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The Evolution of Planning as an Academic Discipline

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Abstract

As British planning education celebrates its centenary there remain unresolved questions about its distinct disciplinary identity. This paper argues that although planning has evolved into an academic discipline in institutional terms, its intellectual underpinning has remained ill-defined. Periodic changes to planning education have neglected the epistemic aspects of the discipline and the clarification of its distinct identity. Based on a critical review of the evolution of the discipline, structured under five distinct phases, the paper concludes that ambiguity about the nature of planning knowledge may lead to the weakening of its position as a distinct academic discipline. Three key areas are identified as the focus for future debate: space as the discipline's substantive object of enquiry, the nature of integrative knowledge, and the interface between knowledge and action.

1. Introduction: The Problem of 'Something More'

One of the landmark events in the early history of British planning is the 1910 Town Planning Conference organised by the Royal Institute of British Architects (RIBA). As Gordon Cherry reflected, the Conference helped a change of attitudes both within RIBA and outside, "highlighting that it was no longer adequate to regard town planning as the prerogative of the architect,[...] town planning was *something more*" (Cherry, 1974:45, emphasis added). Finding out what exactly that 'something more' is has become a defining feature of planners' periodic soul-searching for disciplinary identity. Time and again, planners have been confronted with questions such as: what is planners' unique competence that no other discipline can legitimately claim as their own (Friedmann, 1998)? What distinguishes planners from geographers, architects, environmental scientists or professional mediators? Some commentators attribute such ambiguities to the fact that "planning has not developed as an intellectual discipline in its own right" (Grant, 1999:4) and argue that the intellectual basis of planning is "exceptionally flexible and fluid" because "it has always drawn on other disciplines whose relative significance has fluctuated over time" (op cit. 5). Others tend to gloss over the problem of 'something more' by suggesting that planning is interdisciplinary without clarifying how disciplinarity is understood. As Aram (2004) suggests claims to interdisciplinarity should begin with an understanding of what constitutes a 'discipline'. As we suggest in the next section an underpinning aspect of disciplinary identity (i.e. the articulation something more) is epistemology. The central argument of this paper is that while the question of 'something more' is fundamental to the debate about planning as an academic discipline, it has not been dealt with at an epistemological level. It is argued that although planning has evolved

into a distinct discipline in institutional terms, its intellectual underpinning has remained ambiguous, and periodic changes to planning education have neglected the epistemic aspects of the discipline.

The paper is structured under five main sections. After this introduction, section two provides an overview of what constitutes a discipline as understood by different disciplinary perspectives. This provides a conceptual framework for the third section of the paper which is a critical review of the evolution of the planning discipline in Britain over the last century. The review is structured under five distinct phases. Throughout, our aim is to draw on historical accounts as a way of shedding light on the present and informing the future. Although the focus of the paper is on Britain some references are made to the American experience both as a comparator and a source of influence. The fourth section returns to the question of ‘something more’ and identifies three areas as the focus for future debate. The final section concludes that the lack of clarity about planning knowledge may lead to the weakening of its position as a distinct academic discipline.

2. What Is a Discipline?

The answer to this question is not straight forward and certainly not universal for all disciplines, but a useful starting point is to delve into the etymology of the word (Turner, 2006). It originates from the Latin words *discipulus* (pupil) and *disciplina* (teaching). As a verb, however, it means not only “training someone to follow a rigorous set of instructions”, but also “enforcing obedience” (Krishnan, 2009:8). For Foucault, for example, discipline has a moral dimension because it limits the freedom of individual behaviour and thinking (Foucault, 1991). The term ‘academic discipline’ incorporates several elements of these meanings but its exact definition varies depending on the particular disciplinary perspective that is used to define it. Following Krishnan (2009), we briefly sketch how six ‘ideal type’ disciplinary perspectives would approach the concept of disciplinarity.

First, for philosophers academic disciplines present themselves mainly as the problem of epistemology; i.e. how knowledge is organised and relates to reality. This, as we elaborate below, implies that a distinct feature of a discipline is its intellectual basis defined by its objects of enquiry, theories, concepts and its ways of validating knowledge claims. Second, anthropologists argue that the act of practicing is more important in defining disciplines than the existence of a unifying paradigm. Putting the emphasis on cultural practices, disciplines are seen as ‘academic tribes’ who inhabit and defend various ‘knowledge territories’ (Becher, 1994). Academic disciplines are therefore seen as being practiced by people who distinguish themselves through self-constructed languages, values, social and cultural practices. A third perspective derived from sociology perceives disciplines primarily in terms of the sociology of work; a form of societal division of labour through professionalisation. Academic disciplines are thus seen as an important aspect of the professionalisation of science (Whitley, 2000:21). The fourth perspective on disciplinarity is educational. This focuses primarily on pedagogic aspects of a discipline, such as, the content of the curriculum, the method by which it is taught and other educational goals. Within this perspective, disciplines are distinguished by what they offer in terms of truth, learning and morals. As will be discussed later, periodic restructurings of the planning discipline have been informed mainly by pedagogic concerns and in response to demands from professional practice. There is also a fifth, management, perspective

on discipline which is sometimes the prevailing view in restructuring of the higher education system. The institutional organisation of universities into schools and faculties along disciplinary lines is a way of aligning the supply-side of knowledge to its market and societal demand-side as efficiently as possible. It is sometimes about commoditisation of knowledge. For university managers the disciplinary structures are a management problem, relating to, for example, achieving economies of scale and performing well in auditing and evaluation procedures (Baker, 1997). Within this context, recent mergers of planning with other disciplines into larger academic units can be seen as driven by such management concerns rather than intellectual necessity or interdisciplinary aspirations.

Finally, without a historical perspective it is not easy to understand the dynamics of a discipline over time. Such a perspective often begins with Aristotle's division of 'knowledge' into three parts¹. Since then, numerous disciplines have been born (and some have died) yet not always because of some scientific necessity or for bridging a gap in knowledge of the world. In fact, the process of specialisation and institutionalisation into disciplines in the 19th century was as much due to practical concerns (such as the demand of industrialisation) as to intellectual endeavour (Klein, 1990; Moran, 2002). The formation of social sciences, for example, was a response to the growing complexity of social relations. This, according to Foucault, was due to the political need for better social information as a basis for more effective government and political stabilisation including the imperial projects of Western European powers (Deacon, 2002). Planning is a classic example of a discipline being born in response to particular societal needs and historical conditions. An important part of this historical context is the development of planning as an occupational profession.

As Freidson (1994:25) suggests, a 'profession' should be "treated as an empirical entity about which there is little ground for generalizing as a homogenous class or a logically exclusive conceptual category". Nevertheless, they share some common features. For example, they are a "means of controlling an occupation" (Johnson, 1972:45) and assuring quality standards. Their capacity to do so often depends on their capacity "to claim esoteric and identifiable skills- that is to create and control a cognitive and technical base" (Larson, 1977:180). A distinction can be made between 'status professions' and 'occupational professions' (Elliot, 1972) with the former referring to the 'old' professions (law and medicine) and the latter to the new and often welfare state related professions such as planning. McLoughlin (1973) argues that, while the established professions are dominated by independent practitioners, the new ones, such as planning, are dominated by public or private sector employees. The latter, according to Johnson (1982:189), "are emergent as a condition of state formation" and the establishment of a 'profession-state alliance' (Wilding 1972 quoted in Brown et al, 2003:339). In this relationship, the planning profession assists the post-war welfare state in fulfilling its responsibilities and legitimising its interventions. In return, the state's sponsorship of the planning profession enables it to "gain control of the substance of its own work" (Low, 1991:26). This has enabled the planning profession in Britain to remain self-regulating. A critical part of this for planning and other professions has become the regulation of higher education; accrediting programmes to allow entry to a profession and as such acting as a proxy for independent professional examinations. This relationship benefits the academic planning discipline in utilitarian terms (i.e. maintaining a market demand base), and

also, potentially, in epistemological terms (i.e. developing a relational understanding of knowledge and action). However, while the utilitarian aspects of this relationship are widely recognised, its epistemic significance in the development of planning's distinct identity has not been sufficiently articulated. We will expand on this argument in section four.

The brief account presented above shows that different perspectives drawn from different disciplines in turn provide different insights into understanding what constitutes a discipline. Overall, disciplines can be defined as social constructs (Barnes, 1982) that have evolved through historical processes. While they are socially and historically contingent, they should also be “epistemically efficient in producing new knowledge and in evaluating knowledge claims” by creating a degree of internal coherence in terms of theories, methods and concepts (Krishnan, 2009:19). Fuller (1991) refers to this integrated view as a ‘social epistemology’ approach to understanding discipline. So, when we speak of an academic discipline we imply not just a particular subject taught at university, but also a system with a number of epistemological, social and institutional dimensions (Davoudi, 2009a). *Epistemologically*, disciplines have: particular objects of enquiry even if these are shared with another discipline; a body of accumulated specialist knowledge which relates to their objects of research; theories and concepts for organising their specialist knowledge effectively; and, specific research methods suitable to their enquiry (Krishnan, 2009). Disciplines provide a set of rules for: what constitutes a ‘problem’; what counts as evidence; and what is considered as acceptable methods by which knowledge is produced, evaluated and exchanged. *Socially*, disciplines have specific terminologies and discourses to communicate their research objects. They provide shared languages, identities, peers and careers. Finally, disciplines have the ability to reproduce themselves from one generation to the next (Goodlad, 1979) by being *institutionalised* in the forms of university courses, academic departments, professional associations, and discussion fora such as journals and conferences. Not all these characteristics apply to all disciplines but, a coherent epistemological / intellectual underpinning is essential if a subject taught at universities is to be recognised as an academic discipline.

The central proposition of this paper is that while planning in Britain has evolved into an academic discipline in social and institutional terms, its epistemological position has remained ambiguous; indeed its epistemological development may have been hindered by its institutional development at key moments. This ambiguity has contributed to what is considered by some to be planning's chronic identity crisis (Myers & Banerjee, 2005). The following account aims to substantiate this argument through a critical review of the evolutionary path of the planning discipline, focusing primarily on its institutional and epistemological development.

