

Blueprints for a History of Environmental Psychology (II): From Architectural Psychology to the challenge of sustainability

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Abstract

This is the second of two papers on blueprints for a history of Environmental Psychology. We have determined four stages: the First Environmental Psychology, the American Transition, Architectural Psychology, and Environmental Psychology for Sustainability. The previous paper dealt with the former two stages. We located their origins in early twentieth-century in Germany, with Hellpach and other authors who spoke specifically about Environmental Psychology. Definitions of boundaries of this stage are somewhat fuzzy. The period projects themselves until the 1930s, with the migration of a significant number of German psychologists to the United States. Thus began the "American Transition". In this stage, that brings us to the end of the 1950s, we followed the trace of the discipline during a time when it was uncommon to speak about the existence of an Environmental Psychology. However, it was at this time that a large part of the theoretical foundations of subsequent stages were established.

This paper describes what some authors call the "Second Birth of Environmental Psychology" (Kruse and Graumann, 1987), and what we label as the "Age of Architectural Psychology". In the description of this period we identify a crisis of relevance and an epistemological crisis at the end of the 1970s which, in the 1980s, gives rise to a two-fold shift – both social and green – that results in the formation of a new Environmental Psychology aimed at sustainability at the turn of the century.

As a 'blueprint', this series of papers does not intend to offer a comprehensive review of the contributions made to the field, but rather aims to provide information in order to understand its strengths and weaknesses, its common ground and contradictions, and, in short, its construction as a theoretical and applied science.

THE AGE OF ARCHITECTURAL PSYCHOLOGY

Architectural Psychology, as the third stage of Environmental Psychology, also has fuzzy boundaries just like its predecessors. It began in the late-1950s and early-1960s, and ended in the late-1980s. A significant amount of texts on the relationship between behaviour and environment appeared in this stage. Mainly of them were focused on built surroundings. Furthermore, it gave rise to an abundance of calls for meetings or conferences on the subject of Environmental Psychology or Architectural Psychology. The stage concludes with the consolidation of what we call the two-fold social and environmental shift of this field – another fuzzy transition period between 1988 and 1992.

In this era, the evolution of Environmental Psychology was clearly stimulated by external social and contextual demands originating from two sources: firstly from architecture, preoccupied with constructing more practical and comfortable surroundings; and secondly from the shared concerns of other disciplines faced with the environmental-ecological issue in which psychology was present in a more nominal than real way. However, the emphasis on built surroundings distinguished psychology from what was more commonly understood as “environmental”. This double trend was clearly reflected in the most emblematic text (although not the first) of this time: *Environmental Psychology*, edited by Proshansky, Ittelson and Rivlin (1970). The editors took great effort to outline a broad spectrum of Environmental Psychology, linked to the rising environmental sciences (as they state in the book's introduction), including as much the relationship between behaviour and problems with environmental resources, as the production, uses and effects on the environment. However, the bulk of the chapters of the book are dedicated to the built environment, and not specifically from a “green” perspective. The Environmental Psychology of this period, then, was to be in fact a psychology restricted to architecture, in a lesser extent to urban dynamics, and only marginally focused on environmental-ecological aspects.

The scope of the object, the interdisciplinary nature of the field of study, the theoretical approach, etc. brought about the coexistence of different labels: “Architectural Psychology”, as the first name used in both the United States and in Europe in the ‘60s and ‘70s; “*Environmental Design and Human Behaviour*” (Krasner, 1980); “*Ecological Psychology*”

(in Barker's sense, 1953, 1968); "*Psychologie de l'espace*" in Francophone area (Moles and Rohmer, 1972), and some other less significant names. In 1964 Ittelson was to use the generic term "Environmental Psychology", for the first time in this era, in a conference in the United States of America. This same label was also used by David Canter and Terence Lee in 1973, as the title given to their Masters degree course at Surrey University in Great Britain. "Environmental Psychology" and "Architectural Psychology" were to cohabit for some years yet as generic and almost synonymous terms.

Initial Milestones and the Consolidation of Architectural Psychology in North America

In the early days of Architectural Psychology in North America, works on spatial behaviour in psychiatric centres and hospitals took place as one of the initial demands. The works of Osmond (1957) and Sommer and Ross (1958) offer an example of this. Also, in 1958, William Ittelson and Harold Proshansky developed a project at the City University of New York (CUNY), on factors that had an influence on the design and function of psychiatric hospitals. This was to be one of the bases of both the Environmental Psychology academic program at the CUNY (created in 1967) and of the first textbook on the subject (the aforementioned text by Proshansky, Ittelson and Rivlin, 1970). Almost at the same time, Roger Bailey (an architect), Calvin Taylor (a psychologist) and Hardin Branch (a psychiatrist) started a training programme for architects and psychologists, and called for an interdisciplinary meeting in Salt Lake City under the name of "Architectural Psychology and Psychiatry" (Bailey, Branch and Taylor, 1961). Later the programme was to be run eventually by Irwin Altman. Also relevant at this time was Lawrence Good's work in the Topeka State Hospital Research Fund.

