

I D E C

S A N T A 2 0 A 0 2 F E

the Mesas and the Mysteries
On the Edge of Imagination / Green Design

MARCH 19-24

**Interior Design Educators Council
INTERNATIONAL CONFERENCE ABSTRACTS**

**Dennis McNabb
CONFERENCE CHAIR**

**Stephanie Watson
ABSTRACT REVIEW CORRINATOR**

**Tanya Carpenter
ABSTRACTS EDITOR**

TABLE OF CONTENTS

Papers

1. Reconciliation and Learning Through Furniture and Culture <i>By Marina Lommerse, Karen McRobb</i>	8
2. A Computer Database of Design Methodological Tool Patterns for Interior Design <i>By Mihyun Kang</i>	10
3. Affecting Infant Outcomes By Design <i>By Anna Marshall-Baker, Donna Vaught, Barbara Buechler</i>	12
4. Preferred Placement and Repetition of Interior Elements for Persons with Alzheimer's Disease: A Follow-Up Study <i>By Mitzi R. Perritt, Sandra L. McCune, Sharon McClure, Todd Lucas</i>	14
5. Attitudes of Higher Education Interior Design Faculty Toward Distance Education <i>By Diane M. Bender</i>	16
6. A Theoretical Framework for Sustainable On-Line Environments <i>By RoseMary Botti-Salitsky, Elena Kays</i>	18
7. Perception of Opportunity For Innovation in Reaction to Subjective Well-Being of Interior Design Educators at Major Universities in the United States <i>By Connie Thibeau-Catsis, Shiretta Ownbey</i>	20
8. Jack Lenor Larsen and His Significance to Interior Design <i>By Stephanie A. Watson</i>	22
9. Problem Solving in the Institutional Setting <i>By Nancy Blossom, Kathleen Gibson, David Mathews</i>	24
10. Material Selection in Interior Design Practice <i>By Helena Moussatche, Janine King, Tobynn Rogers</i>	26
11. The Everett L. Marshall Building at Eastern Michigan University: A Model For Academic Buildings in the 21 st Century <i>By Louise Jones</i>	28
12. The Impact of Periodicals on the Perception of Interior Design as a Profession <i>By Theodore Drab</i>	30
13. Use of Virtual Environments to Explore Older Adults Preferences and Functioning in Assisted Living Private Living Spaces <i>By Joan McLain-Kark, Julia O. Beamish, Karen A. Roberto</i>	32
14. New Ways of Teaching and Learning Through Strategic Stories <i>By Sheila Danko, Margaret Portillo</i>	34
15. Interior Design in K-12: Ask the Experts! <i>By Stephanie Clemons</i>	37
16. The Effects of Physical Environment on Engineering Team Performance: A Case Study <i>By Daniel C. Beert, Eric Grulke, Derek Lane</i>	39
17. A Confluence of Lifestyle Retailing, Sustainable design, and Historic Preservation at REI Denver: A Model of the Process <i>By Karen Hyllegard, Jennifer Paff Ogle, Brian Dunbar</i>	42
18. A Comparison of Regional and National Architectural Trends in Fayetteville, Arkansas <i>By Jennifer D. Webb, Jennifer Taylor</i>	44
19. Effects of Group Interactive Brainstorming on Creativity <i>By Shari Park-Gates, Anna Marshall-Baker, Jeanette E. Bowker, Lawrence Cross, Joseph Germana, Janet K. Sawyers</i>	46
20. The Definition and Documentation of the Interior Design Profession Body of Knowledge <i>By Denise A. Guerin, Caren S. Martin</i>	49

TABLE OF CONTENTS

Presentations

1. Feng Shui and EBS: A Convergence of Design Applications <i>By Michael E. Hunt</i>	52
2. Utilizing the Eden Alternative in Designing for the Elderly <i>By Linda L. Nussbaumer</i>	54
3. Interior Design – An Exciting Career Choice: A Curriculum for High School Students with an Intergenerational Approach <i>By Linda L. Nussbaumer</i>	56
4. Transformational Learning: An Interior Design Expedition <i>By Ronald Phillips, Bobbi Hauptmann, Jennifer Hess</i>	58
5. Changing Ecology of the Design Studio <i>By Nancy Blossom, David Mathews, Kathleen Gibson</i>	60
6. Two's Company, Three's Good Design: Multidisciplinary Teams are a 21 st Century Necessity <i>By Beth R. Miller, Phyllis Bell Miller, Margaret S. Bateman</i>	62
7. Teaching Universal Design Through Community Building and Service Learning <i>By Susan Zavotka, Christine Price, Margaret Teaford</i>	64
8. Designing Domesticity: Bringing Life to Design History Through Faculty-Student Collaboration of an Interdisciplinary Museum Exhibit <i>By Terrance L. Uber</i>	66
9. Shades of Green: The Philosophical Challenges of Ecological Responsibility in Interior Design Education and Practice <i>By Mary Anne Beecher, Brian Davies</i>	68
10. Can We Teach Students to Think Critically? An Experimental Studio for Integrating Digital and Physical Technologies <i>By David Mathews, Steve Temple</i>	70
11. Developing a Spatial Model for Moderate Income Family Living-Multi-Methodological Approach <i>By Yeunsook Lee, Junghyun Mo, Taegyung Yon, Hyunwon Jung</i>	72
12. Creating With Light <i>By Judy Theodorson</i>	75
13. Bluebonnet Swamp Learning Community: The Design of a Collaborative Studio <i>By T.L. Ritchie, Anne Spafford</i>	76
14. Virtual Exhibitions: A New Dimension in Design Competitions <i>By Carol Bormann, Jeff Price</i>	78
15. Fieldwork for Universal Design Problem Solving <i>By Mary Sterling</i>	80
16. Virtual Internships: Unraveling The Mystery of Online Instruction <i>By Sally Ann Swearingen, Lynn Brandon</i>	82
17. Forgotten Lessons: Primitive Cultures' Thoughtful Approach to Culture <i>By Jean Mercer Ballard, Nicole Starnes Taylor</i>	84
18. The Void Between Sustainability and Preservation <i>By Lisa Marie Tucker</i>	86
19. Integrating 3-D Modeling & Historical Precedent in a Second Year Design Studio <i>By M. Jean Edwards</i>	88

TABLE OF CONTENTS

Posters

1. Fostering Creativity in Entry Level Design Studios <i>By Denise Bertoncino, Leisha Bridwell</i>	91
2. Distance Education Technologies and the Design Studio: A Case Study <i>By Diane M. Bender, Jon D. Vredevoogd</i>	93
3. Interior Design Curriculum: Planning Process & Products <i>By Cynthia M. Karpan</i>	95
4. On The Edge of Advancement: Solving the Mysteries of Admission and Career Portfolios <i>By Donna Zimmerman, Christina M. Burton</i>	98
5. Giving Back: Student Generated Product Research for Practitioner Benefit <i>By Jill B. Pable</i>	99
6. Manual, Digital and Hybrid Panoramas: Virtually Brining the Client into the Space <i>By Mark S. C. Nelson</i>	101
7. Symbols of Self: Representative Objects in the Home <i>By Lisa M. Vogel</i>	102
8. Digital Montage: A Hybrid Model for Three Dimensional Visualization in the Design Studio <i>By Matthew Melcher</i>	104
9. Maintaining Order: Vitruvius and Palladio to CAD <i>By Thomas L. Houser</i>	106
10. Freedom and Constraints in the Design Process: An Empirical Study of Student Profiles of Creativity <i>By Jason Meenely, Margaret Portillo</i>	108
11. Building Community: Interior Design & Architecture Students Work Together on Community Design Projects <i>By M. Jean Edwards, Thomas Sammons</i>	110
12. Undergraduate Collaborative Research: Re-Imaging Space and Design <i>By Tom Peterson, Leslie Hadvield, Stephanie Ray, Joyce Kinkead</i>	112
13. Enhancing Awareness of How We Spend Time: Wellness in the Design Curriculum <i>By Christina M. Burton</i>	114
14. Sustainability Through Diversity and Unity of Design Organizations <i>By Kathleen Stumpf, Jane Kangas</i>	116
15. Preserving the Ennis-Brown House and the Mysteries of Frank Lloyd Wright's Textile Block Structures <i>By Roberta K. Mauksch</i>	118
16. From Sun God to Silk Road: A Pictorial History of the near Environment <i>By Kathleen Bryant, Susan Binder, Rhonda Richins</i>	119
17. A Case Study in Sustainable Design, Building, and Retail: REI Denver <i>By Brian H. Dunbar, Karen Hyllegard, Jennifer Paff Ogle, Lauren Volk</i>	121
18. Sustainable Housing for Older Americans: An Educational Outreach Program <i>By Kenneth R. Tremblay, Jr., Adetania Pramanik</i>	123
19. NKBA Kitchen and Bath Design Studio in On-Line and Traditional Studio Format <i>By Patricia F. Lindsey, Marjorie Inman</i>	125
20. Environmental Education in an Educational Environment: Green Furnishings and Finishes for the Growing Mind <i>By Jeanne Mercer Ballard</i>	127
21. The Creation of an Integrated Computerized Studio Environment <i>By Neal Hubbell, David Brown</i>	129

The Review Process

Abstracts included in this document were selected through a review process for determining presentations to be given at the 2002 Interior Design Educators Council International Conference, March 19-24, 2002 in Santa Fe, New Mexico. Proposals were submitted for one of three categories: paper, presentation, or poster. All proposals included an abstract. Proposals for papers and presentations also included a 1,500-word narrative to guarantee that the panel of reviewers had as complete an understanding as possible of the abstracts in those categories.

Each submittal was evaluated by two reviewers. In cases where scores varied, a third reviewer was added. Number of submittals accepted was dependent upon quality as determined by the resulting rank order and time available during the conference. Out of 104 proposals submitted, 60 were accepted for presentation at the conference and invited to be included in this publication.

Reviewers, under the direction of Stephanie Watson, Conference Abstract Review Coordinator, University of Minnesota, included:

- Kathy Ankerson, University of Nebraska
- Rula Awwad-Rafferty, University of Idaho
- Wendy Beckwith, La Roche College
- Nancy Blossom, Mt. Vernon College
- Margaret Boschetti, East Carolina University
- Susan Ray-Degges, North Dakota State University
- Pamela Evans, Kent State University
- Betsy Gabb, University of Nebraska
- Denise Guerin, University of Minnesota
- Bridget May, Marymount University
- John Turpin, Washington State University
- Allison, Carll-White, University of Kentucky

Definitions of entry categories, adapted from the CALL FOR ABSTRACTS

Paper:

A paper is characteristically formal in structure and format. The author(s) develop and deliver a paper based on substantiated theories or studies from which findings are presented that provide insight into a topic for advancing the body of knowledge and the profession. A paper is based on well- developed inquiry about interior design theories, methods, process, teaching issues, practice issues, etc. The audience provides the author(s) with critique and feedback that may lead the author(s) to reflective thinking on the issue or refinement of the work. If a topic is fully developed, with suitable background and systematic inquiry, then a paper is the appropriate submission category.

Presentation:

A presentation is intended to be less formal than a paper and structured so that dialogue occurs. The goal is to stimulate discussion on a relevant topic of interior design in teaching, method/process, theory, practice, etc. The topic background is developed to provide direction for interactive dialogue. Audience exchange stimulates creative thinking and reflection by all participants so that the author(s) can advance the idea. If an idea is a new topic, an exploratory idea, an application, or experiential in nature, a presentation is the appropriate submission category.

Poster:

A poster is intended to foster one-on-one exchange between members, offer experiential interaction, and provide visual images that can be viewed independently. A visual display is designed to express an idea or track a process relevant to interior design topics in teaching, method/process, theory, practice, etc. The audience comments, questions, or seeks instruction about the content or interpretation of the topic so that the author(s) can advance the idea or further apply the process. Posters are allotted floor and table space of approximately 30" x 60" and are presented concurrently with other posters.

PAPERS

RECONCILIATION AND LEARNING THROUGH FURNITURE AND CULTURE

Paper by
Marina Lommerse and
Karen McRobb
Curtin University

Purpose

Set in period of Australia's attempted reconciliation with indigenous peoples, this research explores how Interior Architecture students learned from a project with a cultural influence—specifically how they assimilated cultural imagery and translated it into useful objects for contemporary homeowners. Through the study of a furniture design course—the structure, the resulting work, audience reactions and students reflections—the researchers analyze the social context and results of applying Aboriginal cultural heritage to furniture.

To explore if Aboriginal cultural awareness could be successfully incorporated into a design and act as a reconciliation tool, the research question was posed: what did the students learn about cross-cultural analysis and design application and how did they learn it?

Methodology

Research Setting. Aboriginal Australians traditionally hunted and gathered over areas defined by custom. In addition to providing sustenance the land was a materialization of the journeys of the creative ancestors, the basis of spiritual life. Systems of land tenure were intimately bound up with spiritual attachment and notions of custodianship. As settlement spread, indigenous people were subjected to government policies that attempted to variously displace, convert, isolate and eventually assimilate them. The 1990's brought about a movement of reconciliation and a request by Aboriginal people for the government to 'say sorry' for the wrongs committed.

Author one set up a program in the second year of the BA (Interior Architecture) [anonymous university] to explore Aboriginal cultural values and translate them into furniture for contemporary use. The objectives were: one, to give the student a vehicle to understand Aboriginal culture, and two, to help them develop a process for exploring the culture and translating chosen elements into tangible furniture pieces. Students were to design and build a full-scale prototype of a piece of furniture or a functional object for the home to reflect Aboriginal art, culture or environment.

Data Collection and Analysis. For this exploratory and interpretive research, data collection methods included a sample group participating in a questionnaire and a focus group discussion. The data was processed to find patterns and differences between students' learning and cross-cultural understanding, and how this was applied to a design. Included is a selection of furniture pieces as case studies, analyzing the projects' cultural influence and design processes.

Summary Of Results

The exploratory data indicated that the students, who had an empathy with Aboriginal people, produced an end result that was richer in narrative and context than others. It was revealed that the heated socio-political climate in Australia with respect to indigenous and non-indigenous relationships made many students apprehensive about undertaking a unit of study where Aboriginal art, culture and environment were to be the driving forces for the design. However student attitudes changed over the process of design and making, and the studio has resulted in a growing interest in researching Aboriginal culture as a design context in the Department of Interior Architecture. Based on the research, the authors offer recommendations for structuring future programs of this nature.

References

- Atkin, T. and C. Herselle Krinsky** (1996). "Cultural Identity in Modern Native American Architecture: A Case Study." *Journal of Architectural Education* **49** (4): 237.
- Dovey, K.** (1996). "Architecture about Aboriginals." *Architecture Australia* **Jul./Aug.**: 98-103.
- Horton, D., Ed.** (1994). *The Encyclopedia of Aboriginal Australia*. Canberra, Aboriginal Study Press.
- Kalviainen, M.** (2000). "The Significance of 'Craft' Qualities in Creating Experiential Design Products." *The Design Journal* **3** (3): 4-15.
- Author one and Author two** (2001). *Focus Group Transcript-Teaching and Learning through Furniture and Culture: Exploration of Aboriginal Culture through Contemporary Homeware Design*, unpublished.
- Read, P.** (2000). *Belonging: Australians, Place and Aboriginal Ownership*. Cambridge, Cambridge University Press.
- Watson, A., Ed.** (1995). *Jimmy Pike-Desert Designs 1981-1995-Exhibition Catalogue*. Perth, Australia, Art Gallery of Western Australia.

A COMPUTER DATABASE OF DESIGN METHODOLOGICAL TOOL PATTERNS FOR INTERIOR DESIGN

Paper by
Mihyun Kang
University of Minnesota

Purpose

Although systematic methods are already in use, the practice of design as a formal “process” can be made stronger. Design methodological “tools” are techniques for advancement through one or more steps of the design process (Koberg and Bagnall, 1976). If interior designers have access to many tools, they have a broader base for solving interior design problems. “Patterns” used to summarize common problems of built environments and solution concepts related to them (Alexander, Ishikawa and Silverstein, 1968; Duffy and Torrey, 1970; Alexander, 1977; Protzen, 1978; Gullichsen and Chang, 1985; Jutla, 1988; and Allen, 1992) might be applied to manage information on tools. The purpose of this study is to increase the interior designer’s familiarity with and efficiency in using common, practical design methodological tools. Toward this end, it will make two specific contributions: 1. provide interior design students and practitioners with patterns for tools, emphasizing their application in interior design. 2. present these patterns as a computerized database.

Methodology

At present, formal design methods are not well utilized by interior designers. Existing tool options, in particular, need to be introduced in a more uniform method that encourages comparison and initial use. To accomplish the specific purpose of this study, several steps were required: 1. developing the composition of tool patterns. 2. selecting tools based on frequency of mention in the references. 3. organizing information about the selected tools into tool patterns. 4. developing illustrations for tools. 5. recording all information in a computer database.

The composition of tool patterns was created by combining the idea of patterns with the Wade’ design methods description format (1984). They include a name, a general description, a guideline for use, an illustration, applicable steps of the interior design paradigm, a note for use in interior design, and documentation of all sources. Illustrations of patterns were added using a cohesive graphic language to enhance an understanding of each tool’s attributes. For special relevance to interior design, applicable steps of interior design paradigm and notes for use in interior design were included. Information sources for selecting tools were based on references suggested by the Design Methods Group and the National Council for Interior Design Qualification. Tools were selected based on their frequency of citation in the sources. Completed tool patterns were put into a computerized database.

Summary and Results

To promote the interior design student's and practitioner's understanding of tools, information about 20 selected tools was organized into "tool patterns." Each was recorded as data units in a computer database. This format emphasizes their applications to increase interior designer's familiarity with and efficiency in using them. The new contribution of this study and the strength of the tool patterns that resulted was the inclusion of illustrations showed the procedures for using each tool. Three basic parts of abstract illustration suggested by Laseau (1984), identities, relationships, and modifiers, were applied to illustration components for design methodological tools. This database of tool patterns summarizes information about each tool in an easily understandable and quickly retrievable form.

References

- Alexander, C, Ishikawa, S and Silverstein, M.** (1968). A Pattern Language Which Generates Multi-Service Center. Berkeley, CA: Center for Environmental Structure.
- Alexander, C.** (1977). A Pattern Language. New York, NY: Oxford University Press.
- Allen, E.** (1992). Architectural Detailing: Function, Constructibility, Aesthetics. New York, NY: John Wiley & Sons, Inc.
- Duffy, F. and Torrey, J.** (1970). A Progress Report on the Pattern Language. Emerging Methods in Environmental Design and Planning. Cambridge, MA: The MIT Press. pp. 278-284.
- Gullichsen, E. and Chang, E.** (1985). An expert System for Generative Architecture Design. Design Methods and Theories. Vol.19 (2), pp. 253-266.
- Jutla, S. R.** (1989). Notes on The Synthesis of Form to A Pattern Language. Design Methods: Theories, Research, Education, and Practice. Vol. 27 (4), pp. 1899-1913.
- Koberg, D. and Bagnall, J.** (1976). The Universal Traveler: a Soft-Systems Guide to Creativity, Problem-Solving, and the process of Reaching Goals. Los Altos, CA: William Kaufmann.
- Laseau, P.** (1984). Graphic Thinking for Architects and Designers. New York, NY: Van Nostrand Reinhold.
- Protzon, J.** (1978). The Poverty of Pattern Language: A Book Review Christopher Alexander, et al., A Pattern Language, Towns, Buildings, Constriction. Design Methods and Theories. Vol. 12 (3), pp 191-194.
- Wade, J. W.** (1984). A Systematic Method for Describing a Systematic Method. Design Methods and Theories. Vol. 17 (4), pp. 148- 152.

AFFECTING INFANT OUTCOMES BY DESIGN

Paper by
Anna Marshall-Baker, PhD
University of North Carolina at Greensboro

Donna Vaught, PhD, and Barbara Buechler, RN
New Hanover Regional Medical Center in Wilmington, North Carolina

Purpose

The purpose of this study was to document the effects of providing transitional care, a form of neonatal intensive care, to preterm infants in a pediatric intensive care unit (PICU). This was problematic because the PICU was located on a floor separate from the neonatal intensive care unit (NICU), and this type of physical separation would alter the culture of the NICU. Further, infants in the PICU would be in separate rooms, limiting visual access that might affect a nurse's immediate knowledge of an infant's condition and, perhaps, the ability to provide the best care. The last significant issue was an expected increased presence of family members that nurses feared might interfere with their work.

Method

Using hospital records, we recorded data on two groups of infants who met pre-selection criteria. The first group (n=20) experienced transitional care in a unit that was created from two existing patient rooms and provided ward-like care. A second group of infants (n=20) experienced transitional care in a newly renovated section of the PICU, an area that provided private and semi-private rooms, visual and auditory privacy for families, and space to accommodate families for prolonged periods of time.

Summary of Results

Nurses reported that a split-screen monitoring system worked well, and that their ability to provide care was not compromised. Parents were observed to visit more often and for longer periods of time, and members of the nursing staff commented that knowing a parent was in the room was actually a benefit to the nurses.

Data collected from the infants' medical records reveal that infants in the renovated unit were discharged from the hospital on average 4 days sooner than infants in the more traditional unit. Further, infants in the newer unit gained weight in a steady, progressive manner. Although infants in the first group weighed nearly the same (2085 gms.) as infants in the second group (2094 gms.) at discharge, their weight gain was sporadic. Episodes of difficulty with their breathing (apnea) and heart rate (bradycardia) ranged from .5 – 1.8 per day for infants in the former unit, and ranged from .1-.7 in the renovated unit. Caloric intake for infants in the renovated space was higher than that of infants in the older unit.

We speculate that although infants in the new transitional unit consumed more calories, they may have used more energy in their interactions with parents who visited more frequently. Importantly, the steady weight gain and lower number of apneic and bradycardic episodes suggest that infants in the newer unit were better behaviorally organized, a critical step in their ability to develop into healthy infants and children (Als, 1982). That these infants also stayed in the hospital fewer days than infants in the older unit is further support for our speculation. We also are encouraged that infants requiring transitional care could be relocated to an existing space within the hospital, that parents could more comfortably interact with their infants, and that the staff could adjust to significant changes in the delivery of care.

References

Als, H. (1982). Toward a synactive theory of development: Promise for the assessment and support of infant individuality. Infant Mental Health Journal, 3:4, 229 – 243.

PREFERRED PLACEMENT AND REPETITION OF INTERIOR ELEMENTS FOR PERSONS WITH ALZHEIMER'S DISEASE: A FOLLOW-UP STUDY

Paper by

Mitzi R. Perritt, Sandra L. McCune, Sharon McClure, Todd Lucas
Stephen F. Austin State University

Purpose

The study advances previous research identifying interior preferences of persons with Alzheimer's Disease (Perritt, McCune, & Nuner, 1999). Once preferences are known for the elements of color, pattern, and texture, the question arises as to where these interior preferences should be placed within an environment and how often the elements should be repeated to achieve a pleasing effect. Knowledge of interior preferences and element placement should assist interior designers in creating spaces "where residents are nurtured and find comfort and support in their environment" (Brawley, 1997).

Methodology

A purposive sample (Kerlinger, 1986) of Alzheimer's respondents was solicited from adult daycare facilities and retirement communities within a 33,750 square mile area. Computer images were created to depict a living room setting in various stages of the preferred color, pattern, and texture applications. Sets 1, 2, and 3 addressed the placement and repetition of hue, value, and chroma preferences. Sets 4, 5, and 6 depicted various applications of a preferred floral pattern within the room. Set 7 presented images of various configured wood-finished walls.

Images were compiled into binders which presented four images for each set simultaneously. A tilted stand was designed to reduce glare upon the images. Respondent vision was assessed to determine respondent eligibility for inclusion in the study; a near-vision card (Western Ophthalmics, 1999) assessed visual acuity, and color cards identified respondents with color blindness. Based on professional advice (D. Rudasill, OD, personal communication, January 25, 2000), the eligible range of vision was set at 20/20 to 20/50. Persons with an unacceptable visual acuity or color blindness were excluded from the study. A light meter assessed adequate lighting for the procedure; a minimum footcandle reading of 50 footcandles, taken on the binder pages, was necessary to continue the interview procedure (IESNA, 1998). To insure study validity, an interview script was followed so that instructions were presented uniformly throughout all interviews.

Summary of Results

From Sets 1, 2, and 3, the placement of blue on all furniture emerges as a prominent choice (53%). The choice receiving least preference was the placement of blue on one chair only (11%), this image constituting the least amount of blue of all 12 images in the three color sets. From Sets 4, 5, and 6, there is an indication that the placement of pattern on all furniture was preferred to a higher degree (44%) than pattern placed on the walls or draperies. Most noteworthy is the respondents' strong lack of preference (5%) for pattern on only one chair. Of the images in Set 7 depicting wood as a wall finish, respondents selected most frequently the room setting in which wood covered all walls from floor to ceiling (42%). The least preferred use of wood was the placement of floor-to-ceiling height wood on only two side walls (12%). Thus, it appears evident that the Alzheimer's respondents prefer room settings in which favored elements are repeated throughout a space.

References

- Brawley, E.** (1997). *Designing for Alzheimer's Disease: Strategies for creating better care environments*. New York: John Wiley & Sons, Inc.
- Illuminating Engineering Society of North America.** (1998). *Recommended practice for lighting and the visual environment for senior living*. New York, NY: Author.
- Kerlinger, F.** (1986). *Foundations of behavioral research* (3rd ed.). New York, NY: Holt, Rinehart, & Winston.
- Perritt, M., McCune S., & Nuner, J.** (1999). An investigation of the color, pattern, and texture preferences of Alzheimer's victims. *Interior Design Educators Council International Conference Abstracts*, 14-15.
- Western Ophthalmics.** (1999). *Instruments catalog 1999-2000*. Lynnwood, WA: Author.

