SHAPING ARCHITECTURAL DISCOURSE BY ARCHITECTURE STUDENTS AT QUEEN'S UNIVERSITY BELFAST

Architecture Students at Queen's University Belfast Review Selected Books on Person-Environment Interactions

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The Image of the City	The Death and Life of Great American Cities	Personal Space The Behavioural Basis of Design	Defensible Space	Psychology for Architects	People Space: The Making and Breaking of Human Boundaries
Architecture for People: Explorations in a New Humane Environment	Meaning and Behaviour in the Built Environment	The Meaning of the Built Environment: A Nonverbal Com-munication Approach	Environ-mental Psychology in Building Design	Architecture and Identity, Responses to Cultural and Techno-logical Change	The Language of Space

While design practices are generally seen as a major driver for shaping debates and trends in architecture and urbanism, architectural discourse is typically shaped by discussions in books, journal articles, short essays, and reviews of design trends or critiques of buildings or design competitions. In many cases however, critical essays may have the power to communicate ideas and concepts in a concise manner while books can still be seen by some academics or many practitioners as lacking the capacity to communicate the same ideas or concepts effectively. Whether or not one would agree with this view is a different issue. Yet, as a reaction to such a view it is possible to see book reviews playing the role of short essays or articles which enable readers to grasp the message a book author is trying to convey-yet in a short and quick way. In person-environment research—as part of contemporary architectural discourse—book reviews are important as they provide significant slices of larger arguments, but enable readers to

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classify, categorize, and relate those arguments to other discourses on theories of architecture and urbanism, and thereby comprehending the full spectrum of issues introduced through a specific period of time.

As part of a specialist subject (elective) on Socio-Behavioral and Cultural Factors in Architecture and Urban Design, which I teach to architecture students at Queen's University Belfast, a book review assignment was delivered. The course aims at introducing students to cultural, social, and psychological issues in architectural and urban design, and their value to successful design practices. It provides an overview and analysis of the literature and major scholars, researchers, and practitioners. An integral component of the course is an intensive discussion of issues that pertain to ways in which information about socio-cultural factors and environment-behaviour knowledge can be applied to design projects. In more specific terms, the objectives of the course therefore encompass: 1) To increase students' sensitivity to the built environment and to break any habits of taking the environment for granted; 2) To acquaint students with particular knowledge of a variety of environments including residential, work, learning, and urban environments. Since our societies are in a continuous process of transformation, we must engage in sound future design that would involve the systematic examination of the relationship between culture, behaviour, and the environment; 3) To enhance students' understanding of the core concepts regarding human-environment relations and how these concepts vary by different cultures and sub-cultures, 4) To develop students critical thinking abilities about the role of the built form in fostering, enhancing, or inhibiting cultural behaviours and attitudes.

In this article, I discuss the notion of reviews and book reviews, outline the assignment delivered to architecture students at Queen's University Belfast, then present selected students' reviews. While this article is simply a presentation of students' work, the ultimate objective is to offer a package of ideas and concepts generated in the literature of person-environment interaction as viewed by the students. This is coupled with students' articulations of and reflections on how the merits and demerits of those ideas and the way in which they relate to such ideas in their reviews. While this article does not reflect on students' work and does not have a conclusion, it calls for a database that is exclusively dedicated to reviewed books on person-environment interactions, which could be published online on the web of one of the societies or associations concerned with people-environment interactions including EDRA-Environmental Design Research Association and IAPS-International Association of People-Environments Studies.

The Notion of Reviews and Book Reviews

A review is a critical appraisal of a text, event, exhibition, object or product, or phenomenon. Reviews can consider books, articles, entire genres or fields of literature, architecture, art, fashion, restaurants, policies, exhibitions, performances, and many other forms (UNC, 2009). Essentially, a review makes an argument or a polemic. The most important element of a review is that it is a commentary, not merely a summary or summary of a thrust of a book. It allows the reviewer-student to enter into dialogue and debate with the work's creator

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and with other audiences.

Typically, a reviewer provides an agreement of disagreement while identifying exemplary elements or deficiencies in its knowledge and the message it attempts to convey. Also, a reviewer should state his/her opinion of the work in question, and that statement will probably resemble other types of academic writing, with a thesis statement, supporting body paragraphs, and a conclusion.

In general terms, reviews are brief. In newspapers and academic journals, they rarely exceed 1000 words, although a reviewer may encounter lengthier assignments and extended commentaries as required for publishing. In either case, reviews need to be short and snappy and to the point. While book reviews may vary in tone, subject, interest, and style, there are a number of common features that can be exemplified as stated by the writing center of University of North Carolina-Chapel Hill (UNC, 2009). However, they are dependent on whether the review is developed for learning, professional, or marketing purposes.

1. A review is typically expected to offer the reader a concise summary of the content. This includes a relevant description of the topic as well as its overall perspective, argument, or purpose.

2. A review offers a critical assessment of the content. This involves the reviewer's reactions to the work under review: what strikes the reviewer as noteworthy, whether or not it was effective or persuasive, and how it enhanced the reviewer's understanding of the issues at hand.

3. In addition to analyzing the work, a review

often suggests whether or not the audience would appreciate it.

In educational and learning terms, the book review is assigned to develop analytical skills. First, the student reviewer has to depict the content, regardless of the type of content whether it is research-based, or position-based. In the subsequent narration the goal of the book reviewer is to discuss the content of the book and provide generic analysis of what he or she had read, and deduce if the author managed to reveal the core, whether he or she kept to the thesis or properly achieved the purpose of the book. Additionally, the reviewer is to speculate on the topic him or herself.

Generally, the objective of a book review is to communicate the ideas and sensations experienced by the book reviewer to the review reader, while analyzing the content. This involves elaborating to the reader on what the precise meanings of the ideas that the author presumed to convey, or what did the reviewer experienced during the reading. In informing the third party of the events, the book reviewer, then, may be considered as a reporter, who informs the third party of the events; the book reviewer is an analyst, who makes judgments based on their own experience. Thus, developing book reviews requires some special skills, as well as obliges with some precise responsibilities. Not only is a professional obliged to read and scrutinize the text, but he or she must also realize concealed, implied meanings the author hinted about (Wikipedia, 2009). Skilled book reviewers' explanations make the reader feel this "that is just what I thought" sensation (Wikipedia, 2009). In a book review, the main points of the book being reviewed must be expressed. Then, the

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book reviewer has to decide upon the validity of the author's arguments. The reviewer is responsible for judging the work by asking if the writer or author has succeeded in persuading the audience, or if his or her justifications were insufficient and weak. As such, the reviewer here judges the adequacy of the book's topic in relation to the content.

The Book Review Assignment to Architecture Students, Queen's University Belfast

The assignment given to architecture students on book reviews was part of the course work required for the elective Socio-Behavioral and Cultural Factors in Architecture and Urban Design where eighteen students were enrolled. The delivery of the exercise was undertaken at two steps; the first is book identification and discussion, and the second is conducting the review. The selection of the book was based on students' interest but constrained by the relation to one or more of the topics covered in the subject matters of the course. Each student selected a book then a class discussion was undertaken to debate the reasons for book selection as a pre-exercise activity.

In conducting the reviews, students were asked to develop their reviews based on strict format for consistency purposes. Students were required to offer the basic information about the book following these headings reviewer/ student name; Book title; author(s) / editor(s); edition / print; year of publication; city of publication; publisher; number of pages; ISBN; paperback/Hardback; cover Image: and review text. A number of criteria were given to the students for developing their reviews; these

can be exemplified as follows:

Length: The length of the review should be in the range of 1200 – 1600 words (references are not included).

Content: The review must systematically include the following:

Introduction to the subject matter and what is happening in the area that the book addresses.

Context: For the review to be accessible to as many readers as possible a review needs to contain something about the context in which the book is written. If the book is new, how does it fit into current thinking on the subject? If the book is more than 10 years old, how does it fit into the main stream thinking in the time it was written?

Audience: Who is the intended audience? Does the book address that audience? Does it make clear any pre-requisites there are for reading it?

Contribution: What is the state of knowledge in this subject and how does this book add, change or break new ground in our knowledge of this subject?

Discussion: A discussion of contents (including personal interpretation of the issues and concepts). As well, the discussion would involve: the strengths and weaknesses of the book; comments on author's style and presentation; Are the contents, index, glossary and bibliography adequate? Whether the author's aims have been met and presented clearly in the book?

Production: Are there any particular problems with the form of the book? Are there a substantial number of errors (typographical or other) or errors in the technical matter?

Conclusion: Would the book be of interest to colleagues? What is your overall assessment of the book? What are its best and worst features? Would it be recommended it to others? Is it worth purchasing or recommending to a library?

A total of eighteen books on person-environment interactions were reviewed and those selected here were the best reviews which were marked based on the criteria given to the students. The Selected books are:

• 1960: The Image of the City—Kevin Lynch, reviewed by Jennifer Montgomery

• 1962: The Death and Life of Great American Cities—Jane Jacobs, reviewed by Michael Dowds

• 1969: Personal Space, The Behavioural Basis of Design—Robert Sommer, reviewed by Andrew David Graham

• 1973: Defensible Space—Oscar Newman, reviewed by David Montgomery

• 1974: Psychology for Architects—David Canter, reviewed by David Rushe

• 1976: People Space: The Making and Breaking of Human Boundaries—Norman Ashcraft and Albert E. Scheflen, reviewed by Christopher Bell

• 1980: Architecture for People: Explorations in a New Humane Environment—Byron Mikellides (ed.), reviewed by Matthew Stewart

• 1980: Meaning and Behaviour in the Built Environment—Geoffrey Broadbent, Tomas Llorens, and Richard Blunt (eds.), reviewed by Leanne Courtney

• 1982: The Meaning of the Built Environment: A Nonverbal Communication Approach—Amos Rapoport, reviewed by Timothy Williams

• 1982: Environmental Psychology in Building Design—John Brebner, reviewed by Ryan Ward

• 1997-2000: Architecture and Identity, Responses to Cultural and Technological Change—Chris Abel, reviewed by Lyndsey Magowan

• 2001: The Language of Space—Bryan Lawson, reviewed by Ronan White

The book review assignment is seen as one of the components that contribute to the achievement of learning outcomes of this course that can be exemplified by demonstrating the following:

• Awareness of how people respond to different environmental settings
• Understanding of theories and methods that clarify relationships between people and environments
• Ability to extract implications for planning and design from cultural and behavioral information
• Awareness of outstanding projects awarded for addressing cultural and societal needs

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The Image of the City
Review by Jennifer Montgomery
The Image of the City
Kevin Lynch
1960
Cambridge, Massachusetts, USA
MIT Press
181 pages
ISBN 13 9 78 0 262 62001 7
Paperback

"What does the city's form actually mean to the people who live there?" Lynch discusses and analyses the theory of the environmental image, and the effect of an individuals' perception of the city, in relation to emotional security, orientation and personal growth. He distinguishes the composition of the urban setting into paths, edges, districts, nodes and landmarks, all of which are interrelated with both positive and negative consequences. These visual attributes allow residents to develop 'mental maps' of their surroundings, which was materialised on paper through interview processes in Boston, Jersey City and Los Angeles. Examples of these insightful maps, drawings and descriptions are included within the book content. He then proceeds to discuss the city form and the importance of developing clearer environmental images of our surrounding landscapes, "if the environment is visibly organised and sharply identified, then the citizen can inform it with his own meanings and connections. Then it will become a true place, remarkable and unmistakable."

At the time of publishing, questions were beginning to appear concerning the development of city landscapes and their relevance to cultural and economical conditions. However, this publication, 'The Image of the City' served as an innovative text during the context in which it was developed, and remains relevant to current urban design and city planning principles.

Originally aimed at city planners the book should, at the present time, appeal to a wider range of professions; urban designers, architects, planners and the general city dwelling public.