As Bechtel recounted (1997), in December 1956, the American Institute of Architects, with this broader approach, suggested to the National Science Foundation to support a meeting to analyse the relationships between the physical, biological and social sciences with the aim of getting the maximum use out of environments designed to accommodate human activities. This conference took place three years later (1959) in Ann Arbor, Michigan, and was called "Research for Architecture" thus not mentioning other fields involved (the proceedings

were edited by Magneau, 1959). Finally, the “Conference of the American Hospital Association on Hospital Planning” in 1964 saw Ittelson using the title “*Environmental Psychology and Architectural Planning*” which set the name of this field in stone.

Also in this time, anthropologist Edward Hall's *The Silent Language* was published in 1959, with great success. The book introduced the concept of proxemics and personal spaces. This line was continued in subsequent books that were also of great success: *The Hidden Dimension* (1966) and *Handbook for Proxemic Research* (1974), and similarly those by other authors, mainly Robert Sommer's *Personal Space: The behavioural basis of design* (1969).

In 1966, the publication of a monographic issue of the *Journal of Social Issues* edited by Kates and Wohlwill stood out. In 1968 the first of the “Environmental Design Research Association's” (EDRA) annual meetings took place in North Carolina, and in 1969, EDRA were to create the first scientific journal on this field under the title “*Environment and Behaviour*”.

Putting an end to the change in name, Environmental Psychology in North America, unlike Europe's, experienced a period of “tranquillity” and of regular books and textbooks production during the '70s to the late-'80s, which in Kuhnian terms we could describe as a period of “normal science”. The first textbooks by Proshansky, Ittelson and Rivlin, Bechtel, Bell and contributors, Hollahan, Stokols and a long list of referential texts where published during the '70s and '80s.

It was the age when the main university training programmes were being created – the majority with the name “Environmental Psychology”. This is the case with the aforementioned CUNY's Masters degree – one of the most influential since its founding in 1967 until the present day, which was to train and incorporate other names that were to become important and influential in the discipline and in social policies, such as Roger Hart (a significant consultant of UNICEF) or, in the more anthropological field, Setha Low, among other important figures. Other programmes could be found in the University of Arizona's Psychology Department with Robert B. Bechtel and William Ittelson; in the University of Utah's Psychology Department in Salt Lake City with Irving Altman; and there were other less-known programmes. The University of California in Irvine, Los Angeles, incorporated Environmental Psychology in its program

on “Social Ecology” with Dan Stokols, Gary W. Evans and others. Also, subjects on Environmental Psychology were included in many architecture and psychology establishments with mixed programmes. The University of California in Berkeley deserves a special mention with the architect Donald Appleyard, and the psychologist Kenneth H. Craick and its Environmental Simulation Laboratory.

Initial Milestones of Architectural Psychology in Europe

During the post-war period in Europe, the intense activity of urban reconstruction combined with the failure of some existing plans already being carried out brought about an architectural opening in social sciences. In this context Terence Lee, a disciple of Bartlett, developed his doctoral dissertation in 1954 on self-sufficient housing and neighbourhoods (Lee, 1968). In 1957, he was to begin investigating and publishing on the effects that school refurbishments had on children, as the closure of small schools in rural areas meant they had a daily journey to town centres. Terence Lee was to be Great Britain’s pioneer in Environmental Psychology, although he himself acknowledged at this time he defined his work as social psychology (Lee, 1984, personal communication).

The first formal act of this preface in Europe was a symposium held in 1963, called by the Scottish branch of the British Psychological Society. Marie Jahoda participated in it (Lee, 1984, personal communication), constituting a link with the period of “First Environmental Psychology” (aforementioned in the previous paper). What can be considered as the “definitive” constitution of Architectural Psychology in Europe was to be the 1969 meeting in Dalandhui, also in Scotland, summoned by the University of Strathclyde and RIBA (Royal Institute of British Architects) and instigated by Terence Lee and David Canter. One year later, in the Kingston Polytechnic, the first International Architectural Psychology Conference (IAPC), predecessor of the current IAPS (International Association for People-Environment Studies) was held. In this first conference the *Architectural Psychology Newsletter* (now the *IAPS Bulletin*) was created. Since 1970, the IAPC first and then the IAPS since 1982, have called for international conferences every two or three years, mostly taking place in Europe. The unsettled history of this time in Europe is documented in Pol (1988, 1993).

The IAPC identified itself with the label of Architectural Psychology until 1981, but in 1973 Terence Lee and David Canter created the first academic programme in Europe at the University of Surrey. Following the trend in the US, they called it a Master in “Environmental Psychology”. Later, the responsibility of program will be taken by David Uzzell and recently by Birgitta Gatersleben. In 1981, Canter was also the driving force behind the *Journal of Environmental Psychology*, co-edited with Kennet H. Craik from Berkeley. Thus in Europe the generic terms “Architectural Psychology” and “Environmental Psychology” co-habited for a time.

In Sweden, the role of pioneer can be attributed to the architect Sven Hesselgren. In 1954 he presented his thesis entitled *The language of architecture*, which basically concentrated on the perception of architecture. In 1965 two psychologists, Tony Gärling and Rikart Küller, joined his investigation team in the Swedish Council Building Research (Hesselgren, 1984, personal correspondence). In 1967, Carl-Axel Acking, the Professor of Architecture at Lund University, called for the first *Architectural Psychology Conference* which since then has taken place at regular intervals. After this first conference, in 1968 the “Swedish Society of Architectural Psychology” was founded, which is now the “Environmental Psychology Group” of The Swedish Research Council.

