



ENVIRONMENTAL DESIGN: RESEARCH AND PRACTICE
proceedings of the edra 3/ar 8 conference, university of california at los angeles, january 1972, edited by william j. mitchell

SECTION 1: MAN-ENVIRONMENT RELATIONS

1. COGNITIVE MAPPING
 - 1.1 Jeremy Anderson, Margaret Tindall, "The Concept of Home Range: New Data for the Study of Territorial Behavior"
 - 1.2 John Everitt, Martin Cadwallader, "The Home Area Concept in Urban Analysis: The Use of Cognitive Mapping and Computer Procedures as 'Methodological Tools'"
 - 1.3 Leonard S. Mark, "Modeling Through Toy Play: A Methodology for Eliciting Topographical Representations in Children"
 - 1.4 Peter Orleans, Sophie Schmidt, "Mapping the City: Environmental Cognition of Urban Residents"

2. PERSONAL SPACE
 - 2.1 E.H. Eberts, "Social and Personality Correlates of Personal Space"
 - 2.2 Gary W. Evans, Roger B. Howard, "A Methodological Investigation of Personal Space"
 - 2.3 David A. Sandahl, "Conceptions of Self as Individual Orientations to the Spatial Environment"
 - 2.4 Susan M. Kataoka, "Using Proxemic Indicators and Instruments to Analyze Classroom Interaction, Curriculum Planning, and Curriculum Implementation"

3. BEHAVIOR IN COMPLEX ENVIRONMENTS
 - 3.1 Leonard E. Olson, Jr., "Gross Spatial Motion of a Social Group Within a Complex Environment"
 - 3.2 Wolfgang F.E. Preiser, "The Use of Ethological Methods in Environmental Analysis: A Case Study"
 - 3.3 Amos Rapoport, "Australian Aborigines and the Definition of Place"

4. THE INTERFACE BETWEEN BEHAVIOR AND MILIEU IN A TOTAL INSTITUTION
 - 4.1 Shalom E. Vineberg, "Orientation to the Research Setting: Texas Institute for Rehabilitation and Research"
 - 4.2 William F. LeCompte, "Behavior Settings: The Structure of the Treatment Environment"
 - 4.3 Edwin P. Willems, "Place and Motivation: Independence and Complexity in Patient Behavior"
 - 4.4 Richard H. Futrell, "Context and Consensus: The Distribution of Role Agreement"
 - 4.5 Allan W. Wicker, "Behavior-Environment Congruence: A Model of Behavioral Ecology"

5. THE ENVIRONMENTAL BEHAVIOR OF CHILDREN
 - 5.1 Roger A. Hart, "Environments for the Developing Child"
 - 5.2 Maxine Wolfe, Leanne Rivlin, "Evolution of Space Utilization Patterns in a Children's Psychiatric Hospital"
 - 5.3 Robert Bartholomew, Marion Potts, Thomas Hertz, "The Pre-School Physical Near Environment: The Relationship Between Environment and Behavior"
 - 5.4 Michael J. Ellis, "Play: Theory and Research"

6. METHODS FOR INVESTIGATING IMAGERY AND MEANING
 - 6.2 Robert L. Bishop, George L. Peterson, Richard M. Michaels, "Measurement of Children's Preference for the Play Environment"
 - 6.4 Robert G. Hershberger, "Toward a Set of Semantic Scales to Measure the Meaning of Architectural Environments"
 - 6.5 Basil Honikman, "An Investigation of the Relationship Between Construing of the Environment and its Physical Form"
 - 6.6 Roger B. Howard, T. Gervan Mlynarski, Gordon C. Sauer, Jr., "A Comparative Analysis of Affective Responses to Real and Represented Environments"
 - 6.7 Rachel Kaplan, "The Dimensions of the Visual Environment: Methodological Considerations"