Topics are analysed within this text which, during the 1960's, were not otherwise discussed, it wasn't until the 1980's with the publication of 'The Architecture of the City' or 'People in Cities: The Urban Environment and its Effects' that similar topics were approached and questioned, analysing the effects of personal experiences and memory on the environmental image and vice versa. However neither of these examples provides a concise explanation to which the city can be understood and observed.

Lynch begins the book with a general discussion and explanation of the environmental image, describing the city as an object which is perceived, and recognising that the image continually changes, or shifts, "On different occasions and for different people, the sequences are reversed, interrupted, abandoned, cut across. It is seen in all lights and all weathers." An individual creates and bears their own personal image of the city, depending on many factors such as gender, culture, occupation or familiarity. The

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importance of a vivid environmental image in personal orientation, which is created and produced through a combination of immediate surrounding sensation and the memory of past experience, is identified throughout the book, "let the mishap of disorientation occur, and the sense of anxiety and even terror that accompanies it reveals to us how closely it is linked to our sense of balance and well-being." Ultimately the environmental image is analysed by Lynch into three components: identity, structure and meaning.

Three American cities are then studied to gain a first hand understanding of the role of environmental images in urban lives. "Boston is unique in character among American cities, being both vivid in form and full of locational difficulties. Jersey City was chosen for its apparent formlessness, for what seemed, on first observation, to be its extremely low order of imageability. Los Angeles, on the other hand, is a new city, of an utterly different scale, and with a gridiron plan in its central area." Interestingly Lynch states that there is not one city throughout America that could be considered a great example of urban design. Two basic forms of analysis were carried out within each city – lengthy interviews with a small sample of city residents and systematic field reconnaissance by trained observers. Lynch admits that the samples of city residents may be biased, although "rich in suggestion", unfortunately forcing the reader to immediately question the content. The methods by which people shape images are intriguing, often recalling spaces and elements through a journey they have completed, confusion and disorientation appear constant, occurring at similar points for different individuals. Throughout these journeys,

typically from home to workplace, it is evident that the environmental image nearer the home is clearer, vivid and more detailed, providing more interest and pleasure for the individual, as they approach their workplace this image becomes greyer, more abstract, unclear and conceptual.

Lynch moves on to classify the city into five elements: paths, edges, districts, nodes and landmarks.

Paths "are the channels along which the observer customarily, occasionally, or potentially moves." Edges "are the linear elements not used or considered as paths by the observer."

Districts "are the medium-to-large sections of the city, conceived of as having two dimensional extent, which the observer mentally enters "inside of", and which are recognisable as having some common, identifying character."

Nodes "are points, the strategic spots in a city into which an observer can enter, and which are the intensive foci to and from which he is travelling." and;

Landmarks "are another type of point reference, but in this case the observer does not enter within them, they are external."

Each of the elements converse and respond to one another, forming an interesting pattern within the cityscape, this weaving of components is then utilised to form individual environmental images. The elements do not simply resonate with positive effects; they can also conflict and destroy themselves, ultimately they all operate together, in a context.

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When discussing the future of the environmental image, Lynch examines cases outside America, which proves more interesting for a European reader, as the examples become identifiable. The crucial development of stronger images is discussed on an international level, including further examination of the city elements. Including interesting analysis of the 'edge', "An edge may be more than simply a dominant barrier if some visual or motion penetration is allowed through it... It becomes a seam rather than a barrier, a line of exchange along which two areas are sewn together.' Form qualities for future urban design are distinguished: singularity, form simplicity, continuity, dominance, clarity of joint, directional difference, visual scope, motion awareness, time series and names and meanings. All of which should work together in the creation of identity and structure, "Thus a region would be unmistakable which had a simple form, a continuity of building type and use, which was singular in the city, sharply bounded, clearly jointed to a neighbouring region and visually concave." Here Lynch is prescriptively trying to establish the ideal conditions for the creation of a perfect environmental image, this may not be applicable to the present, however, it is a potentially interesting topic of research during initial design stages.

The metropolitan form is then organised as a sequence or temporal pattern, similarly to music, drama, literature or dance. Routes through the city are examined further, discussing the potential to reverse, change direction or halt, a broken journey through the city is compared to a piece of music, which "might lead us from the classic start-climax-finish form to others which are more like the essentially endless, and yet continuous and variegated, patterns of jazz."

The principal of this concept is to weave the separate elements of the city together to form a sense of "interconnectedness" at any level or in any direction.

The ideal approach to future design, with the aim of a powerful city image, is then established, considering the problems posed by "discovering and preserving the strong images, solving perpetual difficulties, and, above all, drawing out the structure and identity latent in the confusion." Lynch states that we need an environment which is "not simply well organised, but poetic and symbolic as well. It should speak of the individuals and their complex society, of their aspirations and their historical tradition, of the natural setting, and of the complicated functions and movements of the city world. But clarity of structure and vividness of identity are first steps to the development of strong symbols. By appearing as a remarkable and well-knit place, the city could provide a ground for clustering and organisation of these meanings and associations."

Lynch satisfies his original aims, but the process is unfortunately inefficiently arranged, general discussions and examples of mental maps and personal navigation are placed in the appendixes at the end, as opposed to an introduction to the general topic at the start. However, the arrangement of the body of the book is effective, clearly establishing discussion topics within the page margins and following a stimulating order.

Overall, Lynch describes the visual attributes of cities with impressive clarity, arranging the firsthand information in a readable and effective manner. The text facilitates the formation of a creative design perspective at a

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city level, useful whether you are submerged in a design project or simply walking around your environment and observing the elements. Whilst progressing through the text the reader begins to apply the concepts and theories to their personal surroundings, pinpointing landmarks, nodes and districts.

Lynch's approach to the discussion is somewhat romantic, continuously linking observations to individual experiences and memory and examining how this affects personal intensity of life. It is the manner with which he links practical surveillance and theoretical existences that result in a powerful text.

Once the reader progresses past the unusual layout and somewhat dated language the truly human content, which tackles urban design, personal actuality, city composition and individual perceptions, becomes apparent. This then provides motivation for further investigation of the topics covered; perhaps an examination of the extent to which city forms can heighten the observers' attention and enrich their experiences and existence.

Ultimately I would recommend this book to both my colleagues and anyone with an interest in the subject of creating communities, whether it is read to understand a specific element or for personal interest I feel it will prove useful at some point in their careers, particularly the comprehension of the five city elements which proposes a clear understanding of the city "ingredients". It will prove equally useful in encouraging the reader to look at their city, town or general surroundings – an education in seeing, which is equally important as the reshaping of what is seen.

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The Death and Life of Great American Cities
Review by Michael Dowds
The Death and Life of Great American Cities
Jane Jacobs
First Edition
1962
London, United Kingdom
Jonathan Cape Publishers
448 pages
ISBN 9780679600473
Hardback

My attention was first drawn to Jane Jacobs, and her book 'The Death and Life of Great American Cities' after reading an essay entitled 'The Open City'. It was written by Richard Senett and appeared in the book 'The Endless City', produced by the Urban Age Project and first published by Phaidon in 2007. The book looks at the situation of cities around the world (in 2007) and Richard Senett's essay looks in particular at what kind of architectural forms might promote the experience of time … abet social relationships that endure through being given the opportunity to evolve and mutate. Describing his three strategies for doing so, he gives full credit to Jacobs as the philosophical base of his work. The themes Sennette describes are so current and important in contemporary discussions regarding urbanism that I was surprised to find that Jacobs' book 'The Death

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and Life of Great American Cities' was first published almost four decades ago (1962). I was equally astonished by the correlation between the urban issues faced in 1960's American cities, and those encountered in todays 'globalised' world.

Reading Jacobs' book in 2008, it is difficult to fully appreciate its radical nature given the context that it was written in. In the late 1950's and early 60's great urban centres were not seen as the desirable places of excitement, opportunity and experience that they are today. Although it has always been a strain in American thought, Jeffersonianesque philosophies regarding society and cities may have been experiencing somewhat of a revival in post World War 2 America. This is particularly interesting considering the emergence of ideas surrounding greater social awarness like FDR's 'New Deal' and Michael Harrington's 1962 'The Other America: Poverty in the United States'. The unprecedented growth of the middle classes and the accompanying consumer boom, combined with a greater sense of social responsibility lead to the rather schizophrenic urban model of suburban sprawl and inner-city renewal. This was the 'can-do' baby boom period, the mantra was out with the old, in with the new.

Given the freedom granted by the newly ubiquitous automobile, the aspirant middle classes deserted city neighbourhoods for the space, privacy, security and all-round improved standard of living available in the vast tree lined suburbs. At the same time, inner-city slums would be cleared and replaced with high-quality, high-density and high-rise apartments set amidst civic parkland, giving to those in the lower socio-economic brackets of society the benefits of proximity to nature and abundance of space available to the rich (mostly white) inhabitants of the idealic suburbs. This was at least the thinking, one might say zeitgeist, of the time.

Jacobs dissents from this view and is unrelentingly frank in doing so. She traces the phenomenon of urban renewal back to the works of Ebenezer Howard. Working as an English court reporter in late 19th century London, Howard despised, and rightly so Jacobs admits, the squalid conditions of the city. He envisaged something different, that is the 'Garden City'. Jacobs scathingly describes it as being based on the English country estate model, except with the manor house replaced by a community centre and work provided by factories hidden behind a screen of trees. She saw this as being not only urban planning, but a model for a paternalistic political and economic social system. Jacobs then goes on to describe how this vision of urbanism links directly to that of the Modernist movement, she cites Le Corbusier's Plan Voisin as an example par excellence of what she calls the 'Radient City'. This is the basis upon which many inner-city urban renewal schemes, what became known as the projects, were created. From Chicago to Boston to Philadelphia and New York City, Jacobs describes examples of slum clearance and their replacement with high-rise, high-density and low footprint apartment blocks set amidst open space. She then proceeds to describe and explain the problems caused by these "socially minded" schemes, problems like crime, social disenfranchisement and perpetual poverty. A paragraph in the book that describes the response a social worker in the East Harlem projects received when she asked why residents

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wanted to remove a particularly despised lawn, describes the problem suscinctly:

"Nobody cared what we wanted when they built this place. The threw our houses down and pushed us here and pushed our friends somewhere else. We don't have a place around here to get a cup of coffee or a newspaper even, or borrow fifty cents."
(Jane Jacobs, 'The Death and Life of Great American Cities, 1962)

Jacobs then contrasts this with what she feels to be a well constituted neighbourhood and uses as example her own, Greenwich Village (NYC), The Back-Of-The-Yards (Chicago) and the North-End (Boston). She continues to use these as examples throughout the book. She describes successful neighbourhoods and cities as being those that are untidy, highly complex, surprising, favour walking, biking and public transport and above all are diverse. She describes how a high degree of diversity of people (economic, cultural, ethnic, age, income, etc.) and buildings (size, age, use, etc.) set in an environment that encourages social interaction, is the fundamental basis of city life. That is the chance encounter, the unexpected discovery and innovation, she explains that these things occure in diverse and highly pedestrianised neighbourhoods because of what she called the eyes on the street. That is the passive suveillance afforded to streets that have a great number of users, increasing security and encouraging further visitors to the street. Although the work is highly insightful throughout, this is perhaps one of the two most outstanding contributions.

The other relates to finance and its impact on the city. Jacobs describes how the planning system of the time, by sorting the elements of society (residential, industrial, age, income and thus de facto ethnicity) combined with a national mortgage lending system, had lead to a situation where finance was restricted to a particular ideology rather than ability to repay. In effect, people living in what were considered slum areas by city planners could not get finance to improve their living standards in a piecemeal and 'organic' way. Money would only be granted to 'catastrophie' projects. That is, slum clearance and radiant city rebuild.