The French-speaking world coined its own term: “Psychologie de l’Espace”. In France’s case we have to return to Paul-Henry Chombart de Lauwe (1956, 1959). In 1949, he began his work on society, space and living conditions in the city of Paris. His wife, Marie-José, was in charge of the psychopathological effects of the environment on maladjusted children (M.J. Chombart de Lauwe, 1959) – a theme that Sivadon was to return to in a more general manner in 1965. For their part, Abraham Moles and his team institutionalised Spatial Psychology in the Social Psychology Institute of the Louis Pasteur University in Strasbourg (Moles and Rohmer, 1964, 1972; G.N. Fisher, 1981; Korosec-Serfaty, 1976). The label “Psychologie de l’Espace” was also used in other Francophone areas, as is the case of the Louvain-la-Neuve School of Architecture’s team in Belgium, with Jules Gerard Simon, or that of the Lausanne Federal Polytechnic in Switzerland, with Giles Barbey. It wasn’t until the end of the ‘70s that the use of “*Psychologie de l’Environnement*” was standardised with Claude Levy-Leboyer’s book (1980), which was

immediately followed by Jean Morval's *Introduction à la psychologie de l'environnement* (1981).

In Germany, it wasn't until the '70s that an Environmental Psychology comparable to that already consolidated at an international level emerged. This is what Kruse and Grauman (1987) called the "second birth" of Environmental Psychology. Between 1973 and 1975 Kaminski and the German Psychological Association organised two seminars to commemorate the 50th Anniversary of Hellpach's *Psychologie der Umwelt* that brought about the first reference book of the period, *Umweltpsychologie: Perspektive, Probleme, Praxis* edited by Kaminski (1976). As the editor himself showed, there was no sign of previous texts from the post-war period. Well into this period, Alexander Mitscherlich's psychoanalytic analyses of the problematic urban environment – *Psychoanalysis and urbanism* (1963) and *Our Inhospitable Cities* (1965) – emerged, which were systematically ignored and even verbally attacked largely by the area's experts. From the '70s onwards a certain amount of investigation units and partial training programmes emerged with Gerard Kaminski in Tübingen, Lenelis Kruse in Heidelberg, Martin Krampen in Berlin, and Wolker Linneweber at the University of Saarlandes, who also collaborate with the University of Magdeburg with Urs Fuhrer and Petra Schweizer-Ries focused on renewal energies. At present, an annual Environmental Psychology Conference is held in Germany with great vitality, and the *Umwelt Psychologie* journal is regularly published.

In Italy, during seventies and eighties, it we have to mention three groups: in Padua (with Erminelda Peron), in Bologna (with Gianfranco Secchiaroli) and in Rome (with Mirilia Bonnes of the University of Sapienza, and Maria Vitoria Giuliani of the CNRS). Equally at this time, activity from Toomas Niit, Mati Heidmets and Jusi Kruusval was beginning to emerge in Tallinn, Estonia, even inside the USSR's area of control.

In Holland, the Eindhoven Polytechnic's team was beginning to shine in the field of Architectural Psychology with Joost van AnDEL, and later with Jan Teklenburg. Recently Florian Kaiser joined the group, contributing with his work on environmental attitudes. In Groningen, Charles Vlek y Linda Steg (2007) stood out with subjects on risk, environmental management and transport (Steg & Gifford, 2005). In Leiden, Henk Staats with his studies on preferred landscapes (Hartig & Staats, 2003) deserves a mention.

In Spain in the 1950s we find some antecedents in authors that, without being environmental psychologists, were to be the first to give isolated courses on “Space Psychology” and “Environmental Psychology” in the ‘70s. This was the case of Miquel Siguán who in 1959 analysed migrations from rural areas to the cities, focusing on the living conditions in the marginal neighbourhoods. In this same period were the first works of José Luis Pinillos. This author took environmental influence from his training in pre-war Germany (in previous work – Pol, 1993 – we have considered he one of the “missing links” between the first and second Environmental Psychology). Of this author, *Psychopathology of urban life* (1977) should be given special attention. For their part, from an architectural stance, Josep Muntañola’s enthusiasm for the discipline, and his works on the notions of space and city in children (1973) also merit attention. Finally, Tomás Llorens’s compilation of texts, *Toward an architectural psychology* (1973) – which includes texts by Canter, Stringer, Sommer and Lee – also deserves a mention.

In the 1980s, first compilations (Jiménez Burillo, 1981) and monographs (Pol, 1981; Hernández, Riba y Remesar, 1983) were already appearing. From 1979 onwards, Josep Muntañola, Montserrat Morales and Enric Pol came together to create the *Conference on School Environment: Psychological, Educative and Design Problem* (Pol & Morales, 1980, 1981, 1986; Pol & Morales & Muntañola, 1984). This same group were to organise the IAPS International Conference in Barcelona (1982) with the support of Siguán.