ATTITUDES OF HIGHER EDUCATION INTERIOR DESIGN FACULTY TOWARD DISTANCE EDUCATION

Paper by
Diane M. Bender
Michigan State University

Purpose

Distance education courses are emerging in many fields of study. According to research by Abacus Associates (2000) for the National Education Association (NEA), the two educational fields with the highest percentage of distance learning faculty are math/science (20%) and social science (15%). In contrast, only one percent of those surveyed teach a distance education course in the area of the arts. The area of the arts includes disciplines such as interior design, painting, sculpture, graphic design, and studio art. Most of the research on distance education has focused on student outcomes, course and program design, and the effectiveness of distance education technology ("what's the difference", 1999). Yet research addressing faculty concerns and issues is sparse (Visser, 2000). Due to the lack of significant data in the area of interior design distance education, the purpose of this study is to assess the attitudes of individual interior design faculty members toward distance education courses.

Methodology/Process

This study utilizes the Diffusion of Innovations for its conceptual framework and considers distance education as the innovation in question. Research on innovation adoption has focused on the adoption rate, or the characteristics of the individual adopters (Rogers, 1995), with only recent studies focusing on the innovation's attributes as a way to understand an individual's behavioral intention to adopt (Moore & Benbasat, 1991; Plouffe, Vandenbosch, & Hulland, 2001). This study addresses the attributes of an innovation, plus the roles of gatekeepers and change agents in the innovation adoption process.

The study has two parts. An analysis of the prevalence of distance education in interior design was conducted in the fall of 2000 by sending email inquiries to the program coordinators of 113 four-year FIDER-accredited programs in the United States. The second stage of the study has recently begun and involves a Solomon Four group experimental design. A survey that assesses the attitudes of participating interior design faculty toward distance education will serve as both the pre-test and the post-test. An experimental treatment, consisting of an instructional video on CD-rom, was developed by the researcher to expose interior design faculty to the process of teaching interior design through distance education methodologies. It is hypothesized that exposure to this treatment will positively influence the attitudes of interior design faculty.

Summary of Results

A 69% response rate was achieved from inquiries made of program coordinators in the first part of this study. Results indicate that distance education is indeed prevalent in interior design with 16 schools reporting the presence of distance education classes in their curriculum. Thirty-four schools are thinking of or planning a distance education course in the future and 28 programs have NO distance education classes and do NOT plan any in the future. The implications of the second part of this research are three-fold: 1) to assess the attitudes of interior design faculty toward the idea of teaching at a distance, 2) to determine if increased awareness of the potential opportunities of teaching at a distance changes the attitudes of faculty, and 3) to provide insight into the opportunities and barriers to successfully persuade faculty to pursue distance education endeavors.

References

- Abacus Associates** (2000, June). A survey of traditional and distance learning higher education members (National Education Association). [On-line]. Available: <http://www.nea.org/nr/nr000614.html>
- Moore, G.C. & Benbasat, I.** (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. Information Systems Research, 2(3), 192-222.
- Plouffe, C.R., Vandenbosch, M. & Hulland, J.** (2001 March). Intermediating technologies and multi-group adoption: A comparison of consumer and merchant adoption intentions toward a new electronic payment system. The Journal of Product Innovation Management, 18(2), 65-81.
- Rogers, E.M.** (1995). Diffusion of innovations (4th ed.). New York: The Free Press.
- Visser, J.A.** (2000). Faculty work in developing and teaching web-based distance courses: A case study of time and effort. The American Journal of Distance Education, 14(3), 21-32.
- What's the difference? A review of contemporary research on the effectiveness of distance learning in higher education** (1999, April). [On-line]. Available: <http://www.ihep.com>

A THEORETICAL FRAMEWORK FOR SUDTAINABLE ONLINE ENVIRONMENTS: A COMPARATIVE STUDY

Paper by
RoseMary Botti-Salitsky
Elena Kays

Purpose

The primary objective of our research was to do a comparative study between a traditional history lecture course and the online history course. This paper begins to examine how to bridge the gap between “lecture” and “studio” methodology and apply the collaborative, Project-based approach that happens so intuitively within the studio environment into a lecture course. Our research will document our experimentation with new perceptions in teaching and the latest research in brain research and cognitive learning, alternative assessment, and adult learning theory.

Methodology

Higher education is currently entrenched in the traditional industrial-based model of education and is finding it difficult to understand that education in the Information Age will be profoundly different from education for the Industrial Age (Caine & Caine). The school hierarchy as well as current teaching practices, fundamental beliefs in what teaching is meant to accomplish, how it is done, who our learner is, and what is possible for the average human to achieve is outdated. “The challenge is to participate intelligently in the change and to meet the challenge, educators must have state-of-the-art understanding of how the brain functions and how people learn” (Caine & Caine, p. 5).

As educators are beginning to explore teaching in a new environment, technology is forcing us to take a hard look at our current standardized teaching and assessment practices. Not only are we on the verge of a revolution in the application of important new brain research applied to teaching and learning but also technology has paved the way for a new paradigm shift (Jenson, 1998). The latest research regarding the brain-based learning has shattered our conventional educational beliefs (Jenson). Design theory, conceptual thinking, and process play only a small role in taking on the new frontier in teaching. Educators will need to be well armed with the latest theories of cognition as well as the process of instructional design to achieve meaningful learning in any environment.

The goal for both courses was to create a meaningful, collaborative learning environment. According to the Caine’s, (1997) to create deep, meaningful, complex learning includes the interactive elements of (a) an optimal state of mind, relaxed alertness, consisting of low threat and high challenge. (b) The orchestrated immersion of the learner in multiple, complex, authentic experience and (c) the regular, active processing of experience as the basis for the making of meaning (p. 32).

Summary of Investigation

This presentation will demonstrate the results of our study of a typical history course in alternative environments applying the latest brain research and cognitive learning techniques with alternative assessment. We have focused on our students as a unit of body, brain and mind, which has challenged us to go beyond the traditional view of teaching positioning us on the edge of possibility.

References

- Caine, R.N. & Caine, G.** (1997). *Unleashing the power of perceptual change: the potential of brain-based teaching*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Caine Learning LLC** (2001). [Caine learning LLC the home of brain/mind learning](http://www.cainelearning.com). Retrieved March 18, 2001 from the World Wide Web: <http://www.cainelearning.com>
- Jensen E.** (1998). *Teaching with the brain in mind*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Knowles, M., Holton III, E., & Swanson, R.** (1998). *The adult learner* (5th ed.). Houston: Gulf Publishing Co.
- Palloff R., Pratt K.** (1999). *Building Learning Communities in cyberspace*. San Francisco: Jossey-Bass Inc.
- Von Oech, R** (1990). *A whack on the side of the head*. New York: Warner Books, Inc.
- Worthen, B.R., White, K.R., Fan, X., Sudweeks, R.R.** (1999). *Measurement and Assessment in Schools* (2nd ed.). New York: Addison Wesley Longman Inc.

PERCEPTION OF OPPORTUNITY FOR INNOVATION IN RELATION TO SUBJECTIVE WELL BEING OF INTERIOR DESIGN EDUCATORS AT MAJOR UNIVERSITIES IN THE UNITED STATES

Paper by
Connie Thibeau-Catsis, Ph.D.
Arizona State University

Shiretta Ownbey, Ph. D.
Oklahoma State University

Purpose

As the 21st century unfolds, technological and demographic changes impact universities and particularly the members of the faculty (West, 1999). When organizations are placed under the stress of change, they adapt with either an innovative or a restrictive attitude to address the changes they must face (Amabile & Conti, 1999). Researchers suggest that the context of an individual's work environment either provides support or hindrance for creativity and innovation (Amabile, Conti, Coon, Lazenby, & Herron, 1996). Self-determination theory (Ryan & Deci, 2000) suggests that individuals, who are characterized as competent, autonomous, and who relate well to other individuals, are more likely to be creative and innovative, as well as have a higher level of sense of subjective well being. Also, the theory suggests that the growth tendencies brought about by self-identified challenges support self-motivation, personality integration, as well as self-actualization (Ryan & Deci, 2000).

The work environment, at least to some degree is a link, not only to an individual's productivity in relation to the challenges they address, but also to their sense of subjective well being (Ryan & Deci, 2000; Siegel & Kaemmerer, 1978). An individual's sense of subjective well being can be defined as the incorporation of their cognitive and affective evaluation of their life, as well as the concept of happiness and self-fulfillment (Diener, 2000). Self-determination theory suggests that an individual's evolved inner resources enable them to seek out situations that permit growth tendencies and self-actualization (Ryan & Deci, 2000). This study uses self-determination theory in relationship to the fulfillment of one's needs according to Maslow's (1962, 1965, 1970) interpretation of hierarchy of need theory.

Methodology

A questionnaire was mailed to 345 interior design educators teaching at major universities in the United States; 116 educators responded. Siegel and Kaemmerer's (1978) Perceived Support for Innovation in the Organization (PSIO) Scale, a Sense of Subjective Well-being (SWLS) consisting of (a) Robitschek's (1998) Personal Growth Initiative Scale (PGIS), (b) Satisfaction with Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin), and Porter's (1961) Need-fulfillment Satisfaction (NFS) Scale were used. Demographic questions were included. A Productivity Index was derived from two demographic items. One-way ANOVA, Correlation Analysis, and Multiple Regression statistics were used to test 11 null hypotheses.

Summary of Results

Educators' responses to the PGIS correlated with their responses to the SWLS (0.608, $p < .01$) and the NFS Scale (0.485, $p < .01$). Participants' responses to the SWLS were correlated with their responses to the NFS Scale (0.521, $p < .01$). The Sense of Subjective Well-being construct having the strongest correlation with PSIO Scale scores was Need-fulfillment Satisfaction ($r = 0.559$, $p < .01$). Multiple regression findings indicated statistically significant predictability among the constructs that comprise the Sense of Subjective Well-being variable and Perceived Support for Innovation in the Organization [$F(3,107) = 18.929$, $p < .001$].

References

- Amabile, T. M. & Conti, R.** (1999). Changes in the work environment for creativity during downsizing. *Academy of Management Journal*, 42, 630-640.
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M.** (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39, 1154-1184.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S.** (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71-75.
- Maslow, A. H.** (1962). Health as transcendence of environment. *Journal of Humanistic Psychology*, 2, 107.
- Maslow, A. H.** (1965). *Eupsychian Management: A Journal*. Homewood, ILL; Richard D. Irwin, Inc.
- Maslow, A. H.** (1970). *Motivation and personality* (2nd ed.). New York: Harper & Row Publishers.
- Porter, L.** (1961). A study of perceived need satisfactions in bottom and middle management jobs. *Journal of Applied Psychology*, 2, 1-10.
- Robitschek, C.** (1998). Personal growth initiative: The construct and its measure. *Measurement and Evaluation in Counseling and Development*, 31, 197-210.
- Ryan, R. M., & Deci, E. L.** (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68-78.
- Siegel, S. M., & Kaemmerer, W. F.** (1978). Measuring the perceived support for innovation in organizations. *Journal of Applied Psychology*, 63, 553-562.
- West, G. B.** (1999). Teaching and technology in higher education: Changes and challenges. *Adult Learning*, 10(4), 16-18.

JACK LENOR LARSEN AND HIS SIGNIFICANCE TO INTERIOR DESIGN

Paper by
Stephanie A. Watson, Ph. D.
University of Minnesota

Purpose

For over 45 years, Jack Lenor Larsen has been one of the foremost designers and producers of high-end textiles in the United States. The purpose of this presentation is to examine the work of Jack Lenor Larsen and his significance to the field of interior design.

Methodology

Numerous forms of archival research were used to explore and document the work of textile designer, Jack Lenor Larsen. Archival research included a review of Jack Lenor Larsen's product and production files. The files assisted in documenting the process by which designs were initiated, brought to production, and marketed. Interviews were also conducted with former Larsen designers, museum collection curators, and historians. Visits to significant museum textile collections and the archival holdings of a major Midwest university provided a rich source of research information. The methodology process included identifying specific pieces that were reflective of the fibers and technologies that were significant to the advancement of interior design.

Summary of Results

The name "Larsen" is synonymous with 20th century textiles. Ever since Jack Lenor Larsen, Inc. was established in 1952, the influence of its innovative, far-seeing founder has permeated the field of interior design. Archival research indicates that Larsen:

- Designed and produced the first warp-knit casements
- Designed and produced for Pan Am the first fabrics for jet airliners
- Was the first to produce printed velvet upholstery fabrics
- Developed the first diagonal stripe weave
- Designed and produced the first stretch upholstery
- Developed the first production ikat fabrics
- Was one of the first "name designers" to come out with a licensed domestics line. Designed the Fine Arts Collection of towels, sheets, and blankets for J.P. Stevens.
- Designed porcelain tableware for Dansk International

During the course of 45 years, Larsen expanded to complete the total interior package. In the early 1970s, Larsen Carpet and Leather was established (Larsen, 1998). Larsen's revival of coir and sisal in America greatly contributed to the worldwide popularity of these fibers used in floorcoverings in the early 1980s. The carpet division was also known for their custom designs involving jacquard-woven wiltons (Feisst, 1984). Larsen Furniture was established in 1976. Top furniture designers, such as Ben Baldwin and Ernst Dettinger, teamed with Larsen to introduce new furniture collections (McDevitt, 1983).

Larsen textile designs have won numerous textile and design industry awards and have been sold in 31 showrooms around the world. His work is in the permanent collections of some of the world's major museums including the Museum of Modern Art, New York; the Art Institute of Chicago; the Victoria and Albert Museum, London; the Musée des Arts Décoratifs, Paris; and the Museum Bellerive, Zurich (Larsen, 1998).

In 1997, the Larsen Company merged with Cowtan & Tout, the American subsidiary of Colefax and Fowler Group of London. Jack Lenor Larsen has remained a consultant to the firm and still plays a key role in design development.

References

- Feisst, B.** (1984, August). Meeting Swiss carpet friends. *Interior/Textiles Swisses*, 47-49.
- Larsen, J.** (1998). *A Weaver's Memoir*. New York: Harry N. Abrams.
- McDevitt, L.** (1983, June). Contemporary designs from the established creator. *Designers West*, 224-226.

PROBLEM SOLVING IN THE INSTITUTIONAL SETTING

Paper by
Nancy Blossom
George Washington University

Kathleen Gibson
Cornell University

David Mathews
Ohio University

Purpose

The purpose of this presentation is to compare three innovative teaching modules implemented at different universities. Each module exploited Internet communication and explored the potential for collaboration and the sharing of knowledge through the exploitation of technology. The modules demonstrate that the ecology of the design studio and the design classroom is global (Hanna, 2000). Within that framework new paradigms for teaming and collaboration in the design studio are explored and new opportunities for professionals to participate in design education without leaving their design firms are discovered. (Stein and Hurd, 1999)

Methodology

Each case is different but the modules share a common goal, which is to discover new opportunities in learning and development for students, practitioners and educators.

Case 1: An educational module that incorporated interactive learning strategies was implemented with a web-based course application. The purpose of this project was to expose students to intercultural idea exchange in a studio design project. The application allows instructors to conduct course interactions online. In this case these interactions were exploited to allow a client in another country to participate in a studio project. Exploration of an interactive learning process provided teaching strategies that appear to increase student learning. The value of this teaching module lies in the implications for increased communication and exchange of ideas within the global studio.

Case 2: Applying the common value of research in a design project, this case explored the possibilities of connecting design students in universities and design professionals in city practices via the Internet. The emphasis on research created a symbiotic relation between the institutions and design practices. Working within a framework of shared web sites, students completed research that informed and supported practitioners in real projects. As students developed theoretical solutions to the same projects, practitioners participated in weekly critiques and impromptu email feedback. The emphasis on research provided needed collaborative continuity between the academic institutions and the design firms. It impacted the quality of student design proposals, and it created a framework through which all participants found meaning in the collaborative process.

Case 3: Acknowledging the expansion of digital interconnectivity, faculty from three international universities tested a twenty-four/seven global design studio and to explored the concept of a global labor market. Students and faculty used very basic digital communication modes: electronic mail, web pages and net meeting to deliver, gather, and post information online. Using AutoCAD and 3DSVIZ throughout the design process enabled students to easily transport their image files and 3D animations to team members. In contrast with traditional studio norms, the project web site displayed and documented the entire process for all to view in real time.

Summary of Results

The results from the projects were varied. A comparison of the cases reveals a common thread of costs and benefits in the virtual studio experience. The overarching success shared by all three cases is that of access: the virtual studio brings design students and design professionals together in teams. Experts in any field become accessible to both students and professionals.

References

- Ataman, O. and Bermudez, J.** (editors) (1999). Media and design process. Proceedings of the Association for Computer-Aided Design in Architecture
- Baecker, R., Grudin, J., Buxton, W., and Greenberg, S.** (1995). Human computer interaction: toward the year 2000. San Francisco: Morgan Kaufmann Publishers.
- Brown, D. G.** (Ed.). (2000). Interactive learning: vignettes from America's most wired campuses. Boston, MA: Anker Publishing Company.
- Mitchell, W.** (2000). E-topia. Cambridge, MA: MIT Press
- Hanna, D.** (2000). Higher education in an era of digital competition: choices and challenges.
- Richardson, J.** (2001). Collaborative Learning in a Virtual Classroom. National Teaching and Learning Forum Newsletter, 9(6).
- Stein, R. and S. Hurd.** (1999). Using student teams in the classroom. Boston, MA: Anker Publishing Company.

MATERIAL SELECTION IN INTERIOR DESIGN PRACTICE

Paper by
Helena Moussatche, Ph.D., IDEC
University of Florida

Janine King, M.I.Arch., IDEC
University of Florida

Tobynn S. Rogers
University of Florida

Purpose/Issue

New knowledge about building materials and how they affect the environment has made a significant impact on interior design practice. Material selection is an important part of the design process (Pile, 1995), and the public, our clients, and code agencies now require that interior designers have a broad knowledge about building material properties and applications (Riggs, 1999). Researchers who study interior finish materials want to make research based information available to designers in a manner that is easy for designers to use.

Many interior designers have limited knowledge about the adverse properties of materials they specify (Guerin & Ginthner, 1999). For example, researchers found that interior design practitioners commonly rely on manufacturers' literature and rarely search for conflicting information (Moussatche & Languell, 2001). However, it is unclear why designers rely heavily on manufacturer's literature. Some researchers speculate that designers prefer manufacturers information because it is easily accessible, and contrasting objective information is fairly difficult to find. Others think that manufacturers product literature contains a large amount of information that designers need. Conversely, academic and technical literature often contains a limited amount of useful information. The effort designers expend to retrieve information from objective sources is too time consuming for pressures of project scheduling. Thus, designers may prefer manufacturer's literature because the information is organized in ways that are easy to understand and use.

This study was designed to determine what search methods interior designers predominantly use, the most common criteria they use for material selection, the types of information available to them, and their preference in terms of information organization.

Methodology

Researchers conducted this project in three phases: 1) Phase One – was a pilot study where researchers defined, designed, and refined survey instruments (Creswell, 1994); 2) Phase Two – was a survey where researchers used a questionnaire to gather data regarding designers' process for material selection; and 3) Phase Three – used focus group observation (Creswell, 1994; Kruger, 1994) to collect data regarding designer's preferences for information organization. This paper reports the findings of the second phase, a survey of 200 interior designers from 20 different cities across the United States.

Summary of Results

Survey results show that Interior Designers select materials primarily according to clients' preferences, needs, aesthetics, and cost. Additionally, this research confirms previous studies showing that fast and easy access to materials' data is an important factor in material choice (Guerin & Ginthner, 1999; 2000). More specifically, respondents indicated that functional factors, such as durability and maintenance were important criteria in materials selection. Global impact was commonly listed as secondary criteria. Initial findings also indicate that health factors such as VOCs emissions, susceptibility to microbial growth, and long-term environmental impact were not a significant criteria for choosing materials.

The results of this research clarify the processes interior designers use when selecting finish materials. Furthermore, it helps researchers and educators develop new methods for organizing and presenting information on materials to the professional design community.

References

- Creswell, J. W.** (1994) *Research Design: Qualitative and Quantitative Approaches*. Thousand Oaks: Sage Publications.
- Guerin, D. and Ginthner, D.** (1999) Designers Knowledge of Green Design: What Do We Do Now? IDEC 1999 International Conference Abstracts. Clearwater, Florida. pp. 50-51
- Guerin, D. and Ginthner, D.** (2000) Sustainable Interior Materials Design Guide. IDEC 2000 International Conference Abstracts. Calgary, Canada. pp. 70-71.
- Kruger, R. A.** (1994) *Focus Groups: A Practical Guide for Applied Research*. Thousand Oaks: Sage Publications.
- Moussatche, H. and Languell, J.** (2001) Flooring Materials – Life-cycle Costing for Educational Facilities. *Facilities*. 19 (10): 333 – 343.
- Pilatowicz, G.** (1995) *Eco Interiors: A Guide to Environmentally Conscious Interior Design*. New York: John Wiley & Sons.
- Pile, J. F.** (1994) *Interior Design*. New Jersey: Prentice Hall.
- Riggs, J. R.** (1999) *Materials and Components of Interior Architecture*. New Jersey: Prentice Hall.

THE EVERETT L. MARSHALL BUILDING AT EASTERN MICHIGAN UNIVERSITY: A MODEL FOR ACADEMIC BUILDINGS IN THE 21ST CENTURY

Paper by
Louise Jones, ArchD
Eastern Michigan University

Purpose

“Design is at its best when it is fully achieved and includes the consideration of function, economy, justice, well-being and sustainability, as well as pleasing aesthetics. Remove any of the above and the design fails”. (Bonda, 2001, pg. 40). A new college building was evaluated to determine if it meets the criteria for ‘design at its best’.

Methodology

Case study methodology was used to examine the interior design of the Everett L. Marshall Building that houses both college classrooms and academic offices. First, design goals were identified, then design guidelines were explored, and finally the completed interior was examined to determine if the client’s goals were achieved. The resulting case study can serve as a model for the design of academic buildings in the 21st century.

Summary of Results

There were four design goals identified: 1) to foster a sense of community; 2) to provide a healthy environment using green/sustainable finishes and furnishings; 3) to provide leading-edge technology to enhance teaching and learning; and 4) to use universal design to meet the needs of everyone who uses the building regardless of their age, ability, or physical stature.

The student commons and café provide comfortable environments for studying, group work, or socializing. Classrooms are equipped with instructional technology: computers, LCD projectors; visual presenters; Smart Boards; and slide, audiocassette, CD/DVD, and VCR players. Multi-phase lighting and the instructional technology equipment are controlled from the touch panel at the custom designed podium that accommodates either standing or seated speakers. The furnishings are height adjustable to accommodate students of different physical stature or those with disabilities. Tables and chairs are on casters so that the room can easily be arranged to accommodate multiple teaching and learning styles. The 1000+ network connections enable students with laptop computers to capture Smart Board notes, communicate with peers, and have easy access to Internet resources. Distance learning opportunities are available using interactive television or the Internet. Faculty can enhance classes by bringing guest speakers to campus using video-conferencing equipment without the expense or inconvenience of travel.

In a radical departure from academic protocol, the departments are intermixed to create a sense of community that encourages collaborative and cooperative research and teaching endeavors. Deans' and department heads' offices open onto the central atrium, the faculty offices are on the perimeter with exterior windows. Conference rooms, informal meeting areas, teaming spaces, and a gathering room facilitate interaction.

The Everett L. Marshall serves as a demonstration site for environmentally responsible design. Native American ideology maintains that we do not inherit the earth from our ancestors; we borrow it from our children (Frankel, 2000). To achieve the design goals, evaluation criteria were developed for finishes and furnishings, then products were selected to 'do no harm' to the environment and to protect indoor air quality.

Conclusion

The client's goal was to use sustainable materials to create a healthy environment that a) supports diverse teaching and learning styles, b) fosters a sense of community among building users, and c) supports endeavors to reach out to both the surrounding and global community. This case study explores the development and success of the design that responds to this goal.

References

- Bonda, P.** (2001, September). EcoDesign matters: A personal story. *Interiors & Sources*.
- Frankel, N.** (2000, January). Shades of Green. *Interiors*, 28.

THE IMPACT OF PERIODICALS ON THE PERCEPTION OF INTERIOR DESIGN AS A PROFESSION

Paper by
Theodore Drab
Oklahoma State University

Purpose

Interior design's progress toward full stature as a profession is a focal issue, important to educators, professional organizations and practitioners alike. It has been suggested that the abundant coverage of interior design in the media, particularly in periodicals, has a sometimes detrimental impact on shaping public perception of the profession (Drab, 1997). It is also possible that aspects of journalistic coverage pose a real threat to the continued viability of the professional organizations' efforts to secure a place for interior design among the other accepted professions. Within higher education, concern about practitioners' appraisal of the graduate degree as a low priority for professional success (Birdsong & Lawlor, 2001) could pale beside concerns over undergraduates perceiving that a degree in architecture represents the valid preparation for a career devoted to the shaping of interior space. Rather than dismissing the importance of the popular magazines or minimizing the impact that popular journalism has on the continued development of interior design as a distinct discipline, it is important to identify examples of writing that could contribute to a negative perception of interior design, that could limit the field's progress toward full acceptance as a profession.

Process

Students in a Professional Practices course reviewed over 300 articles from design publications issued in the year 2000. Articles addressing both residential and commercial interiors were analyzed to assess the impact each might have on the reader's impression of interior design as a profession. Content analysis techniques were employed to gauge the frequency of vocabulary and language constructs used by journalists to define interior designers' activities. Particular focus was placed on comparing journalistic treatment of the fields of architecture and interior design.

Results

Using Moore's (1970) definition of "profession" as a model, it was seen that periodicals often ascribe activities that could be termed "customary", and thus non-professional, to interior designers, while words denoting activities associated with professionalism were more frequently observed in descriptions of architectural practice. Gender issues identified in design history texts by Turpin (2001) were also apparent in journalists' use of different vocabulary in discussing interior design and architecture; in the former, softer verbs often borrowed from the domestic arena; in the latter, much more active, assertive verbs suggesting technical rigor and complexity.

Organizations pressing for title or practice legislation would find little support from the journalists in the millennial year, in that issues of life safety and code compliance were absent from descriptive articles focussed more on cosmetics than human welfare. Interestingly, architects received credit for the majority of the interiors featured in the articles analyzed.

While Birdsong and Lawlor report that few practitioners perceive a graduate degree as an important component of our profession, the small number of published interior design installations credited to interior designers could prompt students to place higher value on an undergraduate degree in architecture.

