

Teaching and Research: An Integrated Approach to the Undergraduate Studio in Landscape Architecture Education

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This paper contributes to a debate, ongoing and worldwide in landscape architecture academia, about how research activity can be increased in what has developed as primarily a design-based and practice-oriented educational system. The introduction outlines the research context for UK landscape architecture educators and introduces the paper's central theme: that teaching and research can be integrated in some studio-based tasks at undergraduate level. This is followed by an account of an undergraduate studio that focused on socially responsive approaches to residential regeneration and that was organised to achieve both teaching and research objectives. The paper discusses how the studio contributed to advancing the research agenda of the author by helping to develop components of interviewing and mapping methods for reading experiential potential in neighbourhood settings. It is argued that the project's strong theoretical framework, critical approach to problem evaluation, and contribution to wider research objectives help establish its value as equivalent to more conventional research outputs and, therefore, its relevance to research activity auditing procedures, such as the UK Research Assessment Exercise.

INTRODUCTION

KEY WORDS

Research
Teaching
Undergraduate Studio
Experience
Landscape Place

IN 1998, THE 'DEBATE' section of the UK journal *Landscape Research* highlighted difficulties that landscape architecture academia was continuing to experience in establishing a research culture (Selman, 1998). This is evidently an issue exercising the minds of landscape architecture educators globally (Chenoweth, 1992; Thwaites, 1996; Bowring, 1997). While there is considerable diversity of opinion about what constitutes 'research' in landscape architecture, there seems to be broad agreement that it presents a problem of increasing priority. Some have argued that this may be attributed to the way landscape architecture education has evolved as a practice-oriented profession rather than as an academic discipline (Corner, 1991; McAvin, 1991). We have, generally, an approach to education organised to supply practice with trained apprentices and meet the demands of professional accreditation, but not equally to supply the levels of scholarly awareness and conventional research training necessary to meet the research establishment's demands for rigorous peer review. Over the last decade this approach has become problematic for landscape architecture educators for two main reasons.

First, research activity is increasingly associated with income generation. Within most UK universities access to research funding is competitive, based primarily on

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a government assessment of research output (the Research Assessment Exercise, or RAE) and on bidding for grants from research funding councils, foundations and trusts. Success presents particular challenges for many landscape architecture academics. For example, the RAE places greatest emphasis on research outputs in the form of peer reviewed publications that have not, hitherto, been a principal means of dissemination for landscape architecture's output. Additionally, success in penetrating research funding bodies can be problematic for those without an established track record in research and particularly for those lacking at least a familiarity with formal research procedures. Furthermore, and despite its diversity, the usually design-led activities of landscape architecture are far from easy to fit into the research agendas of funding bodies. To make matters worse, it has been reported that the word 'landscape' can hold unfavourable connotations in some parts of the UK research establishment (Thwaites, 1998). Secondly, and no doubt partly fuelled by the need to compete effectively in the established research arena, is the question of landscape architecture's wider intellectual development. Steven Krog (1985) has said that landscape architecture is a discipline in intellectual disarray with a deficiency of theoretical discourse.

Whilst this, perhaps extreme, assertion was made more than 15 years ago, there is no shortage of evidence in journals throughout the past decade to demonstrate that landscape architecture remains concerned about the implications of its perceived lack of status as an intellectual discipline. If, as Riley (1990) has suggested, academic landscape architecture is in transition from a profession to a discipline, there is a need for a more concerted effort to develop a cohesive theoretical framework (Shirvani, 1991), a growth in critical awareness (McAvin, 1991), and a research agenda grounded in its core activities and concerns (Riley, 1990).

The impact of all this has been to place considerable stress on academics. They now need to heighten levels of research consciousness, develop research skills and upgrade measurable research output often whilst continuing to deliver high-quality teaching (also formally measured in the United Kingdom by the Higher Education Funding Council for England: HEFCE) and maintaining professional accreditation. In already saturated curricula, academics may well feel forced to choose whether to focus their professional development on research or on teaching, thereby contributing to a perception that they are mutually exclusive activities. But it is in the very tradition of landscape architecture to seek synthesis and, according to the HEFCE definition of research as "original investigation undertaken in order to gain knowledge and understanding" (Benson, 1998, p 199), there is no reason, in principle, to suppose that effective teaching and high-quality research need be thought of as mutually exclusive. If teaching and research are to be combined, research objectives have to be pursued in ways that do not compromise pedagogical requirements. But, both, at some level, involve attention to a theoretical framework, a critical approach to problem definition, and outputs that are amenable to review and critique.

There is, then, a base line position from which to develop programmes capable of meeting research and teaching objectives. Recently, these general principles have

come to focus on ideas about the refereed studio in an attempt to translate “the often underrated creative and investigative work which goes into designing studio projects into a broader research framework” (Bowring, 1997, p 54). Armstrong (1999) has identified three forms of research potential for the design studio: 1) education research to pioneer and pilot new approaches to teaching; 2) consideration of the design studio and its outputs as a theorised creative work; and 3) the studio as part of a larger research programme. The studio described in this paper fits into the latter of these three frameworks. It exemplifies Bowring’s view that the studio “may be part of a larger project which reflects the educator’s interest, with the studio providing the opportunity to explore a specific issue in detail or investigate a case study” (Bowring, 1997, p 54).

In the following two sections I first outline the research context in more detail, establishing the theoretical context for the studio and its specific research objectives. Following that I discuss the teaching and learning context describing the main components of the studio and how they related to meeting the research objectives.