At an Spanish level, 1986 was to be an emblematic year with the “First Conference on Environmental Psychology” being held in Madrid (Jiménez Burillo, Aragonés and Corraliza, 1988). From then on, similar meetings have taken place every two to three years. Also in 1986, the first textbook by Spanish authors was published (Jiménez Burillo and Aragonés, 1986) and other reference texts emerged the following year from authors such as Corraliza (1987) and Fernández Ballestros (1987). Spain’s Environmental Psychology has from the beginning been largely linked to Social Psychology, but with a strong presence of methodologies from a variety of directions (Anguera, Blanco, Guàrdia, Fernández-Dols, Íñiguez, etc). In Seville in 1988, Ricardo de Castro, the first professional of Environmental Psychology in public administration, planned the first conference on contributions from his field to the conservation and

management of the environment (Castro, Aragonés y Corraliza, 1991). In 2000, Bernardo Hernández of the University of La Laguna – another of the pioneers from the '80s – initiated the publication of the first Environmental Psychology journal in Spanish: *Medio Ambiente y Comportamiento Humano* (MACH).

In Europe, the level of academic institutionalization was very uneven. As well as Canter and Lee's Masters degree course at Surrey University, which began in 1973, many centres with partial programmes, research groups, Doctorate programmes or basic courses were set up (or consolidated in Canter and Lee's case). However, some pioneering courses were also disappearing, such as that of Spatial Psychology at the Louis Pasteur University in Strasbourg (due to the death of Abraham Moles in 1992 and the disbandment of Nicholas Fischer and Perla Korosec-Serfaty). Other courses were created, such as the "Master in Environmental Intervention and Management: People and Society" in Barcelona in 1987 by Pol, Morales and Muntañola, to which Íñiguez also became a part of, or the "Master en Psychologie Environnementale" of Paris-5 University, created in the early-'90s by Gabriel Moser that they are still running today. At present, other partial programmes or subjects on Environmental Psychology are established in Italy, Holland, Germany, Spain, Portugal and so on.

Spreading to other continents

Meanwhile, from the '60s but especially during the '80s and '90s, Environmental Psychology was reaching other continents. The Environment-Behaviour Studies course at the University of Sydney, Australia had already begun in the '60s with the appearance of naturalistic-orientated works and evaluations on environmental impact, as innovative components (Thorne & Hall, 1987). This is now run by Gary Moore. In 1980, this group were to promote the creation of the PAPER association (People and Physical Environment Research) which defines itself in the Australian and Asian domain. In 1982, MERA (Man-Environment Research Association) was created and run from the Osaka Architecture Department in Japan. It combined its own old tradition and influence from international Environmental Psychology with a certain emphasis on disasters, crowding and pollution (Hagino, Mochizuki & Yamamoto, 1987). In the University of South Africa, Johannesburg,

Henning Viljoen, Fred Van Staden, Kate Grieve and Vasi Van Deventer (1987) published a very comprehensive introduction to Environmental Psychology for their courses. More recently, in China, EBRA (Environment-Behaviour Research Association) has appeared which held its First International Conference at the University of Nanjing in the year 2000.

In Latin America, the first contributions also occurred in the late-'70s and early-'80s. We have to mention Esther Wiesenfeld and Euclides Sánchez (Caracas, Venezuela) who focused on the relationship between the environment, community, social housing, and participatory processes. In the National Autonomous University of Mexico (UNAM) the pioneer was Serafín Mercado. In 1984, together with Patricia Ortega, Javier Urbina and María Montero they created a Master in Environmental Psychology. Subsequently, already in the '90s, it is necessary to mention Bernardo Jiménez and Rosa López in the Master in Urban Studies at the University of Guadalajara. Javier Guevara in Puebla, and Gabriela Luna in the University of Guanajuato worked on public policies and citizen behaviour in waste management. One of the most famous Mexicans is Víctor Corral-Verdugo of the University of Sonora, who was an indisputable point of reference concerning issues of environmental concern. In Brazil, Jose Pinheiro created a group in Natal and led the Latin American Network of Environmental Psychology (REPALA), Hartmut and Isolda Günther lead the laboratory in University of Brasilia, and there is also a laboratory on the field in the University of Sao Pablo, with Eda Thassara.

Schedules, perspectives and crisis

The agenda repeatedly established during the '60s and '70s, whether by Kates and Wohlwill (1966) in the aforementioned monograph *Journal of Social Issues*, or by Proshansky et als.'s reference book (1970), or by Krasner (1980), to mention but a few, always covered a broad spectrum (from environmental concern to architectural psychology). But, on the other hand the vast majority of texts and works ended up referring to architectural issues even more than to issues of town-planning.

In the initiation and referential works – such as that of Proshansky and contributors in 1970, but also in subsequent texts like Holahan's (1982) or the first editions of Bell, Fisher and Loomis's textbook of 1978 – there was a significant volume of discursive texts dedicated to the urban dimension and to the radical transformation that American towns

at the time were suffering. There was a constant reference to the School of Chicago and its followers' legacy and tradition, to symbolic interactionism, and to Goffman, Koffka, Lewin and Murray; to Sherif, Festinger, and of course to Lewin, and no end of socially orientated antecedents that we have mentioned in the first and second stages. On the other hand, the majority of works at this time appeared in conferences and journals focusing on evaluating individual reaction to specific architectural surroundings, whether to value their functional effectiveness, their acceptance by users or their status as part of life's environment (in the case of quality of life and residential satisfaction, for example). The meaning and symbolic value of space were present in some macro studies, especially by architects, urban planners and other social scientists, but they rarely appeared in empiric works from psychology.