6. METHODS FOR INVESTIGATING IMAGERY AND MEANING (con't)

- 6.8 Stephen Kaplan, John S. Wendt, "Preference and the Visual Environment: Complexity and Some Alternatives"
- 6.9 George Rand, "Children's Images of Houses: A Prolegomena to the Study of Why People Still Want Pitched Roofs"
- 6.10 Richard Seaton, J.B. Collins, "Validity and Reliability of Ratings of Simulated Buildings"
- 6.11 Anthony Ward, "To be Announced"
- 6.12 William R. Ellis, "Planning, Design, and Black Community Style: The Problem of Occasion-Adequate Space"

7. POPULAR IMAGERY

- 7.1 David Seamon, "Environmental Imagery: An Overview and Tentative Ordering"
- 7.2 David P. Handlin, "The Detached House in the Age of the Object and Beyond"
- 7.3 James J. Gleason, "Imaginative Modes of Perceiving the City: The Architectural Metaphore in Twentieth Century American Literature"
- 7.4 Scott Donaldson, "Should the Suburbs Plead Guilty?"

SECTION 2: ENVIRONMENTAL QUALITY - SPECIFICATION AND EVALUATION

8. INDICATORS OF ENVIRONMENTAL QUALITY

- 8.2 Harvey S. Perloff, "Environmental Indicators: An Overview"
- 8.3 Peter Marcuse, "Indicators for Housing Policy"

9. SPECIFYING AND MAINTAINING ENVIRONMENTAL PERFORMANCE STANDARDS

- 9.1 Thorbjørn Mann, Richard Bender, "The Role of Research in the Development of Performance Standards"
- 9.3 Sidney Cohn, "Comparative Effectiveness of Design Review in Western Europe"
- 9.4 R.S. Ferguson, "User-Need Studies to Improve Building Codes"
- 9.5 Anne-Marie Pollowy, Michel Bezman, "Design-Oriented Approach to Developmental Needs"

10. MACRO-ENVIRONMENTS

- 10.1 Robert D. Campbell, A.L. Roark, "Evaluation and Redesign of Complex Man-Environment Systems"
- 10.2 Sehdev Kumar Gupta, "Chandigarh: After 20 Years"
- 10.3 W. Lawrence Harvey, "'THE SQUARE' Descriptive Modeling of Central Courthouse Square Towns of the South Central U.S."
- 10.4 Thomas R. Martineau, "The Urban Activity Model"

11. TRANSPORTATION NETWORKS

- 11.1 Leslie S. Pollock, "Relating Urban Design to the Motorist: An Empirical Viewpoint"
- 11.2 Donald Appleyard, Mark Lintell, "The Environmental Quality of City Streets: The Residents' Viewpoint"
- 11.4 Mark M. Jones, "Urban Path Choosing Behavior: A Study of Environmental Clues"
- 11.5 Alexander Messinger, Robert G. LeRicolais, "Continuous Flow Transportation Networks as New Urban Patterns"

12. INSTITUTIONAL SETTINGS

- 12.1 Friedner D. Wittman, "Alcoholism and Architecture: The Myth of Specialized Treatment Facilities"
- 12.2 Frank A. Brunetti, "Noise, Distraction and Privacy in Conventional and Open School Environments"
- 12.3 Joshua A. Burns, "Development and Implementation of an Environmental Evaluation and Redesign Process for a High School Science Department"

12. INSTITUTIONAL SETTINGS (con't)

- 12.4 Jerome T. Durlak, Barbara E. Beardsley, John S. Murray, "Observation of User Activity Patterns in Open and Traditional Plan School Environments"
- 12.5 James G. Kelly, "Coping and Adapting to the High School Environment"
- 12.6 Herbert McLaughlin, John Kibre, Mort Raphael, "Patterns of Physical Change in Six Existing Hospitals"
- 12.7 Donald A. Stembridge, William F. LeCompte, "Attitude Changes After Brief Encounters with Mental Patients in Residential and Institutional Environments"
- 12.8 Lawrence Wheeler, "Student Reactions to Campus Planning Options: A Regional Comparison"