References

- Birdsong, C. & Lawlor, P. J.** (2001). Perceptions of professionalism: Interior design practitioners working for the top 100 firms. *Journal of Interior Design*, 27 (1), 20-34.
- Drab, T.** (1997). The portrayal of interior design in periodicals. *Interior Design Educators Council Conference Abstracts*, 72-73.
- Giattina, J. P.** (2000). Address on interior design legislation delivered to NCARB Annual Meeting, June 14.
- Moore, W. E.** (1970). *The Professions: Roles and Rules*. New York: Russell Sage Foundation.
- Piotrowski, C.** (1994). *Professional Practice for Interior Designers*. New York: Wiley.
- Turpin, J. C.** (2001). Omitted, devalued, ignored: Reevaluating the historical interpretation of women in the interior design profession. *Journal of Interior Design*, 27 (1), 1-11.

USE OF VIRTUAL ENVIRONMENTS TO EXPLORE OLDER ADULTS PREFERENCES AND FUNCTION IN ASSISTED LIVING PRIVATE LIVING SPACES

Paper by
Joan McLain-Kark
Julia O. Beamish
Karen A. Roberto
Virginia Tech

Purpose

The purpose of this study is to explore the use of virtual environments to determine older adults' preferences and functioning in assisted living private spaces. Virtual environments, particularly the CAVE™ (Cave Automated Virtual Environment), have strong potential as research tools in environmental design evaluation (Lindsey & McLain-Kark, 1998; McLain-Kark & Lee, 1998). This research project, funded by the AARP/Andrus Foundation provides insights on using virtual environments with older adults.

Methodology

We first designed four different configurations of a 400 square feet of assisted living apartment. This square footage was found to be the average for assisted living in the United States. Tinsley and Warren (1999) report that nationally, the average size of an assisted living studio apartment is 303-sq. ft., while a one-bedroom unit averaged 484 sq. ft. Using the same basic 400 square foot plan, we varied the amount of square footage devoted to one of the following spaces: sleeping, food preparation, social, or storage. These designs were modeled using 3D Studio Viz and then converted for testing in the CAVE. Special care was taken to keep the complexity of the model geometry low or below 80,000 polygons so that the real-time animation in the CAVE would be smooth. At the same time, we used traditional styling in the furniture which would appeal to the most older adults.

The CAVE is a 10' x 10' room made of projection screens. A supercomputer projects stereo images onto the screens while stereo glasses enable users to see stereo 3D images in full scale (NCSA, 1998). Figure 1 is an image which depicts how a person surrounded by a 3D object in the CAVE, an experience close to reality. The researcher used a wand to navigate the assisted living private living space with one older adult wearing the tracking stereo glasses. The researcher and subject were seated during the CAVE portion of the research session to avoid a possibility of vertigo or motion sickness (see Figure 2).

Sixty subjects, over 65, participated in the research sessions. Each session began with an interview with the subject about their background including demographics, health status, and lifestyle. Then, each subject first toured a townhouse, before each assisted living model. Once the subjects made their choice of which configuration of model they preferred, they saw a more open plan of the design. Finally, follow-up questions queried the subjects on use of virtual reality for making choices in assisted living.

Summary

Our initial results provide some interesting insights on the use of virtual environments to study people's preferences for assisted living. Subjects may have had a difficult time imagining themselves to be frail and living in the assisted living environment where meals are served in dining halls because most wanted the model with the large kitchen so they could prepare meals. The second most often desired larger space was for the living or social area. Many commented on the small size of the apartment as compared to what they perceived to be normal. A surprisingly large number commented on the lack of a computer or space for a computer. Many of the participants kept in contact with family or friends through the Internet so this has become an important communication tool for older adults. However, because of the large number of retired professors in the sample, computer users may have been a higher percentage than what has been found in the general population (Department of Commerce, 2000). Others commented on the provision of only one window and wished that the apartment had more natural light. These comments indicate the subjects were able to perceive the assisted living space in full scope and close to what might be termed reality. Thus, these subjects were able to give feedback on the apartment design with the use of virtual environments or the CAVE.

These results suggest that designers can use their creativity and skills to create assisted living private living spaces that meet the needs of the older adults. Several techniques could be used to make the small size of the apartment appear larger such as using an open plan, smaller scale furniture, or light colors. Another feature might to design storage cabinets and closets that are integrated into the space so that the space will appear larger rather than when you have a separate room for storage. Finally, designing flexible spaces that address residents' differing lifestyles and usage of electronic media is recommended based on the results of this research.

Some futuristic designs for assisted living private spaces will be presented to give designers insights on how the findings of this research could be used in practice. These designs might be similar to those used in the future.

References

- Department of Commerce**, (2000). Falling through the net: A Report on Americans' Access to Technology Tools. Online: <http://www.esa.doc.gov/fttn00.htm>.
- Lindsey, P. & McLain-Kark, J.** (1998). A comparison of real world and virtual world interior environments. *Journal of Interior Design*, 24(1), 27-39.
- McLain-Kark, J. & Lee, J.** (1998). Using the CAVE as a design evaluation tool. *Proceedings of the DCNet98*. University of Sydney, Sydney, Australia, December 1, 1998.
- National Center for Supercomputing Applications**, (1998). The CAVE at NCSA. Online: <http://www.ncsa.uiuc.edu/VEG/ncsaCAVE.html>
- Tinsley, R. K., & Warren, K. E.** (1999). Assisted living: The current state of affairs. In Schwarz, B., & Brent, R. S., (eds.). *Aging, autonomy, and Architecture: Advances in Assisted Living*. Baltimore: The John Hopkins University Press.

NEW WAYS OF TEACHING AND LEARNING THROUGH STRATEGIC STORIES

Paper by
Sheila Danko, M.I.D.
Cornell University

Margaret Portillo, Ph.D.
University of Kentucky

Purpose

This paper presents new ways of teaching and learning interior design by incorporating narrative or “storytelling” into undergraduate design education, specifically a senior design studio and an undergraduate research experience. The stories of workplace design were gathered from the FIDER research study, “Strategic Stories Shaping 21st Century Interior Design.” The narrative methodology developed in the Stories Project (Portillo, 2000) guided the pedagogic applications that will be described in this session.

The objectives of the paper are to clearly illustrate perceived benefits and potential liabilities of a narrative teaching method applied to design studio problems and undergraduate research. The teaching goals and context for each application are presented through examples of student work and reflections on how to compliment conventional teaching methods with narrative-based instruction.

How can an expanded understanding of the research process and research driven designing enhance traditional design education and training? This is a question that the professorate across the country is asking: What is the relationship between research and teaching in the undergraduate curriculum and how should students be exposed to the nexus between knowledge and research (Clark, 1997)? Narrative inquiry holds great potential for design by connecting research, practice, and education.

Methodology

Students were exposed to narratives describing accounts of seminal moments, challenges and breakthroughs in design thinking. These accounts of the design process and reactions to designed environments captured client and designer perspectives and revealed points of conflict, as well as underlying meanings and attitudes of the involved parties. This was the model of narratives that was presented into the learning situations at two accredited university interior design programs.

One was a second semester senior design studio and the other was an independent study in undergraduate design research. Students in both learning situations became familiar with narrative research, read a strategic story, and reflected on it’s implications for professional practice, and developed original stories of their own using the narrative method. The paper elaborates on both experiences including the teaching goals, applications of storytelling, and reflections on the process.

Summary of Results

The benefits of using storytelling in design studio and in undergraduate research were significant and immediate, positively impacting student attitudes towards learning, quality of output, and presentation skills in both design studio and student research. Students became more actively engaged in the learning process, not wanting to leave class until they heard each story. The story method was accessible and readily understandable to the students. Stories offered a vicarious experience of seeing space through the eyes of end users and clients. The power of the narrative to capture multiple perspective facilitated a greater awareness of people in environments.

However, some clear drawbacks emerged from using a narrative method as well as some caveats for future use. Storytelling requires good writing skills, favoring the analytic, articulate student over the visual student. Storytelling is not a panacea for all students or learning styles. What storytelling does do, though, is to facilitate problem-finding process by helping students define the scope, depth, and tenor of the project early in the design process.

References

- Black, A.L.** (2000). Stories of co-op: Reflections in a professional practice course. *Journal of InteriorDesign*, 26(2), 74-85.
- Bruner, J.** (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.
- Bruner, J.** (1986). *Actual minds: Possible worlds*. Cambridge, MA: Harvard University Press.
- Clark, B. R.** (1997). The modern integration of research activities with teaching and learning. *The Journal of Higher Education*, 68(30), 242-255.
- Cole, H.P.** (1997). Stories to live by: A narrative approach to health-behavior research and injury prevention. In D.S. Gochman (Ed.), *Handbook of health behavior research methods*, (pp. 325-348). New York, NY: Plenum.
- Danko, S. & Portillo, M.** (2001). Reaching Out: The Common Language of Strategic Stories, " *Interiors and Sources, J/A*, 94-99.
- Danko, S.** (2000). "Beneath the Surface: A Story of Leadership, Recruitment and Retention and the Hidden Dimensions of Interior Design" *Journal of Interior Design*, 26/2, 1-24.
- Danko, S., Portillo, M., Black, A., McLain-Kark, J., Budd, C., & Dohr, J.** (1999). "Real Time Relevance," *Interiors and Sources, J/A* 99: 110-112.
- Denning, S.** (2001). *The springboard: How storytelling ignites action in knowledge-era organizations*. Boston, MA: Butterworth-Heinemann.
- Labov, W., & Waletzky, J.** (1967). Narrative analysis: Oral versions of personal experience. In J. Helm (Ed.), *Essays on the verbal and visual arts* (pp. 12-44). Seattle: University of Washington Press.
- Lane Scheppele, K.** (1989). (Ed.) *Legal Storytelling [Special Issue]*. *Michigan Law Review*, 87(8).
- Portillo, M. & Dohr, J.** (2000). "Creativity and narrative in Eva Maddox Associates: Design Beyond Space" *Journal of Interior Design*, 26/2, 41-57.
- Portillo, M.** (2000). (Ed.) *Narrative Inquiry [Special Issue]*. *Journal of Interior Design*, 26(2).
- Remen, R.** (1996). *Kitchen table wisdom: Stories that heal*. New York, NY: Riverhead Books.

Shaw, G., Brown, R., & Bromiley, P. (1998). Strategic stories: How 3M is rewriting business planning. *Harvard Business Review*, (May/June), 41-50.

INTERIOR DESIGN IN K-12: LET'S ASK THE EXPERTS!

Paper by
Stephanie Clemons, Ph.D.
Colorado State University

Purpose

The purpose of this qualitative study was to assess perceptions of interior design educators/practitioners and K-12 teachers/principals/curriculum specialists concerning critical issues when integrating interior design content areas into K-12 grade levels. This study is the second phase of a three-part project.

Methodology

Three focus groups were held summer 2001 to assess perceived issues concerning integration of interior design into K-12 grade levels. Focus Group One was comprised of interior design educators and practitioners from across the nation. Focus Group Two consisted of both elementary and secondary teachers and Focus Group Three was comprised of K-12 principals, curriculum specialists (e.g. social studies, math, history) and curriculum administrators from a specific region. A grounded theory method (Patton, 1990) was used to analyze the collected data. Validity and reliability were addressed using techniques outlined in Lincoln and Guba (1985).

Summary of Results

Focus Group One identified critical content areas of interior design that should be taught in K-12 levels. These included: design criticism and thinking, career/profession information, visual literacy, elements and principles of design such as color and light, three dimensional exploration, interpersonal skills, cultural and international influences, psychology of space, life cycle changes, specialty interior design installations, and terminology/language of design. Appropriate teaching methods were identified such as: model making as part of a thinking process, inquiry exercises, field trips, design thinking and criticism assignments, and use of concrete examples that are identified in context to enhance student learning.

Critical issues for integrating interior design into K-12 levels were discussed by participants in Focus Group Two and Three. They included: clearly defining how interior design content relates to specific national standards; offering lesson plans that are grade appropriate and can relate to "real life"; achieving good communication with teachers; integrating technology different teaching methodology; and realizing that every topic involves the identification of a career.

Participants discussed supplemental materials K-12 teachers and specialists would need when integrating interior design into the curriculum. Overhead projectors were still commonly used in the classroom and technology/computer standards were limited. Materials perceived to be helpful included visual overheads, posters, prints, and videos. They should be “fun”, “entertaining”, and “sturdy” as well as “intact”, self-contained and easy to “take off the shelf to use”. Participants also indicated that materials should be “universal”, meaning the lesson plan should not be planned for use once a year but should be designed to link with various national standards throughout the academic year.

Overwhelming support of integrating interior design content areas into K-12 levels was present in all three focus groups. These findings indicate that issues to be addressed would be: seamless integration of interior design with national standards; development of solid communication channels with K-12 teachers/specialists; development of lesson plans with multiple applications that relate to national standards; and lack of funding for developed materials. Concern was expressed that integration through the family and consumer science channels in high school may not be the best method to integrate interior design.

References

- Patton, M. Q.** (1990). *Qualitative evaluation and research methods*. (2nd ed.). Newbury Park, CA: Sage Publications.
- Lincoln, Y. W. & Guba, E. G.** (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.

The Effects of Physical Environment on Engineering Team Performance: A Case Study

Paper by
Daniel C. Beert
School of Interior Design at University of Kentucky

Eric Grulke, Ph.D.
Department of Chemical and Materials Engineering

Derek Lane, Ph.D.
College of Communication,
University of Kentucky

Purpose

In order that interior design and engineering curriculums effectively implement required student teamwork experiences (EAC, 1998; FIDER, 2000), dramatic changes must be made to legacy classrooms that continue to reflect more traditional learning modes. Rather than fostering collaborative activities that build communities of knowledge (Cuseo, 1996; Wenger, 1998), dis-located resources segment time, interrupt the processing of information, and discourage students from working together on short-duration tasks. Instead, students rely on individual processing, where everyone works in isolation and the product is “assembled” at the end of the project (Goodwin & Wolter 1998; Katzenbach & Smith 1999; Slavin, 1992).

“Becoming a team is a process, not an event. Unless instructors facilitate the transformation of groups into teams, their success in using small groups is likely to be limited at best” (Michaelson, 1994, p. 2). To facilitate effective group communication, teams must also have an awareness of the constraints imposed by the physical environment. Besides adequate preparation and understanding of learning objectives, teams also need ways to control interruptions, settings that collocate team activities with tools and resources, and the ability to manipulate their physical environment to maintain cohesive communication (Covi, Olson, Rocco, Miller and Allie 1998; Michaelson, Jones, and Watson, 1993; Sundstrom & Altman, 1989).

Methodology

This case study – a multidisciplinary collaboration of interior design, engineering, and team communication researchers – identified contextual elements and conditions of team-learning environments, including a clearer picture of spaces typically available to student teams, how these spaces might be improved, and how well students understand the role physical environment plays in team activities. In addition, the results indicate that the ability of students to work effectively and efficiently in groups is partially determined by the quality of their learning environment.

The effects of physical environment on the performance of engineering student teams were evaluated in an intensive problem-solving event. Successful completion of the project depended on using engineering skills to solve an open-ended technical problem and produce a one-page memo defining the solution. Students were required to search electronic databases, analyze journal publications, develop and apply a kinetic model to the problem, make team decisions, and communicate the results in a written product within a three-hour timeframe.

Three of the six teams performed the exercise in a technology-training classroom (treatment group), newly constructed and flexibly furnished to accommodate interaction and electronic communication. The remaining three teams (control group) were to find any available space within the Engineering complex. The technology classroom featured team-friendly furnishings and laptop computers with wireless Ethernet connections, giving the students access to Internet database resources and nearby printers.

Summary of Results

All of the control teams migrated to spaces that supported group discussion. The fact that none of the control teams chose to work in a classroom was unanticipated – but revealing. In part, their choices contributed to relatively good performance among both treatment and control groups. However, the teams in the technology classroom scored significantly better on technical content and communicating their work product than the control group. Treatment teams rated their environment higher in helping create a sense of realism, and their satisfaction with overall conditions of the scenario was also higher than the control group's. The treatment teams were also more certain that their environment helped them work together.

References

- Covi, L.M., Olson, J.S, Rocco, E., Miller, W.J. and Allie, P. A.** (1998). Room of Your Own: What Do We Learn About Support of Teamwork From Assessing Teams In Dedicated Project Rooms? (1998). In Cooperative buildings: integrating information, organization and architecture. First International Workshop, Co'Build '98. Darmstadt, Germany. [ONLINE: http://www.steelcase.com/knowledgebase/room_of.htm].
- Cuseo, J.B.** (1996). Cooperative Learning: A Pedagogy for Addressing Contemporary Challenges & Critical Issues in Higher Education. Stillwater, OK: New Forums Press.
- EAC (Engineering Accreditation Commission).** Engineering Criteria 2000: Criteria for Accrediting Programs in Engineering in the United States. Baltimore MD, Accreditation Board for Engineering and Technology, Inc., 1998.
- FIDER (Foundation for Interior Design Education and Research).** (2000). FIDER Professional Standards. Grand Rapids, MI: FIDER.
- Goodwin, C. and Wolter, R.** (1998). Student Work Group/Teams: Current Practices in an Engineering and Technology Curriculum Compared to Models Found in Team Development Literature. In American Society for Engineering Education. Proceedings of ASEE Conference, 1998. [ONLINE: <http://www.asee.org/conferences/search/>].

- Katzenbach, J.R. and Smith, D.K.** (1999). *The wisdom of teams: creating the high-performance organization*. New York: HarperCollins.
- Michaelsen, L. K.** (1994). Classroom organization and management: Making a case for the small-group option. In Prichard, K.W. and Sawyer, R.M. (Eds.) *Handbook of college teaching: Theory and applications*. Westport, CT: Greenwood Publishing Group, Inc.
- Michaelsen, L.K., Jones, C.F., and Watson, W.E.** (1993). Beyond Groups and Cooperation: Building High-Performance Learning Teams. In Wright, D. L. and Lunde, J.P. (Eds.) *To Improve the Academy: Resources for Faculty, Instructional, and Organizational Development, 1993t*. Stillwater, OK: New Forums Press Co.
- Slavin, R.E.** (1992). Research on Cooperative Learning: Consensus an Controversy. In Goodsell, A.S., Maher, M.R., Tinto, V., Smith, B.L., MacGregor, J. (Eds.). *Collaborative Learning: A Sourcebook for Higher Education*, pp. 97-99. University Park, PA: National Center on Postsecondary Teaching, Learning, and Assessment (NCTLA).
- Sundstrom, E. and Altman, I.** (1989). Physical Environments and Work-Group Effectiveness. In *Research in Organizational Behavior*, (11), pp. 175-209. New York: JAI Press.
- Wenger, E.** (1998). "Communities of Practice: Learning as a Social System. *The Systems Thinker*, 9 (5) (June/July, 1998). Waltham, MA: Pegasus Communications, Inc.
[Reprint ONLINE: <http://www.co-i-l.com/coil/knowledge-garden/cop/lss.shtml>]

A CONFLUENCE OF LIFESTYLE RETAILING, SUSTAINABLE DESIGN, AND HISTORIC PRESERVATION AT REI DENVER: A MODEL OF THE PROCESS

Paper by
Karen Hyllegard, Jennifer Paff Ogle, and Brian Dunbar
Colorado State University

Purpose

Recreation Equipment, Inc. (REI)—a Seattle-based, customer-owned cooperative that sells outdoor equipment—has demonstrated sustained dedication to responsible resource use and environmental stewardship since its founding in 1938. The relocation of REI's Denver flagship store to the historic Denver Tramway Power Company Building affords an opportunity to examine one business' efforts to achieve profitability and sustainability in retail design and how these efforts were shaped by the motives of diverse stakeholders. The purpose of this study was to construct a taxonomy that summarizes diverse stakeholders' logic and to develop a grounded theory model of the stakeholders' decision-making processes with practical applications to teaching, research, and business. The objectives were to identify the philosophies, practices, knowledge, and goals of the stakeholders and to examine the interactions and negotiation processes among them. The study was guided by frameworks of decision-making related to the selection, design, and use of commercial space (e.g., Durvasula, Sharma, & Andrews, 1992; Guy, 2000; National Park Service, 2001).

Method

In-depth, qualitative interviews were conducted with stakeholders who represented part of REI's solution, including: REI Management, the building's seller, the Denver City Council, the Denver Urban Renewal Association, the Colorado Historic Society, the National Registrar of Historic Places, project architects, interior designers, and builders. Interview questions focused upon stakeholders' (a) role in the project, (b) goal for involvement, (c) key decision-making factors, (d) core values, (e) work environment and style, (f) expertise and experiences, (g) units of assessment, and (h) benefits to own organization and/or general public. Interview data were analyzed using grounded theory processes (Strauss & Corbin, 1990).

Summary of Results

The taxonomy and grounded theory model generated from the analyses of interview data provide insights into the varied factors that contributed to REI's decision to implement principles of sustainable building design and historic preservation in the relocation of their Denver flagship store. The taxonomy presents the logic of each stakeholder involved in the REI project. The grounded theory model illustrates three orienting philosophies—retailing, sustainability, and preservation—that underpinned the decision-making processes of the diverse stakeholders as well as the juxtaposition of these philosophies to arrive at a collaborative and amenable building solution. Elements of this solution include efforts to

- establish a store location with additional square footage and excellent visibility,
- retain original building materials and structures (e.g., windows, brick walls, coal-fired power generator),
- adaptively re-use structural beams reclaimed from a Montana mine,
- construct energy-conserving building systems (e.g., natural lighting, HVAC), and
- construct resource-conserving building facilities (e.g., underground parking structure that is earth-covered and planted with native, low-maintenance vegetation; employee locker rooms with showers to encourage the use of bicycle commuting).

Although the taxonomy and model were developed to represent one firm's decision-making in its efforts to create an environmentally-sound retail space, both could be useful as teaching tools that underscore the importance of understanding the varied logics of stakeholders and the types of negotiation necessary to arrive at a design solution that is workable for those involved. Similarly, the taxonomy and model can serve as useful frameworks for future research exploring such decision-making processes.

References

- Durvasula, S., Sharma, S., & Andrews, J. C.** (1992). STORELOC: A retail store location model based on managerial decisions. *Journal of Retailing*, 68(4), 420-444.
- Guy, S.** (2000). Framing environmental choices: Mediating the environment in the property business. In S. Fineman (Ed.), *The business of greening* (pp. 54-77). New York: Routledge.
- National Park Service.** (2001, September 21, 2001). The secretary of the interior's standards for the treatment of historic properties. Retrieved September 26, 2001 from <http://www2.cr.nps.gov/tps/standguide/index.htm>
- Strauss, A., & Corbin, J.** (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.

A COMPARISON OF REGIONAL AND NATIONAL ARCHITECTURAL STYLES IN FAYETTEVILLE, ARKANSAS

Paper by
Jennifer D. Webb, Ph.D.
Jennifer R. Taylor
University of Arkansas, Fayetteville

Purpose / Issue

Architectural trends reflect the relationship between geographical regions and the nation at large. McAlester and McAlester (2000) explain that “most surviving American houses are not folk houses but are styled; that is, they were built with at least some attempt at being fashionable. As such, they show the influence ... [of] an architectural style that was currently in vogue.”

Simultaneous adoption theory explains the rise and fall of fashion styles (Sproles, 1985) as a function of consumer acceptance. Innovators, mass-market consumers, and fashion isolates/laggards sequentially adopt trends in an identifiable bell shaped curve. Trends have definable life spans and regional adoption patterns can be compared.

Architecture reflects what is happening in the larger scene and understanding regional variations in trend adoption is significant to understanding the relationship of Fayetteville to other areas. The project objectives were to 1) document regional adoption of architectural styles and 2) compare regional to national adoption trends.

Method

The sample included 587 structures. The first category (n=196) included structures in the National Register for Historic Places. The second category (n= 349) included structures surveyed by the Arkansas Historic Preservation Program but not included due to loss of stylistic integrity. The third category (n=42) included buildings considered by the researcher to have historical value due to appearance. The Arkansas Historic Preservation Program records provided construction dates, stylistic classifications and histories for the first two categories. County archives provided data for the third category.

The sample was organized by construction date, style, and physical location within Fayetteville. Structures that had no assigned style were categorized using Blumenson (1983), McAlester and McAlester (2000), and Rifkind (1980). Houses (n = 110) that had been categorized as “traditional” were re-classified.

Local and national trends were compared for each style with ten or more buildings (Greek Revival, Italianate, Colonial Revival, Queen Anne, Bungalow, and Craftsman). Date ranges were established by averaging the date ranges in the reference texts cited previously.

Summary of Results

Findings indicate that Fayetteville, in its early years, was a fashion laggard architecturally. A comparison of mid-1800 styles (Greek Revival, Italianate) shows delayed adoption of both styles in Fayetteville. Both styles had a small initiation toward the end of the date range and considerable use 30 to 50 years afterward. Comparatively, plots of the Colonial Revival (1875), Queen Anne (1880), Bungalow (1890) and Craftsman (1900) styles indicate that Fayetteville adoption pattern was similar to the nation at large.

Access to information about architectural style and fashion is tied directly to outer regions. The Butterfield Stage Line (1858), the University of Arkansas (1874), and railway station construction (1881) were events that provided regular delivery of news and an influx of people from other regions of the United States. These events coincide with Fayetteville's shift from laggard to mass market consumer in architectural style. In Fayetteville, architectural trends were slowly adopted because of isolated locations.

