the traditional urban street block, which supersedes the modernist model.

Reflections

Since the 1970s the city of Oporto has gone through a number of major morphological changes. The plan prepared in the late 1970s, and ratified by the central government in 1993, was not able to arrest this tendency, mainly because of its use-led zoning. Concerned with the maintenance of the city's character, the new PDM proposes a form-led zoning. The relationship between description and prescription, explored in this local land-use plan, is one of the main research interests of urban morphology, particularly of the British school. In that sense, a comparison between the PDM and a number of planning documents prepared by members of the UMRG is undoubtedly a relevant exercise.

The new PDM for Oporto adopted a typological approach to zoning that began with the identification of ten types of tissue covering the whole municipal area in a quite rigorous and comprehensive way. In accordance with the main goal of maintaining the character of the city, the zone boundaries and regulations correspond, for the most part, to the tissues identified in the analysis. As in the plans developed by Kropf and Samuels, Sá considers the existing forms of each type of tissue as potential solutions for accommodating the human needs in that specific part of the city. Accordingly, the sources for the forms prescribed for each particular application for a building permit are the buildings within the same street or plot series. As with the French and British studies, the PDM for Oporto allows both for mixture within zones and for control of uses, establishing a range of potential uses for each new built form and a number of restrictions to avoid the more unacceptable uses.

The comparison between the concepts of urban tissue defined by Kropf (1996) and Sá (Câmara Municipal do Porto, 2005) reveals some differences. This is hardly surprising since Sá was unaware of Kropf's work (and indeed that of both Samuels and Hall), although both Kropf and Sá were influenced by the Italian school. Sá defines urban tissue as an organic whole 'irrigated by channels'

and composed of cells and organs, which are described using four levels of resolution: streets, blocks, plots and buildings. In the French and British studies, six levels of resolution are used, the fifth and sixth levels being concerned with architectural details, structures and materials. In addition to using a larger number of levels, Kropf (1997) uses three specific characteristics to describe each level, in a more systematic way than Sá does. These are position, outline (shape, size and proportions) and arrangement (types of component parts, number of parts, and relative positions).

The size of Oporto and its speed of change (almost 2000 building permits were approved by the City Council between 1994 and 2000) do not lend themselves to covering the whole municipal territory with zoning codes with higher design detail than the building level. Nevertheless, more detailed guidance could have been established in the zones undergoing slower change, the Historical Areas and the Areas of Continuous Building Frontages and Largely Replete Plots. The application of morphological concepts to more complex settlements than the French towns they worked in is discussed by Samuels (1993) and Kropf (1996). The former states that the key for wider applications of the method used in Asnières sur Oise lies in increasing the range of acceptable types to match the wider diversity of a larger settlement.

The PDM does not present illustrations of what can and cannot be built. A PDM comprises, first, a number of elements (regulations, a zoning plan, and a plan showing land set aside for services and other public utilities) that are legally binding; and secondly, other elements that are not legally binding (a report, and a number of planning studies). The content of the first is established by the Portuguese planning system and cannot be changed, nor can it include drawings illustrating the range of acceptable types of plots, buildings or architectural details. However, Law 380/99 does not control the content of the second, so the incorporation in these documents of such drawings is possible. The approach that was taken did not explore

this possibility, design guidance having been put into effect through regulations. As the basis for decision making on building applications, the PDM requires that buildings surrounding the site in question are the basis for a new form, establishing (according to the specific urban tissue) what in those buildings is significant, and what needs to be or can be modified. Plan implementation in the city of Oporto will allow assessment of this approach and perhaps reveal some actual situations where a range of acceptable built forms is possible.

The political change that occurred at the end of 2001, during the preparation of the PDM for Oporto, seems to have had less effect than the political changes that occurred in the French *communes* that have been discussed. Although it delayed the preparation and approval of the PDM, the typological approach proposed has not been questioned. In fact, wider built heritage concerns were introduced, and development control in some tissues has become stricter. A considerable degree of political consensus about the plan has developed in the last few years.

Finally, the Design Area Approach – with a number of characteristics distinct from the features of the French POS and the *Stratford-on-Avon District Design Guide* – has some resemblances to a UOPG in the way that areas are defined, maintaining initial flexibility in the delineation of areas, but with boundaries becoming progressively firmer as experience is gained in accomplishing specific objectives for these small territorial areas.

The PDM for Oporto has a clear morphological dimension. It can be seen as an example of the increasing tendency for urban morphology to play a part, directly or indirectly, in urban planning. However, it also has features of its own. The fundamental task for its implementation in the next 10 years is to reverse the tendency towards an increasing loss of historical and regional character that started in the 1970s.

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From Manhattan to Mainhattan

The *Bulletin of the German Historical Institute* of Washington, DC has just published a theme issue edited by Cordula Grewe and entitled 'From Manhattan to Mainhattan: architecture and style as transatlantic dialogue, 1920-1970'. It contains much of interest to morphologists studying twentieth-century urban form. Papers include the following:

- Diefendorf, J., 'Skyscrapers and healthy cities: Walter Gropius and Martie Wagner between Germany and America'
- von Buttlar, A., "'Germanic' structure versus 'American' texture in German high-rise buildings'
- Müller, P., 'Counter-architecture and building race:

Cold War politics and the two Berlins'

Krieger, P., 'New York skyscrapers, made in Hamburg: Jerry Cotton as visual educator'

Berghahn, V., 'The *Bauhaus*, transatlantic relations and the historians'

The volume concludes with a 'catalogue', a series of illustrations of contemporary posters, some in colour, with a commentary: Maryška, C., 'Paper skyscraper: the representation of 'tall buildings' in Austrian and German commercial art, 1920-40'.

Copies are available from the German Historical Institute, 1607 New Hampshire Avenue NW, Washington, DC 20009-2562, United States, or www.ghi-dc.org/bulletin_supp2.

Master's in architectural regeneration and development

The Department of Architecture at Oxford Brookes University, UK has announced a new Master's programme in international architectural regeneration and development. This multi-disciplinary programme has been established in response to the worldwide need for regeneration and development of the inherited built environment.

The one-year course draws on two established fields of expertise at Oxford Brookes: international vernacular architecture and architecture in regeneration. Focusing on both rural vernacular traditions and historic urban centres, it promotes the

re-use and integration of existing buildings, technologies, skills and knowledge in contemporary design and development, taking into account the wider political, cultural, economic and environmental context. International in focus, with an emphasis on field research and design projects, it will prepare students to assume practical and leading roles in organizations involved in architectural regeneration and development in countries around the world.

Further information is available from pgadmin.be@brookes.ac.uk