13. RESIDENTIAL ENVIRONMENTS

- 13.1 Robert B. Bechtel, "The Public Housing Environment: A Few Surprises"
- 13.2 Gary Coates, Henry Sanoff, "Behavioral Mapping: The Ecology of Child Behavior in a Planned Residential Setting"
- 13.3 Marvin M. Gerst, Rudolph H. Moos, "The Psychological Environment of University Student Residences"
- 13.4 Bruce Hackett, Andrew Sun, "Communal Architecture and Social Structure"
- 13.5 Ellis Kaplan, "Territory and Status - The Uses of Environment Within a Communal Society - Synanon"
- 13.6 Constance Perin, "Concepts and Methods for Studying Environments in Use"
- 13.7 David G. Saile, Ronji Borooah, Maldwyn G. Williams, "Families in Public Housing: A Study of Three Localities in Rockford, Illinois"
- 13.8 Henry Sanoff, Man Sawhney, "Residential Livability: A Study of User Attitudes Toward Their Residential Environment"
- 13.9 Louis Sauer, David Marshall, "An Architectural Survey of How Six Families Used Space in their Existing Houses"
- 13.10 Eugene R. Streich, "An Original Owner Interview Survey of Frank Lloyd Wright's Residential Architecture"

14. WORK ENVIRONMENTS

- 14.1 Malcolm J. Brookes, "Changes in Employee Attitudes and Work Practices in an Office Landscape"
- 14.2 Gerald Davis, "Using Interviews of Present Office Workers in Planning New Offices"
- 14.3 William O. Lindow, "Multi-Level Industrial Building: A Possible Incentive for Additional Central City Employment and Industrial Development"
- 14.4 Walter H. Moleski, Ronald J. Goodrich, "The Analysis of Behavioral Requirements in Office Settings"
- 14.5 Sam A. Sloan, "Translating Psycho-Social Criteria into Design Determinants"

15. SPECIAL GROUP NEEDS

- 15.1 Gwendolyn Bell, Margrit Kennedy, Nancy Mason, Bea Ornitz, Sue Ellen Semple, Marcia Thompson, "Age Group Needs and their Satisfaction: A Case Study of the East Liberty Renewal Area, Pittsburgh"
- 15.2 Lewis Nix, "A Computer-Aided Procedure for Design of Environments for the Aged"
- 15.3 Carolyn L. Vash, "Discrimination by Design: Mobility Barriers"

SECTION 3: DESIGN - THE GENERATION AND EXPLORATION OF SOLUTIONS

16. COMPREHENSIVE DESIGN STRATEGIES

- 16.1 Peter Jacobs, "The Site Planning Process: Activity Allocation at the Urban Fringe"
- 16.2 Fred D. Moyer, Edith E. Flynn, "A Total System Methodology Which Develops Environments for Corrections"
- 16.4 John V. Sheoris, "The Large Scale Planning Module/Unit Theory Design for Hospitals"

17. INCREASING THE WORKING EFFECTIVENESS OF DESIGN TEAMS

- 17.1 William H. Brill, "Innovation in the Design and Management of Public Housing: A Case Study of Applied Research"
- 17.2 Sheila Campbell, "Architectural Values as a Measure of Design Decision Making: An Empirical Study Using the Conceptual Framework of Political Science"
- 17.3 Joel Goldsteen, Joseph Nevotti, "Group Composition in Urban Planning: Single Discipline Research and Design/Interdisciplinary Research and Design"
- 17.4 Vicki Holland, "Cognitive Persuasions: Assumptions and Presumptions"
- 17.5 Joseph F. Pierz, "The Transition to Systems Architecture"

18. STRATEGIES FOR RESPONSIVENESS AND ACCOUNTABILITY

- 18.1 David Angelo, Raoul Escobedo, Alexander M. Man, Xavier Mendoza, Manuel Orozco, Frank Villalobos, "Community Design Centers and the Environmental Protection Act of 1969"
- 18.2 Floyd Barwig, Larry Bruton, Dennis Corelis, Jean-Pierre Protzen, "Precipitory Planning"
- 18.3 Charles B. Zucker, "Results of an Initial Field Study of New Techniques for Citizen Participation in Educational Facilities Planning"
- 18.4 Peter Kong-ming New, Richard M. Hessler, Luis S. Kemnitzer, "Community Research. Research Commune?"