EXPERIENTIAL LANDSCAPE PLACE: THE RESEARCH CONTEXT

Without understanding how our daily routines form and inform the goodness of our designs, the likelihood is that we at best perpetuate our own value laden opinions, and at worst our momentary whimsy, on the everyday lives of an unsuspecting public. (Several Authors, 1992, p 166).

This quotation, from Bob Scarfo, University of Maryland, captures the spirit of an integrated research and teaching agenda that I have established in my approach as an educator in landscape architecture in the United Kingdom. The research, conducted in the undergraduate studio focused on neighbourhood open space and emphasised the importance of experiential dimensions in the planning and design of residential settings.

This has particular socio-political significance in the United Kingdom at present because of a growing concern for the quality of place experience (rather than mere use of space or admiration of its beauty) in the regeneration of towns and cities (Baxter, 1998; Urban Task Force, 1999; Llewellyn-Davies, 2000). Urban regeneration is seen to go hand-in-hand with government policy to increase the number of households by 20 percent over the next two decades. This means there will be a growing need for design and development agencies to adopt more socially responsive methods if this process is to avoid repeating the mistakes made in social housing provision during the 1960s and early 1970s.

A conceptual framework with the working title ‘Experiential Landscape Place’ (ELP) was developed to underpin the studio research. This interprets aspects of human experience in spatial terms (Thwaites, 2001). The aim of ELP is to remedy limitations in professional and community approaches to the design of neighbourhood open space in order to address more than utilitarian, economic or

visual criteria (Koh, 1982; Corner, 1991; Howett, 1998). A wide range of research and theoretical material underpins the development of the ELP concept but it has been particularly informed by writers who include Norburg-Schulz (1971); Alexander *et al* (1977, 1979, 1985, 1987); Whyte, (1980); Kaplan and Kaplan (1989, 1998); Carr (1992); Bentley *et al* (1985); and Tibbalds (1992). As it progresses, the ELP work informs teaching in landscape architecture and urban environmental design at both undergraduate and post-graduate levels.

The ELP research has philosophical foundations in intellectual and cultural movements that regard the human-environment relationship to be holistic and integrated. Particularly significant is the broad cultural movement of expressivism, first articulated in Isaiah Berlin's interpretation of the philosophy of Herder, a German philosopher associated with late eighteenth-century European Romanticism. "Men, according to Herder, truly flourish only in congenial circumstances, that is, where the group to which they belong has achieved a fruitful relationship with the environment by which it is shaped and which in turn it shapes." (Berlin, 1965, p 95.)

The essence of this mutually defining and holistic conception of the human-environment relationship remains alive today in some eco-centric elements of the modern environmental movement (Capra, 1982; Pepper, 1996; Naess and Rothenberg, 1989), in the development of aspects of place theory (Canter, 1977; Tuan, 1980; Proshansky, Fabian and Kaminoff, 1983), environmental aesthetics (Walter, 1988; Berleant, 1997) and ethics (Thompson, 2000). These philosophical and theoretical developments have been brought to landscape architecture to strengthen arguments for a humanistic and socially inclusive approach to landscape architectural design in which human emotional expression and psychological functioning in relation to space has primacy (Thwaites, 2000).

Experiential Landscape Place research explores how these intellectual influences can be practised in landscape architecture and urban environmental design with particular reference to residential environments. Extensive theoretical review has identified sufficient consistency in research on people-space relations to suggest that quality of life in neighbourhood settings is influenced by categories of experience that focus on how people attach significance to certain locations, orient themselves, and develop an awareness of their home ground. These experiences have been interpreted spatially as four elements called centre, direction, transition and area (see Table 1).

This has been done by developing Christian Norburg-Schulz's (1971) argument that human functioning has spatial implications related to an innate awareness of location, continuity and containment. This argument continues to resonate in more recent architectural planning and design theory, notably in Hillier and Hanson (1985) and Alexander (2001).

Table 1: The concept of experiential landscape place

Spatial Dimension	Experiential Dimension
Centre Subjectively significant location engendering a sense of here-ness and proximity	Attachment of significance <i>Social imaginability</i> : functional use, goals and motivations, physical features, social meanings <i>Restorative benefit</i> : being away, extent, fascination and compatibility <i>Social interaction and territoriality</i> : communication, primary, secondary and public territory
Direction Subjectively significant continuity engendering a sense of there-ness and future possibility	Orientation <i>Movement</i> : choice, imagination, attention <i>View</i> : landmarks, views and vistas, sequence
Transition Subjectively significant point, or area, of change engendering a sense of transformation in mood, atmosphere, or function	<i>Change</i> : direction and level; entrances, exits and gateways; atmosphere and function
Area Subjectively significant realm engendering a sense of coherence and containment	Neighbourhood awareness <i>Public and private awareness</i> : private; semi-private; semi-public; public <i>Thematic continuity</i> : rhythm, pattern, co-ordination in texture, space, form, detail, symbol, building type, use, activity, degree of maintenance, topography

Table 1 first published in Thwaites, K (2001) *Experiential Landscape Place: an exploration of space and experience in neighbourhood landscape architecture*, *Landscape Research*, Vol 26, No 3, pp 245–255.

The next phase of the undergraduate studio research was concerned with the ELP concept's practical application. The research team thought that the ELP concept could provide a basis from which to read the experiential potential of neighbourhood settings through mapping the distribution of centre, direction, transition and area present. The principal research objective was to develop an appropriate method of undertaking this mapping. If this could be made to work, conventional survey and analysis procedures could be augmented with a means to explore and understand the experiential health of neighbourhood open spaces. The following section outlines the teaching context in which this objective was pursued.