On a more cynical note, Jacobs describes how the politics of finance affect the city. Naturally, always wishing to increase their tax revenue, governing authorities would have a motive for slum displacement. That is, clearing the area and replacing it with land uses (more residential or other) that would garner greater tax rescripts. For slums are by their nature money receivers rather than generators.

From this discussion, Jacobs proposes an alternative vision of urban renewal, what she calls "unsluming". It is not a catastrophic intervention by the state, but more an aid to naturally occuring unsluming processes. Her proposal is sophisticated and involves financing reforms, planning reforms and political will, a brief summary would not do it justice and so I will refrain from trying to give one. I mention political will in particular as the methods she advocates are piecemeal and subtle, as such they would inherently lack the public relations impact of 'big' urban regeneration projects. Polticians willing to forego short-term electoral gain for long-term societal gain are few on the ground. Thus, in some ways, it is as ideological as the radiant city or garden city approaches that she so aphores.

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I am aware of the significant impact that Jane Jacobs, and this book in particular, has had on urban planning discourse and our understanding of cities. However, the aformentioned is one of several related critisisms that could be made of the book. The crisisms are not necessarily of what is discussed, but of what is not. Jacobs makes the assumption that suburban development is the result of poor urban planning strategies rather than a genuine lifestyle choice. Such an assertion is unscientific, but it would not be inherently flawed had she considered or given acknowledgment to the counter argument and explained why she felt it was wrong. This I felt was a flaw apparent throughout the book, that is assertions were made, then backed-up with selected examples but no consideration of counter arguments or examples that did not fit the trend were given. Supplementary to this, little if any quantitative data was given and there were circumstances where this would have been useful.

That is not to say that the contents of the book were wrong, simply that the arguments could have been framed in a more 'scientific' manner. However, the wrtting style of Jacobs is engaging and witty. Some daming critiques warrant genuine laughter, which is a tall order for a book addressing argueably mundane issues like urban planning. This may go some way to explaining why some of the things that I have identified as problems are present. The contents of the arguments though sophisticated and subtle are wholly accessible. One would not need to have had an education in urban planning or architecture to appreciate and enjoy the main thrust of the book, though some background knowledge, particularly on Le Corbusier and the Modern movement may be helpful.

This is certainly a book I would recommend to my architect colleagues as the matter-of-fact approach to Jacobs' arguments is a refreshing departure from the more poetic styles that subsequent texts addressing similar issues have taken. Jacobs sets out her stall clearly, concisely and in such a way that the reader can then use her point of view to assess the urban environment around them.

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Personal Space, The Behavioural Basis of Design
Review by Andrew David Graham
Personal Space, The Behavioural Basis of Design
Robert Sommer
First edition
1969
Englewood Cliffs, New Jersey, USA
Prentice Hall, Inc.
177 pages
ISBN-13: 978-0136575771
Paperback

The investigation of human spatial behaviour and the effect which space, buildings and the arrangement of environment has on the individual is still a very important topic in today's society. Much discussion has occurred recently regarding social interaction in the world of virtual reality and multi player game simulations.

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As recently as August 2008 a complete issue of 'Space and Culture' was devoted to the investigation of interaction in the virtual world. Also, within architecture, many points argued by Sommer have still not been applied by the majority and only the few consider the effects of the environment on the behaviour of the individual in the design process. This book, although written in 1969 when the study of how design affects behaviour was just beginning to emerge, is still as relevant to all who would seek to create space where social interaction, whether virtual or physical, takes place. This is highlighted in the fact that the book has been republished this year by Bosko Books with an updated introduction to address the current situation within environmental design.

The book itself is considered as one of the key texts on user centred design in regards to the built environment and since its original publication, it has stimulated a lot of research into interpersonal and social interaction in various spaces and configurations.

Sommer's investigation into human special behaviour began when working at a mental hospital in Canada. The hospital had a catalogue of design defects including poor lighting, long corridors and poor ventilation. In an effort to improve the quality of the environment, Sommer endeavoured to investigate the relationship between architecture and behaviour in hospital environments but found a lack of information available on the subject.

"It is interesting to know that more is known about animal than about human special behaviour." Sommer began to investigate human spatial behaviour of how patients interacted with each other under the current conditions in the hospital. The nature of his research was ground breaking at the time as much of the research up to that point in social psychological theory, took place in controlled labs, overlooking the physical conditions under which interaction takes place. The findings were published in Sociometry in 1959 and this new avenue of investigation opened up the subject of social psychology to other fields such as architecture, interior design etc. This research work culminated in the writing of the book which is the subject of this book review; Personal Space, The behavioural basis of design.

The book itself is divided into two parts. The first section lays the foundation to the book, where Sommer explains the various theories of environmental design, how users interact in space and with each other. The theories are interwoven with statistics and research which do not overwhelm the reader, but add weight and authenticity. Sommer covers topics such as privacy, territoriality, and personal space, how each relate to each other and how they become manifest in the physical environment through user behaviour.

Sommer calls on the writings and knowledge of many anthropologists, such as Edward T. Hall, and sociologists, such as Erving Goffmann, to help explain the various points he raises in these chapters. Sommer makes use of much research, not only from his own personal investigation, but from various other sources.

The second half of the book explores various man made "environmental systems" including schools, prisons and student accommodation. In many ways, I am of the opinion that the

author stops short, as he does not offer specific design solutions for each example. Perhaps this is due to the nature of my education as an architecture student, where one always wants facts, statistics, the door width, the required thickness of the wall, the ideal dimensions of the table and the optimum colour palate. The author rebukes this method of thinking and has made a conscientious decision to stay clear of creating rigid "formulated detailed laws" as each building should be a separate case study as each geographical, social and cultural setting will have different outcomes and different user requirements. Instead of a long list of best practices and data banks the author liberates the designer by equipping the reader with the tools and the means by which one can "objectively and validly" obtain data through research specific to each individual design.

The author has made this book very accessible to all by not overcomplicating the book with extensive statistics and he has also employed an accessible language which can be easily understood. The author claims that the book is not intended exclusively for architects, designers or city planners, although many of the chapters are "aimed in their direction". Sommer implies in his writing that the book is for all who help shape our buildings, social spaces and private space whether that be the janitor, the nurse on night duty, the patient or the architect. The book is certainly not aimed exclusively at experts in the field of environmental psychology, but instead is aimed at those on the periphery of the subject in an effort to engage and help the reader consider the user requirements and the effect of spatial design on the individual.

"Knowledge about man's immediate environment, the hollows within his shelters that he calls offices, classrooms, corridors and hospital ward is as important as knowledge about outer space and under sea life. For too long we have accepted physical forms and administrative arrangements based upon outdated views of human activity."

In our profession, there is still a great need to abandon the presupposition of what each building type requires. Much of the design work is undertaken without the consideration of how people actually engage with the space, and how the space affects the individual. All too often our designs are based on our opinions and our preconceptions. We place ourselves in the place of the end user and design based on our values, our goals, our ideals and do not consider the vast range of users, which will inhabit and interact in the space. There is a need to remove ourselves, our opinions and our utopias from the design equation and instead factor in the requirements and the needs of the end users.

"Frank Lloyd Wright put forth the doctrine that form follows function, which became a useful antidote to needless ornamentation. Yet it is curious that most of the concern with functionalism has been focused upon form rather than function. It is as if the structure itself-harmony with the site, the integrity of the materials, the cohesiveness f the separate units, has become the function. Relatively little emphasis is placed on the activities taking place within the structure."

Sommer goes on to argue that we so often analyse buildings based on a glossy print, void of any human life or reference. The idea that

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we create three dimensional sculpture in order for it to be catalogued, marvelled and admired through a two dimensional media is absurd. The success of our architecture cannot be measured solely by its aesthetic appeal. The flavour of the month architecture will change, but whether a building will endure depends on how it engages with the end user and the quality of the environment that it creates. For the sake of our profession and the sake of our society we must engage in research of user requirements, we must research how the buildings we design affect the building occupants. We must learn from our mistakes and the errors of others in order to ensure that we produce the best design solutions. Considering how users react with the environment, not as a series of individual items, such as desks or chairs, but as an ecosystem, as a whole.

One may become slightly disillusioned when reading this book at various points. The author continually refers to how people interact with space and objects within space, how users prefer a certain chair for example, or a certain place at a table, a certain size of desk. However the point is continually made that users will adapt to their situations, they will grow accustomed and will often not question the environments in which they are placed. One example is of how patients will adapt to a new spatial arrangement within a hospital lounge, or how students will use their bed as a study space if the provided desk is inadequate. One wonders from time to time in the book if the author is voiding his own argument. All these fears are expelled however in the final paragraph in the closing words of the book which serve as a rallying cry to designers everywhere to consider the social

and psychological impact of the spaces we create.

"Good design becomes a meaningless tautology if we consider that man will be reshaped to fit whatever environment he creates. The long range question is not so much what sort of environment we want, but what sort of man we want."

Design shapes people not just buildings; it shapes the atmosphere in which we live; it shapes who we are and who we become. As architects we do not just build structures or spaces. We create the fabric on which life is lived, the fabric on which people interact and socialise. We must strive to undertake more research on an individual design basis, to insure that individual needs of the user and goals of society are met. As a profession we must design holistically and not only consider the physical requirements, but also the physiological impact of the spaces and spatial arrangements we create.

In my opinion this book is very useful as an introduction to the subject of personal space, environmental psychology and the behavioural basis of design. The author engages the reader in a very interesting and valuable subject and communicates in such a way that the subject can be easily understood. The book is well structured and contains a helpful index and detailed footnotes. I would recommend this book to anyone involved in design of spaces and to anyone who has a general interest in anthropology.

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Defensible Space
Review by David Montgomery
Defensible Space
Oscar Newman
2nd edition
1973
London, United Kingdom
Architectural Press
264 pages
ISBN: 0 85139 136 2
Hardback

Defensible space broadly examines how human perception of the built environment can affect one's behaviour. The book attacks current ideas and methods at the time of urban and residential design, focusing on exploring a link between how the breakdown of reading and practicing of instinctual social and cultural symbols, such as thresholds and defined spaces absent in much modernist architecture, can increase crime rates and social malaise in residential areas.

The book was written at a time when there was an emergence of opposition towards the mainstream thinking throughout the 1950s and 60s of modernist planners such as Robert Moses, Head of New York City Planning in the mid 20th Century, who favoured such policies as urban renewal. Governments across the world that had implemented en masse urban renewal programs containing high rise residential schemes were realising the problematic consequences associated with them. The infamous scheme at Pruitt-Igoe in St Louis, when demolished in 1972 due to the local authority's inability to control crime and anti social behaviour was heralded as the death of modernism. Urban theorists and writers such as Elizabeth Wood and Jane Jacobs argued the social problems caused by such radical changes to a cities urban makeup and were focusing on ideas of maintaining neighbourhoods, intimacy of communities and increasing diversity of use and smallness of scale. Newman's Defensible Space builds on the ideas of Jacobs in her book The Death and Life of Great American Cities using statistical data to examine a correlation between poor physical design in new residential projects and crime rates within the area they are situated.

Defensible Space is aimed at a broad audience. While initially intended for housing developers, architects, city authorities and the police the manuscript was rewritten as the author wanted to appeal to a wider readership such as residents and associations wishing to implement defensible space schemes in their neighbourhoods. The book encompasses a wide range of subjects such as architecture, law, psychology and sociology as well as theoretical and technical concepts. However Newman has made much effort to describe issues in a thorough and balanced manner which not only facilitates the general reader but avoids over generalizing in areas of social class or ethnic background which is an attractive option to many to explain increases in crime rates.