19. STORING AND RETRIEVING DESIGN DATA

- 19.1 Mark D. Estes, "Data Management Techniques Applied to People/Activity Relationships Within the Built Environment"
- 19.2 R. Dunning Roberts, "Compucon: Computer Aided Information Systems for Component Construction"
- 19.3 Lavette C. Teague, Jr., Charles F. Davis, III, "Information Systems for Architectural Programming"
- 19.4 William F. Winslow, "Translating Individual Construction Project Information Into the Resources Required for Construction"

20. PREDICTIVE MODELS: BUILDING SCALE

- 20.1 John S. Gero, Ian James, "An Experiment in a Computer-Aided Constraint-Oriented Approach to the Design of Home Units"
- 20.2 Thomas W. Maver, "PACE 1: An On-Line Design Facility"
- 20.3 Theodore A. Stolte, "Justifying Diagnostic Radiology as an Alternative to Consensus Planning"

PREDICTIVE MODELS: URBAN SCALE

- 21.1 D.F. Blumberg, D.R. Limaye, A.J. Pennington, E.B. Brandt, "Computer-Based Socio-Economic Evaluation of New Community Proposals"
- 21.2 Walter S. Sachs, Jr., "Land Use Controls: Development Impact Model"
- 21.3 David Seader, Sigurd Grava, "A Demonstration of the Use of Computer-Aided Land-Use Modeling for Regional Service System Design"
- 21.4 David W. Sears, "Increasing the Utility of Urban and Regional Models: A Technique for the Evaluation of the Utility of a Model of a Major Urban/Regional Subsystem"

22. MAN-MACHINE SYSTEMS

- 22.1 Nicholas Negroponete, Leon B. Groisser, James Taggart, "HUNCH: An Experiment in Sketch Recognition"
- 22.2 Aiko M. Hormann, "Machine-Aided Evaluation of Alternative Designs"
- 22.4 Sharon Kaufman-Diamond, "On Evaluation of Man-Computer Problem Working Systems"
- 22.5 Richard I. Kraus, "Improving Design Decisions: Recommendations for a Computer System for Use by the British Government"
- 22.6 William Newman, "Graphics Systems for Computer-Aided Design"
- 22.7 Patrick Purcell, John Chalmers, "The CEDAR System"

22. MAN-MACHINE SYSTEMS (con't)

- 22.8 J.B. Schneider, John G. Symons, Mark Goldman, "Locating Intermodal Transportation Terminals in Metropolitan Areas: A Man-Computer Problem-Solving Approach"
- 22.9 Clifford D. Stewart, Kaiman Lee, "Comprospace: Interactive Computer Graphics in the Real World"

23. AUTOMATED SPACE PLANNING

- 23.1 Charles M. Eastman, "General Space Planner: A System of Computer-Aided Architectural Design: User Documentation"
- 23.2 Robert Simpson Frew, Rammohan K. Ragade, Peter H. Roe, "The Animals of Architecture"
- 23.3 Donald R. Fullenwider, "SP-1: A Computerized Model for Store Planning"
- 23.4 Robin Segerblom Liggett, "Floor Plan Layout by Implicit Enumeration"
- 23.5 William J. Mitchell, Robert Dillon, "A Polyomino Assembly Procedure for Architectural Floor Planning"
- 23.6 Malte Mohr, "A Computer Model of the Design Process that Uses a Concept of an Apartment Floorplan to Solve Layout Problems"
- 23.7 David S. White, "Mathematical Evaluation and Optimization of the Three Dimensional Hospital Layout Problem"
- 23.8 Lee Stephen Windheim, Nicholas Negroponete, Stephen Flanders, "Computer-Aided Hospital Design"
- 23.9 Chris I. Yessios, "FOSPLAN: A Formal Space Planning Language"