3. The Evolution of the Planning Discipline

At the risk of oversimplifying a nuanced and complex process, we have identified five distinct phases in the evolution of the planning discipline. These are: formation (late 19th century-1940s), consolidation (1950s-1960s), fragmentation (1970s-1980s), reconstitution (1990s) and maturing (2000s-). In line with the centennial character of the paper we have adopted a chronological approach but this is not meant to represent sharp dividing lines in a process which has exhibited a degree of continuity and

overlap. Instead, the phases are indicative of major changes in the institutional (educational and professional) and epistemological (intellectual and knowledge base) developments of the planning discipline.

3.1 The formation phase (late 19th century - 1940s)

The formation of a new discipline is often helped by intellectual leadership and visionary individuals who can move beyond their original disciplines and cover new ground in order to address new research questions or particular societal needs. The formation of the planning discipline was certainly rooted in the societal challenges faced by the rapidly expanding industrial cities of the 19th century Britain. In part the modern planning movement evolved through practical measures of regulation administered principally by municipal engineers. In part it was evolved by visionary individuals with reformist aspirations. These visionaries were from a variety of backgrounds. For example, Ebenezer Howardⁱⁱ was a shorthand writer and Patrick Geddes was a trained biologist. However, there was often a strong architectural element in their planning ideas. Indeed, other leading figures in the 1920s and 1930s, such as Raymond Unwin and Patrick Abercrombie, were architects first and planners second (Hall, 2002). Although their ideas may be considered utopian today, the significance of their contribution in forging a political commitment to planning is widely recognised.

The birth of planning education

New disciplines often start as a multidisciplinary project combining elements of their ‘parent disciplines’. Planning is a classic example of this as it was evolved out of the three ‘land-based professions’ of architecture, engineering, as mentioned, and surveying. Each had its own claim on planning and was keen to keep its paternalistic hold on it. When the first piece of legislation to carry the title ‘planning’ⁱⁱⁱ was passed in 1909, it “roused the interest of the whole (architecture) profession, who (felt) that Town Planning was essentially and firstly a matter with which the architect was concerned” (Adshead, 1911:178). Other parent professions had similar claims. Municipal engineers believed that the implementation of the Act was “their right” because, as argued by the Birmingham City Engineer, “they are [...] the statutory officials” and “must drive forward the great engineering works.” (ibid: 62). Surveyors also believed that the carrying out of the Act was *their* ‘natural’ right. “Who, after all, is better able and qualified than the local surveyor, by reason of his knowledge of [...] what is necessary as regards the development of the district”, asked the Borough Surveyor of West Bromwich in 1911 (ibid: 47).

It was amidst such wrangling that planning began to break free from its ‘parent professions’ by promising to offer ‘something more’ than the sum of what could be achieved by them. Although the 1909 Act placed the practice of planning firmly within the public sector and created a growing demand for it, the development of planning as an educational field owes as much to what was happening outside practice as inside it. Three developments in particular played an important role. The first was the upsurge of the literary contributions^{iv} and more importantly the publication of the journal *Town Planning Review* in 1910 which grew into a forum for debate and exchange of planning ideas. The second was the establishment of Town Planning and Civic Design course at the University of Liverpool in 1909. The third was Geddes’

intellectual persuasion. In a paper^v on '*Civic: as Applied Sociology*', he pleaded for a systematic study of cities and advocated a sociological, rather than merely physical, framing of the term 'civic'. He promoted sociological methods of enquiry and the need for 'survey before plan'. Geddes was advocating the need for synthesis. He was calling for "bringing harmony and understanding to a physical, economic and social complex which is a city" (Cherry, 1974:52); for "a veritable orchestration of all arts, and [...] all the social sciences" (Geddes, 1915: 95). He offered to the utopian idealism of the time an underpinning social philosophy. However, Geddes' sociological reading of the city and his emphasis on synthesis of other social sciences as the basis for planning education was not significantly articulated until some forty years later. This was the first of three major missed opportunities^{vi} in the development of the intellectual basis of the planning discipline.

Planning education continued to be rooted in the design and engineering traditions of its parent professions. This was clearly reflected in the 1909 prospectus of the Civic Design course, mentioned above, (Batey, 1993) and the curricula of subsequent planning schools. They all put a heavy emphasis on studio work, draughtsmanship and cartography with particular attention to "rendering in monochrome or colour" (quoted in Collins, 1989:114). The question of 'something more' was interpreted mechanically by seeing "civic design as an extension of architecture" (Stephenson, 1951:84) and promising "to equip Architects, Engineers and others with a knowledge of supplementary subjects" (Adshead, 1909, quoted in Cherry, 1974:54)^{vii}. Across the Atlantic, the first city planning course was offered by Harvard University in 1909. As in Britain the early training was dominated by an architectural approach. While this was later derided by some as advocating a 'city beautiful', others considered it as a "pioneering [...] idea of the city as a total organism" (Perkins, 1950:315). Twenty years later, Harvard also became the first provider of a city planning degree (Birch and Silver, 2009). Unlike British planning schools, this incorporated "a deeper understanding of economic trends in city growth and sharper appraisal of competitive urban land uses"; reflecting an appreciation of the role of competitive real estate in land development in cities such as New York and Chicago (Perkins, 1950:315).

The establishment of the TPI

The Town Planning Institute (TPI) was established in 1913^{viii} but throughout the 1920s and 1930s spent a large amount of its time and energy in the struggle for self-identification. The aim was "to make town planning not merely an auxiliary branch of other professions, but [...] a distinct profession" (Cherry, 1974:97). One way to achieve this ambition was to control the education of its membership. Hence, the way planners were trained became closely linked with the TPI membership requirements which changed from being merit-based to examination-based with prior qualification in one of the three parent professions. The first syllabus, drawn in 1916, reflected and reinforced the physical design orientation of planning education. In the 1920s a significant step towards loosening the ties with the parent professions was introduced in the form of "direct entry to the profession by examination, irrespective of membership of other professional bodies" (ibid: 220). Thomas Sharp was among the first to qualify as such in 1926 (Sharp, c.1973). The Institute was also instrumental in the establishment of new planning schools and "it was a case of the Schools following the Institute rather than taking much of a lead themselves" (Cherry, 1974: 221), a trend that continued in the subsequent three decades. In order to further "solidify and

cement professional status” (ibid: 97) a system of accreditation of planning schools was put in place in the early 1930s for exemption from the TPI’s entry examination. Six schools^{ix} were granted recognition. By the end of the 1940s, and with the introduction of post-war planning legislation, planning was consolidated as a local government profession.

3.2 The consolidation phase (1950s-1960s)

Once a discipline is formed it needs time and efforts to become established on a number of fronts. Epistemologically, it needs a community of scholars to develop ways of validating knowledge claims. Socially, it needs shared identities, languages and traditions. Institutionally, it needs to reproduce itself from one generation to the next in the forms of university courses and departments, journals, professional associations and so on (Goodlad, 1979). It is argued that during this consolidation phase disciplines “start restricting too original ideas and become more and more focused on disciplinary coherence and orthodoxy” (Krishnan, 2009:34). As will be discussed below, planning did not follow this evolutionary pattern. While during the 1950s and 1960s attempts were made to consolidate planning *institutionally* as an activity of the state, its *educational* basis faced profound changes and its *intellectual* underpinning experienced a ‘paradigm shift’. Furthermore, planning scholarship did not flourish until a decade later. The trigger for institutional consolidation was the introduction of the 1947 Town and Country Planning Act. The impetus for educational change was the publication of the Schuster Report in 1950. And, the paradigm shift emerged with the articulation of the systems theory and procedural planning. These will be elaborated in turn.

Institutional consolidation

The passing of the 1947 Act radically changed the balance of public and private rights to develop land in favour of the former. It legitimized not only the ‘right’ use of land, but also the ‘need’ for planning and planners. By doing so it elevated governmental and societal recognition of planning. The flipside of this boosted professional confidence was that it led to the TPI’s tightening of its membership requirements from the parent professions, as reflected in the following triumphal statement:

“The open seas of planning were vigorously defended against the piratical incursion of other professions, and efforts were made to ensure that the TPI planner was adequately equipped in training and status to survive the voyage” (Cherry 1974:134-5).

On the one hand, the TPI’s deliberate move towards professional protectionism and status-seeking for a young discipline is justified on the ground of the need for institutional consolidation. On the other hand, protectionism and fear of the “entrenched position of the parent professions” (Cherry, 1974:223) limited the TPI’s ability to respond to the post-war call for expanding the intellectual basis of the discipline. The challenge was taken up by the Schuster Committee, as will be discussed below. Meanwhile, the “post-war bulge” (Holford, 1949) in students’ applications encouraged the establishment of the first accredited five-year planning degree course in 1945 Kings College, Durham (now Newcastle) which was recommended by the TPI “as a model for others” (Cherry, 1974:224). This was

accompanied with further strengthening of the TPI's control over planning education through a requirement for all heads of recognised planning schools to be qualified planners. By the end of the 1950s and in the climate of rising public acceptability, planning was consolidated into an independent discipline in institutional terms. Intellectually, however, it remained highly dependent on the design and engineering traditions of its parent disciplines which, despite Schuster's recommendations, "collectively dominated education in town planning" (Cherry, 1974:220) well into the early 1970s.