References

- Arkansas Historic Preservation Program.** (1999). Survey Procedure Manual. Little Rock, Arkansas.
- Blumenson, J.** (1983). Identifying American Architecture: A Pictorial Guide to Styles and Terms, 1600 – 1945. W.W. Norton & Company, Inc.: New York.
- Fayetteville, Arkansas Advertising and Promotion Commission** (1999). Facts and History. Retrieved March 3, 2001 from the World Wide Web: <http://www.fayettevillear.com/ap/>.
- McAlester, V., & McAlester, L.** (2000). A Field Guide to American Houses. Alfred A. Knopf: New York.
- National Register Bulletin.** (1998). How to apply the National Register criteria for evaluation. U.S. Department of the Interior, National Park Service, Cultural Resources, National Register, History and Education. Washington, D. C.
- Rifkind, C.** (1980). A Field Guide to American Architecture. Plume: New York.
- Sproles, G.** (1985). Behavioral science theories of fashion. In M. Solomon (Ed.), The Psychology of Fashion. Lexington Books: Lexington, KY.
- USA Fact File.** (2000). Key to the City. Retrieved March 3, 2001 from the World Wide Web: <http://www.pe.net/~rksnow/arcountyfayetteville.htm#history>

EFFECTS OF GROUP INTERACTIVE BRAINSTORMING ON CREATIVITY

Paper by
Shari Park-Gates, Ph.D.
Georgia Southern University

Anna Marshall-Baker, Ph.D.
University of North Carolina Greensboro

Jeanette E. Bowker, Ed.D.
Virginia Polytechnic Institute and State University

Lawrence Cross, Ph. D.
Virginia Polytechnic Institute and State University

Joseph Germana, Ph.D.
Virginia Polytechnic Institute and State University

Janet K. Sawyers, Ph. D.
Virginia Polytechnic Institute and State University

Corporations spend a great deal of time and money trying to facilitate creativity in their employees. The act of introducing something new and innovative is often increased by enhancing or nurturing creativity. Even though empirical evidence indicates that verbally interactive groups have consistently produced fewer ideas than individuals working alone (Gallupe, Bastianutti & Cooper, 1991), group interactive brainstorming is still the technique most commonly used for enhancing creativity (Siau, 1995).

Background

The enhancement of innovation is important to business and the ID profession. Interior design educators (e.g., Portillo, 1996) realize that activating interior design students' creative potential is essential to growth and innovation in the profession. With the increasing awareness of barrier free design, fire and safety issues, legal and ethical liabilities, functional and aesthetic factors for working and living spaces, interior designers require a high degree of competency and creativity in order to solve interior design problems (Gardner & Weber, 1990).

Cultural change occurs when the creative person changes the memes or units of information passed down from one generation to the next, and enough people see the change as an improvement (Csikszentmihalyi, 1996). Just as cultural change occurs from the creative transformation that receives approval, so does the knowledge passed down in the domain of interior design. Therefore, enhancing creativity is important to the future of ID, business, and culture.

Purpose

The purpose of this experiment was to compare the effect of group interactive brainstorming (social interaction) to individual brainstorming on individual creativity by assessing creativity in the final product of a complex heuristic task.

The hypothesis tested was that participation in-group verbally interactive brainstorming prior to developing a design solution would not facilitate creativity more than individual brainstorming. Indeed, it was hypothesized that individuals brainstorming alone would produce more creative projects than individuals brainstorming in teams.

Methodology

Participants were 36 interior design students in a FIDER accredited interior design program. The Multidimensional Stimulus Fluency Measure (MSFM) was administered before beginning the experiment to determine individual differences in creativity. Subjects were randomly assigned to either a treatment group that participated in verbally interactive brainstorming or a control group that participated in an individual brainstorming session. All subjects then created design projects individually that were assessed for creativity by judges who were recruited from professional interior design organizations. Creativity was measured using the Consensual Assessment for Interior Design Creativity (Barnard, 1992). A post session questionnaire measured attitudes and perceptions about the creative process.

Results and Conclusions

Analysis of variance revealed no significant differences when creativity scores were compared. Projects developed by interior design students did not differ significantly in creativity between the two brainstorming techniques. Creativity scores were higher in the individual brainstorming condition, although not significantly so.

Post-session questionnaires indicated that although students found it more difficult to generate ideas in a group, they believed they would generate more ideas and preferred to generate ideas in a group rather than alone. However, when developing a project, students preferred to work independently.

References

- Barnard, S. S.** (1992). Interior design creativity: The development and testing of a methodology for the consensual assessment of projects. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg.
- Csikszentmihalyi, M.** (1996). *Creativity*. New York: Harper Collins Publishers, Inc.
- Gallupe, R. B., Bastianutti, L. M., Cooper, W. H.,** (1991). Unblocking brainstorming. *Journal Of Applied Psychology* 76 (1), 137-142.
- Gardner, K., Weber, M. J.,** (1990). Creativity levels of interior design and non-interior design majors. *Journal of Interior Design Education and Research* 16 (1), 53-56.
- Portillo, M.** (1996). Uncovering implicit theories of creativity in the beginning design students. *Journal of Interior Design* 22 (2), 15-24.
- Siau, K. L.,** (1995). Group Creativity and technology. *Journal of Creative Behavior* 8 (4), 397-403.

THE DEFINITION AND DOCUMENTATION OF THE INTERIOR DESIGN PROFESSION'S BODY OF KNOWLEDGE

Paper by
Denise A. Guerin, Ph.D.
Caren S. Martin, Ph.D.
Department of Design, Housing, and Apparel
University of Minnesota

Purpose

The purpose of this study was to define and document the body of knowledge that relates to the professional practice of interior design within a human health, safety, and welfare framework. We discovered and documented what constitutes interior designers' work, that their work requires a specialized knowledge, and that their expertise in use of that knowledge contributes to the health, safety, and welfare of the public.

Method

We defined the body of knowledge based on the stages of the career cycle of interior design practitioners: education, experience, examination, and legal regulation. Other entities (FIDER, NCIDQ, and provincial and state laws) had defined a body of knowledge that pertained to their interest, but none of these were comprehensive of the career cycle. We searched the literature of these bodies of knowledge to identify key words that represent content that an interior designer must be knowledgeable about to protect the public's health, safety, and welfare. These key words were developed into the Body of Knowledge Matrix. The Matrix shows that these knowledge areas were supported in one or more stages of the career cycle and the benefits to the public's health, safety, or welfare.

From this framework, we then found articles that document the contribution of a knowledge area to the public's health, safety, and welfare. Over 300 articles were qualitatively analyzed to document the use of that knowledge in practice. Next, we organized the knowledge areas into categories to collapse the data without losing its richness, naming each category based on the literature review. The general categories are Codes; Communication; Design; Furnishings, Fixtures, and Equipment; Human Needs; Interior Building Construction; and Professional Practice.

Summary of Results

Evidence is provided that interior designers are responsible for specialized knowledge through their career cycle: in their education, throughout their experience, by examination, and through legal regulation. A discussion of the literature that documents the contribution that interior design practitioners' knowledge areas make to health, safety, and welfare concludes the research presentation. An example of the documentation is included for each category and will be elaborated on with several other sources for the presentation.

Interior Design's Body of Knowledge has been defined based on a career cycle framework from credible sources. The Body of Knowledge also has been documented through published sources both internal and external to the profession. An annotated bibliography was created that includes almost 300 sources and organized by the Body of Knowledge Categories. This provides irrefutable evidence that each of the Categories in the Body of Knowledge contributes to the public's health, safety, or welfare, providing the basis for practice regulation of the interior design profession.

PRESENTATIONS

FENG SHUI AND EBS: A CONVERGENCE OF DESIGN APPLICATIONS

Presentation by
Michael E. Hunt
University of Wisconsin – Madison

Purpose

The purpose of this presentation is to stimulate discussion about the convergence of selected environmental design applications from two divergent fields of study: environment and behavior studies (EBS), and feng shui. Environmental design applications will focus on housing for older people that is conducive to the provision of long-term care. This presentation will address how these two fields can become mutually beneficial by confirming each other in some instances and by inspiring innovative design and design hypotheses that stretch the other's limits.

Process

A supportive social support network of friends and family is important to meet the long-term care needs of older people. Therefore, the goal of environmental design should be to design housing that is conducive to or even foster the provision of informal support to older residents by friends and family. Naturally occurring retirement communities (NORCs) represent a model of settings conducive to the provision of long-term care. NORCs attract older people seeking the companionship of age peers in an age-integrated and safe setting convenient to shopping and services. In a similar vein, the New Urbanism contends that communities should be designed to foster a sense of community. The NORC and New Urbanism concepts validate each other and have similar goals: to make places more livable for people of all ages. As such, these communities are more conducive to the provision of long-term care.

This presentation will address how design concepts derived from both EBS and feng shui can be converged and applied to the design of housing that will be attractive to older residents and foster a sense of community. Insights into feng shui influenced design that fosters interaction among residents was gained from travel to China to study feng shui applications in the design of housing, imperial palaces, and gardens, as well as modern-day retirement housing. These insights are readily applied to housing for older people in the United States as evidenced by the "community movements" such as the New Urbanism, the pervasiveness of (NORCs), and the growing need for long-term care.

Summary of Results

Four specific design attributes of housing for older people will be addressed: the layout, spatial relationships, entryways, and nature. These design attributes serve as examples of others that can be addressed by both EBS and feng shui. 'Layout' refers to the floor plan configuration of the housing. 'Spatial relationships' refers to the flow of spaces from public to private and the circulation system within the housing. 'Entryways' refers to the entrances into and within the housing. 'Nature' refers to the benefits of nature within the housing and ways it may be incorporated. All four of the design attributes will be addressed with an eye on fostering resident involvement with other residents and the environment itself. An outline and numerous photographic images will be presented via a PowerPoint presentation. Images of ancient and modern Chinese architecture as well as current-day American architecture will be used to illustrate the analysis.

References

- Chuen, L. K.** (1996). *Feng Shui Handbook*. New York: Henry Holt & Company.
- Eddy, L., Pratt, C. & Walker, A.** (1995). Informal caregiving to aging family members, *Family Relations*, 44, 402-411.
- Golant, S.M.** (1992). *Housing America's elderly: Many possibilities / Few choices*. Newbury Park, CA: Sage Publications, Inc.
- Hunt, M.E.** "Settings conducive to the provision of long-term care." *Journal of Architectural and Planning Research*, in press.
- Hunt, M.E. & Ross, L.E.** (1990). Naturally occurring retirement communities: A multiattribute examination of desirability factors, *The Gerontologist*, 30, 667-674.
- Kennedy, D.D.** (2001). *Feng Shui for Dummies*. Foster City, CA: IDG Books Worldwide, Inc.
- Langdon, P.** (1994). *A better place to live: Reshaping the American suburb*. Amherst: The University of Massachusetts Press.
- Rossbach, S., Yun, L.** (1998). *Feng Shui Design*. London: Viking Penguin Publisher.
- Too, L.** (1999). *The Complete Illustrated Guide to Feng Shui*. Boston: Element Books Limited.

UTILIZING THE EDEN ALTERNATIVE IN DESIGNING FOR THE ELDERLY

Presentation by
Linda L. Nussbaumer, Ph.D.
South Dakota State University

Purpose

The purpose of this presentation is to demonstrate how the Eden Principles and Universal Design were applied to a collaborative project that involved students in their interior design, landscape, and gerontology disciplines within the university. This was an adaptive reuse project—former middle school—that was re-designed as a living environment for all ages. Spaces within the building included living accommodations for a variety of ages as well as spaces for activities for residences and people from the community.

Background

In the United States, there is an increasing number of older people. With this increase, there is a greater need for long-term care. Many older people fear the concept of the nursing home where, in many cases, people exist rather than live. In the past, older people had one choice when they no longer able to care for themselves; that choice was a nursing home. Today, there are alternatives, such as assisted living. However, according to Dr. William Thomas (2001a), many of the assisted living facilities still feel more like nursing home and separate the elderly from other ages and activities. Dr Thomas (2001b) states: “We must abolish the widespread practice of institutionalizing the frail, the chronically ill and the elderly among us. Rather than institutionalize, we must be creating living environments.” To address this issue, Dr. Thomas created the Eden Principles in 1991. These principles incorporate a variety of ages within a facility and activities that give the elderly meaning to their lives. This new concept is growing in popularity; it is the Eden Alternative.

Objectives

In a senior level studio, students converted a former middle school into a living environment for all ages. The project addressed the issue of creating a living environment. The objectives included the following: 1) to create living environment using the Eden Principles and Principles of Universal Design, 2) to collaborate with other disciplines—gerontology and landscape design, 3) to work separately on elements of the project as well as work as a team to complete the entire project, and 4) to develop the program requirements.

Results

After viewing and measuring the site, studying the blueprints, collecting data, and studying the Eden Principles and Principles of Universal Design, students develop the design concept. The concept reflected the focus of the Eden Principles. The title of the design was "The Village," and the design concept statement, "If it takes a village to raise a child then that village shall be composed of many generations." With this in mind, students designed a space that housed a variety of ages from infants to the elderly.

Summary

This project gave students a great learning opportunity for collaboration with other disciplines and teamwork. They developed a better understanding of the Eden Principles and Universal Design. Ultimately, the project aided students in better understanding of the elderly and their need to be part of a community (large or small).

References

- Thomas, W.** (2001a). The Eden alternative: a life worth living. Available online:<http://www.indiana.edu/~nca/research/eden.htm>. (July 5, 2001).
- Thomas, W.** (2001b). The green house project. Available online: <http://www.thegreenhouseproject.org>. (July 5, 2001).
- (1997). What is Universal Design: Principles of Universal Design. NC State University: The Center for Universal Design. Available: http://www.design.ncsu.edu:8120/cud/univ_design/princ_overview.htm. (July 5, 2001).

INTERIOR DESIGN—AN EXCITING CAREER CHOICE: A CURRICULUM FOR HIGH SCHOOL STUDENTS WITH AN INTERGENERATIONAL APPROACH

Presentation by
Linda L. Nussbaumer, Ph.D.
South Dakota State University

Purpose

The purpose of this project was to develop a two-week interior design curriculum to be taught at the secondary level (high school) within a Family and Consumer Sciences (FCS) course. The curriculum integrated introductory interior design concepts utilizing an intergenerational approach by including activities for children in grades 3-5 that were taught by the high school FCS students involved in the curriculum. The goal of the entire project is to stimulate interest in interior design as a career option.

Statement of Need

Exposing elementary and secondary students to a particular profession often sparks interest in that profession. In particular, teaching interior design to high school students would stimulate interest in interior design as a career path. However, there are few programs that “focus on interior spaces or the role of interior designers in creating such spaces” (Portillo & Rey-Barreau, 1995, p.39).

Most curricula focuses on an architectural component such as architecture, planning issues, landscape architecture, city planning or architectural preservation. Few curricula focus on interior design components such as floor plans and circulation, spatial relationships, furnishing and furniture agreement (Portillo & Tew, 1993). In an example given by Portillo and Tew, in most curricula, there are references related to interior design in units on color and texture, which convey the image of the “Decorator.” The interior design profession needs to be portrayed not as decorators but as designers.

Method

Resources currently available to FCS teachers for teaching interior design were reviewed. Then, a two-week curriculum of study in interior design was developed that utilized original ideas and those gleaned from the review of current teaching resources. Objectives for the curriculum lesson plans were based on the FCS comprehensive standard: integrate knowledge, skills, and practices required for careers in housing, interiors and furnishings. Next, a workshop was held to train to train FCS teachers in the implementation of the curriculum. Inclusion of interactive activities for students in grades 3-5 that was taught by high school students involved in this project.

A pilot study was conducted among 20-25 FCS programs at the secondary level. FCS teachers were solicited for involvement through the state supervisor for FCS education. The principal investigators conducted a workshop for using the curriculum. FCS teachers administered a pre-test to their students to assess existing knowledge in the content area. Then, the trained teachers implemented the curriculum. A post-test assessed change in students' knowledge of interior design as well as growth in their interest in this field as a career option. Data was analyzed and findings will be presented. FCS educators also gave comments on implementation of the curriculum. Then, improvement will be made to the curriculum, and the study will be extended to a larger number of FCS educators through the United States.

Summary

This project created an opportunity for FCS teachers to include two-weeks of instruction that focused on interior design. Thus, the implementation of this curriculum increased knowledge of interior design as a career option through exposure to the concepts and skills needed to serve as a professional interior designer.

References

- Clemons, S.** (1999). Development of interior design career information for dissemination to students in grades six through eight. Journal of Interior Design, 25(1), p45-51.
- Portillo, M., Rey-Barreau, J.A.** (1995). The place of interior design in K-12 education and the built environment. Journal of Interior Design, 21(1), p 39-43.
- Portillo, M., & Tew, S.** (1993, June). Survey of curricula content in existing built environment resources. Plenary papers presented at the International Summit of Education Reform: Architecture + Children: Learning Through the National, Built, & Cultural Environment, Albuquerque, NM.

Acknowledgments

Project funded by Joel Polsky/ Fixtures Furniture/ IIDA Foundation

TRANSFORMATIONAL LEARNING: AN INTERIOR DESIGN STUDIO EXPEDITION

Presentation by
Ronald Phillips, Bobbi Hauptmann, Jennifer Hess
University of Missouri-Columbia

Purpose

This presentation identifies the theoretical foundations on which transformational learning is based and its efficacy in interior design studio pedagogy. Through an interior design studio case study rooted in a transformational learning paradigm, an experiential learning model is proposed. The goal of transformational learning is to facilitate learning processes that spawn autonomous thinkers and self-directed problem solvers – critical to interior designers who wish to successfully meet the ambiguous and dynamic challenges of an uncertain future.

Process

Five senior interior design students who enrolled in a summer design studio titled: “Design for Confined Spaces”, immersed themselves into the world of sailing yacht interior design. The students and their studio instructor traveled to Charleston, South Carolina, where the students enrolled in two three-day sailing courses and traveled to the Beneteau Yacht Manufacturing plant in South Carolina where they toured the assembly lines of the yacht manufacturer selected to serve as the design study model. The students then returned to Charleston and boarded two separate sailing vessels where they were to serve as the crew for a five-day liveaboard experience offshore. Halfway through the liveaboard expedition, crews were exchanged to facilitate interaction with the design studio instructor (one of the yacht skippers).

Upon completion of the sailing portion of the summer design studio, the newly certified sailing crew returned to the University to focus on generating interior design proposals for a 44-foot yacht. At the conclusion of the eight-week session, student design projects were reviewed by two certified bareboat skippers.

Summary of Results

The effects of transformational learning were particularly evident in the performance of two design students who teamed together. First, the amount of work they undertook was exceptional. Second, their craftsmanship and attention to detail was equally extraordinary. Finally, the quality of their design solutions was far greater than anyone might expect from relatively novice sailors. In fact, their proposals and the entire studio process are to be featured in an international sailing magazine.

Students responded to this design challenge, in part, because they were not asked to compromise their learning styles. The level of insight into the nature of living aboard a yacht was much greater than possible if students were simply handed a written design program with no sailing experiences from which to problem solve – a frequent occurrence in design programs to ensure instructor control.

References

- DeLay, R.** (1996). Forming knowledge: Constructivist learning and experiential education. *Journal of Experiential Education*, 19(2), 76-81.
- Lindsey, A., & Ewert, A.** (1999). Learning at the edge: Can experiential education contribute to educational reform? *The Journal of Experiential Education*, 22(1), 12-19.
- Priest, S., & Gass, M.** (1997). *Effective leadership in adventure programming*. Champaign, IL: Human Kinetics.
- Proudman, B.** (1995). AEE adopts definition. *AEE Horizon*, 15, 1.
- Wurdinger, S.** (1996). The theory and pedagogy of experiential education: A critical look at teaching practices. *Journal of Experiential Education*, 19(2), 60-61.

CHANGING ECOLOGY OF THE DESIGN STUDIO

Presentation by
Nancy Blossom
Blossom Design

David Mathews
Ohio University

Kathleen Gibson
Cornell University

Purpose

The purpose of this presentation is to compare three innovative teaching modules implemented at different universities. Each module exploited Internet communication and explored the potential for collaboration and the sharing of knowledge through the exploitation of technology. The modules demonstrate that the ecology of the design studio and the design classroom is global (Hanna, 2000). Within the framework new paradigms for teaming and collaboration in the design studio are explored and the new opportunities for professionals to participate in design education without leaving their design firms are discovered. (Stein and Hurd, 1999)

Methodology

Each case is different but the modules share a common goal, which is to discover new opportunities in learning and development for students, practitioners and educators.

Case 1: An educational module that incorporated interactive learning strategies was implemented with a web-based course application. The purpose of this project was to expose students to intercultural idea exchange in a studio design project. The application allows instructors to conduct course interactions online. In this case these interactions were exploited to allow a client in another country to participate in a studio project. Exploration of an interactive learning process provided teaching strategies that appear to increase student learning. The value of this teaching module lies in the implications for increased communication and exchange of ideas within the global studio.

Case 2: Applying the common value of research in a design project, this case explored the possibilities of connecting design students in universities with design professionals in city practices via the Internet. The emphasis on research created a symbiotic relation between the institutions and design practices. Working within a framework of shared web sites, students completed research that informed and supported practitioners in real projects. As students developed theoretical solutions to the same projects, practitioners participated in weekly critiques and gave impromptu e-mail feedback. The emphasis on research provided needed collaborative continuity between the academic institutions and the design firms. It impacted the quality of student design proposals, and it created a framework which all participants found meaning in the collaborative process.

Case 3: Acknowledging the expansion of digital interconnectivity, faculty from three international universities tested a twenty-four/seven global design studio and explored the concept of a global labor market. Students and faculty used very basic digital communication modes: electronic mail, web pages and net meeting to deliver, gather, and post information online. Using AutoCAD and 3DSVIZ throughout the design process enabled students to easily transport their image files and 3D animations to team members. In contrast with traditional studio norms, the project web site displayed and documented the entire process for all to view in real time.

Summary of Results

The results from the projects were varied. A comparison of the cases reveals a common thread of costs and benefits in the virtual studio experience. The overarching success shared by all three cases is that of access: the virtual studio brings design students and design professionals together in teams. Experts in any field become accessible to both students and professionals.

References

- Brown, D.G.** (Ed.). (2000). *Interactive learning: vignettes from America's most wired campuses*. Boston, MA: Anker Publishing Company.
- Hanna, D.** (2000). *Higher education in an era of digital competition: choices and challenges*.
- Stein, R. and S. Hurd.** (1999). *Using student teams in the classroom*. Boston, MA: Anker Publishing Company.

TWO'S COMPANY, THREE'S A GOOD DESIGN: MULTIDISCIPLINARY TEAMS ARE A 21ST CENTURY NECESSITY

Presentation by
Beth R. Miller, ASID, IDEC
Phyllis Bell Miller, Ph. D., IDEC
Margaret S. Bateman, ASID, IDEC
Mississippi State University

Purpose/Issue

In today's design world, rarely does an interior designer work independently on a project. Numerous other disciplines are involved in the completion of a project from its conception to the attainment of an end product. However, many interior design programs across the nation lack collaboration with other design disciplines on their student projects. A single student completes most projects, with fierce competition among classmates. In many instances, the only group projects involve only other interior-design students. When students enter the design profession, however, they often are required to work in the team atmosphere that design firms frequently use to solve problems (Denton, 1997). They are then uncomfortable sharing ideas and have difficulty becoming team players. Although the related disciplines—architecture, interior design, landscape architecture, engineering, etc.—are similar in many ways, they lack an understanding of how each other goes about solving problems or challenges. The only means of attaining this understanding is by working together in teams. Each discipline brings a unique expertise to the team, thus expanding and broadening the project's scope. This presentation will present a model multidisciplinary project. In addition, a panel of educators will also discuss their views on and experiences with multidisciplinary projects.

Methodology

The interior design program at this university, which is housed in a human sciences/ecology unit, has long implemented projects that involve other disciplines, particularly Landscape Architecture and Biological Engineering. For the past five years, projects have involved environmentally sustainable or green design. The most recent project emphasized energy efficiency, water conservation, air quality, day lighting, site orientation, the use of recycled materials, and environmentally friendly FF & E. The product was to be a model of sustainability, serving as an outstanding demonstration of how to live in harmony with nature. Student teams, which included at least one member from each discipline, compiled research on related issues and projected outcomes.

Summary of Results

Because of the collaboration among Interior Design, Landscape Architecture, and Biological Engineering, the project outcome was far beyond the scope of what a solo designer or a team of persons from the same discipline could have produced. The skills and experiences gained from multidisciplinary projects will generate professionals who have respect for the contributions of other disciplines and a willingness to learn from others. In the rapidly evolving world of design, the importance of bridging the gap between academic studies and the work environment is an issue that cannot be ignored (Albanese, Hines, & Raney, 1995). Through multidisciplinary interaction, the team becomes a community of practitioners that respect and seek each other's expertise.

References

- Aiken, M. W., Martin, J. S., & Paolillo, J. G. P.** (1994). Requisite skills of business school graduates: Perceptions of senior corporate executives. *Journal of Education for Business*, 69(3), 159-162.
- Albanese, C. A., Hines, J. D., & Rainey, M. C.** (1995). Assessment of entry-level interior design skills: Implications for curriculum. *Journal of Family and Consumer Sciences*, 87(3), 40-44.
- Coleman, C.** (2000). Assessing the future of green design. *Interior Design*, 71, 66.
- Denton, H. G.** (1997). Multidisciplinary team-based project work: Planning factors. *Design Studies*, 18, 155-170.
- Gates, G. A., & Ali, Y. K.** (1996). Strategic planning for interior design education: Effective development in conditions of resource decline. *Journal of Interior Design*, 22(1), 45-50.
- Miller, P. B.** (1995). Future hiring practices & required competencies for professional positions within the apparel industry. Unpublished Dissertation, The University of Tennessee-Knoxville, Knoxville, TN.
- Potthoff, J. K.** (1996). Interior design work in architectural firms. *Journal of Family and Consumer Sciences*, 88(1), 55-59.
- Russ, R., & Dickinson, J.** (1999). Collaborative design: "Forming, storming, and norming". *Journal of Interior Design*, 25(2), 52-58.
- Tanyel, F., Mitchell, M. A., & McAlum, H. G.** (1999). The skill set for success of new business school graduates: Do prospective employers and university faculty agree? *Journal of Education for Business*, 75(1), 33-37.
- White, A. C., & Dickson, A. W.** (1996). Perceptions of the value of interior design: Factors influencing program accountability and sustainability in higher education. *Journal of Interior Design*, 22(2), 25-41.