At the end of the '70s Proshansky introduced the idea of "Place Identity", (after attending the IAPC conference about the "Appropriation of Space", organised by Korosec Serfaty in 1976 in Strasbourg), with which the study of spatial symbolism in modern Environmental Psychology was consolidated (not created). Even this was criticised for adopting an overly individualist perspective (Valera, 1993), in spite of the recognition it received for its contribution to symbolic interaction. The same happened with previous studies on the design of psychiatric hospitals in spite of constant references to Goffman. In Irvine's case, in which environmental psychology is classified in a more sociological context, we found explicit references and academic acknowledgements to the School of Chicago's *Human Ecology* and *Social Ecology*, to Ecological Psychology in the style of Barker, Wicker, Willems, Shogun, Bechtel etc., as well as that of Lewin's *Action Research*, and to Bertalanffy, Maruyana and other authors of Systemic Theories.

From what has been outlined up to this point, we can draw some conclusions: first of all that the Environmental Psychology of this stage is above all an architectural psychology; secondly the factual definition of Environmental Psychology (not the intended definition) is above all an individual psychology. It is formally about incorporating the social question, but without leave individual models of explanations of behaviour, especially in empirical works. Although it emerged more like a social psychology in Europe than in North America, it also excessively

went over the individual models of explain the mainly social behaviours on which it focused. All this culminated in an epistemological crisis at the end of the '70s, which was not to be resolved until the '80s.

Inevitably this contradiction between the programmatic and the factual, the theoretical and the empirical, led to a certain frustration of expectations, to a relevancy crisis that could be interpreted as the "environmental" version of the social psychology crisis in the early-'70s, which here was to manifest itself with somewhat a delay. We can follow its trace in the pages of the *Architectural Psychology Newsletter* from 1979 until 1984 (see Pol, 1988, 1993). All this led to disillusionment – and the abandonment of interdisciplinary work with psychologists – for a significant number of less experimentalist-minded architects, sociologists and geographers. The architects did not receive the answers they had hoped for, even though there were some who in plain self-criticism pondered whether they had asked the right questions. On the whole, all of this resulted in a certain "disciplinary" confinement of Environmental Psychology, which on the other hand allowed the opening up of other issues that had been pushed aside (without forgetting about the architectural issues), although with less apparent impact among architects and urban planners.

The Two-fold shift of Environmental Psychology in the 1980s

The crisis of Architectural Psychology was not 'channelled' (more than closed off) until the end of the decade. Various events contributed to this, which, in our opinion, allowed a glimpse into the discipline's social and environmental two-fold shift, during the 1980s.

The "Social Shift" of Environmental Psychology

In 1981 Serge Moscovici and Denise Jodelet summoned some outstanding authors in Environmental Psychology to a meeting in Paris under the heading "Towards a Social Psychology of the Environment" (Jodelet and Stringer, in press). They debated explanatory potencies for Environmental Psychology that could involve theories such as social representations and others belonging to social psychology. This meeting is not well-known and is barely documented, but it has strongly influenced the future evolution of the discipline.

A second “indicator” of this shift is that some emblematic authors also defined themselves as applied social psychologists. This is the case of Frenchman Gustave-Nicolas Fischer (1981) with his *Psychosociologie de l'espace*, or of Proshansky (1981) with his contribution to the *Applied Social Psychology Annual*, edited by Bickman.

The *Handbook* of 1987, edited by Stokols and Altman, also reflected this shift in a certain way. This voluminous, canonical and fundamental text, compiled that which was being constructed on environmental psychology from a fuzzy beginnings (differents, according to the author and the country that he revised, in the second of its two volumes). In this handbook there is a recurrent attempt to speak about “socio-environmental” behaviour and to reach a position in the transactional paradigm by several authors.

The fourth event, that denote the “social shift” is a conference held in Lisbon, called “Social and Environmental Psychology in the European Context”. A select group of only 64 participants from various European countries, and some North Americans attended – Irving Altman being one of them, as Stephenson emphasized in his acknowledgements (Canter, Jesuino, Sockzka and Stephenson, 1988). In the resulting book Canter gave to his introductory contribution a significant title: *Environmental (social) psychology: an emerging synthesis*. This text has had a strong impact within the field. Canter revised the traditional trites on Environmental Psychology and argued how they cannot be understood nor explained beyond their social importance, and he tried to show that in fact the main referential authors of Environmental Psychology were already social in their approach, but that at times they were misunderstood. He restored the tradition of French Social Psychology and all the topics most characteristic of “social psychology” especially in Europe: social representation, attributions, action theories, social identity, socio-cognitivism, etc. This allowed a glimpse into the construction of a European Environmental Psychology that was more social than the North American one, this seem to be reaffirmed in the following years. We will find another example in the textbook of Bonnes and Secchiarioli (1992) *Psicologia Ambientale: Introduzione alla psicologia sociale dell'ambiente* (literally ‘Environmental Psychology: An introduction to Social Psychology of Environment’) – one of the first Italian texts translated into English. The most recent appearance of *Psychologie Sociale de l'Environnement*

compiled by Weiss and Marchant (2006) followed the same thread, as did *La psychologie environnementale* of Morval (2007) (a European that settled down in the Francophone Quebec), and the ascription of the majority of Spanish, Italian or French authors in the field of Social Psychology.