24. DESIGN OF THE BUILDING FABRIC

- 24.2 Néstor Distéfano, Dennis Nagy, "A Normalization Procedure in Building Methodology"
- 24.3 Hilary Szymanowski, "HOMELAB: Integration of New Concepts for the Living Unit"

25. DESIGN OF ENVIRONMENTAL CONTROLS

- 25.1 Hugo G. Blasdel, "Multidimensional Scaling for Architectural Environments"
- 25.2 P. E. O'Sullivan, "Integrated Environmental Design of Buildings"
- 25.3 Ifan Payne, "New Methods and Research in Qualitative Evaluation of Architectural Acoustics"
- 25.4 Murray A. Milne, "The Beginnings of a Theory of Environmental Control"

SECTION 4: DESIGN COMMUNICATIONS - METHODS AND MEDIA

26. DESIGN DOCUMENTS

- 26.1 Maurice V. Girardi, "Computer Augmented Drafting System"
- 26.2 Andrew Gruft, Donald Gutstein, "An Analysis of Comprehensive Planning Reports"
- 26.3 John Paterson, "Aids to Improve the Designer's Control of Cost and Performance of Buildings, and to Speed the Pre-Contract and Post-Contract Processes"
- 26.4 Peter Scher, "Analysis of Building Production Drawings"

27. SIMULATIONS AND GAMES

- 27.1 Ervin J. Bell, "On Urban Innovation Through 'U-DIG' Game"
- 27.2 Perry E. Borchers, "Developments in Scientific Application of Photogrammetry to the Study of Architecture and Building Science"
- 27.3 Lonnie E. Haefner, Martin J. Redding, "An Analytical Structure of Community Public Works Process"
- 27.4 Philip A. Hendren, "LIFE3 - The Game 'Life' in Three Dimensions"
- 27.5 Luis H. Summers, "The House Design Game"
- 27.6 Joseph J. Wehrer, "A Design Research Strategy Utilizing Simulated Health Care Procedures in an Environmental Mock-Up Unit"
- 27.7 Stuart W. Rose, "RESIDE: A Gaming Method for Improving Environmental Interaction"

SECTION 5: DESIGN RESEARCH AND EDUCATION

28. DESIGN EDUCATION

- 28.1 Nigel Cross, "Multi-Media Education Packages for Promoting Layman Participation in Environmental Design"
- 28.2 Sami Hassid, "Status and Trends in Dissertation Content and Programs for Doctoral Studies in Architecture"
- 28.3 Charles Zerner, Thomas C. Hubka, "The Alligator Learning Experience: Children's Strategies and Approaches to a Design Problem"

29. RELATING RESEARCH TO PRACTICE

- 29.1 Charles H. Burnette, "Designing to Reinforce the Mental Image, An Infant Learning Environment"
- 29.2 David S. Haviland, E.M. Risse, "The Highlands Project: A University Action/Research Group Plans a New Community"
- 29.3 Bill Hillier, John Musgrove, Pat O'Sullivan, "Knowledge and Design"
- 29.4 Peter Scher, "Research and Practice in Architecture: Bridging the Gap"
- 29.6 Thomas A. Markus, "A Doughnut Model of the Environment and its Design"

30. SYMPOSIUM ON CONCEPTUAL ISSUES IN ENVIRONMENTAL COGNITION RESEARCH

- 30.1 Gary T. Moore, "Conceptual Issues in the Study of Environmental Cognition: An Introduction"
- 30.6 Stephen Kaplan, "Adaptation, Structure and Knowledge: A Biological Perspective"
- 30.7 Sharon Kaufman-Diamond, "Some Requirements for a Theory of Environmental Cognition: An Information Processing View"
- 30.9 Gary T. Moore, "Elements of a Genetic-Structural Theory of the Development of Environmental Cognition"

31. METHODOLOGICAL PROBLEMS IN ENVIRONMENTAL PERCEPTION AND BEHAVIOR RESEARCH

- 31.1 David Lowenthal, "Methodological Problems in Environmental Perception and Behavior Research"