TEACHING UNIVERSAL DESIGN THROUGH COMMUNITY BUILDING AND SERVICE LEARNING

Presentation by
Susan Zavotka, Christine Price, Margaret Teaford
The Ohio State University

Purpose

Universal Design has been a part of interior design curricula for many years (Marshal-Baker, 1996). For it to become an integral part of the housing/building and design industry, however, builders, remodelers, interior designers, and consumers also need to be educated. Service learning courses, using a community asset-based approach, offer opportunities for experiential learning and improved community relationships (Bingle and Hatcher, 1996; Saltmarsh, 1998). According to Kretzman and McKnight (1993), asset-based community service allows university and community members to determine what assets they already possess; and empowers all participants. This presentation's purpose is to educate IDEC members about issues involved in expanding Universal Design education to surrounding communities through collaboration with existing entities. Phase I, the collaborative development of the community education program, is included in this presentation. Suggestions for Phase II, the service-learning course involving students, will be a part of the audience participation.

Process

Interior Design, Family Science, and Occupational Therapy faculty met with Cooperative Extension specialist, Lowe's Home Improvement employees, and Department of Aging employees to explore educational opportunities. The team developed a plan for a service-learning course where students spend 1) four classroom weeks learning about Universal Design, 2) three weeks with Cooperative Extension agents teaching workshops (at a Lowe's store or appropriate location) and conducting in-home assessments, and 3) two classroom weeks evaluating and revising the workshop and in-home assessment process. Prior to involving students, the development team felt it was necessary to compile the educational materials and conduct some pilot workshops. The first workshop was held at Lowe's. During planning meetings with Lowe's representatives, the store manager decided to expand the project to include a month of activities. Therefore, during September, team members trained store employees on Universal Design principles. Lowe's employees then contacted vendors for additional products, produced a booklet on Universal Design products available in the store, and devoted two end-cap displays to Universal Design products. University faculty and extension provided posters, publications, a tabletop store display, and extensive publicity. On September 15, team members conducted two one-hour public workshops and Lowe's Pros conducted Universal Design mini-workshops throughout the store.

Summary of Results

An adapted form of the Portland State University Service Learning Assessment Device: Community Section (1998) was used for evaluation. In general, team members were pleased with the pilot program. The enthusiastic response from Lowe's to include a month of activities and the extensive media coverage was exciting. A unique part of the experience was working with a retail store. The community building, asset-based approach clearly empowered Lowe's employees to use their expertise to train faculty, extension, and customers about installation of Universal Design products. The greatest challenge for faculty and extension was working with a retail culture that reacts best to immediate situations rather than long range planning and commitment. The team felt that this initial step in community building, before involving students in the service-learning process, was essential.

References

- Bringle, R.G. & Hatcher, R.** (1996). Implementing service learning in higher education. *Journal of Higher Education*, 67(2), 221-239.
- Driscoll, A., Gelmon, S.B., Holland, B.A., Kerrigan, S., Spring, A., Grosvold, K., & Longley, M.J.** (1998). *Assessing The Impact of Service Learning: A Workbook of Strategies and Methods*. Portland, Oregon: Center for Academic Excellence.
- Kretzman, J.P. & McKnight, J.L.** (1993). *Building Communities from the inside out: A path toward finding and mobilizing a community's assets*. Chicago: ACTA Publications.
- Marshal-Baker, A.** (1996). Developing students' awareness of universal design. *Journal of Interior Design*, 22(1), 40-45.
- Saltmarsh, J.** (1998). Exploring the meanings of community/university partnerships. *National Society for Experiential Education Quarterly*, 21-22.

"DESIGNING DOMESTICITY": BRINGING LIFE TO DESIGN HISTORY THROUGH FACULTY- STUDENT COLLABORATION ON AN INTERDISCIPLINARY MUSEUM EXHIBIT

Presentation by
Terrence L. Uber
Kent State University

Background

In April, 2000, a discussion between three members of the university community--the director of the university museum, a member of the Department of History, and a member of the Interior Design faculty--resulted in their collaboration on a proposed museum exhibit investigating the design of domestic interiors and the relationship between design, family life and social conventions in the United States since 1876. At this time the university was promoting the development of interdisciplinary projects among faculty, and also asking faculty to develop ways in which undergraduate students could become involved with faculty research projects. The museum project was not only interdisciplinary in nature, combining interior design history with material culture and women's history and historic clothing, but also provided the opportunity for the faculty members to incorporate aspects of the project's research and planning into their course curriculum.

The exhibit, "Designing Domesticity: Decorating the American Home Since 1876," is scheduled to open December 5, 2001.

Purpose

The purpose of this presentation is to illustrate how historic research methodology developed in History of Interiors courses can be effectively dovetailed with a Historic Design Studio to address the design considerations of a museum exhibit; and provide a working example for students of how historical research can be applied to modern-day design problems.

Goals

- To provide an overview of a unique studio experience for interior design students which combined the historical research methodology from their writing-intensive course with the practical studio application of incorporating their research into the planning process of the museum exhibit.
- To discuss how the curriculum of two History of Interiors courses and a Historic Design Studio were adapted to work with the parameters of the museum exhibit to promote undergraduate research and foster interdisciplinary work within the university.
- To solicit peer feedback on the project format and help in generating new ideas for how historical research can be applied to studio problems within an ID curriculum.

Project Parameters

The faculty established the objectives of the museum exhibit and delineated the time periods to be covered, the focus of house design for each time period and the areas within the home to be studied/illustrated. The time periods and content were as follows:

1870s	Entry Hall and Parlor	Victorian
1920s	Kitchen and Dining Room	Bungalow
1950s	Basement Rec Room and Bomb Shelter	Ranch
2000s	"Millennial" Great Room	"McMansion"

The students were given these parameters as a guide to focus their individual and group research.

Outcomes

As a learning experiment, the inclusion of students in this faculty project was extremely successful. The research was thorough, its quality was consistently high and more extensive than anticipated for the credit hours associated with the courses. The students learned more details about historic research methodology than could be taught in a controlled classroom setting, and prepared final documentation which fit the requirements of the project as defined by the faculty. The final floor plan being implemented for the exhibit was taken directly from the student generated plans from these courses.

SHADES OF GREEN: THE PHILOSOPHICAL CHALLENGES OF ECOLOGICAL RESPONSIBILITY IN INTERIOR DESIGN EDUCATION AND PRACTICE

Presentation by
Mary Anne Beecher, Assistant Professor
Brian Davies, Assistant Professor
University of Oregon

Purpose

Interior design education is uniquely positioned to shift the use of materials in design practice exclusively toward ecological responsibility. However, in order to do so, conflicts that reside in certain philosophical positions toward environmentalism that are found in interior design education and practice today must be resolved. The purpose of this presentation is to create a critical dialogue to illuminate these conflicts.

Methodology

This presentation examines four specific philosophical issues identified by a content analysis of recent publications on various aspects of ecological responsibility. They are 1) real and implied costs, 2) shifting standards of beauty, 3) attitudes toward architectural change, and 4) methods for measuring creativity. Published case studies as well as personal experiences with the use of environmentally friendly materials in design practice have also been analyzed. The issues are presented as a balanced point-counterpoint debate in order to place opposing positions in dialogue with one another.

Summary of Results

Designers are most often educated with a “traditional materialist” philosophy that values materials for their appearance, durability and availability (Nielson & Taylor, 2002). They are also taught to embrace a client-based approach to design (FIDER, 2002). This philosophy accepts the importance of budget in making design decisions, and uses ecologically responsible materials selectively because they often cost more. It makes use of a full spectrum of materials (green and not-so-green) because traditional materials are more likely to meet clients’ demands for beauty and durability. It also recognizes a responsibility to meet clients’ expectations for notable change to their spaces, even though transformation inevitably results in the generation of waste. From the point of view of this philosophy, designers are free to express their creativity without bounds.

However, it is possible to imagine that designers be educated from a perspective of “eco-materialism” that values materials for their impact on the environment above all other factors. Such a repositioning requires a shift from a client-centered design process to an ecology-centered process in which designers educate their clients about the implied costs of non-green materials and reject their use. An expanding palette of green, renewable, and/or recyclable products and materials raises the possibility for eco-materialists to create a new theory of materials that redefines performance and aesthetic standards while forging a clear philosophy of sustainable practice. From this perspective, designers are challenged to achieve creative solutions by changing as little as possible and by doing more with less.

This comparison of perspectives recognizes that while designers can easily support the development of new ecologically responsible approaches to and materials for interiors, the reality of today’s professional practice makes it difficult to put this point of view into action. By comparing philosophies of the traditional materialist with the eco-materialist, design educators, students and practitioners can choose whether to accept or reject either position whole-heartedly, or whether to position themselves somewhere in the middle. As a field, we must resolve the contradictions that are found in design education and practice regarding the use of eco-materials before we can accept (or reject) the professions’ potential for leading in this area of design.

References

- Foundation of Interior Design Education Research.** (2001). FIDER professional standards 2000. Grand Rapids, MI: Author.
- Nielson, K. & Taylor, D.** (2002). Interiors: an introduction. Boston: McGraw Hill.

CAN WE TEACH STUDENTS TO THINK CRITCALLY? AN EXPERIMENTAL STUDIO FOR INTEGRATING DIGITAL AND PHYSIACAL TECHNOLOGIES IN THE DESIGN PROCESS

Presentation by
David Matthews
Ohio University

Steve Temple
University of Texas, San Antonio

Purpose

This presentation is to propose a model of integration of virtual and physical technologies within interior design foundation studios. The model of integration formalizes a strategy where thinking and making became mutually constructive entities within the design process. This structure places the possibilities and necessities of physical construction and the qualities of materials in balance with abstract conceptualizations and potentials inherent to virtual visualizations. In the presentation summary the studio experiences will be linked to theories and concepts of effective learning outlined by Robert Leamnsion in the book *Thinking About Teaching and Learning, Developing Habits of Learning with First Year College and University Students*.

Methodology

Projects were developed so the model of integration could be implemented through a foundation level interior design studio project. This presentation will highlight a five-week project that allowed students to experience the processes of abstraction and physical construction based on the model of integration developed by the authors. Information and data from the project design development were collected through direct classroom observation, sketches, models, and digital media from design process ideation. Evaluation of the studio project involved comparison of processes, experiences, and products that resulted from the five-week project to Leamnsion's theories and processes of teaching and learning. If, as Leamnsion suggests, "the way we teach affects the way students learn," engagement in a context for design that stresses integration of processes will be inherently dynamic and enhance critical thinking as a necessary part of design process.

Summary of Results

Employing the model of integration in a design studio exercise enabled students to perform synergistic transformations of abstract (virtual) and concrete (actual) design processes—forming cognitive connections between how something is made and how it is understood and conceptualized abstractly, especially through digital media. Students were challenged to restructure their assumptions about both physical and virtual media. Students developed and implement new languages in the creation of design proposals. By de-emphasizing skill, and emphasizing the relationship between the virtual and physical students grappled with more conceptually based issues applicable to advanced design studios. As a basis for learning, this process offers a challenge to notions of how students potentially develop connection to critical thinking skills and is consistent with processes of learning as presented by Leamson.

References

- Architecture and Abstraction**, (1985). Pratt Journal of Architecture, Rizzoli, New York.
- Benedikt, Michael.**, (1987). For an Architecture of Reality, Lumen Books, New York.
- Bouman, Ole**, (1996). Realspace in Quicktimes: Architecture and Digitization, NAI Publishers.
- Carpenter, William J.**, (1997). Learning By Building, Van Nostrand, New York.
- Hartoonian, Gevork.**, (1994). Ontology of Construction, Cambridge University Press.
- Heim, Michael**, (1998). Virtual Realism, Oxford University Press, New York, Oxford.
- Holl, Steven.** (July 1994)). Pallasmaa, Juhani., Perez-Gomez, Alberto. "Questions of Perception-Phenomenology of Architecture." A + U Special Issue.
- Holl, Steven**, "Phenomena and Idea." Undated web document, <http://www.walrus.com/~sha/phenom.html>
- Holtzman, Steven R.**, (1994) Digital Mantras The Languages of Abstract and Virtual Worlds, MIT Press, Cambridge, Massachusetts.
- Leamson, Robert**, (1999). Thinking About Teaching and Learning, Developing Habits of Learning with First Year College and University Students, Stylus Publishing, Sterling, Virginia.
- Levy, Pierre**, (1998), Becoming Virtual Reality in the Digital Age, Plenum Trade, New York and London.
- McCullogh, Malcolm.**, (1996). Abstracting Craft: The Practiced Digital Hand, MIT Press, Cambridge, Massachusetts,.
- Mitchell, William J.**, (1995), City of Bits, Space Place and the Infobahn, MIT Press.
- Negroponte, Nicholas**, (1995). Being Digital, Vintage Books, New York, New York.
- "On Making"**, (1992). Pratt Journal of Architecture, Rizzoli, New York, New York.
- Pye, David**, (1995). The Nature and Art of Workmanship, Press, Great Britain.
- Rawlins, Gregory, J.**, (1997). Slaves of the Machine the Quickening of Computer Technology, MIT Press, Cambridge, Massachusetts.
- Zeisel, John**, (1986). Inquiry By Design: Tools for Environment - Behavior Research. Press of University of Cambridge: New York, NY.

DEVELOPING A SPATIAL MODEL FOR MODERATE INCOME FAMILY LIVING - MULTI-METHODOLOGICAL APPROACH -

Presentation by
Yeunsook Lee, Junghyun Mo, and Taegyung Yon
Yonsei University, Seoul, Korea

Hyunwon Jung
Kimpo College, Kyunggi-do, Korea

Purpose

This purpose of this study is to suggest an adequate spatial model which better accommodates living commodities for moderate income family living in Korea. This study did the following; First, identified existing apartment plans and applied current living commodities to them to examine their adequacy. Second, developed optimal size of space for furniture layout. Third, developed a space model for future apartments. Fourth, tested the validity of the hypothetical model using prospective residents.

Process

The focus of the study was a most widely supplied three-bedroom apartment with a net area of 84.81㎡, that is the National standard size housing for working families in Korea. The processes were as follows.

Step 1.

Problems and improvement needs of conventional apartments were learned through literature and forecasts were made for the changing needs of future living spaces. For the former, trends of floorplan development, renovations by consumers, living items and needs were analyzed. For the latter, living conditions that a digital society unfolds and new needs for the future were analyzed for future housing development.

Step 2.

To identify most representative plans, 100 cases were sampled from Encyclopedia of Apartment Plans using random sampling method. Length, width and ratio of each space to the entire space were analyzed for minimum, average, and maximum dimensions and ratios. To testify the adequacy of those floorplans in accommodating living commodities, relevant information was obtained from previous research.

Step 3.

Square-footage and volume of living items were calculated as a feedstock for floorplan. Using precedent data of on-site visits to 26 households. Furthermore, types, and quantity of them were derived from previous survey on 600 households.

Step 4.

An ideal furniture layout and space configuration for the future were suggested. A typical future family type was assumed to determine "Minimum Space" for each room with a minimal furniture; "Moderate Space" for more number of furniture; and "Adequate Space" for future needs of furniture placement based on currently emerging needs. Space was reasonably configured in primary consideration of furniture and other living items, ergonomic sizes, and future lifestyles.

Step 5.

Through the aforementioned process, a basic planning concept, differentiation strategy and design guidelines were determined. Finally the prototype floorplan, alternatives for flexible use with family life cycle changes were suggested.

Step 6.

Three small group workshops were conducted to identify responses of various prospective consumers on key hypothetical concepts and the validity of the plan. PreOE method for improvement before construction was employed. For this, questionnaire, floorplans, scaled model photo, computer simulated images scaled model, and endoscopy images were utilized.

Results

Through these processes, prospective consumer needs and priorities were identified. According to this, the hypothetical model was modified. In this presentation, materials used in the process will be shown to stimulate verbal and visual interaction with audience.

References

- Cho, Myung Eun**(1999), X-generation's Life Style and Housing Preferences for Apartment Housing Design, Doctoral Dissertation, Yonsei Univ.
- Chung, You Sun** (2000), Characteristics of Remodeling in Apartment Housing according to the Building Life-cycle and Family Life-cycle, Master's Thesis, Yonsei Univ.
- Hong, Sun Kyung** (1995), Characteristics of Alteration by Apartment Dwellers in Korea, Doctoral Dissertation, Yonsei Univ.
- Kim, So Young** (1995), The Use Pattern of Built-in Furniture System in the Urban Residential Apartment, Master's Thesis, Yonsei Univ.
- Kim, Soo Am** (1993), A Study on the Architectural Planning of the Flexible Unit Plan in Apartment Housing, Doctoral Dissertation, Hanyang Univ.
(1997), Time Series Analysis of Unit Plan of Private Sector Apartment Housing in Korea, Korean Association for Housing Policy Studies No.5 Vol.1
- Kim, Soo Kyung** (2000), The Housing Needs of Middle Class Dual-Earner Families, Master's Thesis, Yonsei Univ.
- Kim, Sun Kyung** (1993), A study on the Planning Small Housing for Middle Class: Families with Mothers Working in the Bank, Master's Thesis, Yonsei Univ.
- Lee, Kee Jung** (2001), Forecast of Man-Made Physical Environment in Digital Culture, Master's Thesis, Yonsei Univ.

- Seo, Hae Yang** (2001), Factors Influencing the Volume of the Living Commodities in Apartments, Master's Thesis, Yonsei Univ.
- Youn, Min Kyung** (1993), Case Studies for the Planning of Small Apartment for Families with Working Housewives: Using a Small Group Workshop Panel Method, Master's Thesis, Yonsei Univ.

CREATING WITH LIGHT

Presentation by
Judy Theodorson
Washington State University Interdisciplinary Design Institute

Purpose

While interior design / architecture students tend to be well educated in the technology of lighting design and the concept of applying light to space, they rarely have the opportunity to create with light. "Creating with light" implies interpreting and utilizing light within an artistic framework, seeking to elicit a visual and / or emotional response. The position of this paper is that light is a uniquely powerful tool in the designers' palette; that the exploration of light's poetic and aesthetic qualities should be a part of every designer's education.

Methodology

Background. A great space has great light. Throughout time, ideas of light have given rise to form, have modeled space, and perhaps most significantly, fulfilled the basic human desire for the beauty of illumination. Light is thought to be the soul and spirit of designed spaces. Light roots us to place and time and experience. Light has the unique ability to reveal mass and space, to render color, to highlight materiality. Light is an abstract compositional element creating hierarchy, rhythm and repetition, movement, order, contrast. Understanding history, culture, place, and abstract design concepts provide a foundation upon which to appreciate and experiment with light's poetic dimension.

Projects. Students are given opportunities to explore the nature of light in abstract exercises. The "drawing of light" interprets literary descriptions of time, place, and culture. The emotion and structure of a musical piece is translated into a composition of light, space, color and material. Lighting design theory is interpreted in an illustrative light box. Ideas from these exercises give rise to objects of light and spatial development.

Summary of Results

Through the process of "creating with light" students learn the compelling nature and artistic value of light. The hope is that this appreciation will inform both idea formation and lighting design in their creative work.

BLUEBONNET SWAMP LEARNING COMMUNITY: THE DESIGN OF A COLLABORATIVE STUDIO

Presentation by
T.L. Ritchie and Anne Spafford
Louisiana State University

Purpose

The bluebonnet swamp learning community is a collaborative project that brought together the four disciplines of English (American nature writing), Graphic Design, Interior Design and Landscape Architecture. The subject of the semester work was an urban nature facility not yet fully realized. This client offered the students a unique opportunity to study the relationships between human beings and their ecological, cultural and built environment from a variety of disciplinary perspectives. The discussion in this presentation focuses on the design of the learning community and the opportunities seized for enhanced educational exploration. The planning of this project had a two-fold purpose. The first, as expected, was to encourage the skills of collaboration, shared experience and broadened perspective while investigating a potential interpretive center and site dealing with sustainable issues. The second concern, especially for the design studio disciplines, was to explore an expanded methodology in terms of the design process. The course plan encouraged creative or metaphorical thinking as a stimulator and liberator of the normal design process.

Methodology

This course explored issues beyond each specific discipline. Each was encouraged to eavesdrop on the others' vision. The course encompassed the structure of discovery and learning as outlined below.

- **Initial Exploration.** This is the expanded attempt to encourage the unprimed, innocent, creative experience. Exercises to nurture metaphoric thinking were provided. Richard Dube describes the metaphoric mind as an intuitive mind that captures an understanding of the essence of the original without the encumbrances of definitions. The creative process is stimulated by exposure to a diversity of places, people, concepts and social constructs. The learning community seemed to be the perfect vehicle for germinating this reaction in the studio setting. If the studio cannot always travel, then bring change and broader vision to the studio.
- **Discovery and Research.** The semester progression then reinforced the benefits of the traditional systematic approach for observation, inventory and analysis. Interior design and landscape architecture jointly focused on these techniques.
- **Assimilation and Evaluation.** This phase of the process required the combining of the inspiration and new vision of the initial explorations with the informed knowledge of the research observations.

- Application and Problem Resolution. The application objective allowed students to work on problem resolution in various design projects concerning the swamp site, center and surrounding context. The projects were concurrent, executed by interdisciplinary teams. They could apply and expand on their refreshed vision.
- Reflection. Reflection was integral within the process and finalized the methodology in an exhibition.

Summary of Results

The student learning community acted as a complementary team to bring together word and image for the purpose of creating. The slightly uncomfortable juxtaposition of unlikely teammates, topics and assignments gave a distinctly foreign cast to the studio and classroom. At first awkward, and then liberating, a fresh aura of exploration emerged. The instructors pushed toward the threshold of disintegrating the grip of preconceived notions and vision through the collective methodology. Project resolutions reflected a sensitivity to the interface of nature and the built environment and communicated a sense of place and not an abstract imposition upon the landscape.

References

- Anderson, L., O'Grady, J., & Slovic, S.** (1999). *Literature and the Environment*. New York: Longman.
- Benzel, K.** (1998). *The Room in Context: Design beyond Boundaries*. New York: McGraw-Hill.
- Dube, R.** (1997). *Natural Pattern Forms: A Practical Sourcebook for Landscape Design*. New York: Van Nostrand Reinhold.
- Eisenburg, E.** (1998). *The Ecology of Eden: An Inquiry into the Dream of Paradise and a New Vision of our Role in Nature*. New York: Vintage Books.
- Gelb, M.** (1998). *How to Think Like Leonardo da Vinci: Seven Steps to Genius Every Day*. New York: Dell.
- Laseau, P.** (2001). *Graphic Thinking for Architects and Designers*. (3rd Ed.). New York: J. Wiley & Sons, Inc.
- Miller, D.** (1989). *Dark Eden: The Swamp in Nineteenth-Century American Culture*. New York: Cambridge University Press.
- Miller, S.** (1995). *Design Process: A Primer for Architecture and Interior Design*. New York: Van Nostrand Reinhold.
- Reid, G.** (1993). *From Concept to Form in Landscape Design*. New York: J. Wiley & Sons, Inc.
- Sewall, L.** (1995). *The Skill of Ecological Perception*. In Roszak, T., Gomes, M. & Kanner, A. (Ed.). *Ecopsychology*. San Francisco: Sierra Club Books.
- Theis, C.** (2001). *Landscape as a Framework for Learning*. (publication pending).
- Wake, W.** (2000). *Design Paradigms: A Sourcebook for Creative Visualization*. New York: J. Wiley & Sons, Inc.

VIRTUAL EXHIBITIONS: A NEW DIMENSION IN DESIGN COMPETITIONS

Presentation by
Carol Bormann and Jeff Price
Oklahoma State University

Purpose

With limited peer-reviewed venues for dissemination of research and creative scholarship of design faculty, alternative methods must be created. To help meet these needs a “virtual” exhibition was created on the Internet for an on-site exhibition of visual art and professional design projects created by design educators. The web-based exhibit replaced the original Design Educators’ National Exhibition.

Introduction

Creative scholarship is an alternative to empirical research in many institutions requiring peer-reviewed, dissemination of scholarship in the design fields. Most design disciplines have limited venues for this. To meet the need, the Design Educators National Exhibition was created in 1995. This competition highlighted professional design projects and visual art categories for work by designers from architecture, interior design, apparel design, graphic design, product design, lighting design, theatrical design and computer-aided design. Participation increased each year. An accreditation site visit took precedence over the 2001 exhibition date as the gallery was needed to display student work. The concept of a virtual exhibition began to evolve.

According to Benjamin Woolley (1992) “Computers have changed our lives; with virtual access, they will change our very experience, recreating it in an image of our choosing. It is about the increasing power of information technology to create new environments of learning, that are neither actual nor fictional, but somewhere in between: virtual.” Advancements in computer technology to aid the creation of designs made this a logical step toward the future.

Methodology

A Call for Entries for the “virtual” exhibition was distributed at the 2001 IDEC International Conference. Subsequent mailings included previous participants and other designers who expressed interest in the exhibition.

The new website features the exhibition history, purpose, juror’s biography and entry form for the competition. Entries were reviewed on line by a juror with a broad design background and international reputation. The webmaster laid out the accepted pieces and award winning designs and their abstracts. The exhibition will remain on the website until May.

Conclusion

Not only does a virtual exhibition make it possible to continue with the annual competition, but also designers save considerably on expenses that occur with shipping and insuring of their work. The coordinator does not have to receive, unwrap, hang, or return the work. With less time and travel for the juror, more prominent designers are in a position to participate in the role of jurors.

Virtual exhibitions should not be considered the total answer to the exposure of people to work of design educators, but they provide an economically viable alternative for many educators seeking tenure and promotion. In addition, the exhibition reaches a larger number of viewers that is possible with an on-site show.

Format

This presentation will focus on the process in which the virtual exhibition was created and a summary of the results of the first exhibition on the website. The DENE website featuring the current "virtual" exhibit will be illustrated using projected images from the computer.

References

Woolley, Benjamin. Virtual World: A Journey into Hype and Hyper-reality. Oxford: Blackwell, 1992.

FIELDWORK FOR UNIVERSAL DESIGN PROBLEM SOLVING

Presentation by
Mary Sterling
Indiana State University

Purpose

The purpose of this presentation is to discuss fieldwork in the local community as a means of integrating the theory and practice of Universal Design and Americans with Disabilities (ADA) guidelines. The process, methods, and findings from a junior and senior level design studio for universal design problem solving will be presented.