The call for educational change: from a designed-based to a social science-based curriculum

The advent of the war served to promote far reaching changes in both the machinery of planning and the education of planners. The need for change was bluntly stated in one of the major war time reports^x, arguing that, "many employed as town planners are inadequately trained in the broader aspects of their work" (HMSO, 1942: para 240). This was echoed by the new planning minister who suggested that, "the researches upon which sound planning must in future be based will demand [...] the special knowledge of [...] the social scientists" (Morrison, 1943:73). Similar concerns were being raised by heads of planning schools in a series of articles in *Town Planning Review* between 1949 and 1951. For example, Holford (1949: 265) argued that planning should change from "a form of further education for architects, to [...] an all-round academic course". However, their concern did not cover the disciplinary issues that their American counterparts were stressing in the same series. For example, firstly, the American contributions showed more awareness of the distinction between a university education and a vocational training, suggesting that, "university education is more than merely a convenient avenue into a profession" (Holmes Perkins, 1950:318). The debate about such a distinction was almost non-existent in Britain at the time and has remained an unresolved issue to date (Grant, 1999; Punter, 2003; Ellis et al, 2010). Secondly, although the early American planning education reflected an architectural approach, by the mid 1940s they had begun to embed and recruit from the wider social sciences (Kent, 1950). Finally, American scholars were putting more emphasis on research both in terms of research training for students and research activities of staff (Holmes Perkins, 1950; Adams, 1949). This was strikingly lacking in the discussions on British planning education at the time; an omission which did not go unnoticed by Americans, as reflected below:

"The (British) planner was taught to think physically, visually, technically. He still does. He was only crudely familiar, if at all, with the nature and use of research and scientific method. He knew little of the thinking or the applicability of social sciences" (Rodwin, 1953).

Neither the planning schools nor the TPI seized the opportunity to respond proactively to the call for widening the intellectual basis of planning education. The schools were preoccupied with accreditation issues and the TPI with their application for a Royal Charter. The gap was filled by the government-appointed committee chaired by Sir George Schuster. The Committee's recommendations, which were published in 1950, dealt with both the educational pattern and the intellectual basis of the planning discipline. With regard to the latter, the Committee essentially argued for a shift from a product- to a process-oriented planning, and from a physical to a social conception

of space. It suggested greater social science input into planning courses and an extension of entry to the profession to social scientists (Schuster, 1950). In terms of the educational provision, Schuster reinforced the dominant view of planners as 'generalists', echoing Adshead's earlier remark that, "the town planner [...] may emerge from almost any profession" but "must possess sufficient knowledge of the technicalities of other professions to be able to co-ordinate these with his own" and by doing so "he would be something more" (cited in Cherry, 1974:56). Schuster's recommendations were along similar lines and manifested in the Committee's proposed educational pattern that, the 'right preparation' for planning was a degree course in one of established subjects followed by a postgraduate course in planning to avoid the creation of "specialist in blinkers". It was suggested that the "best potential planners would be produced not through devising a basic discipline" (ibid: 226). And yet, it emphasised that, "planning was something different from the product" of its parent professions without clarifying what exactly made it intellectually different.

In practice, neither the intellectual challenge nor the educational pattern of the Schuster model was taken up. Contrary to Schuster's recommendation, during the 1950s further undergraduate courses were developed. However, the debate on generalist versus specialist did not go away and indeed was heightened to the extent that Cherry (1974:202) referred to it as the "war of the 1960s". Schuster's intellectual proposition which aimed at transforming the shape of planning from a design-based to a social science-based discipline was not taken up either. This was the second of the three major missed opportunities in the history of the planning discipline (see also Healey, 1985). Changes to the syllabus remained slow, cautious and gradual. The TPI's own syllabus for examination did not change at all. Its 1959 Education Committee decided that there was "nothing vitally wrong with the present syllabus" (TPI, 1959:248). It took the RTPI twenty years after Schuster to change the syllabus and thirty years before introducing social scientific thought into planning education (RTPI, 1982), and even then not without a fight.

Core versus specialism

Meanwhile new terminologies - coined by Harvey Perloff and the Chicago School model - emerged in the educational discourse: 'core' versus 'specialism' (Perloff, 1957). It provided a term of reference for framing and managing the increasing number of subjects which post-Schuster planning education was expected to cover. In order to cope with the increasing specialised knowledge and techniques, Perloff suggested that planners should not be trained as narrow specialists but as "generalists-with-a-speciality" (ibid: 35). He considered three requirements as being essential for planning education: firstly, "general education", defined as provision of "a broad foundation for training in city planning" (ibid.36), yet without "cover(ing) everything" (ibid: 38). Secondly, "a planning core" which "should centre about the basic principles and methods of planning". This was to "make up the heart of the training programme in planning" rather than being "made of [...] potpourri of courses" (ibid: 37-38). Thirdly, "specialized training" (ibid: 45), consisting of planning courses of "more detailed and specialised variety" to act as the "'superstructure' on a foundation of a planning core" (ibid: 39). He advocated that rather than training "*the planner*", the focus should be on providing "*expertise with breadth of outlook*"; i.e. "'a generalist with a speciality' as contrasted with either the 'pure' generalist or the specialist as such" (ibid: 45-46 original emphases).

In Britain, the core-specialism idea was not implemented as advocated by Perloff. Instead, the TPI's pre-Schuster syllabus was replaced by a 'pure' generalist one. This, rhetorically, conveyed a kind of expertise which could cover the full range of planning related matters and having the "command of the planning process as a whole [...] and co-ordinate(ing) all necessary planning operations", as argued by Kantorowich (1967:180), chair of the Institute's Education Committee. At the same time, a number of non-accredited planning courses were set up which focused exclusively on specialist aspects of planning, notably transport studies. Furthermore, the RTPI's deliberations paid limited attention to how the 'core' should be defined beyond a checklist, or 'potpourri', of subjects. For Perloff, however, it was clear that the 'core' should "encourage students to rediscover the validity of the basic propositions by painfully struggling through the hypothesis and attesting to them" (Perloff, 1957: 38). This thinking through and working through which was to be at the heart of the learning process did not feature in the RTPI 1970 syllabus.

The shift in knowledge base: from planning as an art to planning as a science

The emergence of social science thinking in planning education led to a paradigm shift in the discipline's intellectual foundation. The impetus was two interrelated theories: the systems view of cities and the perception of planning as a 'rational process' of decision-making, known as procedural planning theory. The former, imported into planning through the work of Brian McLoughlin and George Chadwick, was particularly significant in revisiting the way in which the discipline's object of study, space, was understood. Until then, spatial problems were framed as design problems, articulated through physical representations (such as maps and physical models), and tackled through the *art* and *craft* of master planning. Systems theory advocated that spatial problems should be framed as scientific problems, articulated through spatial interaction models, and tackled through the *science* of systems analysis and control. Although the premise upon which the application of systems theory to spatial relationships was contested, its claim to scientific rigour based on quantification methods provided planning, and geography, a better standing within the social sciences. Planners could assert that they were following Karl Popper's scientific method of developing general hypotheses about spatial distributions that could be tested against reality.

While this positivist view of spatiality crept almost uncritically into planning, its 'sister' theory of procedural planning attracted substantial criticisms and the bulk of academic scholarly attention. Procedural planning perceived planning processes as a series of logical steps configured around the evidence-based advice of apolitical, professional planners (Davoudi, 2006). It was the critique of these misconceptions, rather than the positivist understanding of space and place, which led to a growing body of critical analyses in the discipline. The challenges to positivist conceptions of space which had began to gather pace in other disciplines did not permeate planning until relatively recently (Healey, 2007; Davoudi and Strange, 2009). Overall, scholarship in planning was slow to develop and apart from survey works, little research was undertaken by planning academics until the late 1970s (Thomas, 1981). Some argued that, "it simply *does not occur* to planners to investigate critically the ways in which planning works" (Reade 1987:191 original emphasis). Thus, the consolidation of the planning discipline in the 1950s and 1960s was founded mainly

on institution building rather than through scholarly contributions to its epistemological development. The notion of ‘coordination’ as the essence of ‘something more’ became the defining feature of planners’ claim to a distinct competence. Yet, coordination continued to be framed as a management challenge of bringing together different types of expertise in the policy domain rather than an epistemic problem of integrating different knowledge(s).

3.3 The fragmentation phase (1970s-1980s)

The decade between 1960 and 1970 witnessed major changes. The influence of the Schuster Report finally began to broaden planning’s educational boundary to incorporate social science subjects. Systems theory promised a scientific underpinning for its object of study (space) and the methods by which it was to be studied (positive science). Procedural planning and its critique attracted substantial scholarly activity. The discipline enjoyed the expansion of planning schools and student numbers, and strengthened its position in university campuses as well as social science communities. Despite all this, by the mid-1970s the planning discipline was facing a period of a) intellectual crisis and professional disillusionment, and b) institutional upheaval and educational pluralism. We elaborate on these in the following two sub-sections.

a) Intellectual crisis and professional disillusion

Although positivism has remained resilient in spatial thinking, its pinnacle of comprehensive rational planning did not last very long. As admitted by one of the most celebrated of all systems planners, Britton Harris, the scientific objectivity claimed by the systems theory could not be applied to socio-spatial systems irrespective of how sophisticated the methods or the models were (Hall, 2002). And in any case, such sophisticated analyses hardly reached the world of planning practice. Many of the so called ‘system’ plans - including the structure plans of the 1970s which were backed by detailed statistical reports of survey- had “a distinctly blueprint hint” (Faludi 1973:146) creating the same ‘fixities’ that they were trying to avoid. Similarly, technical rationality, which assumed that complex political and socio-economic processes could be technicised, commanded and controlled, soon proved ambitious and naïve, particularly in the wake of the 1970s economic recession and the inability of the state to turn planners’ imagined places into physical reality. By the end of the 1970s, the modernisation process prescribed by rational planning as ‘the road to progress’ proved to be costly and dysfunctional (Ward, 2004). There was significant public dissatisfaction with planning on both sides of Atlantic. Planners were blamed for everything that went wrong including by commentators from within the academy^{xi}. The profession was submerging into a deep crisis of confidence as the “programme of comprehensive redevelopment faced increasing hostile opposition from [...] community activists” (Hague, 1996:8).