All of this shows Environmental Psychology's explicit trend to adopt Social Psychology's explanatory parameters and theoretical backgrounds. This is the "shift" that will be reflected in the thematic evolution and theoretical approaches of the following years. Its consequences can be resumed in: a change of approach, an evolution of the object of study and more methodological flexibility; movement of the object from the most structural approaches (functionality, cognition, etc.) to the most experiential and most symbolic (satisfaction, place identity, appropriation and attachment, etc.). Equally, the "basic" studies seem to lose specific weight, in order to yield to theoretical proposals mainly based on applied social research, among others.

The "Environmental Shift"

As we have already mentioned, psychology's preoccupation with "environmental concern" is nothing new. We already came across it in the '60s with Kates and Wohlwill (1966), in the '70s with Everret et al. (1974), with Cone and Hayes's well-known text *Environmental Problems, Behavioural Solutions* (1980), and with Aragonés's work on the natural environment (1985), among others (see Geller, 1987). Some works focused directly on the conservation of energy in the cases of Pallak, Cook and Sullivan (1980) or Blas and Aragonés (1986). But it is sporadic, with neither great visibility nor continuity. From 1987 onwards, but above all from 1992, the scene changed in the sense of the volume of works and publications on the issue, and its approach.

Canter (1992) described an increase in the Surrey student's interest in ecological issues. Since 1987, in the Barcelona Masters programme the ecological context at once became a central concern in education and in the applied works that it developed, marking the direction towards environmental management, as one of the said programme's contributions to the discipline (Pol 2002b, 2003a,b,c). Equally in the Spanish conferences, the "green" has had a significant presence since 1986. On the other hand, some works in the framework of the MAB programme (Man and Biosphere) of UNESCO were begun, linking urban

quality with environmental resources. One example is Rome's case (Bonnes, 1987) with the participation of Bonnes (Italy), Jodelet (France), Kruse (Germany), Stringer (Great Britain), among others.

But what really made the declaration of the "green shift" possible between the late-'80s and early-'90s was the abundance of publications focused on attitudes and behaviour in relation to environmental resources and "Environmental Global Change". The following papers are referential examples: Levy-Leboyer and Duron, 1991; Stern, 1992; McAndrew, 1992; Kruse, 1994; Gardner and Stern, 1996; Stern and Easterling, 1999; Schmuck and Schultz 2002, the evolution of the contents of both classic and modern handbooks (for example, Bechtel, 1997; Bell et al., 1996; Gifford, 1987, 1997; Aragonés and Amérigo, 1998, 2000; the same second *Handbook* of Bechtel and Churchman, 2002; or the text compiled by Moser and Weiss, 2003); and the appearance of monographs in general journals and in the field, such as *Journal of Social Issues*, *Environment & Behaviour*, *Journal of Environmental Psychology*, *International Journal of Psychology*, *Annual Review of Psychology*, *Revista de Psicología Social Aplicada*, *Estudios de Psicología*, *Medio Ambiente y Comportamiento Humano*. To it the reflection of sustainability in the subjects of the international conferences must be added. But this places us already well into the fourth and final stage of our history.

TOWARDS AN ENVIRONMENTAL PSYCHOLOGY FOR SUSTAINABILITY

The Brundtland Report and the Rio Summit posed the assumption that in terms of the definitive "visibility" of environmental matters in our society as a whole, characteristics such as habitat, health, energy resources and food supply are inseparable from social, individual and community dynamics. Bechtel (2000) spoke of an environmental conscience being the "third revolution of thought", after the Copernican Revolution and Darwinism. Within this context, it was seen in the nineties, as never it had before, how environmental management is above all the management of human and social behavior, which opens for psychology and environmental psychology a wide spectrum of new theoretical challenges, but also pragmatic and professional ones as well (Pol and Vidal, 1996). This idea has been reinforced by expanding environmental

legislation which has not ceased in calling for – at least formally – the need for the general public's implication in environmental matters (Moreno, 1998, Moreno and Pol, 2002) in their daily lives; the implication of taking decisions which require public oversight; social movements, environmental conflicts and civilian commitments (Dwyer, Porter, Leemeing and Oliver, 1997) as a way of overseeing the management of the responsible bodies involved. This will be one of the most important challenges for environmental psychology in the present period. As an example, for Paul C. Stern, (Stern, 1992, Gardner y Stern, 1996), member of *National Research Council's Committee on Global Change Research* in the USA, the main contribution of psychology in detaining, slowing or responding to global environmental change is to understand the human causes of this deterioration and present strategies that have a bearing on people's behavior. For Stern, Environmental Psychology must be centered on learning the proximal causes which not only relate to organizations, social structures, technology, the means of production and politico-economic decisions, but above all to the attitudes and values associated with each of them.

The previous aspiration of environmental psychology to contribute to the improvement of living surroundings (quality at any price) must be revised in light of growth limitations. We can no longer ignore, as the World Watch Institute warns us every year, the fact there are not enough natural resources in the planet for its entire population to live according to the current standards in the North/Western world.