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When it was first published, the state of knowledge in the areas of crime prevention through urban design and in architectural psychology in general was quite small. However it was not completely alien. W. Russell Ellis states the book "met a felt need among some architects and law enforcement... has been gloriously reviewed in the New York Times and Wall Street Journal. Since the 1970s much work has been published in the area of architectural and environmental psychology. However Newman's work, focusing on crime prevention through physical design, can be considered as the first major comprehensive study in this area of environmental psychology that uses statistical data to back up his own theories and contribute to theorists before him. The work also contributed to the creation of a new sub discipline in criminology that has come to be called Crime Prevention through Environmental Design. Indeed his work is held in such high regard that it is contributing to public policy in the United States. The US Department of Housing and Urban Design (HUD) along with Newman produced a Casebook in 1996 of projects using defensible space as an example for planners and architects. Even today Defensible Space is impacting Architectural Education as Byron Mikellides states that Defensible Space is the "most referenced book by UK Architecture Students studying this field" . The book also contributed to the work of Alice Coleman in her Book Utopia on Trial. However Coleman created a lot of controversy and apparently failed to understand the full concept of Defensible Space. Mikellides quotes Newman himself as saying "Utopia on Trial does not pay sufficient attention to social factors interacting with the physical as causes of housing dysfunction"

Newman makes a strong argument for his concept of defensible space early in the book making it clear to his audience what it is. He identifies clearly the problems with the current methods of urban planning and residential design; the anonymity of the city and the destruction of community and the affect this has on increasing crime rates before explaining how defensible space works through a number of mechanisms to exploit the physical design of the built environment in such a way as to empower residents, increase their sense of territoriality, provide opportunities for surveillance and create pride in their community. Newman stresses the importance of community action throughout the book as the most important aspect of defensible space as he states "When people begin to protect themselves as individuals and not as a community the battle against crime is effectively lost".

While these views have been seen since by some as narrow minded in approach, a threat to personal privacy and individual autonomy and the creation of gated communities within a modern city context, Newman does not come across this way in his style of writing and tone nor does he propose such ideas. The confusion over his work can be seen as a criticism of targeting it to too wide an audience who may not fully understand the concepts he is proposing. He links his ideas to basic human psychological concepts of influencing space through subtle measures of reading thresholds, determining feelings of public and private space and quality of design. Such measures can be seen in precedent typologies such as the terraced house. These practices, if operated through the physical design of the built environment

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from an individual level, to a community level allows individuals to come together to increase a sense of territoriality and provide natural surveillance. It offers a way for the community to effectively police itself passively and in fact is not threatening to personal privacy but actually upholds it.

For thousands of years' defence influenced decisions on orientation and arrangement of buildings among small communities of people willing to deter intruders. Grouping buildings together or locating beside a river or on a hill are all collective decisions to create a defensible space. This need to feel safe is instinctual and is as valid today as it was in the past.

The author is able to compare real residential projects in order to support his claims referring to clear graphical material such as photographs, plans, sections and sketches throughout the book which complements the in depth and balanced discussion of the subject.

His attack on high rise residential towers and preference for three storey walk up apartments seems very justified given the crime statistics for both types. However he is able to link these back to social issues regarding anonymity, territoriality and surveillance which are influenced by the physical design of the buildings. He does not lose sight of his initial arguments and keeps clarity of vision.

The author shows a very open minded approach in touching on broader social and political issues related to crime and housing, and unlike Coleman, realises that the physical design of the urban environment is not the sole contributor. He makes the point that decision making is limited

to vulnerable members of our society namely the poor as government agencies decide the design of their residential projects.

A large variety of statistical data is referred to at various intervals throughout the text and the author goes to great lengths in explaining and interpreting it. There is poor graphical representation of statistics and typographical errors that make referring to it confusing, but there is a very comprehensive methodology within the appendix of the book which could be used as a basis for conducting similar research into this subject area.

While the author was able to support his theories in general throughout the book using statistical data there are some discrepancies in his discussion of modifying existing environments to make them more defensible. The author was able to provide practical examples of areas in need of modification but no results from the modifications themselves making the exercise quite irrelevant to the reader.

I think however that the author was able to meet his aims in providing statistical information regarding how the physical design of the built environment affects social issues of territoriality, natural surveillance, civic pride and the effects this has on crime rates and social malaise. Thus he justifies a need for defensible space practice within architecture and urban design. A summary and series of recommendations are provided at the end which could be used as series of design principles for planners and architects interested in this area.

Overall this book is excellent in that it provides a strong theoretical basis of information for referral

and a thorough methodology for carrying out statistical analysis into the issues of urban design and crime. This book would be of use to students of architecture as an introduction to the concepts of defensible space and defensible space practice. It could be referred to during similar studies of the urban environment and its influence on crime in a thesis project. However it also serves in discussing and providing examples into basic designs of threshold and public and private spaces which could be employed in studio projects. I would also recommend this book to others interested in the more general field of environmental psychology and think it is worth while purchasing or having in university libraries.

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Psychology for Architects
Review by David Rushe
Psychology for Architects
David Canter
Series Editor: Henry J. Cowan
First edition
1974
Essex, United Kingdom
Applied Science Publishers Ltd
165 pages
ISBN: 0 85334 590 2
Hardback

The book that I have chosen to look at for the book review is Psychology for Architects, which was written by Professor David Canter, then of the University of Surrey England.

The book, published in 1974, and from the outset Canter states that this book is not "a detailed account of the research which psychologists have undertaken in order to assist design", the book attempts to inform the reader about human beings' interaction with the environment and the effects on architecture and come to comprehend the behavioural and mental processes of human beings and their interrelation with architectural approaches. This is achieved by the use of examples of wide-ranging psychological processes such as Gestalt's Pragnanz (Figure Ground) Theory, Steven's Power Law to Machiavellian musings. The book aims at introducing the reader to a number of areas, but in a manner that is accessible and that can be easily understood for the casual reader.

Professor Canter developed environmental psychology, and set up the Journal of Environmental Psychology, which he still edits. The Theory of Place, which he developed in the 1970's, has become one of the underlying themes of research in this area. He is currently working in the School of Psychology at the University of Liverpool.

The book, written in the 1970's, is an attempt to correlate the basic elements intrinsic to psychology and how they can inform architect's decision in building and place design. The discipline of "environmental psychology started in the 1960s when problems and options of humanity's future had gained importance due

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to increasing industrialisation". The division of the individual in relation to the built environment had changed, Canter displays this widening gap by looking at an office block and shows how the view of the built object differs greatly from the finance group financing the project and "whose concern will be the economic viability of the project" the development company who are "more concerned with the ease of letting offices" and at the bottom of the pile is the group referred to as 'the building users.'

The change in societal values and quality of life, along with the rapid industrialisation and capitalistic attitude amongst some towards the built environment and its injuriousness to the user, were issues that many involved in the emergence of environmental psychology such as Robert Sommer (Professor of Psychology Emeritus at the University of California, Davis author of Personal Space: The Behavioral Basis of Design 1969) Leanne Rivlin (Originator of the Environmental Psychology Doctoral Program, CUNY Graduate Center author of Environmental Psychology: Man and His Physical Setting 1970) and Professor Canter to name but-a-few.

Professor Canter states from the offset that "this is not a textbook", it is instead a book which might be read in conjunction with a textbook. His aim for the book is to communicate the basic principles of psychological concepts to help inform design decisions. Canter attempts not to "take an unfair advantage of the ignorance" of his intended readers – lay-people, by choosing "material without the help of a generally accepted viewpoint to assist with this selection." Instead he wishes the book to have a general and open-ended approach that will allow the reader "to consider the issues for themselves

and try to discover other viewpoints." Ultimately, Professor Canter is aiming his book at everyone from the trained psychologist to the architect and most notably, the layman by counteracting "using specific terminology (some would say, jargon) without being fully prepared to explain its meaning to the layman."

The format of the book is broken into ten chapters covering different topics, with each chapter acting as an introduction to the main thinking behind psychological theories and what Canter does in each chapter is to draw a parallel between these and architecture.

Canter first discusses the topic of research and how through research, one can develop a catalogue of information from which one can reference. "The strength of science lies in the fact results are built upon one another" and that just like the architect has a number of design aspirations he wishes to investigate, a "research worker has a number of assumptions which he is trying to test". From here Carter explains the ideas of reliability and validity and how the "methods for controlling the variables" are important in conducting research, with issues such as age, sex and skill sets are paramount. Canter believes that architects must have some understanding of psychology so that their interests in design concepts can "influence the course of psychological research".

Canter then introduces the reader to the area of perceptual judgements and how they relate to context effects. Within this frame, Canter introduces the issues of one's perception on a given context that can differ "according to the social situation we see them". The main area incorporated into the theme if contextual

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effects is that of sensations, as in directly relating to one of our five senses.

If one is to conduct an investigation into this realm, one must be aware that "these descriptions can be shown to be inaccurate because no sense organ could be influenced by a group of people."

He looks at the importance of Gestalt's Pragnanz (Figure Ground) theory and how seeing objects in terms of figures on a ground as "an important contribution to our understanding of perception." The importance of Gestalt helps the reader grasp the concept of perception and how this can be informed in other aspects, such as perception of scale, space and even attention play "an important role in perception and needs to be taken into account of when considering the design of actual environments."

The uniqueness of perceptual judgements is that its reference to context and what is familiar to the user it can help inform an architectural language that is based on precedent, "rules, often of proportions, in perception which determine what form or combination of forms will be beautiful."

In Chapter 4, Canter looks at the role of learning in the role of psychology and architecture. He deals with this in the main, by dealing with the cognitive map topic. In doing this, he mentions the "place learners led by Tolman and the response learners by Hull." Canter speaks of the ability of a user to draw a "mental map" to locate certain disciplines, regardless of the circumstances, much like the rat.

Developing this theory of learning, Canter delves into the areas of schedules of reinforcement, transfer of training and experience and how these can help create a cognitive map for the inhabitant of the building. The use of visual cues to trigger a familiarity with the built environment, Canter believes, can encourage healthy use and understanding of a building for the users. Carter does "not mean that architects should only produce buildings similar to those which already exist", instead use precedent, context and what is familiar to help inform the language of the proposed design.

Canter speaks mostly on children's development in this chapter and of the role of development next, and how "almost all aspects of behaviour can be shown to relate to age". Canter speaks of the role of the environment in creating an upstanding new generation that can integrate into society to maintain order, he highlights that "some aspects of behaviour are learned and that they develop through the interaction with the environment."

Formal operations, as Canter quips, are directly related to aspects of Jean Piaget's Adaption, whereby "the person assimilates aspects of the environment... or accommodates those structures in order to incorporate some novel aspect of the surroundings."

In looking further at the idea of development, Canter points out that sensori-motor intelligence is intrinsic to perceptual development and how one can understand and use an environment. Canter points out that architects must consider the user's needs, even at different ages to further help their development as they are likely to demand different things at different stages of their development.

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In Chapter 6, we are introduced to the area of underlying dimensions, and how through questionnaire analysis, albeit through a points marking system or textual preference means, we can deduce the success or failure of an environment that can then inform how we can improve in the future.

This form of investigation is very efficient, however as Canter points out, "one problem which arises… when applying it in architecture… to deal with when buildings other than private homes are to be considered." It results in the designer having to make "some generalisations that at least refer to groups of users if not to the whole population of users." However that said, the use of underlying dimensions by means of factor analysis, can help construct an understanding of the environment via user feedback and allow for a greater understanding of said environment.

What is important about the opening of Chapter 7 is that Canter points out "one of the strongest arguments which laymen feel they can bring to bear against the possibility of a scientific psychology is that everyone is different."

The area is one that cannot really be pinned down, no formula to cater for all can be written, instead Carter speaks of the users differences in the form of age, sex and class – field dependence ("an individual's ability to distinguish stimuli from the context in which they are presented"), cognitive complexity, extraversion and neuroticism and creativity and intelligence.