THE HABITATION PROJECT: THE TEACHING AND LEARNING CONTEXT

The BA (Hons) Landscape Architecture course at Leeds Metropolitan University comprises eight modules of study at each of three levels. Each module represents approximately 115 hours of student study time. In level three (the graduate year) all students undertake a comprehensive two-module length, design-based studio over a period of about six months. This is the principal design challenge for the year and

students can choose the topic on which they wish to focus their attention. Normally, four subjects, corresponding with staff research interests or currently relevant subjects are offered for students to choose from. One of these was the Habitation project. This was concerned with introducing students to a body of theory related to planning and design that is socially responsive, and providing them with an opportunity to apply what they had learnt to the redesign of inner city social housing close to the university campus. The knowledge base of the students is acquired through lectures, reading and precedent study and seminars. Students are encouraged to interpret what they discover in the light of their personal philosophy of landscape architecture as it develops, and their own assessment of the needs and opportunities the site presents.

The Habitation project began with a two-week exercise to explore a successful residential community in order for the students to become aware of the physical and social factors that contributed to its success. The site chosen for this exercise was the small community of Chapel Allerton located approximately 5 kilometres to the north of Leeds City centre. Chapel Allerton's appeal was that it was a lively community with a diversity of housing types and styles: from substantial early Victorian town houses to recently constructed apartments and low-cost public housing. The residential provision is woven together with shops and other small businesses, churches, community buildings and public open spaces into an eclectic and thriving neighbourhood character. This element of the Habitation project was organised to meet two principal objectives simultaneously. The first focused on teaching and learning to help the students develop an understanding about the need for a socially responsive approach to the evaluation and design of residential settings. The second focused on research to contribute to the development of methodology to map experiential potential in neighbourhood settings.

THE CHAPEL ALLERTON STUDIO RESEARCH OBJECTIVES

Pilot studies had been undertaken prior to the Chapel Allerton studio to investigate methods that might be appropriate for mapping experiential landscape places. Kevin Lynch's (1960) experiments with mental mapping in American cities were identified for their potential to reveal patterns of place experience in a graphically accessible form that would allow comparison between individuals and groups. These studies showed that information about the routine place experience of people could be gathered using topic-based semi-structured interviews. Symbols, representing each of the four spatial elements (centre, direction, transition and area), could be used to record the responses obtained. Ultimately, this would help the research team to develop sufficiently rigorous methodology to improve the prospects of obtaining further research funding for a more comprehensive programme of fieldwork. Working toward this by further refining these methodological components presented the Chapel Allerton studio with two key issues to focus on: the interview and mapping techniques.

The interview

A set of questions had been developed to help interviewers reveal details about the routine experiences of neighbourhood spaces for resident individuals and groups.

Trials using these questions revealed them as rather mechanical and seemed to render the dialogue uninspiring and dull for interviewer and participant. There was the feeling that, to a certain extent, the questions were constraining, rather than liberating, participants' responses and it was clear that the relationship between the questions and the four spatial elements was sometimes ambiguous. Consequently, the studio would analyse the interview content and the style of delivery to try to establish how best to encourage relaxed and open expression from participants whilst, at the same time, ensuring that responses could be interpreted within the parameters of the concept. To help provide a background for this the students were referred to literature relating to interview techniques in qualitative research, for example, Zeisel (1981) and Cresswell (1994). Owing largely to time constraints, insufficient use was made of these and other similar references. With the benefit of hindsight some key elements from these references could have been more formally introduced into the studio work via lectures and briefing notes.

Mapping symbols

We wished to establish a system of symbols that could be readily understood by non-specialist participants yet be sufficiently comprehensive to record a range of information in a retrievable way. Pilot studies revealed the initial system to be simple and easy to use but inadequate for the level of detail in participants' responses, and potentially ambiguous in interpretation. The studio would focus, therefore, on developing a better mapping system. Part of the task would include investigating how to record and present field notes in ways amenable to geography information systems (GIS) computer software. The research team had earlier explored the potential of GIS to record and analyse different types of information in an integrated way. Preliminary findings had shown this to be an efficient way to compile text, photographic and graphic records obtained during fieldwork and to analyse different layers of information.

In addition to meeting these primary objectives, we were also interested in gaining some insight into how professionals might be trained to undertake ELP mapping in practice; what could be learned by comparing maps representing perceptions of trained landscape architects against those of non-specialist residents; and what might be revealed about neighbourhood settings through this mapping process that would help to augment conventional survey and analysis methods.

THE STUDIO PROCESS

The educational objectives of the Habitation project meant that the Chapel Allerton studio had to take place early in the academic year and be completed within a two-week period. In relation to the research objectives this timeframe raised potential problems. First, the undergraduates involved had only completed two full years of educational experience in landscape architecture. This, coupled with a short timeframe in which to assimilate some of the theoretical concepts and research that underpinned ELP, raised questions about the extent to which the students would be intellectually equipped to meet the research objectives. Secondly, the insights we wished to gain

were beginning to seem ambitious given the time available. In response, the studio was designed to optimise use of time by defining specific roles for each student, carefully directing what needed to happen in group discussions and reviews, and removing the usual expectation for high-quality graphic presentation.

The studio began with a lengthy introductory session during which the students received, via lectures and accompanying notes, an induction to socially responsive design in residential settings. The main elements of the ELP concept were outlined and briefing material provided for the tasks the students would carry out. They were informed of the wider research context and the part they would play as participants in the development of methodology. To cover all this material adequately the introduction session was necessarily intensive and lengthy. We were, nevertheless, impressed by how quickly students were able to assimilate the background information and apply it effectively in the field. This has helped to inform our thinking about how professionals might be trained to undertake this work in practice.