Meanwhile, sustainability has become a “new positive social value” (Pol, 1998, 2002 a,b; Moreno and Pol 1999). Under the umbrella term of “Sustainable Development”, it seems that the interests of the world's leading institutions (i.e., the United Nations), business associations (i.e., the World Business Council for Sustainable Development and the work of Fussler and James, 1996) and ecology movements are now converging. But the average citizen is still more worried about their everyday lives. Nevertheless, the general public has partly integrated – somewhat abstractly and not always effectively – the idea that sustainability and environmental conservation are a key to survival.

Approaches and challenges

As has been previously mentioned, *environmental concern* is not a new object for environmental psychology, but now it has much more visibility and there are much more initiatives toward the problem than ever before. Treatment of this issue found from the nineties onwards has once again been shown to have a variety of opposing perspectives, of which can be schematized into two basic focal points:

1. Actions directed towards specific citizen behaviors, values and attitudes through support, penalization, modeling, feedback, information, publicity, etc... This approach includes early texts such as Kates and Wohlwill (1966), Pallak, Cook and Sullivan, (1980) Everett et al. (1974), G  ller and collab. (1977, 1980, 1982 and ss), a significant number of a series of articles and monographs in the *Journal of Social Issues* and to a lesser degree in *Environment and Behavior* and the *Journal of Environmental Psychology*, with more recent suggestions recompiled by Corral-Verdugo (1996, 2001, 2002) and Corral-Verdugo and Pinheiro (2004).
2. Actions concerning structural dimensions which may help facilitate sustainable behaviors. An example might be actions concerning social cohesion that promote tendencies toward sustainability as a character value different from the collective it belongs to or how citizens identify it, thus prioritizing social influence strategies. This includes texts on sociological fields in globalization such as Castells (1996), Bauman (1998) or Sassen (2006), the monograph *Environment & Behavior on the City-Identity-Sustainability Project* (Pol, 2002b), with its basis in social identity and shared values according to Tajfel, Turner and other theories on identity developed from environmental psychology from previous periods (Place Identity by Proshansky, 1978 a,b ; Proshansky, Fabian and Kaminof, 1983, Lalli, 1988, 1992; Rutherford, 1990; Valera 1993), the appropriation of space and the attachment to place (Proshansky, 1978a; Korosec-Serfaty, 1978; Low and Altman, 1992; Pol, 1987/1996; Hidalgo and Hern  andez, 1996) and certain approaches of community psychology in Latin America such as Montero (1994) and Wiesenfeld (1994).

But as Stern and Oskamp (1987) have suggested, we believe we know a lot about people's behavior but little about how to manage it. A large number of these contributions might be useful if we knew how fit them

appropriately into environmental management strategies. Environmental strategies have already been seen in the book by Proshansky et al. (1970). But the author of that chapter, Serge Boutourline, likened it to the administration of architectonic spaces. In the Handbook of 1987, environmental management is written in an adjective form, rather than a substantive one, in the chapters by Pitt and Zube (1987) on the Management of Natural Environments, and in that of Stern and Oskamp (1987) concerning Managing Scarce Environmental Resources. One of the facts that Stern and Oskamp highlight is that psychology has been limited to energy efficiency in residential environments, the basis of people's individual behavior, and the reduction and collaboration in selective collection of household waste, more from a perspective of the individual behavior of citizens, rather than the institutional management. Furthermore, many texts are largely programmatic, while few are truly oriented toward management itself.

One would have to wait until the nineties to find substantive contributions in this area. We see Levy-Leboyer and Duron (1991) and Kruse (1994) accepting the challenge and the actions need to face "global change"; McKenzie-Mohr and Oskamp (1995) provide an exhaustive summary of environmental problems needed to be affronted; Oskamp (1995), Gardner and Stern (1996), McKenzie-Mohr (1994), Winter (1996), offer solutions in the tradition of "classic" environmental psychology; Castro, Aragonés and Corraliza (1991) offer intervention programs to conserve the environment; Corraliza, Navarro and Valero (2002) apply the principles of Environmental Psychology to conservation and the satisfaction of nature reserves. Since 1988, environmental management has been one of the axes in the systematic development of programs for Environmental Management and Intervention: People and Society, in Barcelona. Pol and Vidal (1996) define areas and develop roles for psychologists in the professional field of environment management; Moreno and Pol (1999, 2002) propose a frame of reference for the theories on social and environmental psychology; along these lines is the *Handbook* by Bechtel and Churchman from 2002 which includes a systematic chapter devoted to environmental management, as do some reference books in other languages (Moser and Weiss, 2003; Nancy & Bonnes, 2003; Pinheiro, 2003).

Despite the growing amount of literature on the subject, the assessment done by Stokols (1995, 1997) is still valid; this is one of the least developed fields of environmental psychology. Environmental management remains a challenge for environmental psychology, which is still taking shape in the beginnings of the 21st century. But as in all intervention areas, maximum precaution must be taken so as not to promise more than is possible and resort to simple and reductionist cause-analysis (as warned by Oskamp 1995 and Miller, 1991) which, apart from distorting reality, brings the frustration and disillusionment which has occurred in so many stages of psychology, social psychology and environmental psychology.