Meanwhile, geographers and sociologists^{xii} began to apply Marxist analyses to spatial relations and a structural reading of the city. These analyses conceptualised space as socially produced and consumed, reflecting the wider capitalist political economy and its inner contradictions. Although structural Marxism became an influential urban theory in the 1970s, its influence in practice was felt more strongly in the field of urban policy than planning (Atkinson and Moon, 1994). Within planning, Marxist

conceptions of space did not fundamentally change the way planners were trained or produced plans. What Marxism did, however, was to bring to the fore the political and judgemental, rather than technical and factual, nature of planning. It challenged planners' claim to be the 'guardians of public interest' or the advocates of bottom-up community planning. Instead, it argued that planners are the agents of a capitalist state. However, as Low (1991:4) suggests, Marxism produced a 'dissenting theory of planning', being highly critical yet providing few alternatives to the status quo. The cumulative effects of these criticisms meant that within a decade planners were stripped from the claim to any unique and useful expertise (Hall, 2002).

Public discontent and the emergence of Marxist ideas were forcing the discipline to question its epistemic assumptions, professional values, and educational traditions. A new body of scholarship was emerging which began to focus not just on criticising planners for their misunderstanding of how planning works on the ground^{xiii} (i.e. the process of planning), but also, following Jane Jacobs, for their inadequate understanding of how cities work (i.e. the substantive content of planning and its object of study). Planning theory was criticised for its lack of attention to substantive matters and for being 'content less' (Taylor, 1998). By the mid-1970s, the focus on theories about planning processes overshadowed the discipline's engagement with, spatial theories, advancement of knowledge about the nature of socio-spatial interrelationships, and the methods by which they can be studied. The critique of systems theory left a gap in the conceptualisation and articulation of space in the planning disciplines which has yet to be filled. While this 'paradigm crisis' (Hall, 2002) was not exclusive to planning, it led to "an asymmetric development" in the intellectual underpinning of the planning discipline. On the one hand, planning scholars have been centrally engaged in and advanced the conceptualisation of planning processes. On the other hand, they have largely neglected the emerging conceptual developments in spatial thinking; notably the relational (as opposed to absolute) understanding of space and place (Davoudi, 2009b:242).

b) Institutional upheaval and educational pluralism

It is striking that very little from the discussions outlined above were incorporated in the RTPI's deliberations, and therefore its educational guidelines, at the time. Key figures in the Institute were uneasy with the erosion of the post-war consensus in values and the perceived loss of clearly defined boundaries for planning and its sense of purpose. The tension between the profession and the academy was gathering pace. Soon after the revised RTPI syllabus came into operation in 1970, its restrictive entry route (McLaughlin, 1973), its outdated requirements, and its 'ideological preference' for generalist undergraduate over specialist postgraduate courses were contested. The prescribed syllabus was still rooted in physical design and deployment of survey skills at a hierarchy of spatial scales from local up to national, and conveniently mapped on different years of study (Hague, 1996). The RTPI's professional protectionism was leading to an increasingly standardised set of rigid, complicated and demanding criteria for educational accreditation and membership. They included little critical reflection on issues such as values and socio-political contexts of planning. In contrast to Perloff's ideas, the British planning schools did not seem to teach students to question. Instead, some argued that, they "inculcated [...] belief and commitment" and created "an inflated conception of what its (planning profession) members do" (Reade, 1987:193). Furthermore, in response to the increasing demand for planning

education, the RTPI was promoting the expansion of student numbers in *existing* schools rather than accrediting *new* schools. Hague (1996:8) compared this approach to the Fordist mode of production, arguing that it prescribed “a few ‘large plants’ turning out standardised ‘generalist planners’ through a very inflexible ‘production process’ as set out in the 1970 syllabus”. The inflexibility of the Institute’s educational policies was seen by many (such as Healey, 1985; Hague, 1996) as a blockage to the expanding educational opportunities which were arising from the widening scope of statutory planning after 1968 Act^{xiv}. Nevertheless, planning schools were flourishing in terms of student numbers^{xv}, recruiting staff with diverse disciplinary backgrounds, and hence offering a plurality of models such as: ‘generalist schools’, ‘architectural-specialist schools’, ‘social-scientific specialist schools’ and ‘process schools’ each representing a different understanding of what planning was about (Thomas, 1981:7).

The expanding role of professional planners became evident in a Discussion Paper (RTPI, 1971) which was issued by the RTPI only one year after the 1970 syllabus. Contrary to the confident and assertive tone of its predecessors, this paper was indicative of uncertainties about the professional identity of planners. It postulated a number of options ranging from a Planning Society to an Institute of Planning, or Community Planning, or Town planning or Environmental Planning. The latter was selected as the best representation of the Institute. However, the range of potential options indicated that it was no longer practical to expect “all planners to be able to do every job in planning” (RTPI, 1971:25). This was reasserted in a 1973 Discussion Paper which stressed that the Institute should concentrate on the ‘core’ and give “the greatest freedom and flexibility” to planning schools in the specialist areas (quoted in Cherry, 1974:229). Hence, for the first time the RTPI’s prescriptive syllabus was replaced with a set of Guidelines (RTPI, 1974). These, however, paid only a cursory attention to the recommendations of the 1973 Discussion Paper, and retained the Institute’s generalist stance. The Guidelines were seen as “contorted and self-confessedly paradoxical” (Hague, 1975:8). Throughout the 1970s the RTPI’s Visiting Boards, which were still following Kantorowich’s generalist ideals, continued to influence planning education despite the fact their accreditation criteria were increasingly out of tune with a developing emphasis on academic scholarship and intellectual training within the broader higher education system^{xvi}.

These competing demands were leading to growing tensions between the profession and the academy. In an unprecedented move, the students added their voice to the mounting criticisms of the Guidelines. This critique led in 1975 to the establishment of a Radical Institute Group within the RTPI, stating that, “the profession is best served by fostering a spirit of rigorous critical enquiry in the planning schools rather than attempts at professional socialisation” (RIG, 1975:8). RIG concurred with the idea from four years earlier of an Institute of Environmental Planning. Another review of the RTPI education policy was launched in 1979, which led to a new set of Guidelines (RTPI, 1982). While these adopted a criteria-based approach to specialist studies, they tightly defined the ‘core’. The core was a checklist of subjects^{xvii} including social science subjects and research methods but without an underlying philosophy. They also introduced a shift of emphasis from the technical processes of plan making to considerations of the social and environmental impact of planning decisions, with no compulsion for studio or project work (Hague, 1996).

By the late 1980s, the planning discipline had undergone a sea change in intellectual, institutional and pedagogical terms. The eventual implementation of the Schuster model “sounded the death knell of the primacy of the parent professions in town planning” (Cherry, 1974:226). It transformed planning into a social science-based discipline in which geography, economics and sociology took top place. Geographers replaced architects as the main entrants into the planning profession. As regards intellectual development, however, there existed a paradox. While scholarship within and outside planning was contributing to the expansion of its knowledge base, it was at the same time challenging its coherence and identity by introducing competing social science theories, adding new subject matters and methods, shifting the established disciplinary principles and redrawing its demarcation lines. The resulting fragmentation meant that planners could no longer say what planning as a discipline was about. Planning academics who had “contributed to the demise of the underpinning ideologies which had sustained [...] public support for planning [...] neglected to reconstruct new justifications for it” (Healey, 1985:500). The intellectual vacuum that they created made the discipline more vulnerable to the major ideological attacks which were unleashed on planning in the neo-liberal climate of 1980s Britain.

3.4 The re-constitution phase (the 1990s)

The 1990s can be characterised as a decade of disciplinary reconstitution, manifested in firstly, a hark back to the 1970s by its re-branding from *town and country* planning to *environmental* planning and the expansion of the planning curriculum to include not only *social* but also *natural* sciences. Secondly, there was a tentative pedagogical shift from teaching inputs to learning outcomes. Thirdly, the reconstitution was manifested in the embracing of research as a fundamental part of disciplinary development and the transition from a largely practice-based to a research-based discipline. While this latter development led to major scholarly breakthroughs in the understanding of planning processes, little advance was achieved in the understanding of space and spatial relationships; i.e. the discipline’s substantive heart. The context within which the reconstitution process began was a renewed confidence in the planning profession, brought about by the introduction of a plan-led system by the 1991 Act^{xviii}. These changes will be elaborated in turn.

First: The rebranding from town and country to environmental planning

One of the strategies available to a discipline which is perceived to be threatened by fragmentation and demise is reconstitution through, for example, the association with another area of study. For planning in the 1990s, the environmental field provided that opportunity. Rising global environmental concerns in the 1990s and the subsequent emergence of new environmental regulations from the European Union not only provided the context for the re-branding of planning, but also a powerful new rationale for it. For the first time since its conception, the planners’ expertise was defined as “the management of change in the built and natural environments” (RTPI, 1991a:2). A similar definition began to appear in academic writings of the time. For example, Healey referred to “the practice of environmental planning” and defined planning as “conscious management of environmental change” (Healey, 1991:179) “from neighbourhood to the region” (Healey, 1994:1). While environment was clearly an attractive label at the time and played a positive part in the reconstitution strategy, it could also be seen as undermining the spatial dimension of planning which was

more prominent in the notions such as town and country, urban and regional, etc. Furthermore, the emphasis on 'management' could be seen as unintentionally reinforcing the portrayal of planning as a neutral and technical activity. This tendency was also reflected in the discussions about planning skills. It was argued that in the context of changing governance "the planner's role [...] shifts from that of 'designer' and 'analyst' to 'facilitator' and 'mediator'" (Healey, 1994:2). However, by the end of the decade and after the Brundtland Report, the purpose of planning shifted from a seemingly benign *management* of environmental change to an explicitly normative goal of *achieving* sustainable development^{xix}. Although the new 'sustainability vision' was as contested as the utopian ideas of earlier times (Davoudi, 2000), it provided a renewed purpose for planning and helped reaffirm its deeply political and normative nature.