As well as addressing the two primary research objectives focused on methodology, the studio had a sub-text relating to both its research and educational aims. There is sufficient evidence in environmental psychology and social science research to indicate that significant differences may exist in the way places are perceived by trained professionals and the non-specialist public. Salaman (1974), for example, has argued for the idea of occupational communities consisting of trained professionals socialised into the beliefs and values of their particular profession that then assume precedence over client or public values. Subsequent research in the context of landscape architecture supports this idea and suggests that landscape architects emphasise physical and objective qualities in their judgement of landscape, whereas non-specialists tend to emphasise what places mean to them, or what associations they hold (Clamp, 1981; Uzzell and Lewand, 1990). These differences have been taken to suggest that public and professional perceptions should both be considered in design and decision-making processes, a conclusion that seems particularly important in residential settings. Although it was self-evident that a two-week undergraduate studio would not allow a rigorous investigation, it was nevertheless important for the students' educational development to gain some awareness of these ideas.

All these issues influenced the decision to base the studio on role-playing. Half the student group acted as professional landscape architects briefed to undertake an ELP survey of Chapel Allerton and the rest would act as residents who would be interviewed as participants in the process. Role-play similar to this is used by the Neighbourhood Initiatives Foundation, Telford, United Kingdom, to train people in the techniques of Planning for Real. Planning for Real is a method of community participation that uses large models to help people identify areas that need to be improved within their surroundings. The purpose of role-play in this context is to encourage trainees to try to experience the environment through the eyes of fictitious locals. This process has obvious limitations because, as established in the previous paragraph, it is impossible to set aside entirely one's own personality, experiences and preferences. Because the ELP research objectives were focused primarily on

developing mapping methodology, rather than with the nature of public perceptions, a simulation exercise was considered acceptable in this case.

The professionals

Students acting as professionals were to perform two tasks that would contribute to an experiential survey of the Chapel Allerton area. Their first task was to explore the area individually and make an ELP map at 1/500 scale based on their own personal observations. Their second task was to interview one of the 'resident' students to make an ELP map for that particular resident.

The residents

Five students were each given character profiles that were representative of people who might live in Chapel Allerton. These students also had two specific tasks. First, they were to familiarise themselves with their character and that character's routine use of Chapel Allerton to prepare for interview by one of the 'professional' students. Their second task was to be interviewed and, as a result, to produce their own ELP map.

SEQUENCE OF EVENTS

From the introduction session on day one of the studio, during which the students' 'professional' or 'resident' status was established, the following sequence of events ensued. All the students spent time in Chapel Allerton during the day and evening to observe changes in atmosphere and pattern of use. Thereafter, the 'professionals' made their own ELP map at 1/500 scale and the 'residents' developed their character profiles by imagining how they would routinely use the Chapel Allerton area. To help them to do this, analogy was made with actors assuming a character role for a play or film.

The 'actors' were each given a name, age and a detailed profile of their character's principal personality traits: likes and dislikes; leisure interests; occupation and place of work; family and friends. Each character was assumed to live at a real address that the students could locate in the Chapel Allerton area. This helped them to ground their character with a sense of realism given by being able to imagine themselves living in an actual location and, more importantly, meant that they could develop a sense of a daily routine and pattern of movement to and from that address. Most of the students developed a graphical storyboard to help articulate this. The technique helped them to enrich their character and their daily life with details of where they might routinely meet with neighbours, walk their dog if they had one, sit and contemplate and so on, adopting gradually the small details and idiosyncrasies that make up a particular human personality. The students were also required to read the briefing material and key references to enrich their understanding of the theoretical background to the ELP concept.

A progress review seminar was held at the end of week one that further developed the research objectives by trying to reach a consensus about how the subsequent 'professional-resident' interviews should be conducted. Three things informed the discussion. First, did the concept make sense in the field? In other words, could

centre, direction, transition and area be meaningfully related to spatial experience in Chapel Allerton by the students? Second, were the symbols developed in earlier pilot studies appropriate, easy to use and interpret, and were they sufficiently comprehensive to record the necessary information? Third, how well and how sufficiently did the questions conceived for the pilot studies relate to the elements of centre, direction, transition and area?

The students all reported that they felt able to relate the spatial elements to Chapel Allerton quite confidently. Indeed, they generally felt that trying to apply the elements in the field had enhanced their understanding of both the concept and its purpose. However, in discussion, it emerged that the original pilot studies had probably over-emphasised positive place experiences. For example, although the concept of centre included different types of experience to identify between those associated with activity, with rest, with privacy and security, with social interaction and so on (identified on the maps with different colours of the symbol for centre), these all tended to have a positive bias. The group thought it was perfectly likely that a participant might report the experience of centre (sense of here-ness, proximity, and so on) but with a negative association in certain cases: for example, locations where people felt particularly exposed, uncomfortable, unsafe or vulnerable. It was agreed that symbols carrying negative connotations would be hatched to reflect this.

It was also decided that a common format should be devised to record the field notes necessary to interpret the symbols and that these records should include photographs so that the symbols on the maps could be visually connected with actual features of the site. During earlier pilot studies notes were made for each of the symbols to indicate what it represented, for example, street corner, post box, view to church, and so on, and why it had been marked – place where I talk to my neighbour, view that reminds me I'm only five minutes walk from home, place I always smell food cooking. These were simply annotated onto the maps as the interview progressed. However, this was felt to be rather bad practice and prone to error and misinterpretation. Instead, and with the ultimate aim to use GIS computer software in the process, a pro forma sheet was conceived to standardise recording these details. Discussion about the questions had a less tangible outcome. Most of the students felt those questions developed for the pilot studies generally made sense and were useful in giving structure to the interview process. The group agreed upon a sequence of questioning based on a broad range of topics and decided to trial the interview process to learn more.