Methodology

Postsecondary interior design education should play an explicit role in expanding students' knowledge, increasing sensitivity, and providing sources of information regarding universal design (Chang, Tremblay, & Dunbar, 2001). A blend of research at designated field sites and fieldwork assignments was used for a design studio in universal design problem solving.

The field projects had to be carefully planned and monitored, structured to serve specific learning goals, and preceded by orientation and preparation (Davis, 1993). Within the local community, seven existing facilities for the aging were identified.

Students choose their own teammates while random selection determined which facility each team was assigned. Students were required to evaluate each facility for compliance versus non-compliance and indicate appropriate design interventions.

The required text *Universal Design: Creative Solutions for ADA Compliance* by Null was used as a reference book for completing each project. Student teams identified two key areas, prepared as built floor plans, took these same spaces and applied universal design solutions to them (Null, 1996). Using graphics and written comments, recommendations for improving the facility were prepared. Issues of anthropometrics, ergonomics, and proxemics were investigated and problem-solving strategies developed.

Student Instructional Reports (SIRs) given to students every semester revealed that the 2000 cohort gave the course higher ratings than the 1999 cohort who did not apply problem solving to a community facility. Results from a questionnaire revealed that 77% (N=13) of the students would rather work on a community linked assignment than one hypothetical in nature and 62% (N=13) of the students would rather the assignment continue as a team project.

Summary of Results

Learning was accelerated by the interaction of the students with one another, the advisor/mentor, and with the end users; the instructor's teaching experience was enhanced and the quality of instruction improved; and presentation quality was better in part due to the commitment of the student teams to their clients' needs. The average grade for the design studio from 1999 to 2000 improved by one whole grade point; problem solving strategies were shared and discussed amongst the students since seven different facilities amounted to seven different sets of problems; and seven facilities in the community at large were now more enlightened on the subject of Universal Design as well as the capabilities and benefits of the Interior Design profession.

One student team submitted their solution to the University's Showcase of Undergraduate Research in the 2001 Spring Semester. Each student was issued a Certificate of Achievement plus the team received a \$200.00 cash award. Such success provides a more visible profile for the Interior Design Program and supports the concept of fieldwork for universal design problem solving.

References

- Chang, B.V., Tremblay, K. R., and Dunbar, B. H.** (2001, March). Universal design studio instruction. Poster session presented at the annual meeting of the Interior Design Educators Council, Chicago, IL.
- Davis, B. G.** (1993). Tools for teaching. San Francisco, CA: Jossey-Bass Inc.
- Foundation for Interior Design Education Research.** (2001, January). FIDER professional standards 2000. Grand Rapids, MI: Author.
- Null, R. L., & Cherry, K. F.** (1996) Universal design: Creative solutions for ADA compliance. Belmont, CA: Professional Publications.

VIRTUAL INTERNSHIPS: UNRAVELING THE MYSTERY OF ONLINE INSTRUCTION

Presentation by
Sally Ann Swearingen
Stephen F. Austin State University

Lynn Brandon
University of North Texas

Purpose / Issue

As many educators involved in online instruction know, web-based teaching presents a new set of challenges and obstacles. Within these challenges, many faculty have to solve mysteries that emerge in search of suitable software, new or novel teaching methods, adjustment of time schedules to accommodate online class schedules, and preparation for students for using online education. The amount of time and effort spent in creating and maintaining these courses can initially seem monumental.

The purpose of this presentation session is to provide a forum in which to open a dialog in which faculty can share their experiences and observations regarding web instruction software, time management techniques, online teaching methods, and useful tips for those involved in or those contemplating online internship courses.

The process of planning, preparing and administering an online internship course renders both advantages and disadvantages for students and faculty. For the student, these may include...

Advantages:

- Complete internship essentially anywhere in the world.
- Access course materials online.
- Complete and submit course assignments online.
- Communicate with other classmates through chat, email, and forum.
- Weekly communication with student permits faculty time to review working environments.

Disadvantages:

- No face-to-face interaction with instructor or classmates.
- Slow computers and modems can cause frustration and consume time.

Faculty may experience the following advantages and disadvantages...

Advantages:

- Student communications and responses to discussion questions are recorded in text format.
- Assignments are effectively time and date stamped through use of computer.
- An online guest speaker from another part of the country or world could be engaged to complete an online chat with students regarding the working world.

Disadvantages:

- Getting students successfully online initially can be time consuming.
- Learning the operating system of the chosen software in conjunction with other software as needed.
- Each question from a student involves an individual email.
- Time spent at the computer is increased.

Educators currently involved in or contemplating teaching internship courses via the web are the target audience. Audience interaction will be accomplished by the following general format:

1. A brief overview of approaches to web-based internship courses used by faculty at two different universities will set the stage.
2. Audience members will then be asked to indicate their use/non use of web-based internship instruction.
3. A dialog will be opened to discuss
 - Software used for web-based instruction (advantages/disadvantages).
 - Issues regarding collaboration with and support from university administration and computing services.
 - Strategies for course preparation and administration.
 - Strategies for student involvement and interaction
 - Ideas for innovative teaching methods and teaching assignments.
 - How do universities differ in the delivery of online internships?

The participation by the audience will be a valuable contribution in expanding the body of knowledge emerging through the development and delivery of online course instruction. An idea exchange can elevate the level of online instruction for those involved and can help unravel some of the mysteries surrounding online instruction for those planning to launch those courses.

References

- McVay, M.** (2000). How to be a Successful Distance Learning Student. McGraw Hill
- Summers,L.** (2001) Multiple Learning Styles in Web-based Courses. Web-CT Publisher
- Lockwood,F. and Gooley,A.** (1999) Innovation in Open and Distance Learning: Successful Development of Online and Web-Based Learning. McGraw Hill

FORGOTTEN LESSONS: PRIMITIVE CULTURES' THOUGHTFUL APPROACH TO SHELTER

Presentation by
Jeanne Mercer Ballard, MA, NCIDQ, LC
Envi Studio, Inc.

Nicole Starnes Taylor, Allied AIA, Master of Architecture Candidate
University of Washington

Purpose

This presentation will reconnect designers and educators with the “forgotten lessons.” Forgotten lessons are those lessons that can be reexamined through an exploration into the shelters of indigenous cultures. These structures provide original sources of basic building concepts and processes that can inform education and current green building methods.

Contemporary designers do not often return to original sources, particularly vernacular sources. Instead they are largely influenced by current examples, trends, and the demands on today’s design process. Likewise, history courses typically expose students to “high style” historical examples and often do not include these types of precedent studies. By exposing the audience to the shelter of indigenous cultures, we will engage them in a thought provoking session that will inspire, influence, and allow them to reconsider the value of these lessons in contemporary society.

Methodology

Through an investigation of a variety of primitive cultures, a visual presentation will analyze the methods these cultures employed in constructing their shelters. The inquiry utilizes an analysis model that categorizes the broad influences that shaped these structures. The analysis model uses John S. Taylor’s framework (Taylor, 1997) as the foundation. Taylor’s framework includes three factors: Environmental impacts – climate, geography, and wildlife, including pests and predators, Available resources – building materials, as well as energy and skilled labor, and Human needs – the space required for specific uses. We’ve added an additional layer to Taylor’s framework that includes how cultural values and cultural identity shape a building.

Summary of Results

Analyzing how a building's form is shaped by climate, available materials, and cultural values will inspire an in-depth discussion on how these principles can be applied to today's design problems.

The analysis will seek to better understand the investigated shelters and their application in contemporary society. A new way to approach the design process will be revealed, which will change priorities at the beginning of a project. This process will better enable designers to apply tangible solutions in the effort to design and build sustainably.

References

- Guidoni, Enrico.** (1978). *Primitive Architecture*. Translated by Robert Erich Wolf, New York, NY: Harry N Abrams, Inc.
- Rudolfsky, Bernard.** (1964). *Architecture without Architects*. Garden City, NY: Doubleday & Co.
- Susanka, Sarah.** (1998). *The Not So Big House*. Newtown, CT: The Taunton Press, Inc.
- Taylor, John S.** (1997). *A Shelter Sketchbook: Timeless Building Solutions*. White River Junction, VT: Chelsea Green Publishing Company.
- Upton, Dell, Ed.** (1986). *America's Architectural Roots: Ethnic Groups that Built America*. Washington D.C.: The Preservation Press.

THE VOID BETWEEN SUSTAINABILITY AND PRESERVATION

Presentation by
Lisa M. Tucker
Virginia Tech

Purpose

Our approach to interior design and architecture is embedded in a paradigm illustrated by Ayn Rand's *The Fountainhead*. Like Howard Roark, the architect or designer, charged by divine mandate, must shape the world in his own image. The purpose of this paper is to establish that this paradigm is not only obsolete but also detrimental to our current world condition.

Throughout the years Preservationists have striven to save our important historical buildings: Monticello, Mount Vernon, the White House and other national treasures. In recent years, these lofty ambitions have expanded to include vernacular buildings in hopes of capturing our collective American experience.

Since the 1980s a new group of activists has arrived on the scene. Green Designers, Builders, and Architects dedicated to a new mission: to create a sustainable world. Their sudden collective realization: we have gone too far!

This paper intends to illustrate that there is fertile ground when Preservation and Green Design infuse one another.

Process

This paper outlines the widely accepted tenants of historic preservation and the philosophy behind the sustainable design movement. A comparison of the two approaches to our built world reveals a sizable void. Where sustainability relies on recycling and the conservation of our natural resources, it fails to account for our vast inventory of existing buildings. Where preservation accounts well for a portion of existing buildings, it fails to address environmentally sound material choices.

Summary

A thorough comparison of the written documents underpinning this country's approach to Historic Preservation and Sustainability reveals a missed opportunity. An examination of the two philosophies illustrates that where one does well the other does not. Though few examples of a combined approach to buildings exist, they underscore the potential advantages of such collaboration. Both disciplines would benefit from a study of each other. We, as educators and in some cases practitioners, must be aware of both ideologies; we can no longer afford to have them as tangential movements separate from the mainstream of design.

References

- Calmenson, Diane Wintroub** (1995). Industrial Revolution II. [On-line] Available:
<http://www.isdesignet.com/Magazine/May'95/Cover.html>
- Guzowski, Mary** (2000). Daylighting for Sustainable Design. New York: McGraw-Hill.
Meadows, Dru and Spiegel, Ross (1999). Green Building Materials. New York:
John Wiley and Sons.
- McDonough, William** (1992). Hannover Principles. [On-line] Available:
<http://www.mcdonough.com/principles.pdf>
- National Park Service (NPS)** (1976). Secretary Standards for Historic Preservation.
Washington, DC: National Park Service.
- National Park Service** (1975-2001). Preservation Briefs 1-41. [On-line] Available:
<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>
- National Park Service** (1994). Guiding Principles for Sustainability. [On-line] Available:
<http://www.nps.gov/dsc/dsqncnstr/gpsd/toc.html>
- Pearson, David** (1995). Earth to Spirit. London: Gaia Books.
- Pilatowicz, Grazyna** (1995). Eco-Interiors: A Guide to Environmentally Conscious
Interior Design. New York: John Wiley and Sons.
- Rand, Ayn.** (1943/1971). The Fountainhead. New York: Signet Books.
- Rocky Mountain Institute** (1998). Green Development: Integrating Ecology and Real
Estate. New York: John Wiley and Sons.
- Rocky Mountain Institute** (2001). Greening the White House. [On-line]. Available:
<http://www.rmi./sitepages/pid174.php>

INTEGRATING 3-D MODELING AND HISTORICAL PRECEDENT IN A SECOND-YEAR DESIGN STUDIO

Presentation by
M. Jean Edwards

Purpose

The fundamental purpose of this project is to develop students' abilities to apply the elements and principles of design to interior spatial organization. To enhance the learning opportunities, the project is designed also to coordinate with two support courses that the students take concurrently with their studio: a computer course that introduces a three-dimensional modeling program, and an interior design history course.

The theory behind the project is that by analyzing a work of architecture critically, students can better identify and employ design elements and principles in their own work. It is also proposed that application of knowledge gained in support courses directly into a studio project will enhance student performance.

Process

To test the theory, the author designed a project that draws from several sources. Hing's "Space Museum" project (1994, pp. 4.30-4.33) and his application of *parti* (1996, pp. 149-153) were original inspirations for the project. Clark and Pause's "Formative Ideas" (1985, pp. 137-213) provide criteria for the analysis of historical precedents. Black (1996, p. 107) poses a series of questions regarding the use of three-dimensional computer modeling in place of the traditional scale model and then explores the efficacy of using the computer as a design tool.

The project takes place in three phases:

Phase 1, Design Exploration and Development (4 weeks): Students analyze an existing building in relation to the "Formative Ideas." Upon completion of the schematically drawn analysis, each student develops a *parti* drawing of the building to express the essential elements of the design.

Phase 2, The Exhibition Project (design development – 2 weeks; finish selection – 1 week): Using both hand-built models and model manipulation on the computer, students explore the interior spatial organization of a gallery space that is 24' x 30' x 12' (maximum). Program requirements include a minimum of five defined areas including an entry, a major exhibition space, a smaller display area, and two other minor spaces. A minimum of five material and/or texture changes on the wall, display and floor surfaces are also required. Only one floor level change is permitted.

Phase 3, Final Presentation (3 weeks): Requirements for final presentation include a 1/2" = 1' scale model showing the spatial organization of the gallery, drawings at 1/4" = 1' including a hand-rendered plan, two rendered elevation or section drawings to show ceiling changes, material; usage and display elements, and one rendered perspective. A finish board shows the finishes used on the floor, wall and display units.

Summary of Results

The analytical phase of the project broadened students' research skills and their perception of how design elements and principles are employed architecturally. It also reinforced the study of history by showing the applicability of history to design.

The level of sophistication displayed in the final solutions was much higher than that produced in any previous second-year this instructor has taught. In final evaluation comments, students expressed that they had learned a lot about design through the study of an architect, and that the computer modeling had helped them to visualize the space.

References

- Black, A.** (1996). The new frontier: Three-dimensional modeling [sic] in the interior design studio. *Interior Design educators Council Conference Proceedings*. Denver: 107-110.
- Clark, R. and Pause, M.** (1985). *Precedents in architecture*. New York: Van Nostrand Reinhold Co.
- Hing, A.** (1994). A "Space" Museum. In N. Canestaro & T. Houser (Eds.), *IDEC Innovative Teaching Ideas* (pp. 4:30-4.33).
- Hing, A.** (1996). Building design confidence with the *parti*. *Interior Design Educators Council Conference Proceedings*. Denver: 149-153.

POSTERS

FOSTERING CREATIVITY IN ENTRY LEVEL DESIGN STUDIOS

Poster by
Denise Bertoncino
Pittsburg State University

Leisha M. Bridwell
Stephen F. Austin State University

Purpose

What are the stimulators and motivators that help foster creativity in design students in beginning studios?

Freshmen often have preconceived ideas that they are uncreative and unable to draw. Fear keeps them from behaving as creatively as they would like (Kobert, D. & Bagnell, J., 1991). Educators have to evaluate and decide how to help students overcome this fear in an effort to foster creativity among interior design students. One approach taken is to begin each class having students react to music. Exercises provide relaxation in body and mind and are progressive in activating the student's creative approach to his/her projects.

Methodology

The exercises are based on a freshman level studio course with content including ideation, visualization, and representation. The initial step is two-fold in which students start building confidence through drawing to music. Each of the phases is used to stimulate a reaction while causing students' right brain to engage. The process is meant to relax the student much like warm-up exercises would do. Students react to the music with color and elements and principles of design. There are no wrong reactions, only reactions. One stipulation that is imposed by the educator is that no representational objects may be used.

Phase One. The instructor in the selection and placement of music preconceives phase one. Students use color pencils on 8-1/2" X 11" paper. Five songs are selected daily. One style of music is used each period and alternated with classes that utilize contrasting music. This phase helps students utilize the entire sheet of paper before advancing to larger sheets.

Phase Two. In this phase, responses will vary since students are selecting the songs in which the class will draw. Students will most likely respond differently to the various songs. This phase length is determined by the size of the class because each student is asked to bring a song. Students use large drawing paper (19" X 24") with chalk or oil pastels.

Phase Three. The third phase moves the student into a new awareness by the sharing of the paper. Some groups see each student selecting a corner of the paper and staying within that parameter, while other groups move across the entire sheet to create a drawing as a whole. Students continue to use the large drawing paper with pastels. Students work in-groups of four on one sheet to five songs; students supply songs.

Phase Four. Phase four tests the student's territorial feelings about his/her work while stimulating their creativity. The students begin drawing on their paper to the first song and move to another student's paper for each of the following four songs. It takes more thought processing to pick up where someone else left off.

Summary of Results

Fostering creativity and a joy for drawing challenges most educators. "Creativity---this is the state at which the imagination soars" (Bevlin, 1994). The individual processing of music represented in each drawing evidences the creativity of the students. Each student begins exhibiting a style of drawing, while a common use of color, line and shape occurs with particular styles of music. Students respond positively to this four-phase exercise.

References

- Bevlin, M.** (1994). Design through discovery, An introduction to art and design. New York: Harcourt Brace College Publishers.
- Edwards, B.** (1999). Drawing on the right side of the brain. New York: Penguin Putnam, Inc., Publishers.
- Kobert, D. and Bagnall, J.** (1991). The universal traveler: A soft-systems guide to creativity, problem-solving & the process of reaching goals. New York: Crisp Publications, Inc. Publishers.

DISTANCE EDUCATION TECHNOLOGIES AND THE DESIGN STUDIO: A CASE STUDY

Poster by
Diane M. Bender & Jon D. Vredevoogd
Michigan State University

Purpose

The purpose of this poster session is to demonstrate an enhancement of the teaching of the traditional design studio class by incorporating current communication technologies. This presentation explores the design studio class model, its advantages, its problems, and the impact of introducing new technology. Presentation boards and website material will depict our 11 step linear process of instruction. (We would be able to present this process electronically via laptop if requested).

Some of the varied objectives include:

- Allowing every student to see every thing the faculty sees
- Allowing every student to hear every thing the faculty says
- Giving the faculty more time and tools to generate thoughtful class critiques
- Tracking student progress from week to week
- Improving the quality of the one-on-one assistance that is needed
- Improving the motivation of the student by giving more feedback to the student throughout the project
- Allowing us to easily involve outside reviewers - - professionals, cross college, cross-university, etc.

Methodology/Process

A traditional studio class is typically scheduled for 3 hours with one faculty member individually critiquing 15 to 20 students' projects. This apprentice system of a master designer working with the individual student dates back to the days of the Ecole des Beaux-Arts in France and still continues today. Final evaluation of the design project often consists of a juried exhibition and critique by invited architects, designers, and artists.

Change is apparent as technology has radically altered the way educators can communicate with students. It is our experience that design studio courses can be enhanced by applying distance learning techniques and technologies. The methods described in this presentation are readily available and easy to use. The current apprentice system is not lost - - only modified.

The modification suggested by this presentation includes having the student capture their work electronically and transfer it to the course website for evaluation (see attached page of illustrations). The faculty retrieves all the work, evaluates the entire body of work submitted, generates an audio critique using examples from the total, and returns all the work plus the critique back to the class. This allows the students to access the faculty critique at any time and as often as needed. Our presentation will also address the concern that traditional techniques may be lost if one uses this process.

Our strategy is:

- To use distance education techniques ONLY in courses where they may add to the learning experience
- To use technology as the primary mode of delivering information that students would want or need (24 hours/7 days a week)
- To devote class time as time spent with faculty and peers for discussion, socializing, networking, and group problem-solving

Summary of Results

Based on our practical research, we have observed that:

- The student gets more instruction in less time.
- The student learns to communicate using technologies currently used in industry.
- The instructing faculty spends less time using this instructional process than when teaching a traditional studio.

INTERIOR DESIGN CURRICULUM: PLANNING PROCESS AND PRODUCTS

Poster by
Cynthia M. Karpan
University of Manitoba

Purpose

The proposed model provides interior design curriculum planners with a comprehensive, systematic, and feasible framework for planning, implementing, evaluating, and adjusting interior design curriculum. Based on models of interior design process, research-based literature on curriculum planning, and practical experience, the model provides a balance between idealistically desirable features and realistically feasible factors. The model also provides a balance between three important elements: discipline factors, teacher values and attributes, and learner values, needs, abilities, and attributes. Although the model relies heavily on internal stakeholders (i.e., professors) to undertake the majority of the planning and implementation work, it does, nonetheless, require participation from the widest possible range of stakeholders. Overall, the model promotes inclusiveness and diversity, and provides interior design curriculum planners with a rational and systematic process for comprehensive curriculum planning.

Process

The process of developing the model began with an extensive review of literature related to curriculum planning. Research-based literature provided not only valid underpinnings necessary to rationalize and justify the model, but also valid frameworks (i.e., Stark & Lattuca, 1997; Toombs and Tierney, 1993), which proved to be critical in shaping the model. A second important source of knowledge in the development of the model was that of Kilmer and Kilmer's (1992) interior design process. Kilmer and Kilmer's process was useful in that it identified various products (drawings, reports, etc.) that may result from each phase of the process. The combination of frameworks from research-based literature and interior design process resulted in a curriculum planning model that *identifies both the process* (plan, implement, evaluate, adjust) *and products* (mission statement, goals and objectives, syllabi and staffing plan, learning evidence, amendment plan) necessary for effective curriculum planning. The third step in developing the curriculum model was to expose the model to a series of "checks and balances" with knowledge gained from practical experience in curriculum planning and teaching. Practical experience prevented the model from becoming overly theoretical, and instead, more useful and realistic (for example, in addition to subject matter, human, financial and physical resources play an important role in curriculum).

Summary

Unique features of the model are that it provides a systematic and cyclical process for initial curriculum planning and ongoing refinement; identifies the products to be produced at each key stage of the planning processes; and includes multiple components and sub-components that provide guidance about a wide range of topics to be considered at each stage of the planning process. The primary benefits of the model are that it enables curriculum planners to visualize the entire curriculum planning process (and therefore anticipate subsequent planning phases), focus on one planning aspect at a time, and understand the physical products that need to result from each key phase.

Additional benefits are that the model provides interior design curriculum planners with a methodology for undertaking *continuous* curriculum assessment and refinement, and contributes to the accountability of interior design programs within institutions of higher education.

References

- Applebee, A. N.** (1996). Characteristics of effective curricula. In A.N. Applebee (Ed.), *Curriculum as conversation: Transforming traditions of teaching and learning* (pp. 51-65). Chicago, IL: The University of Chicago Press.
- Astin, A.W., Banta, T.W., Cross, K.P., El-Khawas, E., Ewell, P.T., Hutchings, P., Marchese, T.J., McClenney, K.M., Mentkowski, M., Miller, M.A., Moran, E.T., & Wright, B.D.** (1998). AAHE's principles of good practice for assessing student learning. In B. Walvoord, & V. Anderson (Eds.), *Effective grading: A tool for learning and assessment* (pp. 65-92). San Francisco, CA: Jossey-Bass.
- Barr, R.B., & Tagg, J.** (1995). From teaching to learning – A new paradigm for undergraduate education. *Change*, 27 (6), 13-25
- Bloom, B.** (Ed.). (1956). *Taxonomy of educational objectives. Handbook I: Cognitive domain*. New York: Longman.
- Conrad, F.C., & Pratt, A.M.** (1983). Making decisions about curriculum. *Journal of Higher Education*, 54 (1), n.p..
- Council of Ministers of Education, Canada (CMEC)** (1999, February). *A report on public expectations of postsecondary education in Canada*. Author. (Available from <http://www.cmec.ca/postsec/index.stm>)
- Council of Ministers of Education, Canada (CMEC)** (1999, January). *Learner pathway and transitions: Summary report*. CMEC, Postsecondary Expectations Project. (Available from <http://www.cmec.ca/postsec/index.stm>)
- Davis, B.G.** (1993). Preparing or revising a course. In *Tools for teaching*. Retrieved February 7, 2001 from the University of California Berkeley: <http://uga.berkeley.edu/sled/bgd/teaching.html>. (Also available from Jossey-Bass, San Francisco, CA)
- Diamond, R.M.** (1998). Systematic design: Model and benefits. In *Designing & assessing courses & curricula: A practical guide* (pp. 13-29). San Francisco: Jossey-Bass
- Dressel, P.L.** (1979). A look at new curriculum models for undergraduate education. *Journal of Higher Education*, 50(4), 389-397.
- Ewell, P.T.** (1997, December). Organizing for learning: A new imperative. *AAHE Bulletin*, 3-6

- Farmer, D.W.** (1990). Strategies for change. *New Directions for Higher Education*, no 71 (pp.7-17). San Francisco, CA: Jossey-Bass.
- Foundation for Interior Design Education Research (FIDER)** (2000). *Professional standards 2000*. Grand Rapids, MI: Author.
- Gay, G.** (1980). Conceptual models for the curriculum-planning process. In A.W. Foshay (Ed.), *Considered action for curriculum improvement* (pp. 120-143). Alexandria, VA: Association for Supervision and Curriculum Development.
- Griffith, F.A.** (1995). How standards-based K-12 reforms affect higher education. *AAHE Bulletin*, 45(2), 12-15.
- Gronlund, N. E.** (1995). *How to write and use instructional objectives* (5th ed.). Englewood Cliffs, NJ: Prentice Hall.
- Hansen, E.J., & Stephens, J.A.** (2000). The ethics of learner-centered education. *Change*, 33(5), 41-47
- Kilmer, R., Kilmer, W.O.** (1992). *Designing interiors*. Toronto: Harcourt Brace Jovanovich College Publishers.
- Knight, P.** (1997). Embedding excellence in higher education. *Focus*, 7(1), n.p.. (Also available at <http://www.dal.ca/~oidt/Focus1.html>)
- Krathwohl, D.R., Bloom, B.S., & Masia, B.B.** (1964). *Taxonomy of educational objectives. Handbook II: Affective domain*. New York: Longman.
- MacKeracher, D.** (1998, January). Development of young adults. *UNB Bulletin*, 25, 3-5. (Also available at <http://www.unb.ca/tlc>)
- McKeachie, W.J.** (1994). *Teaching tips: Strategies, research, and theory for college and university teachers* (9th ed.). Lexington, MA: D.C. Heath
- Mitchell, R.** (1995). Front-end alignment: An introduction to the standards movement. *AAHE Bulletin*, 48(2), 7-11.
- Posner, G.J., & Rudnitsky, A.N.** (1994). *Course design: A guide to curriculum development for teachers* (4th ed.). White Plains, NY: Longman Press.
- Sorcinelli, M. D.** (1991). Research findings on the seven principles. *New Directions for Teaching and Learning*, no.47 (pp.13-25). San Francisco, CA: Jossey-Bass.
- Stark, J.S., & Lattuca, L.R.** (1997). *Shaping the college curriculum: Academic plans in action*. Needham Heights, MA: Allyn & Bacon.
- Svinicki, M. D.** (1991). Practical implications of cognitive theories. *New Directions for Teaching and Learning*, no 45 (pp.27-37). San Francisco, CA: Jossey-Bass.
- Svinicki, M. D., & Dixon, N.M.** (1987). The Kolb model modified for classroom activities. *College Teaching*, 35(4), 141-146.
- Taylor, K.L.** (1993). The role of scholarship in university teaching. *The Canadian Journal of Higher Education*, 23(3), 64-79.
- Taylor, K.L.** (2000). Curriculum planning: An academic balancing act. *Focus*, 9(5), 1-7.
- Toombs, W.E., & Tierney, W.G.** (1993). Curriculum definitions and reference points. *Journal of Curriculum and Supervision*, 8(3), 175-195.
- Walvoord, B.E., & Anderson, V.J.** (1998). *Effective grading: a tool for learning and assessment* (pp.65-92). San Francisco, CA: Jossey-Bass.