While this subject is somewhat broad, Carter points out that the architect "can then consider a broad range of potential users and behaviours in his building and not make the common assumption that most people are similar to himself." The use of space is where Canter takes us next, and here he speaks of territorial behaviour and how "these social mechanisms usually take the form of defence of specific areas or territory." He looks at the location of space, and how something like the location of a bench or structural column, can determine "relationships people take up in respect to other people." This then feeds into the area of interpersonal distance, and how "if eye contact and head movement do influence interaction it might be expected that the angle of the two people from one another was important."

Canter concludes that these individual elements relate to human territoriality and as such, when added up, are innocent in small behavioural contexts. However he does point out that "beyond these interpersonal distances is much more problematic."

In Chapter 9, Canter talks about the organisation and defines it to be "whenever two or more people need to work together in order to achieve some common goal then we have an organisation."

He looks at the various level of organisation, from two people to a large group where one person delegates, to a situation where larger groups come together and share knowledge and information in multi-disciplinary work. "It is thus apparent that it is difficult to study organisations without considering communication". He says that adaptability, stability and identifiability are all key ingredients for a building to survive, but the most important aspect of this is satisfaction

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of workers.

The satisfaction of workers includes many aspects from self-fulfilment to financial reward and to the overall role within the organisation. It is important to acknowledge these fields as "the structure of communications within the organisation and the satisfaction of the members which motivates them to continue to be members" and see the long-term success of the organisation.

Canter concludes overall by making two stand-out relevant statements, he concludes that "psychology could have a profound influences both for the form of our buildings and for the way of life which they delineate."

Having read the book, I found that it does give me an insight to the role of psychology within the built environment, and the references he makes to architecture at the end of each chapter maintain that thematic link. Since reading the book, I feel that I now have a good platform to start from should I wish to further my knowledge on the subject of environmental psychology. Canter makes many references to the work and theories of others, Bromley, Mowrer, Hull, Gestalt, and Altman to name a few. The book provides an excellent appendix at the back of the book, with all references documented with author and book titles allowing the reader to seek out knowledge from highly regarded sources. The effort on Canter's part to remove the 'jargon' from psychology worked as the book's content is accessible, however there were some occasions where I felt that I did need to take Canter's advice and read this "in conjunction with a textbook." Overall, I would recommend this book to a fellow student of architecture interested in getting a basic knowledge of the subject. I would also recommend it to the lay-person for a highly topical conversation piece at a dinner evening. "This is as it should be. Buildings are for people. People build them, use them, administer them and pass them by."

People Space: The Making and Breaking of Human Boundaries
Review by Christopher Bell

People Space : The Making and Breaking of Human Boundaries
Norman Ashcraft and Albert E. Scheflen
First Edition
1976
New York, USA
Anchor Press
185 Pages
ISBN: 0-385-11229-7
Paperback

This book explores the concepts of human behaviour in space, with particular focus on how behaviour and cultural backgrounds and attitudes impact the use of space and the results of these impacts. The text investigates subjects, such as territories, privacy and crowding, that are important phenomena within the field of environmental psychology. Environmental psychology can be defined as "the science that deals with the psychological study of human behavior as it relates to the everyday physical environment." (Salama, 2009)

The book, written in 1976, builds upon the authors' collaborative research starting in 1970. Collaborative research between the fields of psychology, sociology, and anthropology were common at this time as identified by Stokols

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when he states, "the 1970's were a time in which researchers from several different fields came together to forge new theoretical and methodological approaches to the study of environment and behaviour" (Stokols, 1995). The book deals specifically with phenomena, considered as behavioural activities, which can be positioned within the field of environmental psychology. Environmental psychology had emerged recently to the publication of this book, focusing attention on human behaviour and environment. "Proshansky, Ittelson, and Rivlin (1970) presented the emerging field of environmental psychology in their first published volume, titled Environmental Psychology: Man and His Physical Setting" (Bonnes, Bonaiuto, 2002).

This book was written during a period of significant research in the field of environmental psychology as, "hundreds of experimental studies on topics such as crowding, personal space, territoriality, environmental cognition, and environmental stress were conducted during the 1970's," (Stokols, 1995) and whilst aligning itself with the mainstream thinking at the time, it also gives rise to considerations of the implications of behaviour in terms of repercussions, such as violence and urban crowding. How such implications can be addressed through the design of the built environment has been a central focus in the continuing development of environmental psychology.

No pre-requisites for reading the text have been identified. The content of the text, i.e. the exploration of personal space and social interaction based on specific research, suggests those closely associated with environmental psychology to be the intended audience. In contrast to this, the style of the text, i.e. the method in which the research has been communicated, suggests a much wider scope for the intended audience, encouraging transdisciplinary consideration of the information.

Positioning the text within current knowledge of the subject leads to a view of this text as basic in nature, almost stating observations about the selected elements of human behaviour. Such concepts are long established and knowledge in this subject area has greatly advanced since this book was written. However, positioning the text within its context gives rise to the significance of the content. Although the phenomena explored in the text had been identified and discussed prior to this book being published, as indicated by the authors' references to other research material, this text considers these phenomena in an alternative way, emphasising the links between human culture and behaviour and the built environment.

A strong awareness of the research methodology is evident and openly discussed on a number of occasions, with the authors noting the importance of objective observation along with questionnaires and interviews. In the context of the research being carried out during the 1970's and the emergence of new research methodologies, this reinforces the conclusions in the text by defining its scope and identifying its limitations.

The authors state in the preface that "the present collaboration is not just another effort to summarize research findings, as important as that may be" (Ashcraft, Scheflen, 1976) and it is interesting to consider this in relation to the volume of similar research studies at this time.

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The use of pertinent examples to elaborate on the research and observations of the authors makes the text accessible and communicates the application of the research in a descriptive manner, permitting a degree of reader interpretation but more importantly stimulating thought regarding further application. This style, combined with clearly defined and relevant contents, index, notes and bibliography provides a rich source of information on the subject.

The aim of the book is to explore "how people use space in various contexts, how this use is repeated and replicated at various points of interaction, whether in an open public space or in the confines of one's home, and how this use is repeated and replicated from the level of the typical conversational settings to the layouts of rooms, houses, neighbourhoods and cities" (Ashcraft, Scheflen, 1976).

This aim has been met through a systematic consideration of the various elements identified by the authors'. The book has been divided into two sections, the first relating to using space and the second relating to repercussions. Within this framework the authors' identify and draw conclusions from their research as to how people use space and, through specific case studies and examples, clearly link these to the situations of rooms, houses, neighbourhoods and cities.

A strong awareness of the research methodology is evident and openly discussed on a number of occasions, with the authors noting the importance of objective observation along with questionnaires and interviews. In the context of the research being carried out during the 1970's and the emergence of new research methodologies. This reinforces the conclusions in the text by defining its scope and identifying its limitations. The authors' suggestion that "in fact, walls and other built structures are extensions of the much older rules of human interaction," aligns itself with Robert Bechtel's later statement, "there is no such thing as the design of space, only behaviour is enclosed by architecture." This is a central theme in the authors' approach to the subject matter, as they discuss and explore, firstly the elements of human behaviour and then its consequent impact on spaces.

A further important and clearly developed consideration is that of how measurements affect culture, identifying the underlying measurement principles that define our perceptions of spaces. This consideration links through to a rather interesting discussion arising in appendix B of the comprehensive notes on the text, which is particularly relevant to architects. The authors query the suitability of placing units of measurement on human behavioural activities, noting the numerous variations of uses in relation to culture and behaviour. This discussion reflects the peremptory nature of the text, as it underpins some key phenomena of environmental psychology while, at the same time, prompting further investigation and consideration of these elements as they relate to design.

The simple design and graphic layout of the book is well suited to the content, providing a clear structure to the text and illustrations. The text contains very few typographical errors and errors in the technical matter are not evident.

This book provides a clearly structured consideration of how people use space, forming

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an introductory basis for the ongoing research in the field of environmental psychology. Although the content is not entirely contextually relevant, I would suggest that it would be of interest to my colleagues in the field of architecture. The subject matter is one that has an ongoing influence on architects as they consider the design of spaces for human occupancy. The use of examples, especially of the situation of the family on the beach, which is referred to in a number of the topics, describing 'real life' situations, makes the findings and conclusions more tangible and more readily applicable to the reader. I would recommend this book to others as a basic exploration of the human use of space, which concludes and illustrates some of the core concepts of behavioural factors in design. This is a text which is not worth purchasing but that should be available in a library catalogue.

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Architecture for People: Explorations in a New Humane Environment.
Review by Matthew Stewart

Often criticized for their lack of responsibility to context, social factors and the way we live in buildings, architects have a responsibility to the people who use their buildings. The built environment is not just a backdrop to life and human activities but influence how we behave and live in our environments. As designers we need to be aware of the social consequences of what is built and realise the need to understand 'humane individuals' as well as how human behaviour relates to everyday built form.

The necessity of designers to understand human behaviour and human needs in buildings birthed the study of architectural psychology or alternatively environmental psychology or environmental perception. Mainstream psychology or sociology was considered to be uninspiring or irrelevant to the practice of

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architecture and so in March 1969 in the House of Black Dell at Dalandui in Scotland the first conference of Architectural Psychology was held and the presentations were published by the RIBA and edited by David Canter in 1974. Research has grown rapidly seeking to understand human behaviour in relation to the built environment and how to better design with people in mind to make happier and healthier places for people to live in.

'Architecture for People' was first published in January 1980. The study of Architectural Psychology was approaching its 10th year of research; this book may be considered young in relation to current research. The book was compiled at a period when modern architecture had been strongly criticized for its lack of response to human need. Carl-Axel wrote "technical-economic and solely functional aspects have been allowed to dominate." The book is a timely response to the character of architecture at the time when designers committed themselves to functionalism with new materials and cost effective solutions which resulted in many modern buildings proving impossible to use effectively. Architecture was failing to respond to human need and to provide comfortable pleasant environments. This was particularly significant at the time and was one of the first books to raise concern and awareness for the need to understand human behaviour for the practice of architecture. The book follows a period which witnessed a move towards an understanding of social psychology and personal space with such notable and influential titles as 'The Psychology of Interpersonal behaviour' by Michael Argyle published in 1967, 'Behaviour in Public Places' by Ervin Goffman published 1963 and 'The

Image of the City' by Kevin Lynch published in 1960. The book sits comfortably in an area of specialised knowledge in architectural psychology which began in the 1970's with notable titles as 'Psychology for Architects' by David Canter published 1974 and 'Perception of the Visual Environment' by Neil Prak's published 1977. Architecture for People is one of the first books to take social psychology into the field of architectural Psychology.

'Architecture for People' has an intended audience of all people practicing or studying in the discipline of architecture. The book is directed towards architects and constantly challenges the designer's preconceived ideas of suitability and quality of design for users. The book is intended to promote self evaluation in the way we respond to human needs and encourage designers to ask if their buildings are suited to users' needs as well as they think they are. The book would also be an important part of architectural education and particularly relevant to students studying how to design and seeking to develop a person philosophy and an increased awareness of responsibility to the humane environment.

The contribution of 'Architecture for People' was considered pioneering early in the subject of architectural psychology. The book is edited by Byron Mikellides, Senior lecturer in Environmental and Social Psychology at Oxford Brooks University. Mikellides was one of the pioneer researchers of the new discipline of architecture psychology since 1968. He has lectured extensively in Europe and the United States and still publishes on this area of research today. Mikellides book 'Architecture for People' along with another highly regarded book 'Colour

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of Architecture' have greatly contributed to the subject of architectural psychology and are still referred to in research papers published today.

The book was constructed by Byron Mikellides by inviting different authors and researchers from around the world, each a specialist in various areas including architectural psychology, biology and aesthetics as well as the practice of architecture. Each considered leaders in their area of architectural thought bring an international perspective on the subject. A balance is struck between chapters of theory and practical experience but each read as an individual essay contribute to the wider vision of this book.