For the second week of the studio each 'resident' was paired with a 'professional' at random. During the course of the week, in a series of observed sessions, the 'professionals' used the refined symbols and interview process to make an ELP map for their 'resident'. The maps and accompanying notes were produced for each 'resident' at both 1/500 and 1/200 scales: the former requiring consideration of the whole Chapel Allerton area and the latter focusing attention on the location immediately surrounding the home of the 'resident'. Results were brought to a

presentation and discussion session at the end of week two where they were displayed along with the ELP maps produced by the 'professionals' in week one. Discussion then focused on what had been learned about the mapping method through its application, and what the concept as a whole had the potential to reveal about neighbourhood place perceptions. The main outcomes are summarised in the following section.

OUTCOMES OF THE STUDIO

The Chapel Allerton studio contributed to the development of the ELP project on two fronts. It helped to develop components and procedures for a method to map ELP patterns in neighbourhood settings, and, although based on simulation, provided insights into differences in place perceptions for different individuals. These insights, although interesting, have to be regarded as speculative. Because of their training and vocation, the students involved have unusually acute spatial sensibilities. This, coupled with their knowledge of the ELP concept, undoubtedly contributed to the comprehensive nature of the results and their richness of detail. Because non-specialist people may not have equivalent skills, nor the incentive of an educational environment to engender a spirit of cooperation, it is expected that further refinements to the method might be required when applied 'for real'.

The 'professional-resident' mapping trials demonstrated convincingly that the interview style should be as conversational as possible. This seemed to put 'residents' at ease and encouraged a cooperative attitude by enabling them to lead the discussion, drawing out particular idiosyncrasies that enriched the mapped record. This was a useful educational outcome because it meant that the students' experiences could be related back to the literature on qualitative interview techniques (Cresswell, 1994) to help them refine their ideas further. For example, the students discovered, from their own experiments and reading, that an open style of interview needed to be carefully structured to make sure it did not degenerate into a lengthy conversation full of irrelevant anecdote. This was solved in two ways. First, the questions developed for the pilot studies were transformed into general themes. Each theme was carefully defined to correspond with a particular spatial element. For example, drawing from the students' fieldwork in week one, the element 'direction' was given two themes: one concerning movement and another concerning views. Using this approach the 'professional' students found it relatively easy to steer the conversation quite informally through the sequence of themes marking the plan with the appropriate symbols in response to what the 'resident' told them. By this means a symbolic record was gradually made about how and where the 'resident' moved, where they might stop along the way, what features caught their eye, or whether there were particular views or landmarks that were significant to them.

An alternative technique, which some students discovered gave the dialogue useful structure, involved basing the interview discussion around routine patterns of movement. The 'residents' were asked to take a mental walk around Chapel Allerton, starting at known fixed points, particularly their home, and following

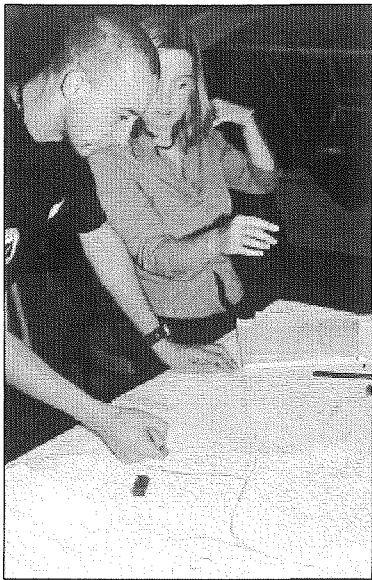


Figure 1: Students Gareth Proctor and Antonia Paul involved in an interview process to make a 'resident' ELP map.

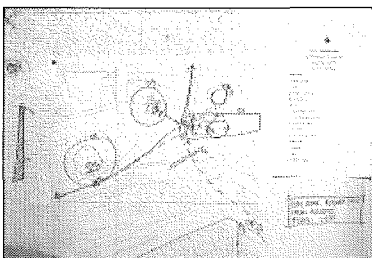


Figure 2: A 'resident' ELP map produced from one of the interview sessions.

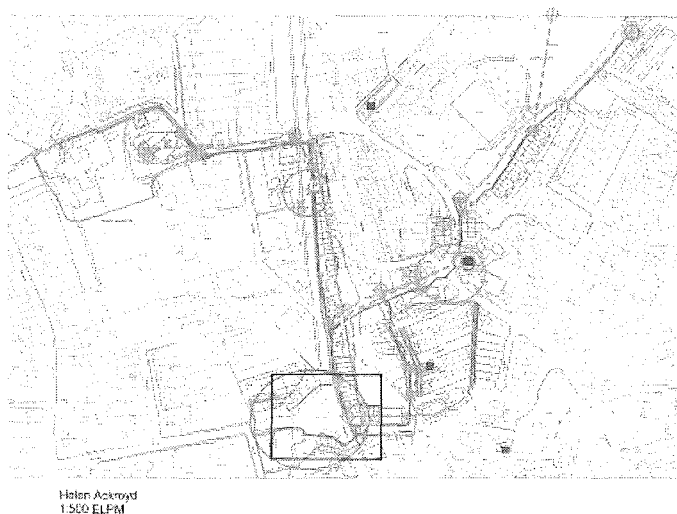


Figure 3: The ELP map for one of the ‘resident’ students on Arcview GIS software.

routes with which they were familiar, which seemed to heighten awareness of detail. This had the added advantage of helping the 'resident' navigate around the plan. For the students, understanding a plan of Chapel Allerton was obviously not a problem, since they are trained in plan use. However, most laypeople do not have this advantage, so a technique that helps people to relate better to the plan will be beneficial to future fieldwork. However, relating the mental walk to the themes proved to require more mental dexterity from the 'professional' students because it was much less easy to carry out the discussion theme by theme. This meant changing back and forth constantly from one set of symbols to another as the discussion developed and there was clearly the potential for errors to occur here. Nevertheless, these experiences helped refine the interview process by drawing attention to strengths and weaknesses of content, style of delivery and topic sequence (Figures 1 and 2).