ON THE EDGE OF ADVANCEMENT: SOLVING THE MYSTERIES OF ADMISSION AND CAREER PORTFOLIOS

Poster by
Donna Zimmerman and Christina M. Burton
University of Wisconsin – Stevens Point

Purpose

This poster will identify the challenges that face educators in dealing with portfolio reviews within a design curriculum. Often portfolio reviews serve as evaluation tools to control numbers of students in the program and to control quality. However, this poster will present alternative ideas for integrating portfolios into design curriculum as learning journals of a student's academic experience. It will demonstrate how portfolios are used in the advising process, for program admission, and for networking and public relations with design professionals in the field. There will be an exchange of ideas through a case study of a FIDER accredited interior design program. For a more in-depth investigation, results will be presented from a survey of a variety of design programs in the United States for their methodology and portfolio review process.

Methodology

A survey instrument has been designed to investigate the methodology employed by interior design programs from a variety of departments and colleges for portfolio reviews. Results from this survey have been analyzed and will be visually presented to provide educators with a broad range of solutions to the portfolio evaluation mystery. Research data will include the process, timing, evaluation technique/methods, content and format.

In addition, a case study of a successfully coordinated sophomore and senior level portfolio review process from a 4-year, undergraduate, FIDER accredited interior design program will be described. The process will be presented visually to promote educator interaction, discussion and exchange of ideas.

Summary of Results

The authors will present visual information that expresses relevant and current ideas on the cutting edge of design education as it relates to teaching, process, and design theory. The survey results will provide educators with a variety of tools and methods and track the process of portfolio reviews as a trend in design programs. The well-documented case study will provide educators with tools to create and implement successful portfolio review procedures that can be adapted to other programs.

GIVING BACK: STUDENT-GENERATED PRODUCT RESEARCH FOR PRACTITIONER BENEFIT

Poster by
Jill B. Pable, Ph.D.
California State University, Sacramento

Purpose

It is the nature of the interior design profession that working designers are busy people who are faced with keeping abreast of quickly changing interior technologies. Manufacturers of interior products provide knowledge, but their information is often biased to suit their business objectives. Therefore, impartial information regarding new products is scarce. Students have the need to develop research skills, become acquainted with materials sources, and develop the ability to think critically. Further, students benefit from interaction with the professionals they seek to emulate. Therefore, an interior design materials service learning project was created that immersed students in materials topic research. This information was then presented to local design professionals in connection with a professional organization meeting.

Methodology

Student teams were assigned topics including environmental carpet reclamation, new interior space building products, specialty glass, innovations in textiles, issues in inclusion of audio/visual components, and environmental graphics/signage. Each team contacted manufacturers and conducted research via interviews, written and digital content, and other sources. Content was reviewed by the instructor and the University counsel for copyright issues and accuracy. The teams then created three-panel printed brochures, digital PowerPoint presentations, and table poster/sample displays that explained their research with the assistance of a \$1000 service learning grant provided by the University (see Figures 1 and 2). These funds also provided the means to create and distribute professional quality invitations announcing the event to local design and architectural firms. (see Figure 3).

Summary of Results

Partnering with the local IIDA professional design chapter, the "Information Fest 2001" evening event was held in which professionals browsed the students' table displays and became acquainted with the product information through the presentations and brochures (see Figures 4 and 5). Many students went beyond the project's requirements and included videos, distributed numerous samples, and performed demonstrations during the event for attendees.

Those in attendance at the event completed anonymous voting cards that selected presentations that were the most informative, innovative, and other superlative categories. Awards were then presented to students after the event for inclusion in their portfolio.

An interesting aspect of the project was the positioning of the student as a source of authoritative information that professionals were very interested to listen to. This placed the student in a new-found footing with the professional community and may have increased the students' sense of self-worth and realization that their contribution is indeed valuable. Prospective hiring architectural and interior design firms in attendance appreciated an opportunity to network and review the students' skills. Introductory level students were also invited and witnessed the importance of research as well as the crucial nature of information delivery.

References

Gelmon, S., et. al (2001). *Assessing Service-Learning and Civic Engagement*. Providence, RI: Campus Compact.

MANUAL, DIGITAL AND HYBRID PANORAMAS: VIRTUALLY BRINGING THE CLIENT INTO THE SPACE

Poster by
Mark S. C. Nelson
University of Wisconsin-Stevens Point

Purpose

Panorama software allows clients or other non-designers to manipulate an on-screen three-dimensional representation of an unbuilt space as if they are looking at the display on a video camera. The poster presentation shows how panoramas are created, and gives people the opportunity to navigate in a virtual world, using a laptop computer and a mouse. The examples also demonstrate how designers can create digital panorama images as well as hybrid panorama images that use hand-drawn material mixed with digital images.

Methodology

The presentation consists of an actual poster, complemented by a laptop computer and handouts. The poster visually shows the steps in the creation of panoramas through printed graphics. A handout documents the software used, and gives people something to take back to their campuses for later study or use.

The presence of the laptop computer gives the opportunity to actually experience the panorama through experiential interaction and independent exploration. The opportunity to answer questions in a one-to-one situation means that answers to those questions can be tailored to each person's interest and computer literacy level.

Combining hand drawn information with digitally created images is a creative application of the basic panorama software application.

Summary of Results

People should come away from the poster presentation with an awareness of how panoramas work. For schools where students already use digital modeling, people should also have enough information to be able to introduce panoramas in the classroom as a design tool. The poster format is ideal, as spending five minutes interacting with the virtual environment will explain more than two hours of lecture.

SYMBOLS OF SELF: REPRESENTATIVE OBJECTS IN THE HOME

Poster by
Lisa M. Vogel
Oklahoma State University

Purpose

Design researchers have established the home as a projection of our personalities (see Cooper Marcus, 1995; Searing & Clemons, 2001). The home communicates messages about who we are to others and “reflects back aspects of our defining characteristics onto us, providing clarification and reinforcement of our self-identity” (Gunter, 2000, p. 157). Personal possessions support one’s sense of self and convey meanings back to themselves and others, thus “transforming an anonymous space into a place” (Boschetti, 1995, p. 10) where one feels at home. This poster will present findings from a qualitative study exploring women’s expression of self through the interior design of their residential environments. Themes were established that answered research questions regarding women’s decision-making processes about how and where they would express themselves in their homes, what messages they were trying to convey and to whom, and what methods they used to convey those messages. One major theme that emerged was the use of representative objects to symbolize self. Photographs from participants’ homes will be used to illustrate these findings. The photographs will also demonstrate that although these spaces were not professionally designed, each was extremely representative of the owner. It is therefore crucial for interior design students and practitioners to understand the role they play when determining how they will design spaces to reflect their client’s identity, a sentiment also supported by Kucko (1998) and Searing and Clemons (2001).

Methodology

Twenty-two participants were interviewed in their homes. Participants were single women who were homeowners and lived alone. Each interview lasted about 1.5 hours. At the beginning of each interview session, participants were asked to take digital photographs (with the researcher’s camera) of areas of their home where they felt they had expressed their self, or identity, well. They were then asked questions about how they choose to represent themselves with the objects, furnishings and other interior design features in their home; what images of themselves they communicate to others and to themselves; the meaning of items in their home; and whether placement of these items is considered when communicating self. Grounded theory techniques were used to analyze the data and establish themes (Strauss & Corbin, 1998). This poster will present the qualitative findings of one major theme, objects representative of self, and will be illustrated with photographic examples of this theme from participants’ homes.

Summary of Results

While analysis revealed several major themes, only those associated with the representation of self with interior objects will be presented in detail. Representative objects fell into five categories: personal characteristic representation of self and others, status representation, relationship representation including reminders of relationships, interest representation, and memory representation. Analysis indicated that while style and fit were important, only items that were representative of something in the participants' lives were meaningful. Many participants indicated that they only had representative objects displayed and that they wouldn't exhibit meaningless items in their homes. Data also indicated that if an item did not represent self, it would either not be displayed, or in the case of a gift from an important person, would be relegated to a less public and less personal space.

References

- Boschetti, M.A.** (1995). Attachment to personal possessions: An interpretive study of the older person's experience. *Journal of Interior Design*, 21(1), 1-12.
- Cooper Marcus, C.** (1995). *House as a mirror of self: Exploring the deeper meaning of home*. Berkeley, CA: Conari Press
- Gunter, B.** (2000). *Psychology of the home*. London: Whurr Publishers.
- Kucko, J.** (1998). Why residential? *Journal of Interior Design*, 24(1): iv.
- Searing, E. E. & Clemons, S.** (2001). Perception of sense of place and sense of self through design of the home. *Interior Design Educators Council Conference Abstracts*, Chicago, IL: 22-23.
- Strauss, A, & Corbin, J.** (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage Publications.

DIGITAL MONTAGE: A HYBRID MODEL FOR THREE-DIMENSIONAL VISUALIZATION IN THE DESIGN STUDIO

Poster by
Matthew Melcher, M.Arch.
Washington State University Spokane

Purpose

The ability to generate three-dimensional design images quickly and accurately is a valuable and highly sought after skill in the interior design profession. Techniques of three-dimensional visualization are numerous and varied but can be generally categorized as either traditional (manual perspective drawing, model building), or emerging (digital, virtual constructions). Instructional methodologies in this area typically address traditional and emerging methods independently of one another, each requiring the development of discreet courses (quarter, semester, or year) for effective delivery. Hybrid methods employing the combination of traditional and emerging techniques for three-dimensional visualization remain relatively unexplored. Can hybrid visualization models be developed which are both expeditious and effective? The purpose of this poster is to present, for critical review and assessment, a hybrid method for three-dimensional visualization which seeks to satisfy these criteria and can be delivered over a two week period of time within a design studio.

Process

Context and Intention. As a component of a senior-level interior design studio, students were required to generate (2) perspective images representing their solution(s) to an ongoing design problem. The perspective images were constructed using a prescribed, hybrid drawing technique combining physical model building, photography, and Adobe Photoshop v. 6.0 software.

The intention of the exercise was to determine if students could effectively learn and employ the hybrid drawing technique in an abbreviated time frame and generate perspective images with a convincing level of detail and realism. This exercise was confined to two-weeks of studio time and involved students with little or no previous experience using Adobe Photoshop.

Method. Students built simple interior massing models of their design solutions depicting only the primary elements of spatial delineation. The models were then photographed by the students from positions relative to the height of the human eye within the space(s).

A single lecture was presented concerning the basic operation and commands of Adobe Photoshop, and the introduction of a “digital” cut and paste “montage” approach to introducing objects and materiality into perspective images of interior space. Students then scanned their model photographs into the computer and used the next week of class to experiment with the “digital montage” technique. The resulting images were reviewed and assessed by an external jury.

Summary of Results

All students were able to sufficiently employ the “digital montage” technique and complete the requirements for the exercise within the time allotted. Students shared a common appreciation for the quality and of the images produced and the expeditious nature of the approach but expressed divergent opinions with respect to ease of learning the software. Students and jurors in general expressed positive to very positive comments regarding the overall level of realism achieved in the completed drawings. Cited comments included one of the jurors initial “confusion” concerning whether several of the images presented were actual completed projects or design representations of interior spaces.

MAINTAINING ORDER: VETRUVIUS AND PALLADIO TO CAD

Poster by
Thomas L. Houser
The University of Georgia

Purpose

Designers have wrestled with building proportions since the earliest time. Vitruvius helped define classic Greek and Roman orders during the first century of the common era. Palladio rejuvenated interest in these orders during the sixteenth century. The intent here is to provide computer-based tools to make these traditions readily available for interior design practitioners, educators and students.

Process

Identifying Challenges and Setting Goals. The three basic challenges accepted here were to create tools that:

1. Address two and three-dimensional proportions within a space;
2. Automatically proportion columns and related architectural details according to specific classical orders; and
3. Aid designers in adapting traditional details to contemporary products.

Choosing CAD Customization Techniques. The design tools developed here included programming new commands, scripting dialog boxes, and developing symbol libraries. Students accessed these tools through pull-down menus, toolbar icons, image selection boxes, or direct command line entries.

Examples of Computer-based Tools. The software provides several tools for addressing room proportions. One command draws a golden rectangle based on a given square footage. A graphic icon menu presents a selection of Greek and Roman house and temple plans. Students may adopt the proportions from these by either providing a desired square footage or by specifying either the length or width of the structure. Plans reflecting the Golden Mean or adopting classic proportions serve as stimuli for creative space planning, whether the ultimate design vocabulary is contemporary or traditional.

Students create a variety of classic columns by choosing them from a pull-down menu, typing their names at the command prompt, or picking them from an icon menu. After the student supplies a column diameter or a height, the software draws three-dimensional columns based on proportions defined by Vitruvius or Palladio. Choices include Greek Doric and Ionic or Roman Doric, Ionic, Corinthian, or Composite Orders. The shafts of columns include the appropriate entasis for the order. Column capitals are somewhat simplified to conserve computer memory. Students may copy the columns using conventional COPY and ARRAY commands. They can prepare construction sections by picking two points on one column or three on a row of them.

Graphic palette menus provide standard architectural moldings that can be used to adapt traditional details to become more affordable on today's market.

Findings

Students appreciate the ease with which they can develop well-proportioned spaces. Faculty appreciate the accuracy with which students apply those proportions.

References

- Ching, F.D.K.** (1979). *Architecture: Form, Space, and Order*. New York: Van Nostrand Reinhold Company. 292-315.
- Palladio, A.** (1965). *The Four Books of Architecture*. [Based on 1738 translation by Isaac Ware.] New York: Dover Publications, Inc.
- Ramsey, C.G. and Sleeper, H.R.** (1991). *Traditional Details for Building Restoration, Renovation, and Rehabilitation*. [From the 1932-1951 Editions of Architectural graphic standards. J. Belle, J.R. Hoke, Jr., and S.A. Kliment (Eds.).] New York: John Wiley & Sons, Inc. 7, 111-116.
- Vitruvius [Marcus Vitruvius Pollio]**. (1960). *The Ten Books on Architecture*. [Reprint of 1914 translation by Morris Hickey Morgan, Harvard University Press.] New York: Dover Publications, Inc. 69–164.
- Whiton, S. and Abercrombie, S.** (2002). *Interior Design & Decoration*. (5th Ed.). Upper Saddle, NJ: Prentice Hall, Pearson Education, Inc. 46-131 and 282-311.

FREEDOM AND CONSTRAINT IN THE DESIGN PROCESS: AN EMPIRICAL STUDY OF STUDENT PROFILES OF CREATIVITY

Poster by
Jason Meneely and Margaret Portillo
University of Kentucky

Purpose

The design profession, by its very nature, survives on high levels of creativity entrenched in its products. Design problems are usually complex; both the appearance and the function of a designed product are expected to meet the highest standards (Duerk, 1993; Lawson, 1997; Zeisel, 1981). The ability to synthesize a novel concept with a myriad of programmatic constraints becomes a hallmark of the successful designer. "Designers are seen as synthesizers whose craft is to respond to the various design requirements in an integrative and holistic way. The capacity for synthesis is, by wide agreement, a quality of the creative designer" (Goldschmidt, 1999, p. 526). Therefore relating creative personality traits, cognitive styles, and creative production within design students becomes of vital importance to design educators.

Through an empirical investigation, this research identifies profiles of creativity in beginning design students and examines their performance on a design project containing open-ended and constrained stages. This research study seeks to answer: What profiles of creative personality traits and problem-solving styles characterize beginning design students? How do differing student profiles relate to the level of creativity expressed in their design solutions? Furthermore, how do differing student profiles respond to design constraints in their processes?

Methodology

Student Profiles. Beginning design students (n = 39) enrolled in a FIDER-accredited design program completed the Herrmann Brain Dominance Instrument (HBDI) to establish their preferred thinking and problem solving style (Bunderson, 1987; Herrmann, 1988, 1996). The sample also completed the Adjective Check List (ACL) to identify personality characteristics associated with creativity (Domino, 1970, 1994).

Design Process. The sample completed a two-part design problem containing distinct open-ended and constrained stages. The open-ended stage prompted students to respond to minimal design constraints, emphasizing the divergent exploration of ideas and concepts. The constrained stage required students to address functional criteria, emphasizing the synthetic integration of ideas and concepts into a solution. A process questionnaire tapped into the sample's reactions during each discrete phase.

Product Evaluation. A panel of expert judges evaluated the final design solutions using the Consensual Assessment Technique (CAT). Factors of creativity, novelty, function, and aesthetic quality were each assessed (Amabile, 1983).

Summary of Results

The poster presents correlations between cognitive and personality styles with the HBDI and ACL to establish beginning design student profiles of creativity in relation to creative products. Data obtained by the process questionnaires, indicating each student's reaction to both open-ended and constrained design processes are correlated among the differing student profiles. In summary, this research will lead to a heightened understanding of creativity in the beginning design student vis-à-vis creative personality characteristics, processes, and products. Ultimately this knowledge, when used to inform design teaching and learning supports the development of creativity in the individual and in the profession.

References

- Amabile, T.** (1983). *The social psychology of creativity*. New York: Springer-Verlag.
- Bunderson, C.** (1987). *The validity of the Herrmann Brain Dominance Instrument*. Unpublished manuscript.
- Domino, G.** (1970). Identification of potentially creative persons from the Adjective Check List. *Journal of Consulting and Clinical Psychology*, 35 (1), 48-51.
- Domino, G.** (1994). Assessment of creativity with the ACL: An empirical comparison of four scales. *Creativity Research Journal*, 7 (1), 21-33.
- Duerk, D.** (1993). *Architectural Programming: Information management for design*. New York: Van Nostrand Reinhold.
- Goldschmidt, G.** (1999). Design. In Runco, M.A. (Ed.). *Encyclopedia of Creativity* (pp. 525-535). New York: Academic Press.
- Herrmann, N.** (1988). *The creative brain*. Lake Lure, NC: Brain Books.
- Herrmann, N.** (1996). *The whole brain business book*. New York: McGraw Hill.
- Lawson, B.** (1997). *How designers think*. (3rd ed.). Oxford: Architectural Press.
- Zeisel, J.** (1981). *Inquiry by design*. Monterey, CA: Brooks & Cole.

BUILDING COMMUNITY: INTERIOR DESIGN AND ARCHITECTURE STUDENTS WORK TOGETHER ON COMMUNITY DESIGN PROJECTS

Poster by
M. Jean Edwards

Thomas Sammons
School of Architecture,
University of Louisiana, Lafayette

Purpose

The collaboration between interior design and architecture students represents the first of its kind for our community design studio. For the past six years architecture and interior design faculty have collaborated on community projects, but this collaboration did not extend to the student participation until the summer of 2001. Prior to this time, student development involvement in the community design studio has been limited to fourth year architecture students about to enter their final year of study in a BArch program.

Goals for opening the studio to the interior design students were:

- 1) To reflect the collaborative nature of design as it is currently practiced professionally,
- 2) To foster respect for each of the disciplines for the other,
- 3) To broaden the students' experience and understanding of each others' disciplines, and
- 4) To expand the services that the community design studio could offer to its clients.

Process

Interior design students that had completed their third year of a four-year program were eligible to participate in the community design studio. The interior design faculty selected two students based on the students' knowledge of Form-Z, their computer-modeling and communication skills, and their perceived work-place reliability.

The community design studio had been hired to work on several different projects over the summer. While the interior design students were initially involved in each of these, their work became focused on the downtown renovation of a small town square. Together with the architecture students, they participated in public charrettes where they engaged in dialogues with concerned citizens and responded to their concerns and requests. They and the architecture students conducted a building survey, developed parking and streetscape schemes and designed several proposals for a downtown festival gathering place. In addition they brought their expertise in interior design to the proposed renovation of an historic building on the town's square. They developed this building as a mixed-use antique store/residence.

Summary of Results

The design outcomes of this student collaboration include a series of presentation boards that illustrate the proposed downtown renovation schemes and a board that details the interior proposals for the historic building on the square.

The boards have been presented to the public and to the town's planning board and have received positive comments and response. Taken together, the boards demonstrate the integration of interior design into the context of an urban design project.

In the context of day-to-day interaction in the studio, the interior design students proved to be valuable assets to the studio. They became full partners with the architecture students, contributing ideas and expertise on various levels. The architecture students came away with increased appreciation for the professionalism of the interior design students.

UNDERGRADUATE COLLABORATIVE RESEARCH: RE-IMAGINING SPACE AND DESIGN

Poster by
Tom Peterson, Ph.D.
Utah State University
Leslie Hadvield, Stephanie Ray, Joyce Kinkead

Purpose

How often do we design spaces because we “know” what they should look like, and how they should function? And what if there is no precedent or experience to draw upon, no body of knowledge to serve as a guide to the design process? With what information will designers, and perhaps more specifically new designers, base their decision making process, when no body of knowledge exists? The effort of this poster is to illustrate a process that involves undergraduate students along with research mentors in the development of a model research project that generates and creates new knowledge. The design of an ideal writing center was selected in that it required the re-imagining of both space and design, and provided the perfect opportunity to bring together design and research at the undergraduate level.

Methodology

To re-image the spaces of a writing center where tutoring and other related writing activities occur, we assembled an interdisciplinary research team: two undergraduates (one a writing tutor and one an interior design student); and two faculty members (one a director of tutoring programs and one a professor of interior design). The focus was on the undergraduates who led the research project with guidance from the faculty mentors. Immediately, we found that we did not speak the same language as design includes a technical vocabulary unfamiliar to lay persons. Likewise, the writing experts had the responsibility of articulating the activities and priorities of the space. The ensuing research focused on an analysis of project requirements and the development of new information to guide the design process.

Summary of Results

In terms of design process, the writers felt on familiar ground as process is not only a recognizable term but also one practiced frequently in tutorials. As David Kaufer (1996) maintains, rhetoric and design are structurally similar and posits that rhetoric should actually be considered in the arts family of design with architecture, graphics, and engineering. Thinking of a writer’s words and symbols as being on a par with an architect’s blueprints and diagrams may help circumvent the disciplinary divide. Students from both disciplines discovered that space has been called the organization’s second most expensive resource (Becker, 1995), and yet the literature on the architecture of effective learning environments is precious little. As a special issue of *Academe* on “The Pedagogical Building” notes: “good rooms will not necessarily make us good teachers, but bad rooms will assuredly make us bad ones.” (“The Pedagogical Building,” 1991, p.4)

The physical spaces of the writing center do not determine the success of students' learning, but they can be a contributing factor to their sense of security. A well-designed writing center sets its identity that speaks implicitly to its patrons. It's not magic. It is instead the collaboration of experts—those in design and those in writing—who come together to plan and structure a space for learning together. A visual summary of the outcomes of this research collaborative will enhance the participants active learning. Illustrated will be project organization and process, and the design solutions of the writing center project including plans and model.

References

- Alexander, C., Ishikawa, S., & Silverstein, M.** (1977). *A Pattern Language: Towns, Buildings, Construction.* Oxford UP.
- Alexander, C.** (1979). *A Timeless Way of Building.* Oxford UP, 1979.
- Alexander, C., Silverstein, M., Angel, S., Ishikawa, S., & Abrahms, D.** (1975). *The Oregon Experiment* Oxford UP..
- Becker, F., & Steele, F.,** (1995). *Workplace by Design: Mapping the High-Performance Workscape.* San Francisco: Jossey-Bass Management Series.
- Cross, H.,** (2000, March). More than a Place for the Coffeepot: Writing Center Environments, Multiple Intelligences, and Environmental Psychology. Proceedings of the CCCC, Minneapolis. Huntsville, Alabama.
- Deasy, C. M. & Lasswell, T.** (1990). *Designing Places for People: A Handbook on Human Behavior for Architects, Designers, and Facility Managers.* New York: Whitney Library of Design.
- Fitch, S.,** (November, 1999) E-mail interview.
- Gladwell, M.** (2000, December 11). Designs for Working. The New Yorker, pp. 60-70.
- Green Building Design: Practicing What You Teach.** (2001 January). Administrator, p. 20.
- Hadfield, L.** (1999, October, 19). [Interview with Andrea Peterson, Writing Center Director, Utah State University].
- Hadfield, N.** (1999 November) E-mail interview.
- Jones, F.** (1990). The Concise Dictionary of Interior Design. Los Altos: Crisp Publications.
- Karlan, M.** (1993) Space Planning Basics. New York: Van Nostrand Reinhold.
- Kaufner, D. S. & Butter, B. S.** (1996). Rhetoric and the Arts of Design. Mahwah, NJ: Lawrence Erlbaum.
- Kinkead, J. & Harris, J.,** (1993). Writing Centers in Context, Urbana, Ill.:NCTE.
- May, H.** (2000, April 9). Is It a Bad Chi Day? More People Turning to Feng Shui for Help. Salt Lake Tribune, pp. A-1, A10.
- Panero, J., & Selnik, M.** (1979) Human Dimensions & Interior Space. NY: Whitney Library of Design.
- Rayfield, J.** (1994). The Office Interior Design Guide. NY: John Wiley & Sons.
- Riewoldt, O.** (1997). Intelligent Spaces: Architecture for the Information Age. Books Nippan,
- Smith, P. & Kearney, L.** (1994). Creating Workplaces Where People Can Think. San Francisco: Jossey-Bass Management Series.
- The Pedagogical Building.** (1991, July-August). Academe, p. 4.
- Vaughn, T. W.** (1991, July-August). Good Teaching Rooms: A Campus Resource. Academe, pp. 11-15.