The book begins with a critical tone of current architectural design thinking and sets a pace of optimism for the topic which when fully explored will endeavour to improve the quality of design in our build environment. As Mikellides establishes this challenge suggesting "we could do better than we have been doing so far in making our homes, our cities, our biosphere worthy of man in all his biological, social and cultural peculiarities."

From the outset the book questions the way designers draw assumptions on various aspects of human design requirements and psychology decisions made on the behalf of the users. Through a playful technique of presenting 10 statements and obvious conclusions on factors affecting the user behaviour the reader is lead into a false confidence in their ability to make architectural psychological conclusions. The 10 statements are again presented along with researched conclusions and largely contrasts the original assumptions confirmed by the reader.

This clever introduction reveals the importance of architectural psychology to the reader and promotes the self evaluation by humbling the reader to acknowledge the necessity of understanding the reality of behaviour rather than unsupported conclusions.

Considering the context of when this book was written, author Bruce Allsop continues to set the tone by condemning the social utilitarianism and functionalism of the 1950's architecture quoting "its seems that socialism without art, when applied to buildings does not satisfy basic needs." This move towards a more poetic architecture that considers human needs at an emotional and sensual level however is not left unanswered. Nicholar K. Humphrey a prominent young scientist from the Department of Animal Behaviour, University of Cambridge offers scientific observations to be drawn from the stimulation and enjoyment of the natural environment and how the brain forms the foundation for aesthetic perception. From a different perspective the emotion of 'pleasantness' is addressed from urban aesthetics where rhythm, patterns and balance and harmony present a theoretical model to understand how these urban environment characteristics stimulate the brain and its ability to respond emotionally.

I am very much encouraged by the idea this book promotes, the poetic side of architecture as art and pays homage to emotional stimulus while maturely acknowledges the conflict architects face between art and life. Robert Maguire observes the problem that architects face between choosing the values of art as the architect or the values of the user when compromise has to be met. We do well to be

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reminded by Rikard Kuller that "a sensitive and thoughtful treatment of sensory characteristics is an important ingredient for the user of architecture, who not only sees the front of a building as an illustration but literally enters into it, takes possession of and lives behind it." I commend this statement supporting the view to look beyond the image of architecture and consider the quality of the environment and how it betters the experience for the user.

The book's fundamental tenet of considering architecture and the users highlights the importance of this topic in architectural education. "Most of our architectural schools are geared towards turning out the occasional genius-the future master of the new style-the next generation of tastemaker. His competence in addressing his client's needs is given secondary importance."

The book promotes the study of this field for architecture students and I would further agree that it benefits education and has become an important part of architectural curriculums to the present day. However the book offers a token of encouragement through Walter Segal, "There is in Britain a wealth of talent and vital energy which if properly tapped can produce astonishing results from its people." It suggests architectural psychology key to releasing this talent in architecture.

As the book tries to cover many different topics and perhaps seeks to cover too much in the mere collection of essays, the chapters are interesting when read individually but many of the issues are overlapped by authors due to the nature of the editorial script. Some essays meander from the topic of architectural psychology and don't greatly contribute to the understanding if the overall text.

I would recommend this book to my student colleagues but perhaps to be read in conjunction with other titles in line with the most recent research on the topic of architectural psychology. However Byron Mikellides seeks to raise awareness of the importance of architectural psychology and to encourage self evaluation about considering user needs as well as own agenda in creating a piece of art. The book is successful in emphasising the importance of improving the quality of the humane environment though understanding architectural psychology.

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Meaning and Behaviour in the Built Environment
Review by Leanne Courtney

Meaning and Behaviour in the Built Environment
Editors: Geoffrey Broadbent, Tomas Llorens, and Richard Blunt
First edition
1980
Bath, Avon, United Kingdom
The Pitman Press
372 pages
ISBN: - 0 471 27708 8
Hardback

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The subject matter studied by Broadbent et al (1980) is that of Meaning & Behaviour in the Built Environment. This book is one of two devoted to this study. The study of meaning as Broadbent et al (1980) state relates to the built environment and its relation to "…all those other things in life which people attach significance and value – including their purposes, their conceptions, their ideas and beliefs."

What is happening in the area that the book addresses is that there is a gap in communication between the architect and the layperson about the interpretation of meaning in the built environment. This popular misconception was studied by Hershberger (1972) who compared responses by architects, architectural students and non-architects. He concluded that "if architects are to communicate successfully their intentions to laymen they need to restructure architectural education so that architects do not have their own set of meanings." The book also highlights that although there has been a rapid progression in the study of meaning and behaviour in the built environment. There is an ongoing need for study in this area and due to the fact that the field is so extensive there is a need for researches to impose limitations on this area of study.

The editors of this book include Geoffrey Broadbent, Richard Blunt and Tomas Llorens. Broadbent was a key figure in architectural education and research. His dissatisfaction with various developments in architecture had led to the context in which this book is written. This book was published in 1980.

At the time of publication Broadbent et al (1980) highlight that problem is apparent in the "struggle for theory" in the studies presented throughout the book.

This book is twenty eight years old. At this time, the mainstream thinking of architecture and the rationale behind the publication of this book was to encourage and develop architecture which carries relevant meaning.

The target audience is those architects and environmental psychologist wishing to encourage architecture with meaning. The author addresses the audience continuously throughout the literature making clear pre-requisites for reading the book. Broadbent et al (1980) state "the study of meaning as Eco Succinctly put it in (1973) is the study of logic of culture." Hence to study the meaning and behaviour in the built environment an understanding of the logic of culture is required as Broadbent et al (1980) state that "Culture is man's medium... it has developed mechanisms which have given man the experience of constancy in the face of change." Furthermore Broadbent et al (1980) stipulate that it is fundamental to understand that the studies which are contained within the book do not or do not intend to present a representative picture of the literature it samples. In addition the authors denotes that the division of the papers in the volume should be considered as largely speculative, as the majority of the theoretical suggestions that link up (or go) beyond those advanced in the fourth section.

The state of knowledge in this subject is that architecture needs meaning to survive. In order to sustain meaning in architecture it is necessary to research best practices in this area. The book offers an awareness of environmental psychology

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and the built environment and a collection of studies. However it could be argued that it contributes little to the development of the field as it contains collections of studies which could be found elsewhere therefore what does this volume offer to the study of meaning of the built environment? Osterberg (1982) states in review of the volume "Having read Broadbent's closing comments it is difficult to understand why this anthology could not have greater relevance for the reader." Furthermore Osteberg suggests "If the collection were concise, meaningful, and critical to the development of the field, then this volume would be useful for all those teaching and researching in the area."

The contents of this book are divided into four sections presenting material from a wide range of publications in the study of environmental psychology in the built environment. Section one deals with the prototypes of empirical science. This section summarizes individual concepts of the built environment. Section two and three focus on the applications of specific theoretical categories of a more specific and complex character than those within the field of personal construct theory. Both section two and three consider structure relative to the relationship between human behaviour and built environment. Section four focuses on discussion of theoretical problems. This section is the largest of the four, however as the authors suggest it is not representative relative to the proportion of papers within the environmental psychology as a whole. Section five is a historical account of architecture psychology which dates to 1927.

The ordering of the papers within the book is as Broadbent et al (1980) affirms "...to manifest

a certain progression in the argument." This ordering enables one who may have not have a background in the psychology of environment to progressively build an understanding of the issues and concepts presented in the study of meaning and behaviour in the built environment.

As one advances through the book the author poses a number of questions to the reader which initiates the author to ponder on the key concepts and issues related to the built environment. A personal interpretation of the issues and concepts within this book is that there is a need for meaning in architecture and an interpretation of an environment is based on an individual's perspective thus will affect and formulate behaviours within the built environment.

The strengths of this book is that the studies presented within the documentation use a wide range of data collection, research techniques, methodologies and analysis techniques. Varying from subjective to objective studies particularly with reference to the study of "the correlation of objective façade measurements with subjective facades ratings."

At the beginning of each study Broadbent et al offer a clear description on the methodology of the experiments carried out in the study. Furthermore, the authors critically point out the flaws of the study methods and throughout the book reaffirm the studies which are not representative. The authors concisely draw conclusions at end of each study as to the findings of that study. The book presents a range of studies which offer a sound basis for others to advance further in these areas.

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However the weaknesses of the book are that the studies are not representative as mentioned previously. Another weakness of this book to pioneers in the study of architecture and meaning is the year in which it was published as more recent research could be retrieved. Furthermore this book contains no glossary.

The authors' style would lead one to question whether the book looks at the field from an external point of view as was the author's intentions from the beginning, Broadbent et al (1980) state, "This volume sets out to look at the field from an external point of view, with the hope of revealing a hidden pattern, or argument, which probably would have not been revealed with sufficient clarity from within the field itself." Broadbent et al (1980) appear too attached to the studies by use of the words "I" and "me" throughout the book, this method of writing makes the literature appear very subjective.

The contents are concise, clearly stating the author, title and page number of each study. On examination of the index this proved to be a valuable resource.

This style of writing makes clear the purpose of the each of the studies and questions that require answers. The book contains no glossary. The bibliography is found at the end of each study rather than the end of the book, given that each study was carried out by different researches this placement is appropriate.

This book aims to reveal a hidden pattern or argument for meaning and behaviour in the built environment. There is an apparent "struggle for theory" however this aim may be difficult to achieve given "that such meanings may or may not be held in common by those who experience architecture; indeed, that fundamental differences in human experience will cause fundamental differences in the meanings people attribute to their environments."

In conclusion, this book would be highly recommended to colleagues as they would benefit from its knowledge. The book would also be resourceful for researchers as it provides detailed methodologies of previous research in this area. Overall assessment of this book is that the authors took a holistic approach to exploring meaning and behaviour as they examined various different environments and the direct effect it had upon the individual. The best features of the book include: the layout, the comparison of different research, and the valid opinions examined. The worst features include the exclusion of a glossary, and the fact that the authors stipulate that the book does not provide "...a representative picture of the literature it samples."

I would recommend to others and it would be worth purchasing to a library in the hope that it would create an interest for future research in this area. As Broadbent et al (1980) state "The curtains are hardly drawn on the vast amount of research which could be done in this area."

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The Meaning of the Built Environment: A Nonverbal Communication Approach
Review by Timothy Williams

The Meaning of the Built Environment: A
Nonverbal Communication Approach
Amos Rapoport
1982
Tucson, Arizona , USA
The University of Arizona Press
253 pages
ISBN: 0-8165-1176-4
Paperback

The meanings which buildings, their contents, and their inhabitants convey had been neglected for many years until this book was completed in 1980 and originally published in 1982. This was due to an attempt to be more 'scientific' in previous research which led to the neglect of the 'soft' aspects of environmental meaning.

"In what ways and on what basis do people react to environments?"

Attitudes towards the built environment can be seen as self-evident on the basis of how you feel about them and what you like and dislike about them. This is the main aspect of the book, in which Rapoport calls "man-environment studies", that discusses the nature of such mechanisms that link people to their environments.

Rapoport discusses how humans react to the meaning the environments have for them and aspects of functions that give an understanding of how environments work. He describes "meaning is not something apart from function but itself a most important aspect of function".

The argument of this book hinges on the main distinction of the "meaning for whom?" What meaning does the built environment have for architects and designers? What meaning communicates to the public or inhabitants and users?. Perceptual and associated aspects of the environment are discussed. Rapoport goes on to describe architects and designers as perceptual thinkers, whereas the public, the users react to environments in associational terms that are culture specific and hence culturally variable with the aspect of personalization. Within the book, Rapoport is more concerned with what and how meaning conveys messages to the users of the of man-environment interaction, which to the date of publication was undiscovered and is of central importance to explore for the success of this subject area.