The recording of responses as symbols on the plans was very successful. All participants felt that the range of symbols, as they had been modified in earlier discussions, were easy and quick to apply as well as being sufficiently comprehensive to record a wide range of detail. A particularly gratifying outcome was revealed when the maps were displayed at the final review. Even though they had a somewhat rapid and unrefined appearance and displayed differences in individual style, the pattern of experiential landscape places could easily be interpreted. It proved that differences and similarities between maps could be read without the need for further graphic enhancement. During the mapping process, a pro forma to record additional detail about the marked symbols and the experiences associated with them was further refined and a method of keying to the maps agreed upon. This provided a standard way to record ancillary information and is being used to explore the potential of GIS computer software as a tool for analysing experiential landscape place maps (Figures 3, 4 and 5).

The maps of 'professionals' and 'residents' also revealed differences that were broadly consistent with earlier research (Lynch, 1960; Salaman, 1974). The maps of

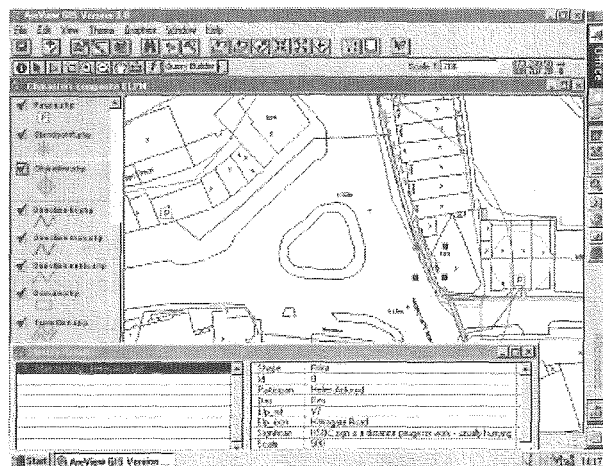


Figure 4: A part of the map in Figure 3 showing how specific details for one of the symbols can be displayed on screen.

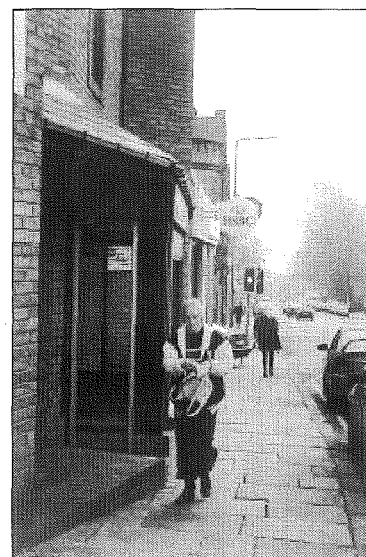


Figure 5: The location along Chapel Allerton's main shopping street marked by the 'resident' with a direction symbol. The location was identified as significant because the HSBC bank sign provides a landmark to gauge the distance remaining to her place of work.

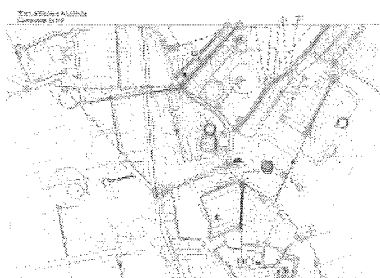


Figure 6: The computer ELP map produced when all five 'professional' maps are layered together showing a wide and fragmented distribution of symbols.

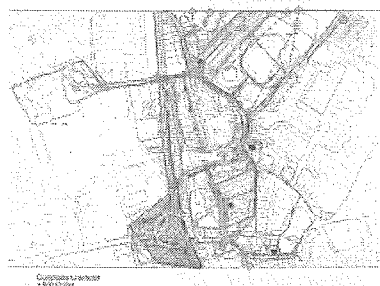


Figure 7: The computer ELP map produced when all five 'resident' maps are layered together showing concentrations of symbols in the main shopping areas, public houses and the local school.

the 'professionals' appeared very similar in terms of what symbols had been put where and in terms of the general distribution of symbols across the plan. The maps of the 'residents' were all very individual by comparison and only exhibited commonality when they were layered to see the collective picture. Another noticeable feature was that the symbols on the 'resident' maps always seemed to emanate from their character's home and they were more connected together to form a continuity of symbols. Very often the symbols overlapped resulting in a richer and more complex visual image than those of the 'professionals'. During discussion a possible explanation for this began to emerge.

The 'residents' all reported that their character profiles had helped them to see Chapel Allerton as routine experience first and foremost rather than, for example, as a spatial or aesthetic entity. They also said that, even though it was role-play, they felt able to develop an understanding of Chapel Allerton in terms of personal attachments and meanings centred on where they lived and how their fictional lives influenced their use of the area. This seemed to have helped them to interpret centre, direction, transition and area in terms of how they felt about places instead of in terms of what they looked like.