Second: The pedagogic change from teaching inputs to learning outcomes

In 1991 the RTPI reviewed its educational policy again, and for the first time put the emphasis on outcomes of rather than inputs in planning education, focusing on what is learnt rather than what is taught. Instead of a checklist of subjects to be taught, the new Guideline grouped planners' expected competences into three categories of outcomes: knowledge or knowing what, skills or knowing how, and values or knowing why (RTPI, 1991a). This indicated a growing understanding of skills as an intellectual as well as practical challenge. It also brought back the question of values which was squeezed out of the planning process by the perceived role of planners as rational a-political analysts. The Guideline retained the core - specialist model but strikingly suggested "a rule of thumb" approach whereby a third of student's time throughout the course were to be devoted to each of the three elements of core knowledge, specialist knowledge, and skills, while values would permeate the entire programme (RTPI, 1991a:4). The suggested components of the 'core knowledge' reflected the environmental management branding^{xx} and inevitably led to additional new subjects in planning courses. The planning curriculum had to be stretched beyond the social and into the natural sciences. Planners were encouraged to "draw on the fields of geography, sociology, politics, economics, biology, geology, architecture, engineering, and estate management" (Healey, 1991:183). This continuing expansion was exacerbating what was described as a "layer cake" approach to curriculum (Batty, 1984). This approach was making it increasingly difficult to achieve the Guideline's most important core requirement which was the "ability to make relationships across (various) areas of knowledge" (RTPI, 1991b:1); in other words, the ability to add 'something more' to the sum of available knowledge(s). While the instrumental rationale for acquiring such an 'integrative' knowledge was compelling, its intellectual challenge was (and is) not given much thought. As Healey (1991:178) pointed out, despite the renewed rationale for planning, "a renewed debate about the philosophy which could underly planning-education programmes" was still lacking. In practice, therefore, the discipline's claim to possess a distinct knowledge base remained ill-defined and difficult to sustain.

Third: The transition from a practice-based to a research-based discipline

As mentioned earlier, planning pedagogy was primarily born out of its parent professions and architecture in particular and for several decades shared not only its conception of space as a physical entity, but also its educational tradition of practical,

studio-based learning and professionally-oriented courses. The practice activities of faculty members were considered the equivalent of academic research and scholarship. Renowned planning professors, such as Abercrombie, held active consultancy practices which were leading the production of development plans. In American schools, too, “few city planning professors engage(d) in serious academic research” (Kain, 1970:221). However, keen to follow Perloff’s recommendations, American academics began to move towards a research-based paradigm earlier than their British counterparts. They realised that despite its drawbacks, the “‘publish or perish’ system [...] does produce a growth and deepening of the discipline” and without scholarship “there will be no significant internal development in the field” (Kain, 1970:221). Hence, while “any book produced by planning faculty before 1970 was greeted with acclaim and curiosity”, by 1990 planning faculties produced a tremendous volume of research, much of it leading-edge work in the social sciences” (Dagenhart and Sawicki, 1992:4).

In Britain, although research became an integral part of the planning discipline in the late 1970s, the decisive turnaround came after the introduction of the Research Assessment Exercise (RAE) in 1986. The RAE’s six-yearly (or so) cycle of performance-based research funding allocation forced universities to put more emphasis on external research funding, publications, and doctoral completion. To earn their reputation as social scientists and gain the respect of their university peers, planning academics had to rise to the challenge. They produced research on a variety of subjects, mirroring the growing diversity in their discipline, and established doctoral programmes. Their reputation among peers was increasingly based on research and academic publication rather than professional visibility. The drawback was the opening of a gap between academics’ and practitioners’ priorities which has since proved difficult to bridge (Marvin and Pendlebury, 2004; Ellis et al, 2010). This growing gap was reflected in a marked decrease in the appointment of senior academic staff from planning practice and a rise in the number of what Thomas (1979 quoted in Ellis et al, 2010) called ‘career academics’ from a wide range of social science backgrounds. The shift to a research paradigm was embedded in the 1991 RTPI educational guidelines. For the first time it included the “qualities of an effective planning school” as a core requirement. Among such qualities was “acknowledged academic and research strengths in defined fields of planning”, assessed by “indicators” such as “publications; research income; research rankings; research council recognition for courses and research students” (RTPI 1991a:5). A significant development in terms of both institutional visibility and intellectual underpinning of the planning discipline was the establishment of the Association of the European Schools of Planning (AESOP) in 1987. In this climate of growing scholarship one area which made a particularly noteworthy contribution to the intellectual development of the discipline was the communicative/ collaborative planning theory. Scholars on both sides of Atlantic (notably John Friedman, John Forester and Patsy Healey) offered not just a critique of rational planning, but also alternative ways of thinking about planning processes. The significance of their theoretical contribution is reflected in its overspill to other social science disciplines.

Despite the implicit reconstitution strategy of the 1990s, the decade ended with a number of unsettling trends. First, the plan-led system did not improve the image of practicing planners. Instead, it was argued that the profession became little more than ‘bureaucratic proceduralism’ (Evans and Rydin, 1997). A more fundamental

transition was also taking place driven by the changing nature of the 'profession-state alliance' mentioned earlier. As the nature of the neo-liberal government began to change from a provider to an enabler, so did the perception of the planning profession and its relationship with the state. Planning changed from a welfare profession serving the public interest to a skills-based profession delivering a service (Evans, 1995). This, coupled with the increasing role of the private sector in both development and planning activities, began to challenge the taken-for-granted place of planning in local government; a position which had helped to sustain the discipline despite the ambiguous nature of its knowledge base (Brown et al, 2003). Second, the implication for planning schools was profound. Although the higher education in general was expanding^{xxi}, the share of students enrolling in planning courses was declining (Shaw et al, 2003). This along with a varied performance in the RAE and the universities' rationalisation of their resources led to the closure of a number of well established planning courses. Others had to lower the standard of their entry requirements^{xxii} to recruit more students. Third, the 1990s was the end of an era whereby decades of struggle to establish planning as an independent university subject with its own department was replaced with a growing trend in the mergers with its 'parent professions' and the introduction of dual accreditations. Although this was taking place under the guise of interdisciplinarity (Pezzoli and Howe, 2001), other motivations, notably cost-saving and survival, played their part, too. Fourth, the established doctoral programmes remained small in size and limited in its contribution to disciplinary development. A survey of planning schools in Europe undertaken for AESOP reported that in 1995 there were only 209 doctoral students in the 13 respondent planning schools in the UK (which included those with the largest PhD programmes) (Lundahl, 1996:11). Eight years earlier, in 1987, there were an estimated 600 PhD students in 19 American planning programmes (Patton, 1989). Almost half of the UK doctoral students were from outside Europe and would return home after their studies. Only 37 per cent of the respondents thought that doctoral theses helped build planning knowledge. Furthermore, the majority of the UK students were from geography background with very few holding a planning degree.

3.5 The maturing phase (2000s -)

Disciplines can be challenged not just by obsolescence but also by expanding scholarship (Krishnan, 2009). Continuous expansion of knowledge particularly at the margins of a discipline can lead to a process of maturing. This according to Grieb (1974) is a process in which a discipline broadens its scope so much that it overlaps with other disciplines and loses what once was its distinct disciplinary identity. It becomes a victim of its own success. So, maturing is a double-edged process. While it marks the coming of age of an academic discipline, it may also signal its potential fragmentation and even demise. Such potential is greater if the knowledge base of the discipline remains ambiguous and its educational curricula become thinly stretched.

It is evident from the preceding historical review that as the planning discipline entered the 21st century it began to show signs of a double-edged maturing process. On the one hand, it was firmly established as a distinct academic discipline in institutional and social terms. On the other hand, its educational base was becoming diffused and extending into not only social but also natural sciences while its intellectual engagement with emerging conceptions of space was tenuous (Davoudi, 2009b). These concerns were reflected in the debates that underpinned the

restructuring of the discipline in the early 2000s, the outcome of which was encapsulated in three RTPI documents: the *New Vision for Planning* (RTPI, 2001), the report of the Education Commission^{xxiii} (RTPI, 2003), and the RTPI *Policy Statement on Initial Planning Education* (RTPI, 2004). They were “the product of a range of influences, reflecting major shifts in higher education, in the profession itself and in society as a whole” (Batey, 2003: 332). Their recommendations were seen to “have far-reaching implications for planning schools in much the same way that Schuster Report did fifty years ago” (ibid). They represented a landmark in the evolution of the planning discipline and signalled its maturing particularly with regard to three interrelated areas: a) the resurfacing of the problem of ‘something more’; b) the return to spatiality, and c) the institutional move towards a learned society. We will elaborate on these in turn before arguing that, as with the Schuster Report, in practice the intellectual challenges that stemmed from these were not followed up.

a) Resurfacing of the problem of ‘something more’

It is reported that “of particular interest to the [...] Education Commission was the question of the claim over a distinct body of knowledge [...] (and) the intellectual core of planning” (Brown et al, 2003: 338). This shows that the lack of “intellectual underpinning” in “post-war planning” (ibid: 338) had not been addressed and even in the early 2000s, “the distinctive knowledge base of planning” had remained “ambiguous and contested” (ibid: 339). It was argued that, despite (or perhaps because of) the growing interdisciplinary trends “a common intellectual basis for planning remains elusive, and ‘role confusion’ for planners is widespread” (ibid: 340). Similar concerns were raised in a paper commissioned by the RTPI Professional Qualifications Committee. This pointed out that, “there is less certainty than with other professions about what planning ‘owns’ and what, therefore, it should be developing” (Grant 1999:5). That, “the Institute is also under fire” and there is a “lack of confidence as to the proper role of the professional planner” (ibid: 5). There was evidently as much unease about the exact nature of ‘something more’ in the early 21st century as it was in the early 20th. It was clear that “a much stronger intellectual rationale” had to be provided and “reflected in planning education” because, among other things, “planning is no longer able to rely on its place in government to maintain its professional status” (Brown et al, 2003:340). The RTPI Education Policy responded to the latter by stating a broader scope and constituency for planning, emphasising that, “spatial planning is much more than the operation of any statutory land-use system [...] (and) does not regard planning as a purely governmental activity whose legitimacy depends wholly on statute or regulation” (RTPI, 2004:2). The question of intellectual underpinning came to the fore through a return to spatiality of planning in the RTPI’s Policy Statement. This echoed a wider trend in the late 20th century which saw place and territory regaining prominence as the focus of policy attention (for a detailed account of “the ascendance of place” see Davoudi and Strange, 2009:7-11).

b) The return to spatiality

After about three decades of almost neglecting space as the substantive basis of planning’s disciplinary identity, the focus on spatiality was brought back on the agenda and given a prominent position in the RTPI’s corporate identity of: ‘making of place and mediation of space’^{xxiv}. This move was reinforced by defining the Institute’s

“basic discipline as spatial planning” (RTPI, 2004: 1). Rather than considering planning as an activity which deals with the management of environmental change, it advocated that planning “deals with spatial relationships, and competing claims to spaces” to achieve sustainability and inclusiveness (RTPI, 2004:1). More succinctly, it advocated that “planning education should seek to promote *critical thinking* about *space and place* as the basis for *action or intervention*” (ibid, emphasis added).