Originally aimed at architects, this book can appeal to wider professions such as city planners and urban designers. Due to the simple layered approach set out by the author, this book can appeal to the general public who is interested in self-assessing questions of perception within this field.

Jurgen Ruesch and Weldon Kee's, Nonverbal Communication Notes on the Visual Perception of Human Relations, published in 1959 was one of the first books to concentrate on the pragmatics and stresses of visual cues and observations. It also was a starting point in the discussion of

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how physical environmental arrangements of settings influence social interaction and expresses various identities. Due to the book being published prior to most of the research carried out with the field, the book lacks some of the theoretical and methodological complexity of more recent work.

A 'framework' of thinking is set out to demonstrate some of the working process towards a particular way of approaching problems. How one thinks and what one considers is direct and simple way for us to understand the meaning of the built environment. Based on an early modified 'neuro-cultural' model by Ekman and Friesen, 1969b; Ekman, 1972, Rapoport, develops his own approach avoiding problems presented by symbolic approaches found in Ekman's model.

Rapoport uses a nonverbal communication approach that has been least tested within this field, which is a simpler and direct approach that provides relatively easy observation and interpretation that has developed in other fields such as psychology and anthropology. The author describes environments to "provide cues for behaviour". The behaviour aspect of the cues thus helps us understand the meaning of that particular environment. A set of three distinctions of cues that is set out within the book gives us guidance within the observation, recording and analysis of that environment. Firstly, fixed feature elements that are basically fixed or that change rarely slowly such as walls, ceilings and floors and that generally communicate much less than the other distinctions. Secondly, semi-fixed feature elements that change quickly and easily, that are under control of the users, communicating meaning, relating to personalization. Thirdly and finally, non-fixed feature elements related to the

behaviour of that environment such as spatial relations, body language, movement, facial expressions, eye contact and so on.

Rapoport states that the environment is encoded with information and thus needs to be decoded. Considering Perceptual and associated aspects. Perceptual being noticeable differences drawing attention to themselves through contrast of different environments. Associated aspects being, the decoding of the meaning of the relevant elements and behaviour patterns, in relation to culture, context and situation. One begins to observe and understand the environment, a catalogue of cues start to appear. Then it is straightforward to identify a set of noticeable differences between the environmental examples and make inferences about them. Rapoport stresses about effectiveness of the meaning of the environment depend on redundancy and clarity. A definition of the location, the expected functions of behaviour will give location of people in social space and therefore give meaning. What I found within the analysis and descriptions is how easy it seems. Using one's senses and thinking about what you perceive, read and observe the environment and making social inferences, provides clarity in the understanding of non-verbal communication.

The meaning of the built environment clearly depends on the broadest possible samples in space and time on all cultures, forms and periods. Meaning can also be seen as part of the culture and context of the environment. Throughout the book, Rapoport uses an extensive use of examples to discuss the subject area clearly. The examples uses are of are own

time and western culture, with cross referencing examples from more exotic cultures. There also can be seen a comparison between traditional and modern contexts. Rapoport puts his method into action into two subject areas, small scale and urban examples. Within small scale examples, the author looks at the importance of spatial organisation that communicates on a semi-fixed level that shows patterns and relationships. Within urban examples, he looks at the level of homogeneity and heterogeneity of an environment to determine the meaning and character.

The extensive use of examples, are very useful throughout this book, however some of the examples given can be hard to relate to in certain circumstances where a different culture or religion is given. This may be due to the reader from another culture who has no knowledge or experience of that culture described. Looking back on the examples used there is a cluttered amount of images within my head that sometimes can amount to confusion.

Rapoport within this book has achieved his goal to set out this approach as clear as possible to relate and bring together previously unrelated findings and facts. The author has first been specific due to the simplistic and direct approach that non-verbal communication has to offer. It is thus simple and straightforward to use. The use of cross-culture examination adds to the clarity and strengthens the effectiveness of decoding characteristics of fixed, semi-fixed and non-fixed elements and cues can quickly be discovered and understood. A general approach to the method of communication can be seen which relates to that of all products of human culture and that is easily referenced.

This is a book at the time of publication filled a significant gap within the field of the meaning of the built environment and that of essential reading. I would ultimately recommend this book to both my colleagues and anyone interested with this field. It has a clear and simplified approach that can be easily understood by anyone. The book opens up questions within my mind about perception of things, something that we architects may take for granted due to the self-evident nature of any environment. We architects find ourselves looking too much to the context of the modern movement which had seen an attack on the users meaning. We need to step back, consider a non-verbal communication approach to each project and implement to prove successful architecture.

Environmental Psychology in Building Design
Review by Ryan Ward

Environmental Psychology in Building Design
John Brebner
First edition
1982
Essex¬¬, London, United Kingdom
Applied Science Publishers Ltd
211 Pages
ISBN: 0-85334-969-X
Hardback

The author of Environmental Psychology in Building Design, John Brebner, is a psychologist at the Department of Psychology, University of Adelaide, South Australia. He has written this book as a psychologist, aimed at people within the design discipline, with the hope of drawing attention to psychological factors and

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their impact in the effectiveness of the built environment. The book, published in 1982 by Applied Science Publishers Ltd, Essex, was part of a series called Architectural Science Series, which looked at the application of the physical sciences to architectural design. However, Brebner's book, like several other books in the series, for example, Sound, Man and Building by Prof Schaudinischky, was different because it was concerned with social science and design. However Brebner's book was to take a further step by merging both the applications of social and physical science to architectural design within one book. As Henry J. Cowan states in his foreword, "Dr Brebner's book is therefore particularly welcome because it combines, as far as I know for the first time, the application of physiological and psychological principles to architectural design." The book, now sixteen years old, was clearly bringing together for the first time, two principles which in the real world are connected, yet until this book had been considered separate in the design world. However, as stated in the book, at the time science had not advanced enough to answer many of the points he brings up in the book, but it asks questions which we as designers must answer to satisfy users and their environment.

It is evident from the book's title, Environmental Psychology in Building Design, and indeed throughout the book, that Brebner has aimed his work at a specific audience. In Henry J. Cowan's foreword he makes a note to the audience, 'Few architects today doubt the relevance of physiology and psychology to their work'. I felt it was clear throughout that the book was aimed at people within the design industry and more specifically design within the built environment, for example, architects and

members of the architectural design team, such as planners, engineers and surveyors. He also mentions that he hopes the book will help forge interactions between people within different fields of study. As a psychologist, he was setting out to put across his area of expertise to members of a completely different profession, whilst also bearing in mind that we all have a collective goal; that is to maximise design and function throughout the built environment to the satisfaction of the people using them.

I do not believe that Environmental Psychology in Building Design broke any new ground when it was written in 1982, however I do feel that by trying to merge both physical and social science within one book, Brebner was trying to bring together different areas of research within the built environment and make people from separate fields come together and use their collective knowledge to gain a greater overall understanding of how we use the built environment.

The book begins by looking at the issue of ergonomics and human cycles; anthropometrics, types of movement and the frequencies of body functions. Brebner makes the point that there is a lack of up to date data available to designers within this field, particularly as there is no such thing as an average person. Brebner looks through the differences in gender, country of origin and general ethnicity and how these need to be accounted for throughout the design process. Although an understanding of these factors will not overcome all problems within a building, he does suggest that it will minimise general mistakes and risks in a design, giving many examples, such as a chair and a desk, and the relationship between heights of

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arms, legs and movement of a user at a specific height of desk.

Brebner then goes on to look at psychological factors, and how we as people arrive at our individual interpretation of the world. Brebner talks about our long term memory and short term memory and how these affect our perception of the environment we live in. Although it is only a brief overview of how we store memory, it is an interesting topic, which Brebner backs up with two very simple yet stimulating picture exercises. I feel the use of these exercises is an effective way of bringing a theory based topic into the minds of a more visual profession, such as an architect.

Because vision is the principal source of information about the world around us, the scope and limitations of this system, according to Brebner, are key factors for ergonomics, general lighting and visual performance within a building. To understand their effects he gives us some details on the structure of the eye. We then move on to illumination, and he makes the point that illumination cannot be taken as a single variable, but it is linked to the workings of the eye among other variables, such as the variability in peoples vision. These topics all come under the heading of ambient conditions. Brebner also mentions the effects of temperature and humidity, explaining how an individual's performance deteriorates if he or she has to increase, conserve or lose heat. Noise is the last issue within this topic, making the issue that noise is unwanted sound, yet psychologically it makes no difference, as the process of hearing both are the same. Brebner makes the point that the key with ergonomics is to "reduce the effects of noise and to maintain

effective sound communication."

Throughout the book, Brebner constantly refers to the working environment, and in the next chapter examines the workable environment in detail. This chapter is primarily concerned with ergonomics and general elements within a working environment. Brebner examines objects like keyboards, switches, levers and handles, as well as looking at postures. He also investigates how ergonomics can affect spaces and how people use such spaces, by examining how individuals move through a building, for example, through a corridor.

Brebner finally focuses on how interactions between people and objects within a built environment shape the human behaviour that occurs there. I feel this is the first area in the book where ergonomics and environmental psychology merge, as he states that the interaction between people within a space needs to be borne in mind as much as the arrangement of objects and spaces. As Brebner is a psychologist I had expected these points to be picked up on a lot earlier in the book, whereas initially the main focus seemed to be on the discipline of ergonomics.

Early in the book, Brebner occasionally uses diagrams, pictorial experiments and photographs to back up his arguments. As he was aiming the book at a mainly visual profession, that is, designers, I feel it is one of the strongest elements of the book. I do feel however, that Brebner could have continued this throughout the book. Overall I found the book relatively easy to read, and I liked Brebner's direct approach with his writing and his constant use of examples to place his thoughts into a built reality.

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I believe this book is an interesting read for any architecture student, and certainly one I would recommend to my fellow classmates. However, I feel that if people are looking for answers to questions they have regarding ergonomics or behavioural factors, this particular book may not provide the answers they are looking for. Brebner constantly asks intriguing questions and makes statements within the issues, yet he has no conclusions to the points raised. I certainly feel this book could be of value to any student of design, be it architecture or any other form, as it is a book that makes you consider, and indeed reconsider, your own preconceptions on the role ergonomics and environmental psychology can play within the built environment.

Architecture and Identity, Responses to Cultural and Technological Change
Review by Lyndsey Magowan

Architecture and Identity, Responses to Cultural and Technological Change
Chris Abel
Second edition
1997 (1st.) 2000
Oxford, United Kingdom
Architectural Press: An imprint of Butterworth-Heinemann
261 pages
ISBN: 0750642467
Paperback

The book is compiled of a series of theoretical discussions and case studies, which reflect the author's mode of thinking at the time of writing. There are recurrent themes throughout the book; these include, identity, analogical thinking and the use of metaphors in architecture. The author is concerned with understanding and explaining the complexities of architecture, often visiting various parts of the world in search of answers and asking new questions, which have led to invaluable insights. His commitment to increase the responsiveness of architecture is evident throughout. This book provides an informative insight into the technological advances and the global perspective on the changing nature of modern architecture.

First published in 1997 with the second edition in 2000, it is a recent book in which the author discusses his ideas on diverse issues such as history, technology, philosophy, science and environment.

Abel refuses to be constrained by any single analogy or line of thinking and clearly demonstrates the importance of the advances of technology in architecture design. He engages the reader about diverse ideas spanning a range of topics.

The book is aimed at architects, developers, planners and students. Abel has strong views concerning the way in which architecture schools are run and states that, "more radical educational and administrative solutions will be required to bring architecture schools into line with industry and practice". He goes on to stress the importance of links with industry and practice, and strongly believes more is needed to better equip the graduates with the interdisciplinary skills required.