The 'professionals', however, reported that they did not feel any particular emotional attachment, either to Chapel Allerton as a whole or to specific places in it, beyond an intuitive appreciation of its visual, spatial and social qualities, which they were tuned into by their training as landscape architects. Their interpretation of centre, direction, transition and area was therefore subtly different. Bereft of 'resident' status, the 'professionals' tended to rely on visual messages, particularly aesthetic judgements and spatial configurations, to interpret where they thought centres, directions, transitions and areas corresponded with what they saw. In this respect, the ELP maps seemed to be showing some consistency with research about differences in professional and public place perceptions. 'Professionals' seemed to be motivated by clues from the physical environment, 'residents' were motivated by their feelings about how they used the neighbourhood (Figures 6 and 7).

Given the experimental nature of the methodology being developed in the studio, the research value of observations about the actual experiential nature of Chapel Allerton and the differences apparent between 'professional' and 'resident' perceptions has to be approached with some caution. There was, however, considerable educational value in these observations and they were able to draw attention to issues that may warrant specific research attention at some future time.

SUMMARY OF STUDIO OUTCOMES IN RESPECT OF RESEARCH OBJECTIVES

Interview content and technique

- Conducted most effectively in a conversational style to encourage participants to be more open to express their own interpretation and to encourage details of personal place experience.

- Content semi-structured around themes relating to categories of experience to spatial components (centre, direction, transition and area).
- Sequence most effective when conducted theme by theme, but more detail sometimes emerged when interview focused on particular routes around the area.

Mapping symbols

- Symbols developed in earlier pilots were mostly successful. Some refinements made by using colour to identify more clearly between types of experience.
- Distribution and clustering of symbol patterns found to provide an effective basis from which to begin to analyse differences and similarities in maps.
- Graphical symbols augmented with standard tables to record ancillary information (including photographs) facilitated ease of symbol interpretation and analysis using GIS computer software.

Neighbourhood place perceptions

- Studio outcomes suggested some consistency with other research in highlighting differences in perception between professionals and residents.
- The perceptions of both professionals and residents seem to be necessary to achieve a sufficiently comprehensive picture of neighbourhood place perception in order to be useful in design professions.

CONCLUSIONS

The research objectives set for this short but intensive undergraduate studio were met. The work done advanced the wider ELP research programme by contributing refinements and operational detail to components of methodology necessary for mapping ELPs in the field. The interview content and style of delivery, representative symbols and field notes for recording responses proved to be easy to use and amenable to interpretation and analysis using GIS computer software.

These developments have opened the way for the research programme to move forward on two main fronts. First, they provide for a socially inclusive approach with which to interpret experiential potential in neighbourhoods in terms of spatial elements. The exploration and analysis of residential environments using this approach has potential to contribute to the growing, and increasingly important, body of knowledge concerned with socially responsive open space planning and design. Second, findings from the studio helped further our understanding of some of the principal spatial and physical properties that appear to contribute to the experiences associated with centre and transition in particular.

Analysis of the plans produced during the studio helped to strengthen findings from earlier field studies. For example, locations marked as centres were found to have certain things in common. They all had a good sense of enclosure arising usually from containing surfaces such as building facades, walls and fences, or trees and other vegetation. They were often located at the confluence of, or adjacent to, main pedestrian routes. Many centres had views out to more open areas and a strong sense of where the entrance and exit to the space was. These two features in

particular were considered by the participants to be important enhancements to sensations of location and containment. Transition symbols were found to be associated with locations at boundaries between spaces where there was a marked break in linear continuity or where there were physical elements framing views or forming tunnels, gaps and openings between spaces. Additionally, the participants found that the sensation of transition seemed to be heightened when these features also included changes in material, colour, spatial form and shape; where there was a change in level or direction; and where a choice of way forward was available.

These findings were peripheral to the central research objectives of the studio. They did, however, provide the research team with provisional results that would direct future work towards trying to establish empirical verification for these observations. These outcomes help to contribute methodological detail and a direction for further investigation which is important in satisfying the requirements of research funding organisations and agencies. This improves the research team's prospects of successfully obtaining resources to continue to develop the wider ELP research programme.

More generally, the studio demonstrated that research and teaching objectives can be met together and that, in certain circumstances, this can be achieved with undergraduate students in relatively short timeframes. One of the keys to success in this particular case was that the studio formed a very carefully focused part of a larger design-based project that was informed by an ongoing academic staff research programme. This provided a common context for both research and teaching aims within which clear research objectives could be identified. In this carefully planned and controlled environment the students involved were able to contribute as creative participants in the research process whilst simultaneously acquiring new knowledge and skills relevant to meeting the necessary academic objectives of their course.

REFERENCES

- Alexander, C; Ishikawa, S; Silverstein, M; Jacobson, M; Fiksdahl-King, I and Angel, S (1977) *A Pattern Language*, New York: Oxford University Press.
- Alexander, C (1979) *The Timeless Way of Building*, New York: Oxford University Press.
- Alexander, C; Davis, H; Martinez, J and Corner, D (1985) *The Production of Houses*, New York: Oxford University Press.
- Alexander, C; Neis, H; Anninou and King, I (1987) *A New Theory of Urban Design*, New York: Oxford University Press.
- Alexander, C (2001) *The Nature of Order: Book One, The Phenomenon of Life*, New York: Oxford University Press.
- Armstrong, H (1999) Design Studios as Research: An Emerging Paradigm for Landscape Architecture, *Landscape Review*, 5(2), pp 5–25.
- Baxter, A (1998) *Places, Streets and Movement: A Companion Guide to Design Bulletin 32, Residential Roads and Footpaths*, London: Department of the Environment, Transport and the Regions (DETR).
- Benson, J (1998) On Research, Scholarship and Design in Landscape Architecture, in Selman, P (ed) *Landscape Design as Research: An Emerging Debate*, *Landscape Research*, Vol 23, No 2, pp 198–204.