Names, labels and disciplinary identities

One of the “traditional” problems of environmental psychology, revived in this latest period in attempts to face the *environmental concern* and sustainability, is that of labels. The question is: What label can unequivocally and comprehensively refer to the ecological matter, and in turn to the technological surroundings, the built environment and ecological movements? In fact, the label *Environmental Psychology* already broadly covers the most commonplace semantics with “environmental”. Within the field, the semantic content of this label comes pre-loaded through its reference to architecture, as we have seen earlier. This has caused a trend to emerge to qualify the term “environmental” with more adjectives or the field is simply taught under other names.

Therefore the perspective of sustainability and *Global Change* has been found in every slogan of the IAPS conferences since the 90's. On the other hand, in all the American conferences of the EDRA, this terminology only appears in three of them. Nevertheless, new “green” movements have emerged in the US within psychology itself. For example, in 2005, the Society for Human Ecology held a monographic conference on *Conservative Psychology* in Salt Lake City. This term had already been used in a monograph on the subject in the journal *Research in Human Ecology* published by Gene Myers and Carol Saunders in 2003. Among its articles include one by Schultz and Zeleny, in the circle of Oskamp and frequent contributors to the *Journal of Social Issues*. Similarly, in 2002 this same Peter Schultz from California, along with Peter Schmuk from Germany, compiled a book titled *Psychology for a Sustainable Development*, with

texts by authors from a broad geographical background, as well as several well-known authors such as Oskamp and Bandura, among others.

Another “logical” name might be *Ecological Psychology*, but this has been “occupied” by the Barker theory and its followers. On the other hand, in Germany it was agreed at the meeting of 1974 (as mentioned previously) to start the trend of using the term *Environmental* to refer to the first environmental psychology created by Hellpach and his followers, and the adjective *ecological* for contemporary psychology (Kaminski, 1976).

Less fortunate or insufficiently comprehensive labels have also been created, such as *the study of Responsible Ecological Behavior* (p.e. in Grob, 1990; Suárez, 1998/2000); *Pro-environmental behavior* in Corral-Verdugo (2001); *Environmental Concern* (p.e. in Bechtel, 1997) is a rather widely used term; *psychology and Global Change*, used by Kruse (1994), Levy-Leboyer and Duron (1991), Stern (1992), Heath and Gifford (2006). In an old work we ourselves have used the name ‘Green Environment Psychology (Pol, 1993), without being much convinced of it.

This discussion may seem somewhat banal, but it has importance for the identity of the discipline in this period. Not having clearly defined labels creates taxonomic difficulties and problems, such as locating works in the referred approach, when they are actually rather abundant. Furthermore, the establishment of new labels is usually followed by the creation of new disciplinary “territories” and “identities”.

One observation which can be made is that not a small number of well-known author in the “pro-ecological” field rarely use the label (or identify themselves as) of environmental psychologists: seldom do they define themselves as social psychologists either. More often than not they simply see themselves as psychologists or applied psychologists. This not only weakens the social force but also the theoretical power of environmental psychology. This is further aggravated by the fact this idea is rarely considered or discussed openly.

In our opinion, the label *Environmental Psychology* must continue being used publicly, although internally we need more qualifying adjectives. “Environmental Psychology” is its most comprehensive name and one that society can best understand without the need for too much explanation. Perhaps internally the label *Architectural Psychology* should be retained (one that should never have been abandoned) to refer to a

part of Environmental Psychology. On the other hand, the adjective *ecological* results too ideologically loaded and too biased towards a segment of the object of the “environment”.

In addition, if we adopt the German argument of preserving the adjective “environmental” for the psychology of Hellpach, it would be coherent to maintain the environmental term for the current “green” psychology. The concept of “geopsychology” and the concept of *Umwelt* in Hellpach and current environmental psychology thought are much closer than architectural psychology was, or certain radical “conservationisms” where.

The new challenge for today’s environmental psychology is not in abandoning areas incorporated in previous stages, but in knowing how to include new reference parameters, whether they may be ecological, social or economical, and to reflect on and analyze this reality. In fact, in this latest stage, the built environment does not disappear – nor should it – as an object of study, but rather it incorporates – and it should incorporate even more – the values of sustainability as “another” parameter, however fundamental, to improve the quality of our surroundings.

In short, this period of Environmental Psychology can be seen as the progressive recovery of a holistic perspective and the interdisciplinary construction of knowledge. Its object will be people-as-social-beings-in-their-environment with the goal of changing people’s and society’s behavior to improve the environment, improving the socio-physical environment to facilitate responsible ecological behavior and social wellbeing, and contributing to the advance towards sustainability as a new positive social value. The challenge is to make environmental psychology truly environmental (and therefore including the built environment as well as the “natural” environment), one that shares the objectives of the previously mentioned stages, but with a different perspective according to what has been set by the environmental paradigm of the sciences. But we fear that this is a project which is still under construction.

To conclude

With these two articles, we have set out to trace the sometimes explicit, other times implicit outlines of environmental psychology found

throughout the history of psychology. This has allowed us to establish four periods with diffuse boundaries, but with sufficient contrasting characteristics to differentiate them. Our intention has not been to construct a “logical” *a posteriori* story (which in historiography is referred to as ‘presentism’), but to provide some footnotes to understand better the evolution of the discipline and some of its contradictions, which necessarily – or better said, fortunately – will continue, evidencing its richness and vitality.

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