In his essay about bio-tech architecture he explains how it uses smart technologies to achieve a dynamic, interactive relationship between a building, its users and its environment. Although very informative, it was difficult to understand and grasp the concept.

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The essays presented cover an unusual range of topics and contain substantial undertones of the "state-of-the art" of architectural theory at the time. He has tested his ideas against a vast range of cultural and geographical situations across both developed and developing world. Through the book he further explores and adds to diverse ideas.

When discussing 'Decentralization' in the chapter entitled, 'Urban chaos or self-organization', Abel explains that the major forces of urbanisation in recent years have meant defragmentation of the traditional city form into a dispersed pattern. This breakdown of form stems from "fundamental changes in technology, income levels, family status and consumer taste." He provides further insight and explanation into difficult theories and shows a well-travelled appreciation of images and pictures from all over the world and also evidence of extensive research, which applies on a global scale.

In general the book was well structured and formatted. I liked the way the book was broken down into three parts. Part one focused on new ideas in science and technology and the chapters aimed to increase our awareness and understanding of the complexities of human behaviour. Part two was a combination of essays concerning architectural theory, criticism and analogical reasoning. Part three contained essays which were concerned with issues on a larger cultural and global scale, for example, 'Globalization and localization'. The index and bibliography were more than adequate and I found them useful and informative. However, one point of contention is that there does not seem to be an obvious flow or connection between each chapter; each chapter taking on a different topic.

Generally, the language used by Abel requires the reader to have prior knowledge of architecture to fully appreciate the dense and detailed analysis of information. Many of the chapters require a more in depth philosophical understanding of his architectural premise.

In part one, he creates a particular interest in how the bio-tech architecture workshop was created in response to the isolation, complacency and lack of vision which generally governs architectural education everywhere. We gain a greater understanding how to equip students with the use of responsive technologies which can be used to design buildings specific for place, purpose and climate.

Throughout, he articulates clearly how the language analogy in architecture is used to extend our knowledge. Analogies and metaphors are used as, "creative tools to instigate thought and structure research."

In referring to architecture as a language, he portrays it as a "voyage of discovery into the unfamiliar territory of architectural meaning." He further demonstrates how architecture is multidisciplinary and often hard to define and highlights the problem when analogies are taken too literally, and stresses the importance of striking a balance between reasoning and criticism.

At times I found his style of writing quite difficult to follow for example when he relates back to Darwin and his theories of evolution. Nonetheless, I did find some of his concepts enlightening in particular his comparison of Hans Scharoun's

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Philharmonie and Mies Van der Rohe's National Gallery, each as language of organic and classical architecture respectively. He compares the two buildings as crossing between "different worlds of reality". Each building is a masterpiece of its own kind but Scharoun's concert hall is better appreciated from the interior whereas Van der Rohe's is better appreciated from the outside. He states that when we compare one building with another, "we compare distinct languages...each offering a different interpretation of reality".

When discussing new attitudes towards the integration of modern architecture with the natural environment, Abel describes Renzo Piano's work as a good example of how he "integrates advanced technology into historical settings in his urban renovation projects." He strikes a successful balance between technology and nature, achieving contemporary design as well as integration with culture and tradition.

I feel the author's aims have been met through his writing as he effectively conveys meaning especially through his understanding of the use of metaphors. Metaphors are commonly used in architecture criticism, and the intent is "to make full use of the emotional responses that words can arouse, so as to enrich the description of a building." I feel he provides a way to increase the meaning and responsiveness of architecture through his intellectual approach and his persuasive yet assertive writing.

Abel claims that the most successful examples in contemporary architecture are those that "abstract from the past what is still relevant today...by a process of analogy, project a vision of the futures out of the present." It is

clear that there is an emergent interest in architectural identity. This recurrent theme in the use of analogies represents the function of architecture and the formation of personal and social identities. Abel states that the principal metaphors used are "architecture as a language" and "architecture as space" but now more recently "architecture as identity". He proceeds to give examples of various writers analysing their ideas of which have stressed the importance of the ability to act with architecture in a personal way. Writers include, Amos Rapaport, John Turner, David Appleyard and Clare Cooper Marcuse. Abel states that "some of the most dramatic evidence of the complex relations between architecture and human identity may be found in processes of cultural exchange." He provides colonial architecture as an example as he explains how this is a process where people recreate familiar environments in "alien locations", in doing so they retain part of their identity. He describes architecture as "a way of being" and therefore use it as a way in which we know ourselves.

Analogies and metaphors are used extensively through his writing, he refuses to be constrained by any single analogy or line of thinking. The essays, which comprise the book, make it a manageable read. I only came across one spelling mistake/misprint, when describing Jan Kaplicky's project for a semi-underground museum integrating modern architecture with the natural environment and how it "makes effective use of proven energy-saving techniques, tucking the glass-roofed structure neatly into the base of the hill."

In conclusion, Abel describes the architect's role as needing to empathise with people and

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place in which they live in order to 'give form' to that identity. In the final essay on 'Asian urban futures', he interprets the ideas and concepts of four accomplished architect-planners. This provides an informative and enlightening discussion on how they hold similar yet differing approaches on development planning and urbanization. Abel states that their approach is "a composite of western and eastern ideas and values, reflecting a continuous process of cross-cultural exchange."

The best feature of the book is the format as it is a manageable read: divided into parts. It is well illustrated with photos and drawings and has a helpful appendix and bibliography. There are notes and references for every chapter, which is helpful. The worst feature is that many of the chapters require a more in depth philosophical knowledge and a glossary to explain some of the key terminology. Overall, I feel it was an informative and interesting read, which I would recommend to my colleagues.

Finally, I feel that Abel is successful in providing an up to date knowledge on various issues concerning architects and designers today. He conveys this on a global perspective. He demonstrates a wealth of experience and knowledge and through his style of writing one can sense he is passionate about his ideas and wants to convey these effectively to the reader through his persuasive writing.

The Language of Space
Review by Ronan White

The Language of Space
Bryan Lawson
First edition
2001
Oxford, United Kingdom
Architectural Press: An imprint of Butterworth-Heinemann
246 pages
ISBN: 0 7506 5246 2
Paperback

The Language of Space is a discussion of human psychology and architecture. It deals with the practical and fundamental principles within architectural design, and places much emphasis on how architects need to have more interest in the building occupants rather than the building itself. The following quotation emphasis the importance of such thinking, "We shape our buildings, and afterwards our buildings shape us" (Churchill 1943, as quoted in; Lawson, B., The Language of Space, Architectural Press, 2001, pg 194).

Although written by an architect the book often criticises architects, and how they need to get their buildings nearer to people's needs than they often do. In one particular chapter it even indicates that the origins of legal disputes between neighbours are a result of the work undertaken by architects and planners.

The Language of Space was first published in 2001. In relation to the subject of human psychology and architecture it is a relatively new publication, as the majority of books within this subject area having been written

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around the 1960's when criticism of the modern architecture began. One could argue that the current thinking on the subject has not changed greatly since 2001, although when compared to the 1960's publications, architectural trends and styles have certainly changed, today architecture is not only about the surface appearance, although it is about people and context, as The Language of Space discusses.

Analysis of The Language of Space would indicate that its intended audience is students. Not only is it written in a language that can be easily understood, although throughout the book the author often refers to architectural schools, students and the work they have undertaken. Within chapter eight (Space and Time), the author also discusses how students of architecture often aim to work out what their tutor wants them to do, and he believes that in doing so, the students thinking of architecture can become remote from how people behave in a building. A student as the intended audience is expected, as the author is Dean of the Faculty of Architectural Studies at Sheffield University.

One could also argue that as the book is written in the non architectural jargon, it would be quite suitable for a lay person, (a person from a non architectural background) to understand. One example of how the complex terms are broken down would be in Chapter four (Ways of Perceiving Space), where the author refers to the air traffic controller to describe redundancy in architecture.

In addition, The Language of Space would be a recommended book for practicing architects/ professionals to analyse, it would certainly increase their understanding of space, and give them a different approach on design, thus with an outcome of better designed buildings.

As I got into depths of the book I began to realise that the issues being discussed were common knowledge on how humans respect each other in space. When I say common knowledge, I mean this in relation to our behavioural manner in space everyday. We actually do perform in space as the book describes, although we never realise. I can clearly say that since reading this book it has broke new ground in my knowledge of this subject; not only have I began analysing my behavioural manner, although I have began analysing the behavioural manner of others also. As it is my ambition to become an architect, understanding human behaviour is the key to organise and structure space. "I take the stand that buildings are not primarily art, technical or investment objects, but social objects" (Markus, T., 1993).

The contents of the book are very well broken down, with chapters, sub-chapters, illustrations and diagrams which in my opinion give the reader a greater understanding of the particular discussion.

The chapters in the Language of space vary in relation to what they discuss. The earlier chapters place greater emphasis on understanding human psychology whereas the later chapters begin to relate this to architecture.

Throughout the book, the author speaks to the reader in a very personal manner. In one particular chapter he discusses how he would rather describe this topic face to face with the reader, or in a lecture, rather than write the book.

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He also describes in this personal manner, how the book was rewritten and redrafted several times. Although only a minor weakness, I felt its drafting to be slightly confusing in relation chapters overlapping. Or how the author would start to describe a particular topic, and then indicate that he will look at it in greater depth in a chapter to follow. If a take an example of behavioural setting, this reappears as a sub-chapter within both chapters one and two, although in Chapter six (Proxemics), it is discussed again in relation to furniture, and how furniture can restrict the occupant's ability to create the behavioural setting needed to undertake the task involved.

Before reading particular chapters I had preconceived ideas of its discussion from the title, although these ideas often turn out to be incorrect. An example of which is discussed in chapter two (Space and the Human Dimension). Within this chapter the author discusses identity. I automatically assumed that this would relate to how each individual has their own identity and this does not change. Although I soon came to discover that spaces created within architecture changes one's identity, and how architects can control the identity of others. The author uses an example of a waiter and how he changes his identity from the dining room to the kitchen.

In chapter eight (Space and Time), the author discusses how architects usually have a design approach that 'form follows function'. He indicates that the problems associated with such approach are that architects do not understand function as well as they think. The author expresses that a good first step in changing design theories would be to take an approach of function following form, although I feel this approach will take time to evolve. This aspect and indeed other aspects that the book addresses are becoming increasingly evident in recent architectural designs, Europe in particular, with a large emphasis on context, and creating spaces that respond to our behavioural needs. One such recent example would be the Universita Bocconi, Milan, (by Grafton Architects Dublin), which received world building of the year at the first ever World Architecture Festival 2008; "It seems locked into place" (Stern, R., 2008, the chairman of the super jury). Although one could argue who was on the jury, was it persons from the architectural profession or people who actually use the building? I can inform you that it was persons from the profession; do I need to say more?

This leads me to discuss a topic in chapter one (Space as a Language). A section in this chapter focuses on how architects establish a jargon and communicate in a different language to that of a lay person. Even if the Jury at the World Architecture Festival had consisted of architects and lay persons, would they have been able to reach a unanimous decision through using this architectural jargon, or would the architects have had to adopt a different language that others could understand.

Apart from the minor overlapping issue which I discussed earlier, the book is extremely well formatted, the subsections within each chapter help break down the content therefore making the book more legible. In addition there are a range of diagrams and pictures within the book which are very useful tools to achieve a better understanding of the topics.

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All in all I thoroughly enjoyed the content of book and I have no doubt that it will be of benefit to me in my architectural career.

Not only would I recommend The Language of Space to architectural minds like my colleagues, although I also recommend it to the non architecture mind (a lay person) to read. In doing so the lay person could understand the jargon used by architects, and therefore be able to become more involved in the design process, thus the outcome: a better designed building. In addition it would also help the non architectural mind realise that there is more to architecture than what is seen from the external appearance.

References

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