- Bentley, I; Alcock, A; Martin, P; McGlynn, S and Smith, G (1985) *Responsive Environments*, London: The Architectural Press.
- Berleant, A (1997) *Living in the Landscape: Toward an Aesthetic of Environment*, Kansas: University of Kansas Press.
- Berlin, I (1965) Herder and the Enlightenment, in Wasserman, ER (ed) *Aspects of the Eighteenth Century*, Baltimore: The John Hopkins Press.
- Bowring, J (1997) Research by Design: The Refereed Studio, *Landscape Review*, 3(2), pp 54–55.
- Canter, D (1977) *The Psychology of Place*, London: The Architectural Press.
- Capra, F (1982) *The Turning Point*, London: Wildwood House.
- Carr, S; Francis, M; Rivlin, LG and Stone, AM (1992) *Public Space*, Cambridge: Cambridge University Press.
- Chenoweth, R (1992) Research: Hype and Reality, *Landscape Architecture*, 82, pp 47–48.
- Clamp, P (1981) The Landscape Evaluation Controversy, *Landscape Research*, 6(2), pp 13–15.
- Corner, J (1991) A Discourse of Theory II: Three Tyrannies of Contemporary Theory and the Alternative of Hermeneutics, *Landscape Journal*, Vol 10, Fall, pp 115–133.
- Cresswell, JW (1994) *Research Design: Qualitative and Quantitative Approaches*, California: Sage Publications.
- Hillier, B and Hanson, J (1985) *The Social Logic of Space*, Cambridge: Cambridge University Press.
- Howett, C (1998) Ecological Values in Twentieth-Century Landscape Design: History and Hermeneutics, *Landscape Journal*, special issue, pp 80–98.
- Kaplan, R and Kaplan, S (1989) *The Experience of Nature: A Psychological Perspective*, New York: Cambridge University Press.
- Kaplan, R; Kaplan, S and Ryan, RL (1998) *With People in Mind: Design and Management of Everyday Nature*, Washington: Island Press.
- Koh, J (1982) Ecological Design: A Post-Modern Paradigm of Holistic Philosophy and Evolutionary Ethic, *Landscape Journal*, Vol 1, Fall, pp 76–84.
- Krog, S (1985) The Language of Modern, *Landscape Architecture*, 75(2), pp 56–59.
- Llewellyn-Davies (2000) *The Urban Design Compendium*, London: English Partnerships.
- Lynch, K (1960) *The Image of the City*, Cambridge: MIT Press.
- McAvin, M (1991) Landscape Architecture and Critical Inquiry, *Landscape Journal*, Vol 10, Fall, pp 155–172.
- Naess, JL and Rothenberg, D (1989) *Ecology, Community and Lifestyle: Outline of an Ecosophy*, Cambridge: Cambridge University Press.
- Norberg-Schulz, C (1971) *Existence, Space and Architecture*, New York: Praeger.
- Pepper, D (1996) *Modern Environmentalism: An Introduction*, London: Routledge.
- Proshansky, HM; Fabian, AK and Kaminoff, R (1983) Place-Identity: Physical World Socialisation of the Self, *Journal of Environmental Psychology*, 3, pp 57–83.
- Riley, R (1990) Editorial Commentary: Some Thoughts on Scholarship and Publication, *Landscape Journal*, 9, pp 47–50.
- Salaman, G (1974) *Community and Occupation: An Exploration of Work/Leisure Relationships*, Cambridge: Cambridge University Press.

- Selman, P (1998) Landscape Design as Research: An Emerging Debate, *Landscape Research*, Vol 23, No 2, pp 195–204.
- Several Authors (1992) Most Important Questions, *Landscape Journal*, Vol 11, pp 160–181.
- Shirvani, H (1991) Critical Inquiry in Landscape Architecture, in McAvin, M (1991) Landscape Architecture and Critical Inquiry, *Landscape Journal*, Vol 10, Fall, pp 162–164.
- Thompson, IH (2000) *Ecology, Community and Delight: Sources of Values in Landscape Architecture*. London: E and FN Spon.
- Thwaites, K (ed) (1996) *Landscape Design is Research: An Exploration*, SCHOLA Occasional Paper No 3, Leeds Metropolitan University, School of Art, Architecture and Design.
- Thwaites, K (1998) Landscape Design is Research: An Exploration, in Selman, P (1998) Landscape Design as Research: An Emerging Debate, *Landscape Research*, Vol 23, No 2, pp 196–198.
- Thwaites, K (2000) Expressivist Landscape Architecture: The Development of a New Conceptual Framework for Landscape Architecture, *Landscape Journal*, Vol 19, Nos 1 and 2, pp 201–210.
- Thwaites, K (2001) Experiential Landscape Place: An Exploration of Space and Experience in Neighbourhood Landscape Architecture, *Landscape Research*, Vol 26, No 3, pp 245–255.
- Tibbalds, F (2001) *Making People Friendly Towns: Improving the Public Environment in Towns and Cities*, London: Spon Press.
- Tuan, YF (1980) Rootedness versus Sense of Place, *Landscape*, 24, pp 3–8.
- Urban Task Force (1999) *Towards an Urban Renaissance*, E and FN Spon (Final Report of the Urban Task Force).
- Uzzell, D and Lewand, K (1990) The Psychology of Landscape, *Landscape Design*, April, pp 34–35.
- Walter, EV (1988) *Placeways: A Theory of the Human Environment*. North Carolina: University of North Carolina Press.
- Whyte, WH (1980) *The Social Life of Small Urban Spaces*, Washington: The Conservation Foundation.
- Zeisel, J (1981) *Inquiry by Design*, Monterey, California: Brooks-Cole.

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