This brief statement represents a more coherent understanding of what the planning discipline is about and how its claim to ‘something more’ can be articulated. It simultaneously identified: the discipline’s objects of enquiry (space and place), the need for critical thinking (i.e. developing the knowledge base), and the distinct competence of planners (i.e. linking knowledge to action). The first part of the statement is about the discipline’s substantive knowledge base; it is about *knowing what?* It resonates with what Friedmann (1998:251) called “a grounding in knowledge about the socio-spatial processes” and goes further to suggest that what is required is not just a ‘grounding’ but also ‘critical thinking’ about these processes. This puts the emphasis on “the nature of knowledge to be acquired” (Healey, 1991:185). However, acquiring such knowledge (challenging as it is) is not exclusive to planners. Indeed, some of the most significant contributions about spatial interrelationships have come from other disciplines, notably geography (Davoudi and Whitney, 2005). But what makes planning different from other disciplines is reflected in the second part of the statement, which refers to *knowing how* to connect knowledge (or indeed knowledges) to action in order to bring about change. This, again, reflects Friedmann’s idea that what is distinct about planners is that “they specifically seek to connect forms of knowledge to forms of actions in public domain” (Friedman, 1987). It is this interventionist nature of planning which underpins its normative dimension and brings the issues of values, or *knowing why*, to the fore.

c) Towards a learned society

One of the recurring themes in the periodic reforms of the planning discipline has been the tension between academic education and professional training. For Perloff, it was clear that students should be provided by the “intellectual building blocks [...], basic substantive materials, propositions, and techniques” (Perloff: 1957:38). Yet, even in the US frictions between educators and practitioners has remained high and are centred around a perception that, “what is now taught in many of the 67 accredited (planning) programmes is seriously out of balance with the demands of the planning profession” (Boyle, 2003:358). In Britain, such an argument began to surface as planning academics embraced social science research and academic publications which were not perceived as immediately relevant to planning practice. Practitioners were arguing that, “academic discourse is impenetrable” to them and academics “rarely offer innovation and leadership” (Thompson, 2002:2). The “tension between the relative value of professionally useful and academically rigorous research” remained an unresolved agenda even for the RAE (Punter, 2003: 12).

A similar tension existed with regard to planning education. While RTPI accreditation requires that the curriculum should respond to the immediate demands of planning policy and practice, planning schools often concur with the view that, “it is the duty of universities to educate their students, not to produce fully-trained planners”; that, it is their duty “to enhance the intellectual and reflective capacity of their students” (Grant,

1999: 7). Hence, one of the recommendations of the Education Commission was that “the role of the Institute in the education process” should be “one of providing guidance rather than prescription” (Brown et al, 2003:343). Indeed, at the time the RTPI itself was under increasing pressure to become a “learned society” rather than being “too heavily oriented to regulation of institutional standards” (Grant 1999: 10). The Institute was invited to “commit itself to developing planning as a learned profession” (ibid: 9) by enhancing its knowledge base. While examining the extent to which the Institute has grown into a learned society is beyond the scope of this paper, it is important to mention that the RTPI has taken several initiatives to move towards that direction (for details see Ellis et al, 2010). Also, in terms of its relationship with planning schools, the 2004 reform went some way towards replacing its rigid regulatory approach of quinquennial inspection with a softer ‘partnership model’.

The third missed opportunity!

The 2004 redefinition of the planning discipline (as critical thinking about space and place as the basis for action) was noble in intent but limited in interpretation and implementation. The intellectual challenge of this definition was not followed through the Policy Statement on Initial Planning Education. Critical thinking was defined as “achieving outcomes” which “involves processes which are qualitative as well as quantitative” (RTPI 2004:1). “Spatial planning education” became a mere change of terminology to replace the notion of ‘core’ subjects, and was defined as “a broad understanding of the main principles relevant to making of place and the mediation of space” (ibid: 3). In the attempt to convey the need for integrating “planning knowledge, skills and values” (RTPI, 2004:9) the pedagogic distinction between these three dimensions - which was a key feature of the 1990s reform- was lost. Instead, an undifferentiated checklist of 19 indicative learning outcomes (ibid: 10-11) for the core^{xxv} and a further five for “specialist planning education” (ibid: 13) was provided. Criticising this approach, Boyle (2003:356-7) argued that, “the RTPI seeks a new generation of planners equipped with skills so general and so multi-dimensional that they, [...] could tackle just about any task, to further the ‘making of place and the mediation of space’”.

What attracted the most heated debate was the reconfiguration of course structures and especially the introduction of an accredited one-year (instead of two-year) postgraduate course with undifferentiated entry to include students from almost any background. This seemed “simply incomprehensible to those working in planning education in American universities” (Boyle, 2003:357) who could not accept that “an effective core planning curriculum and a specialism (including a dissertation) could be taught and tested within 12 months” (ibid). Similar concerns were raised by some European commentators (such as Kunzmann, 2004) who considered this a departure from the RTPI’s ambitious educational philosophy. Wary of ‘shoehorning’ a two-year course into one year, the RTPI requested that planning schools should prepare a Statement of Educational Philosophy (SEP) to justify the design of their programme. With hindsight, this could have provided the basis of a much needed deliberation process in planning schools on the nature of knowledge to be gained, or on what Healey (1991:185) called “the first level” of deliberation, focusing on epistemological underpinning of spatial planning education. Instead, the Institute’s instruction

regarding the content of SEP required limited descriptive statements of schools' selection of learning outcomes, areas of specialisms, research strengths, relationships with the professions, and what became the reiteration of their stylised 'mission statements' (RTPI, 2004:8).

In practice, the long list of learning outcomes which had to be delivered in a much shorter timescale did not leave much room for indulging in 'critical thinking about space and place' and embedding a sound understanding of the epistemological challenges of integrating different forms of knowledge(s) and actions. Whether these were the real motivation behind the reform remains questionable, anyhow. It appears that the Institute was simply responding to the practical needs of practicing planners as it had always done. Firstly, the return to spatiality was triggered by a resurfacing of physical design in planning and in particular the urban renaissance agenda rather than a desire to engage with the emerging spatial thinking in social sciences. Secondly, the emphasis on action was driven by the government's 'culture change' agenda^{xxvi} and its emphasis on planning as development-enabling rather than controlling, rather than the need to advocate new ideas about 'experiential learning' in planning education. Finally, the introduction of a one-year planning course was aimed at reducing the cost of education (for students) by speeding up planning degrees and filling the growing job markets and skill shortages (Mawson and Pendlebury, 2003), rather than pedagogic necessity. The headline of *Planning Magazine* summed it up: "Crash course to avert crisis"; portraying "fast track degrees [...] as a big market boost for planning education" (*Planning*, 2004:8). Despite some initial concerns over the devaluation of undergraduate courses, most planning schools welcomed the change as it led to the much needed increase in the number of students. As RTPI accreditation of the new one-year programme was based on submitted documentation with no discussion, it is perhaps not surprising that there was not generally much intellectual experimentation in the design of the new courses, despite the rhetoric about promoting diversity of provision. What could have been the beginning of an intellectual paradigm shift in the planning discipline slipped away almost unnoticed, as attention focused on the practical issues of course structures, meeting learning outcomes and the process of accreditation itself. While much has been achieved and should be celebrated, this, as far as the intellectual development of the planning discipline is concerned, constitutes the third major missed opportunity!

4. Addressing the Problem of 'Something More'

The question which remains open is: if the planning community is to address the question of 'something more' at the epistemological level, what should it focus on? Based on the preceding account, there are three key areas that we consider as fundamental for clarifying the epistemic position of the planning discipline: 1) space as the discipline's substantive object of enquiry; 2) the nature of integrative knowledge; and 3) the interface between knowledge and action. As regards the first, we have argued throughout this paper and elsewhere (Davoudi, 2009b) that until recently the planning community has neglected its scholarly interest in developing new insights into the nature of spatial relationships, and in the articulation of space in relational and non-Euclidean ways. In relation to the other two areas, we briefly outline the critical points on which future intellectual deliberations can usefully focus. The second area relates to the discipline's claim to interdisciplinarity. Although this term has often been used interchangeably with multidisciplinary, it conveys a

different meaning (Sillitoe, 2004). A *multi-disciplinary* approach involves a number of disciplines coming together but each working independently and primarily within their own frame of reference and methods. Hunt and Shackley (1999) call this the 'science of interaction' whereby disciplines can co-exist in a particular context but retain their boundaries. *Interdisciplinarity*, however, involves occupying the spaces between disciplines to build *new* knowledge (Sands, 1993). Hunt and Shackley (1999) call this the 'science of integration' whereby coherence between the knowledges that are produced by different disciplines is sought (Lau and Pasquni, 2008). While over the years the unconditional addition of new subjects to planning education has been justified and even celebrated as planning's claim to interdisciplinarity (integration of knowledges), what planning has offered is multidisciplinary. At its best, this has allowed problems to be looked at from different perspectives and cultivated collaborative values in planning processes. At its worst, it has been little more than an uncritical picking-and-mixing of subjects from competing and sometimes conflicting epistemic communities to satisfy, sometimes superficially, the expanding range of educational learning outcomes. The third area which requires more philosophical deliberations is the challenge of connecting forms of knowledge to forms of action. While the normative questions of '*which* action' have been widely debated, the nature of the link itself has not. A pragmatic understanding of knowledge-action interface, for example, considers action as a *form of* knowledge rather than as an *applied* knowledge. The epistemological nuances of these fundamentally different views have been rarely articulated. While the utilitarian necessity of making connections between knowledges and between knowledge and action in the planning discipline has been repeatedly rehearsed, their intellectual challenges have not been adequately addressed.