ENHANCING AWARENESS OF HOW WE SPEND TIME: WELLNESS IN THE DESIGN CURRICULUM

Poster by
Christina M. Burton
University of Wisconsin - Stevens Point

Purpose

This poster presents ongoing research from a longitudinal case study on time management, activity balance, and health promotion with interior design students. As much as time management is encouraged, the design field is lacking important support for incorporating proper skills in professional work. Piotrowski (2001) notes that new time management habits are difficult to generate and it is necessary to continually be aware of good methods. It is the purpose of this poster to present a learning experience where students are aware of their time management habits during their freshman year in college and to support that experience with opportunities to develop effective habits.

The first phase of this case study examines students' perceptions about how they use their time. As an important resource, time and its use determines our degree of success in accomplishing goals and subsequently our happiness and peace of mind. An intervention phase involves an interdisciplinary approach using the expertise of the Health Promotion Stress Management practicum (with seniors in the Health Promotion major) to conduct time management seminars with the interior design students. The third phase involves re-examining the student's perception about their use of time in subsequent semesters. This year, two groups have been examined: Freshman and Juniors.

Methodology

The survey instrument consists of a four-page questionnaire assessing students' time management perceptions. This instrument and modifications of it are used with different levels of students in the interior design major. A program of several interactive awareness seminars is conducted by Health Promotion and Wellness students. This collaborative teamwork across disciplines provides a program developed for students dealing with health promotion and wellness with a focus on time management. The program includes a variety of worksheets, seminars, and activities. The poster presentation will have examples of the questionnaires and of the activities done for raising awareness for effective time management skills. This is reinforced by the repetition at each level to encourage the students to develop good habits.

Summary of Results

Factors that influence efficient time management will be summarized in the poster (such as: barriers, different approaches, guidelines and techniques). Results of the questionnaire on students' perceptions will also be given for several levels of students in the interior design program.

References

- Romas, A. and Sharma, M.** (1995). Practical Stress Management. Boston: Allyn and Bacon.
- Piotrowski, C.** (2001). Professional Practice for Interior Designers, 3rd Edition. New York: John
- Wiley and Sons. Seaward, B.** (1997). Principles and Strategies for Health and Wellbeing, 2nd Edition. Boston: Jones and Bartlett Publishers, Int.

SUSTAINABILITY THROUGH DIVERSITY AND UNITY OF DESIGN ORGANIZATIONS

Poster by
Kathleen Stumpf and Jane Kangas
University of Wisconsin-Stevens Point

Purpose

The poster will share methods for coordinating the diverse activities of specialized design organizations into a unified program for undergraduate interior design students.

Professional participation in the interior design field is filled with a diversity of specialized professional design organizations, such as IIDA, ASID, IDEC, OBD, ISP, IFMA, EDRA, NTHP, ILDA, and IESNA. The existence of a multiplicity of design organizations reflects the richness and complexity of the field of interior design. Instead of insisting on unifying as one large organization, we should embrace the diversity and coordinate the efforts to work together. Interior design educators have an opportunity to support and enhance this movement at a critical level in the development of future designers while they are students. This poster will present several approaches for unifying diverse organizations at an academic institution for the benefit of students.

Process

All of the design organizations work together to advance the field of interior design in terms of professionalism, accreditation, examinations, licensing, ethics, and internships. In the literature, however, little is referenced as to how the efforts can be coordinated to expose students to the diversity of design professions. More often, there will be an ASID student chapter on a campus with possible participation by individual students in outside professional organizations, such as IIDA. Each specialized design organization offers their expertise through depth of knowledge and practical application. By encouraging exposure to a multiple of design organizations, therein lies the breadth of knowledge that educators seek to foster in students and reflect in a diverse faculty.

Interior Design students benefit from exposure to the diversity of these design organizations as a part of their learning experience. Six student organizations in design are supported and coordinated within this university. Coordination of activities involve several events during the year, including Design Organization Fair, Statewide Career Day, Regional and Local Portfolio Reviews, advising and mentoring, field trips, as well as the social affairs of the Christmas Banquet and the Spring Recognition Banquet.

Summary

The coordination of the activities of design organizations in a design program is complex and a culture must be developed where all organizations are valued and supported by all of the design faculty. Design work is cross-discipline and multi-talented, and the students benefit from early exposure to these interrelationships. The multiple student organizations work together to serve the undergraduate student body and either divide or share responsibilities as they see fit for achieving their goal. It allows the student body to be members of more than one organization at a time to explore their career options. With program support and coordination, design education is enhanced through diversity and unification of student design organizations, while sustaining the interior design profession as a complex field.

References

- Piotrowski, Christine.** (2001). *Professional Practice for Interior Designers* (3rd ed.). New York: Van Nostrand Reinhold.
- Thompson, Jo Ann Asher** (Ed.). (1992). *ASID Professional Practice Manual*. New York: Whitney Library of Design.
- Veitch, R., Jackman, D., & Dixon, M.** (1990). *Professional Practice: A Handbook for Interior Designers*. Winnipeg, Canada: Peguis Publishers.

Professional Organizations:

American Society of Interior Designers (ASID)
Environmental Design Research Association (EDRA)
Illuminating Engineering Society of North America (IESNA)
Institute of Store Planners (ISP)
Interior Design Educators Council (IDEC)
International Facility Management Association (IFMA)
International Interior Design Association (IIDA)
International Lighting Design Association (ILDA)
National Trust for Historic Preservation (NTHP)
Organization of Black Designers (OBD)

PRESERVING THE ENNIS-BROWN HOUSE AND THE MYSTERIES OF FRANK LLOYD WRIGHT'S "TEXTILE BLOCK" STRUCTURES

Poster by
Roberta K. Mauksch
California State University, Northridge

Purpose

This poster exhibit presents photographic documentation of the various types of textile blocks used in Ennis-Brown House, and the process developed to document essential baseline data about this unique Frank Lloyd structure prior to the actual restoration.

Process

The Ennis-Brown House is the last, the largest, the most complex and the most frequently viewed of Mr. Wright's four concrete knit-textile block houses. The Ennis House, built in 1924, consists of a main residence and a chauffeur's quarters, both of which were constructed of concrete textile blocks. There are a few unusual design details unique to the Ennis House. First, many of the rows of block are offset from the rows below them to create a stepped pyramid appearance. Secondly, corners and columns are formed from L-shaped and U-shaped blocks.

The textile-block system, which is the source of much of the building's importance, is also the source of its vulnerabilities that continue to be increasingly evident over time. Each block consists of a very dry mix (1 part water to 4 parts concrete, maximum), in which the fines—grains of sand—are the decomposed granite from the site. This dry-pac mix, made from the hillside, was part of Mr. Wright's intention; his goal was to create organic architecture where the house would rise out, and yet remain part of, the site on which it stands. The problem is that the fines were not adequately washed, and together with a soft granite, resulted in a weak and porous block. This, in turn has led to water infiltration through the block face, further weakening the concrete and threatening the reinforcing bar.

Summary

Frank Lloyd Wright's profoundly creative and sculptural approach to architecture, and his experimental approach to materials and methodology (especially in the case of the concrete textile block houses), has resulted in an almost uniquely valuable architectural contribution. It has, at the same time, created a very difficult and particular set of preservation issues. In order to effectuate a stabilization and restoration of integrity, it is necessary to first: develop an identification system of all blocks on the site—both interior and exterior—noting individual block location, style and condition. This information, together with photographic documentation of each block, will serve as baseline data that can be compared to archival photos of the past and in the future to determine levels of deterioration over time.

From Sun God to Silk Road: A pictorial history of the near environment

Poster by
Kathleen Bryant, Susan Binder, Rhonda Richins
Oregon State University

Purpose

The three graduate student authors, fulfilling research requirements for a course titled “History of the Near Environment” at Oregon State University, created a timeline tracing styles and influences on cultural groups from Ancient Egypt to the Italian Renaissance. Authors were interested in designing a curriculum tool to assist undergraduates with organizing the vast amount of material covered in this course. This timeline, in poster form, selectively presents those images and written information that would enable students to see a “bird’s eye view” of the relational aspects of the near environment elements of culture. This set of posters is a stand alone curriculum facilitator that students can refer to and utilize as a reference guide without the instructor’s direct guidance.

Method

Following a timeline from the ancient to renaissance time periods, the authors chose 92 color images representative of nine cultures within this time frame. Within this construct, the disciplines covered included architecture, history, interior furnishings and decorative arts, as well as textiles and dress, to illustrate salient characteristics of the near environment. Brief verbal sketches of important political, economic, social and ideological influences tie these images together. Along the lower edge, in a border format are 67 black and white line drawings of motifs representative of stylistic and symbolic aspects of the cultural time periods. The poster group is keyed to a set of printed captions that provide more information and connect these images and motifs to source and reference materials. Each cultural group within the time frame is further explained by a written outline of the influences of the natural environment, of society and culture, and whether or not the culture is characterized by isolation from or contact with other cultures.

Summary of Results

The resultant posters have been used as visual aids to complement the class content and advertise the course. By spreading the information across three posters, the instructor gains some control over when the information is presented to the students. This poster set has application for students in high school, community college, and university as well as for general public reference purposes.

References

- Baines, J., & Málek, J.** (1993). Atlas of Ancient Egypt. NY: Andromeda.
- Bosomworth, D.** (1995). Clip Art Book of Designs. NY: Crescent Books. Lester, H. (1998). Period and Style for Designers. Retrieved 1999 from: <http://ps.theatre.tulane.edu/lester/text/lester.html>
- Fagan, B.M.** (1985). The Adventure of Archaeology. Washington, D.C.: National Geographic Society.
- Griesbach, C.S.** (1975). Historic Ornament: A pictorial atlas. NY: Dover Publications, Inc.
- Hayward, H.** (Ed.). (1977). World Furniture, an Illustrated History. NJ: Chartwell Books, Inc.
- Lewis, B.** (Ed.). (1976). The World of Islam. London: Thames and Hudson, LTD.
- Payne, C.** (1989). Sotheby's Concise Encyclopedia of Furniture. NY: Harper & Row Publishers, Inc.
- Powell, A.** (1989). Cultural Atlas for Young People: Ancient Greece. New York: Facts on File.
- Pugin, A.C.** (1987). Pugin's Gothic Ornament. NY: Dover Publications, Inc.
- Russell, D.A.** (1983). Costume History and Style. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Silverman, D.** (Ed.). (1997). Ancient Egypt. NY: Oxford University Press.
- Tortora, P., & Eubank, K.** (1998). Survey of Historic Costume (3rd Ed.). New York: Fairchild Publications.
- Wilson, E.** (1986). Ancient Egyptian Designs. Great Britain: British Museum Pattern Books.
- Yarwood, D.** (1987). A Chronology of Western Architecture. NY: Facts on File Publications.
- Zehavi, O.** (Ed.). (1997). Lyre_player. Retrieved 1999 from: <http://www-lib.haifa.ac.il/www.homepage.html>

A CASE STUDY IN SUSTAINABLE DESIGN, BUILDING, AND RETAIL: REI DENVER

Poster by

Brian H. Dunbar, Karen Hyllegard, Jennifer Paff Ogle, Lauren Volk
Colorado State University

Issue

As more business owners and design teams place an importance on attaining environmentally sustainable buildings and interiors, it becomes essential to understand the key considerations and outcomes of the sustainable design process. The goal of this research project was to determine and evaluate the procedures and methods employed in a built retail environment that has been recognized in the trade literature and received industry awards for its sustainability. Because few retail establishments exhibit sustainable design principles, documenting and disseminating a successfully implemented project would likely improve designers and retailers understanding of the process and accompanying benefits that can result from a concerted effort to arrive at a sustainable retail environment.

Process

Researchers in interior design, merchandising, and construction endeavored to determine if examples of environmentally sustainable retail establishments existed and if such an example could be modeled for others who study and practice design, merchandising or construction.

Through a literature search, The REI (Recreational Equipment Inc.) Denver Flagship store was identified as one retail environment that has been awarded and cited as a sustainable project. The research team conducted an on-site study of the selected project, interviewed key design team members, and applied an evaluation tool, the Leadership in Energy and Environmental Design (LEED) rating system, to validate the quality of the sustainable design.

Summary of Results

Project Summary. The REI Denver store has received numerous awards and acclaim from retail and design organizations for its creation of a high quality and environmentally sensitive retail environment. Of particular significance, the project was selected as one of the AIA Committee on the Environment's Top Ten Green Buildings of 2001 (AIA, 2001). Mithun Associates, a Seattle based architecture and interior design firm, led the integrated design and construction process. According to Burt Gregory, Mithun Associates principal (personal communication, Sept., 2001) the design team set project goals based on an REI customer survey which concluded that REI clientele place a high value on resource, energy, and material efficiency, low waste, and use of recycled content material.

The research team selected the LEED rating system as an evaluation tool. The LEED system was designed and is monitored by the U.S. Green Building Council, an organization regarded as the principle leader in advancing the theory and practice of sustainable built environments (Steele, 1997). After evaluation, the research team concluded that the design of the REI Denver project contains many significant, sustainable attributes including:

1. makeup, sequencing and input of design team members
2. historic landmark rehabilitation
3. retail concept and layout
4. site selection and development
5. creation of underground parking with a landscaped park above
6. use of salvaged and recycled materials
7. healthy material and finish choices
8. energy conserving systems and design features, and
9. successful employment of daylighting concepts.

Research poster summary. The REI Denver Flagship Store can be viewed as a bellwether project for the increasing number of building owners and design teams working to achieve a green building. The research poster will illustrate through photographs, diagrams, and specific features lists, the applicability of the model green project in terms of the overall project flow, decision-making processes, the research team project evaluation, and specific, successful project results.

References

- American Institute of Architects.** (2001). AIA Committee on the Environment 2001 top ten green projects. Retrieved July 10, 2001 from <http://www.aia.org/pia/cote/topten/Default.asp>
- Falk, L.** (1999, July). Sowing the seeds of green. VM+SD, pp. 14-15.
- Mendler, S.** (2000). The HOK guidebook to sustainable design. New York: John Wiley & Sons.
- Spiegel, R., Meadows, D.** (1999). Green Building Materials: A guide to product selection and specification. New York: John Wiley & Sons.
- Steele, J. (1997).** Sustainable architecture: Principles, paradigms, and case studies. New York: McGraw-Hill.
- U.S. Green Building Council.** (2001, June). LEED rating system, version 2.0. Retrieved August 14, 2001 from <http://www.usgbc.org/>

SUSTAINABLE HOUSING FOR OLDER AMERICANS: AN EDUCATIONAL OUTREACH PROGRAM

Poster by
Kenneth R. Tremblay, Jr. and Adetania Pramanik
Colorado State University and Texas Tech University

Purpose

Sustainability in housing can encompass the idea of designing residences to allow people to age in place. This would conserve building-related resources and improve quality of life. As the older population continues to increase, there is a need to provide information to assist older persons to remain in their homes. In 2000 there were 34.8 million Americans aged 65 and over, which is projected to reach 70.3 million by 2030 (Administration on Aging, 2001). Surveys reveal that approximately 85% of older persons want to remain in their homes for as long as possible, although one-half of those homes were built prior to 1960 (American Association of Retired Persons, 2000). The purpose of this poster is to display materials used in an educational program on home modifications directed at older adults.

Methodology

A Cooperative Extension educational outreach program was developed on home modifications, defined as adaptations to the home that make it more comfortable, safer and easier to carry out daily activities (National Research Center on Supportive Housing and Home Modifications, 2001). Rather than older persons moving to new housing or adjusting their own behaviors based on the deficiencies of their homes, information was produced to help them perform modifications. Possible home modifications were collected from guidelines in the Fair Housing Amendments Act, the Americans with Disabilities Act and the National Research Center on Supportive Housing and Home Modifications. An Internet search was also conducted on Cooperative Extension aging programs in the U.S.

Summary of Results

The program consists of materials contained in a suitcase weighing approximately 20 pounds. With wheels and a handle it is relatively easy to mail, carry and roll to needed locations. The materials can be varied depending on number of program participants, amount of presentation time and learning objectives. Materials include overhead transparencies on demographics, physical changes in aging, significance of housing and home modifications. Interactive exercises of possible modifications in the kitchen, bathroom, bedroom and living room are provided. The video Home Sweet Home, product catalogs, 38 assistive devices and illustration boards consisting of floor plans, materials and rendered perspectives show program participants how modifications might look in their homes. These include larger scale modifications such as installing a ramp and designing an accessible bathroom. The importance of selecting a qualified interior designer when modifying the home is emphasized. A CD-ROM containing these materials is available to those educators requesting it.

Fourteen programs have been conducted, receiving positive responses from participants who particularly appreciated the tactile and visual experience relating to potential modifications. The Cooperative Extension educators who delivered the program commented on their ability to mix and match different components based on their needs. To reach more individuals, selected materials along with signage were displayed at the state's home and garden show. This educational outreach program represents an example of how interior design educators can collaborate with other groups to deliver practical information to the public on sustainable design.

References

- Administration on Aging.** (2001). Profile of older Americans. Washington, DC: AOA.
- American Association of Retired Persons.** (2000). Fixing to stay: A national survey of housing and home modification issues. Washington, DC: AARP.
- National Research Center on Supportive Housing and Home Modifications.** (2001). Home modifications resource guide. Washington, DC: NRCSHHM.

NKBA KITCHEN AND BATH DESIGN STUDIO IN ON-LINE AND TRADITIONAL STUDIO FORMAT

Poster by
Patricia F. Lindsey, Ph.D.
Marjorie Inman, Ph.D.
East Carolina University

Purpose

The purpose of this course comparison was to incorporate, in an on-line studio, the quality of teaching and resulting outcomes that have been observed in the traditional classroom format. The course encompasses the fundamentals of kitchen and bath design with an emphasis on design detailing, ergonomics considerations, and universal design criteria. Objectives for the course included: (a) an understanding of the kitchen and bath design planning standards as established by the National Kitchen and Bath Association, (b) competencies in design, drafting, detailing, specification procedures, and presentation techniques in the design of kitchens and bathrooms, (c) an ability to incorporate in kitchen and bath planning procedures the following elements: design principles; equipment and materials; lighting; mechanical systems; and building materials, construction and estimating, (d) an awareness of professional procedures in the kitchen and bath design field.

Process

Both traditional studio and on-line options of an NKBA endorsed kitchen and bath design course were offered in the summer of 2001. This was done in order to serve the growing number of design students as well as design professionals interested in the design of kitchens and bathrooms.

The traditional studio class was offered in a drafting studio, and the instructor was present with the students during each meeting. Verbal lectures, slides, course packets, NKBA manuals, handouts, and hands-on instruction were methods used to transfer information to the students. Students presented hard-copy drawings and presentation boards directly to the instructor for preliminary and final evaluation. Project discussion took place in the classroom setting.

The instructor for the on-line course met with students only on the first day of class. Hard copy course packets and NKBA manuals as well as on-line lecture notes, annotated digital slides, digital "hand-outs", white board and chat room discussion, and e-mail messages were used by the on-line instructor to communicate information and grades. Unless the student opted hand drafting, drawings in digital format were presented for preliminary evaluation and hard copy drawings were presented for final assessment. Students in each class were permitted to use traditional drafting or CAD drafting methods to create and present their designs.

Outcomes

There was, of course, uncertainty about the equality of information transfer between instructor and student and also concern about the quality of the outcome from the new class in its digital format. These questions were answered positively when a student from the on-line kitchen and bath course took first place in the regional NKBA competition and students from the traditional classroom class took third place and honorable mention, indicating that equivalent instruction and outcomes are possible for digital and traditional design studios.

Addendum

At the present time, the NKBA competition committee still has possession of the student design projects so slides/photos cannot be sent with this proposal. However, a PowerPoint slide presentation of excerpts of the NKBA competition winning designs and pages from on-line instruction will be shown during the poster presentation.

ENVIRONMENTAL EDUCATION IN AN EDUCATIONAL ENVIRONMENT: GREEN FURNISHINGS AND FINISHES FOR THE GROWING MIND

Poster by
Jeanne Mercer Ballard, MA, NCIDQ, LC
Envi Studio, Inc.

Purpose

Practitioners have the ability to educate through our work. As the designer of an environmentally friendly furniture package for the Center for the Environment at Catawba College, I created an educational legacy. The green furnishings not only provide workspace and enable social interaction in the building, but additionally they act as a teaching tool from two perspectives. First, the furnishings will continually educate those who interact with this environment. Second, the furnishings will act as a teaching tool by informing and educating me through ongoing analysis. This integration of practice and education will motivate future generations to make a difference by design.

Methodology

Stimulating learning was a key component of my design for the furniture package for the Environmental Sciences program at the Center for the Environment. Education and environmental stewardship are core values embodied by the Environmental Sciences program and the green furnishings package mirrors these values through its conceptual approach.

In designing a green furnishings package that educates, I used an unconventional process by adding several steps to the typical design process: public documentation, continuing education and ongoing analysis. Using atypical methods, I was able to coordinate several dealerships and alternative vendors, such as a salvage company. One design solution was not used throughout the building, rather the package was a cohesive combination of various environmentally friendly options and select areas featured different companies and materials in order to educate by example.

The plan for continually educating those who interact with the furnishings involves presentations to various tour groups, students and other interested groups. Articles published in periodicals and a series of related articles published on the program's website seek to reach a broader audience. Additionally, information cards with thorough documentation of the details and a description of their green features were created and placed on the furnishings throughout the building. These methods have enabled the furnishings package to act as a "passive" teacher to people of various disciplines.

Conversely, the furnishings will act as a teaching tool by informing myself through ongoing analysis. Observation, surveys and direct interaction will inform the analysis and the results will be shared through conferences, additional articles, and other public forums. Information gained will also inspire my future design work and academic endeavors.

Summary of Results

Integrating an educational mission into professional practice augments the interior designer's services, and is currently underutilized in our field. The furniture package at the Center for the Environment has shown that my educational efforts have made an impact in educating a wide variety of disciplines. This knowledge encourages students and others to reach a heightened level of consciousness in their lifestyle and careers and in turn, influence future design decisions. The end result is a lasting environmental education legacy.

References

- Interiors & Sources.** (Fall 2000). *Envirodesign Journal*, Northbrook, IL: L.C. Clark Publishing.
- Hermannsson, John.** (1997). *Green Building Resource Guide*, Newtown, CT: The Taunton Press.
- Papanek, Victor.** (1995). *The Green Imperative: Natural Design for the Real World*, New York, NY: Thames and Hudson, Inc.
- Riggs, J. Rosemary.** (1999). *Materials and Components of Interior Architecture*, Upper Saddle River, NJ: Prentice Hall.
- Yeang, Ken.** (1995). *Designing with Nature: The Ecological Basis for Architectural Design*, New York, NY: McGraw-Hill.

THE CREATION OF AN INTEGRATED, COMPUTERIZED STUDIO ENVIRONMENT

Poster by
Neal Hubbell and David Brown
Kansas State University

Purpose

There are many design programs that are struggling with the full integration of computers into their programs and curriculums. Almost all have made the leap forward and offer courses in CAD and other software applications. Many programs have made expensive investments in the purchase of equipment and set up dedicated computer labs only to find it difficult to maintain and periodically update their computers. Funds that could be earmarked for other expenditures are diverted for the purchase of the latest generation of computers. This arrangement is also an enormous burden on faculty time and energy and not to mention graduate student assignments to monitor the labs. A few schools have made the decision to require their students to purchase their own computers. They avoid many of the problems of maintenance and replacement of the computers, but in turn create a rash of unforeseen problems.

Methodology

The authors' design program has approached the resolution of computer integration in a holistic manner. This has occurred over the past ten years since we first required students to purchase and keep computers in the studio. Our program has successfully dealt with a myriad of issues. The focus of this presentation will be on how these issues were resolved and how our experience may help others.

These issues include:

- How and why we moved away from a shared computer lab scenario to one that requires students to purchase and maintain their own personal computers and peripherals.
- How the monies saved have been redirected towards the purchase of the more advanced equipment necessary for animation rendering, printing, plotting, and projecting student-created content.
- How we convinced students, their parents, the faculty, administration, and facilities personnel that students should purchase and bring their own CAD-capable computers into the design studio.
- How we dealt with issues of security through the development and use of student-built, lockable personal computer cabinets.
- How the student's involvement in the design and construction of the cabinets sensitizes them to issues of ergonomics, cable management, ventilation, glare, etc.
- The design of a state-of-the-art renovated studio environment to accommodate a flexible number and layout of student desks, increased electrical service demands, and networking requirements.
- How to work with the university's financial aid office to support student purchases of CAD-capable computers and peripherals.

- How to work with software vendors to establish site licensing to ensure that students are able to install licensed copies of required software on their personal computers.
- Dealing with unanticipated problems. For example: When a shared computer lab is no longer available or up-to-date, how are non-studio computer classes (AutoCAD, 3-D modeling, general computer use, etc.) to be taught?

Summary of Results

Our design program has succeeded in thoroughly integrating student-owned computers, software, and related technology into the curriculum. We have learned a great deal in the process, encountered many problems, and found creative solutions to these problems. This progress has, in turn, enabled us to deliver a broader and higher quality education to our students.