5. Conclusion

The question of 'something more' has been something of a 'holy grail' of the planning discipline; but does it matter? After all, from its origins as an adjunct of architecture, engineering and surveying, planning has developed into an independent and highly regarded social science discipline not just in the Anglo-Saxon world but also in other parts of Europe. In Britain, it has been increasingly institutionalised in the form of academic journals, university degrees, national and international associations, regular conferences and, for a while at least, a distinct unit of assessment in the RAE. These have reproduced the discipline from one generation to the next and strengthened its social and cultural identity which is represented in shared terminologies, languages and, to some extent, values and career paths. All this begs the question that if planning can now be comfortably qualified as an academic discipline, why should we insist on addressing the problem of 'something more'? The reason lies in the double-edged nature of this maturing process. Throughout its history, planning has adapted and extended its educational base to respond to the growing expectations from it. This in turn has helped the discipline to find new rationales and renewed public support for the continuation of the planning project. This mature and flexible approach, however, has been taken at the cost of a vaguely defined and diffused intellectual foundation. The knowledge base of planning is now expected to cover multiple areas of enquiry, each with different philosophical and epistemological underpinnings. Its original physical design tradition was initially complemented with a multitude of social science theories. This was later fused with natural sciences coupled with a resurfacing of design. Today, due to climate change concerns, engineering subjects are also being added to the previous layers. There is a

danger that the negative consequences of the maturing process may lead to further overlap, diffusion and fragmentation of the discipline. This may reduce planning to a subject taught at universities only to fulfil the practice demands of a profession rather than being a distinct academic discipline; that the eternal tug-of-war between profession-led demands for training will over-dominate the counter-argument of the need for a more fundamental education argued for by the academy. This is particularly the case if the planning community does not fully and widely engage in an intellectual debate about the epistemic position of planning particularly in relation to the three areas identified above. These areas provide the bedrock for substantiating planning's claim to offer 'something more' than the sum of subjects which it draws upon. They are the foundation for understanding the link between theory and practice and articulating why, for example, studying planning theory makes sense to those aspiring to become reflective practitioners. Our intention is not to suggest that nothing has ever been done or written about these dimensions, but rather to stress that greater intellectual deliberations are needed. Furthermore, such a debate should inform the nature of planning education and its accreditation by the profession. How the planning discipline validates or claims to integrate the expanding range of knowledge(s) which it draws upon as the basis for spatial intervention is not widely known or sufficiently articulated. As a result the discussion on the content and structure of planning education has too often focused on the "*subjects* of planning knowledge" rather than "the *nature* of the knowledge to be acquired" (Healey, 1991:185). If there is a consensus that planning education is about critical thinking about space and place as the basis for action and intervention, there needs to be some intellectual clarity about what this entails. Without a coherent knowledge base, there is a danger that the current instrumental enthusiasm for interdisciplinarity coupled with the management rationale for the creation of larger units in universities would make it increasingly difficult to sustain planning as a distinct academic discipline.

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References

- Adams, F. J., 1949, The planning schools: 1. Massachusetts Institute of Technology, *Town Planning Review*, XX:144-149
- Adshead, S.D., 1911, Report on the October 1910 Town Planning Conference, *Town Planning Review*, 1: 178
- Aram, J., 2004, Concepts of interdisciplinarity: configurations of knowledge and action, *Human Relations* 57(4):379-412
- Atkinson R. and Moon G., 1994, *Urban Policy in Britain*, London: Macmillan.
- Audi, R., 1996, *The Cambridge Dictionary of Philosophy*, Cambridge: Cambridge University Press
- Baker, V., 1997, The perils and promises of interdisciplinarity in the humanities, in: L. Pyenson (ed) *Disciplines and interdisciplinarity*

- Barnes, B., 1982, *T. S. Kuhn and the Social Sciences*, London: Macmillan
- Batey, P., 1993, Town planning education as it was then, *Planning Careers and Education*, 79 (4):25&33, April
- Batey, P., 2003, Introductory note, The Planning Education Commission's report, *Town Planning Review*, 74(3):331-332
- Batty, M. 1984, *Information technology in planning education*, papers in Planning Research 80, Department of Town Planning, Cardiff: University of Wales College of Cardiff
- Becher, T, 1981, Towards a definition of disciplinary cultures, *Studies in Higher Education*, 6(2):109-122
- Birch, E.L., and Silver, C., 2009, One hundred years of city planning's enduring and evolving connections, *Journal of the American Planning Association*, 75(2):113-122
- Boyle, R., 2003, Comments on the RTPI's Education Commission and its implications for planning education, *Town Planning Review*, 74(3):354-358
- Brown, C., Claydon, J., and Nadin, V., 2003, The RTPI's Education Commission: Context and challenges, *Town Planning Review*, 74(3):333-345
- Cherry, G. E., 1974, *The evolution of British town planning*, Bedfordshire: Leonard Hill Books
- Collins, M. P., 1989, A review of 75 years of planning education at UCL, *The Planners*, 23 June:114
- Dagenhart, R. and Sawicki, D., 1992, Architecture and planning: The divergence of two fields, *Journal of Planning Education and Research*, 12: 1.16
- Davoudi, S. 2000, Sustainability: A New Vision for the British Planning System, *Planning Perspectives*, 15(2):123-137
- Davoudi, S. 2006, Evidence-based planning: rhetoric and reality', *DISP*, 165(2):14-25
- Davoudi, S. 2009a, Planning and interdisciplinarity, paper presented at AESOP Heads of Planning Schools Conference, 29 March, Lille
- Davoudi, S. 2009b, Asymmetric development in spatial planning: positivist content and postmodernist processes? in: S. Davoudi and I. Strange. (eds.), *Space and Place in Strategic Spatial Planning*, London: Routledge: 181-207
- Davoudi S. and Strange, I, 2009, Space and place in the twentieth century planning: An analytical framework and an historical review in: S. Davoudi and I. Strange. (eds.), *Space and Place in Strategic Spatial Planning*, London: Routledge: 7-42
- Davoudi, S. and Whitney, D., 2005, British Planning Education: Past, Present and the Future, *Urban*, 10: 17-33
- Deacon, R., 2002, Truth, Power, and Pedagogy: Michel Foucault on the rise of the disciplines, *Educational Philosophy and Theory*, 34(4):435-458
- Elliot, P., 1972, *The sociology of professions*, London: MacMillan
- Evans, B. and Rydin, Y., 1997, Planning professionalism and sustainability, in A. Blowers and B. Evans (eds), *Town planning into the twenty-first century*, London: Routledge, 55-70
- Ellis, G., Murtagh, B. and Copeland, L., 2010, *The future of the planning academy: A scoping report*, London: Royal Town Planning Institute
- Evans, B., 1995, *Experts and environmental planning*, Aldershot: Avebury
- Faludi, A., 1973, *Planning Theory*, Oxford: Pergamon
- Foucault, M., 1991, *Discipline and Punish; The Birth of the Prison*, London: Penguin
- Freidson, E., 1994, *Professionalism reborn: Theory, prophecy and policy*, Cambridge: Polity Press
- Friedmann, J., 1998, Planning Theory Revisited, *European Planning Studies*, 6(3):245-250

- Friedmann, J., 1987, *Planning in the Public Domain*, Princeton: Princeton University Press
- Fuller, S., 1991, *Social epistemology*, Indianapolis: Indiana University Press
- Geddes, P., 1915, *Cities in evolution*, London: Williams and Norgate
- Goodlad, S., 1979, What is an academic discipline? In R. Cox (ed), *Cooperation and choice in higher education*, London: university of London Teaching Methods Unit
- Grant, M. (1999) *Planning as a Learned Profession*, <http://www.planning.haynet.com/refe/docs/990115.htm>, accessed 27/1/1999
- Grieb, K., 1974, Area studies and the traditional disciplines, *The History Teacher*, 7(2) February: 228-238
- Hague C., 1975, Apathy and after, *Planning*, 104(28 February):8
- Hague C., 1996, *Transforming Planning: Transforming the Planners*, Paper presented in 50th Anniversary Conference of Department of Town and Country Planning, University of Newcastle, 25-27 October 1996, Newcastle
- Hall, P., 2002, *Cities of Tomorrow*, 3rd edn, Oxford: Blackwell
- Healey, P. 1991, The content of planning education programmes: some comments from recent British experience, *Environment and Planning B: Planning and Design*, 18: 177-189
- Healey, P., 1985, The professionalisation of planning in Britain: its form and consequences, *Town Planning Review*, Vol. 56(4)
- Healey, P., 1994, *Education for Planning: A Continuous Process*, Paper presented in ISOCARP Congress: Expanding demands on planning, 8-10 September, Prague
- Healey, P., 2007, *Urban Complexity and Spatial Strategies: Towards a relational planning for our times*, London: Routledge
- HMSO, 1942, *Report of the Committee on Land Utilisation in Rural Areas* (cmd 6378), London: HMSO
- Holford, W.G., 1949, The planning schools, 2. University College London, *Town Planning Review*, XX: 283-287, October
- Holmes Perkins, G., 1950, The planning schools: 3. Harvard University, *Town Planning Review*, XX: 315-318, January
- Hunt, J. and Shackley, S., 1999, Reconceiving science and policy: academic, fiducial and bureaucratic knowledge. *Minerva*, 37: 141-164
- Johnson, T. J., 1972, *Professionalism and power*, London: MacMillan
- Johnson, T. J., 1982, The state and the profession: *Peculiarities of the British*, in A. Kain, J.F., 1970, Rampant schizophrenia: the case of city and regional planning, *Journal of the American Institute of Planners*, 36:221-223
- Kantorowich, R.H., 1967, Education for Planning, *Journal of the Town Planning Institute*, 53(5):175-184
- Kent Jr., T. J., 1950, The planning schools: 4. University of California, Berkeley, California, *Town Planning Review*, 1950, XXI: 18-26, April
- Klein, J. Thompson, 1990, *Interdisciplinarity; History, theory, and practice*, Detroit: Wayne State University Press
- Krishnan, A., 2009, *What are academic disciplines? Some observations on the disciplinarity vs. interdisciplinarity debate*, Southampton: University of Southampton, ESRC National Centre for Research Methods Working paper Series 03/09
- Kunzmann, K., 2004, *Unconditional surrender: The gradual demise of European diversity in planning*, Paper presented at the AESOP congress, 3 July, Grenoble
- Larson, M.S., 1977, *The rise of professionalism: A sociological analysis*, Berkeley: University of California,

- Lau, L. and Pasquini, M., 2008, Jack of all trades? The negotiation of interdisciplinarity within geography, *Geoforum*, 39:552-560
- Low, N., 1991, *Planning Politics and the State*, London: Unwin Hyman
- Lundhal, I., 1996, Doctoral studies between academy and profession: A survey in AESOP members schools in Europe, *AESOP News*, Autumn: 11-12
- Marvin, S. and Pendlebury, J., 2004, Planning Research in the United Kingdom in A. Fubini (ed.) *Improving Planning Education in Europe*, Milan: Franco Angeli
- Mawson, J. and Pendlebury, J., 2003, *The Supply and Demand for Qualified Town Planners, 6th report*, London: RTPI.
- McLaughlin, J. B., 1973, The future of the planning profession, in P. Cowan (ed.) *The Future of Planning*, London: Heinemann
- McLoughlin, J.B., 1973, The future of planning profession, in: P. Cowan (ed), *The Future of planning*, London: Heinemann
- Moran, J., 2002, *Interdisciplinarity: The new critical idiom*, London: Routledge
- Morrison, W.S., 1943, Address to Town Planning Institute, *Journal of Town Planning Institute*, XXIX:73
- Myers, D. and Banerjee, T., 2005, Towards greater heights for planning: reconciling the differences between profession, practice and academic field, *Journal of American Planning Association*, 71(2):122-129
- Patton, C.V., 1989, Recent trends in planning education, *Journal of Planning Education and Research*, 8:215-220
- Perloff, H. S., 1957, *Education for planning: City, state and regional*, Baltimore: Johns Hopkins Press
- Pezzoli, K. and Howe, D., 2001, Planning pedagogy and globalisation: a content analysis of syllabi, *Journal of Planning Education and Research*, 20: 365-375
- Planning, 2004, Crash course to avert crisis, 6 February, p.8
- Punter, J., 2003, *The UK Research Assessment Exercise: the evaluation of planning research and its implications*, paper presented at the joint ACSP-AESOP Congress, 8-12 July, Leuven
- Read, E.J., 1981, *Practical work in planning education*, Working Paper No. 54, Department of Town Planning, Oxford: Oxford Polytechnic
- Reade, E. J., 1987, *British Town and Country Planning*, Unit 19 (D202), Milton Keynes: The Open University.
- RIG (Radical Institute Group), 1975, What is RIG? *Planning*, 118 (6 June):8
- Rodwin, L., 1953, The Achilles Heel of British Town Planning, *Town Planning Review*, 24
- RTPI (The Royal Town Planning Institute), 1971, *Town Planners and Their Future*, London: RTPI
- RTPI, 1974, *Education Policy: Guidelines for Planning Schools*, London: The Royal Town Planning Institute
- RTPI, 1982, *Guidelines for Planning Schools*, London: The Royal Town Planning Institute
- RTPI, 1991a, *The Education of planners: policy statement and general guidance for academic institutions offering initial profession education in planning*, London: (The Royal Town Planning Institute)
- RTPI, 1991b, *Guidance on initial professional education programmes in planning: content and performance criteria*, London: The Royal Town Planning Institute
- RTPI, 2001, *A New Vision for Planning: Delivering sustainable communities, settlements and places*, London: The Royal Town Planning Institute
- RTPI, 2003, *Report of the Education Commission*, London: RTPI

RTPI, 2004, *Policy Statement on Initial Planning Education*, London: RTPI

Sands, R.G. 1993, Can you overlap here? a question for an interdisciplinary team. *Discourse Processes*, 16: 545-564

Schuster, Sir G., 1950, *Report of the Committee on Qualifications of Planners* (Cmd 8059) London: HMSO

Sharp, T., c. 1973, *Chronicles of Failure*. GB 186 THS 60. Newcastle upon Tyne: 296; available Special Collections, Newcastle University Library.

Shaw, T., Pendlebury, J. and Mawson, J., 2003, *The supply and demand for qualified town planners*, 5th Report, London: RTPI

Sillitoe, P., 2004, Interdisciplinary experiences: working with indigenous knowledge in development. *Interdisciplinary Science Review* 29(4): 327-341

Stephenson, G., 1951, The planning schools: 7. The University of Liverpool, *Town Planning Review*, XXII: 84-87, April

Taylor, N., 1998, *Urban Planning Theory since 1945*, London: Sage

Thomas, A.J., 1981, Developments within the education of British town planners, in A.H. Thomas and K. Thomas (eds), *Planning education in the 1970s*, Working paper No. 55, Department Town Planning, Oxford: Oxford Polytechnic

Thompson, R., 2002, *Spatial planning: an opportunity for planning education waiting to happen*, Paper presented at AESOP Workshop on Planning Education In Europe, 15 March, Vienna

TPI (Town Planning Institute), 1959, *Committee Minutes*, Vol.VI

TPR (*Town Planning Review*), 1910, The Liverpool School of Town Planning, *Town Planning Review*, 1(1):77-80, April

Turner, B.S., 2006, Discipline, *Theory, Culture and Society*, 23:183-186

Ward, S., 2004, *Planning and Urban Change*, 2nd. edn, London: Sage.

Whitley, R., 2000, *The intellectual and social organisation of the sciences*, Oxford: Oxford University Press

ⁱ Namely: theoretical (*episteme*), productive (*techne*) and practical (*praxis*) (Audi, 1996:40) with planning being often associated with the latter.

ⁱⁱ Whose 1898 book, *Tomorrow- a Peaceful Path to Social Reform* pioneered the Garden City movement

ⁱⁱⁱ The Housing, Town Planning, etc Act, 1909 which permitted local authorities to prepare planning schemes for their areas

^{iv} Notably Raymond Unwin's *Town Planning in Practice: An introduction to the art of designing cities and suburbs*, published in 1909 which became a standard text and a design manual.

^v Presented to The Sociological Society in 1904

^{vi} By this we mean, not taking advantage of new ideas which with hindsight are considered to be progressive. Recognising that there are various historical and contextual reasons for such failures should not discourage us from acknowledging them as 'missed opportunities'.

^{vii} One of the six papers set for examination was 'Civic Decoration' with a question dedicated to "describe(ing), with sketch, the Trajan column (and) mention(ing) any other columns [...] undoubtedly based on this example" (TPR, 1910: 79)

^{viii} The formal recognition of the Institute was after the signing of the Article of Association in 1914.

^{ix} These were Liverpool, London, Newcastle, Leeds, Edinburgh and Manchester plus the Architectural Association in London. There were courses elsewhere but not recognised

^x The Scott Committee's Report on Land Utilisation in Rural Areas (1942), probably authored by Thomas Sharp who was one of the secretaries to the Committee

^{xi} This was reflected in the titles of books written at the time such as *Evangelistic Bureaucrats* by John Davies in England and *After the Planner* by Robert Goodman in America, both in 1972

^{xii} Such as Henri Lefebvre, Doreen Massey, David Harvey, and Manuel Castells

^{xiii} By critics such as Jane Jacobs and Christopher Alexander

^{xiv} The Town and Country Planning Act, 1968

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- ^{xv} In 1975-6, for example, there were 4173 applicants of whom 333 were admitted to 12 RTPI recognised undergraduate courses, plus 4014 full time equivalent applicants of whom 421 were admitted to 7 RTPI recognised postgraduate courses (adapted from Thomas, 1981:23).
- ^{xvi} Particularly the Social Science Research Council which provided postgraduate funding
- ^{xvii} Including Planning Methodology, The Physical Environment and The Administrative Context (RTPI, 1982)
- ^{xviii} Through the Planning and Compensation Act, 1991
- ^{xix} This was given statutory force by the Planning and Compulsory Purchase Act, 2004
- ^{xx} The core knowledge requirements consisted of three elements: “the nature, purpose and method of planning; environment and development, the political and institutional context of planning practice; and, specialised areas in the planning field” (RTPI, 1991a: 2-3).
- ^{xxi} Following the government’s aim to achieve 50% participation rate in higher education in England
- ^{xxii} specified by the A-level marks
- ^{xxiii} The Commission was established in 2001 and chaired by Professor Peter Fidler, past president of the RTPI
- ^{xxiv} This appears as strap line on the RTPI logo
- ^{xxv} Initially 17 with two added subsequently.
- ^{xxvi} Which was also reflected in the Planning and Compulsory Purchase Act, 2004