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The Review Process

Abstracts included in this document were selected through a review process for determining presentations to be given at the 2003 Interior Design Educators Council International Conference in San Diego, California. 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 narrative to guarantee that the panel of reviewers had as complete an understanding as possible of the abstracts in those categories.

Three reviewers evaluated each submittal. The number of submittals accepted was dependent upon quality as determined by the resulting rank order and time available during the conference. Out of 120 proposals submitted, 49 were accepted for presentation at the conference and included in the publication.

Reviewers, under the direction of Bridget May, Conference Abstract Review Coordinator, Marymount University, included:

- Stephanie Watson, University of Minnesota
- Carol Caughley, Oregon State University
- David Matthews, Ohio University
- Thea Scott Fundling, Marymount University
- Martha Burpitt, Meredith College
- Robin Wagner, Marymount University
- Lucinda Kaukas Havenhand, Virginia Commonwealth University
- John Turpin, Washington State University
- Anna Marshall Baker, University of North Carolina - Greensboro
- Betsy Gabb, University of Nebraska - Lincoln
- Nan Miller, University of Arkansas

Definitions of entry categories, adapted from the CALL FOR ABSTRACTS

Paper

A paper is formal in structure and format. The primary goal is to present a question or issue that is structured as conceptual, analytical, empirical research, or applied research and that is grounded in a systematic process and/or inquiry. The question or issue may be descriptive and/or prescriptive in analysis and involves interior issues of theory, education, pedagogy, practice, or the built environment. The author(s) presents issues or topics derived from a critical question or speculative subject matter, such as theoretical models, with the intention of advancing a treatise, position, or state of the interior design discipline or practice. Paper presentations may be finite and conclusive, providing descriptive and/or conditional findings to the audience. Or, the paper may be directed toward a public discourse that provides critique and feedback to the author(s), enabling him or her to think reflectively and refine the work.

Presentation

A presentation is less formal in structure and format. Its goal is to stimulate interaction on a relevant topic or issue of interior design pedagogy, practice, theory, history, and/or criticism. Presentations may be exploratory, illustrative, or alternative, proposing questions, topics, or issues for further development or future systematic inquiry. The author(s) develops the background and framework to engage the audience

in discussion and exchange, to stimulate creative thinking, and to garner additional insight and reflection by participants. Subjects that are innovative or creative or controversial in approach either as application or conceptual catalysis of current issues or topics in interior-design education, pedagogy, professional practice, as well as theory, or criticism are appropriate as presentations. This category also accommodates panel presentations.

Poster

A poster strives to foster exchange between members through visual images, text, or diagrams. This format offers experiential interaction and directs audience/author engagement or allows independent viewing. The author(s) develops visual information that expresses ideas or tracks a process relevant to interior design teaching, pedagogy, method/process, theory, practice, history, and criticism. The audience comments, questions, or seeks dialogue about the content or interpretation of the topic with the author(s) to advance the idea or further apply the process. Individual posters are allotted floor/ table space of approximately 30" X 60" and are presented concurrently with other posters.

Papers

TEACHING TIME: DISTANCE EDUCATION VERSUS FACE-TO-FACE INSTRUCTION

Paper by
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Jeanneane Wood
Central Michigan State University

Jon D. Vredevoogd
Michigan State University

Purpose

Higher education is being confronted with sharper competition and rapid technology changes. Surviving these conditions means continuous innovation, such as the incorporation of distance education methodologies into existing interior design curriculum. As offerings of distance education courses increase (Weiss, 2000), it is unclear how this will impact a faculty member's teaching time. Research on faculty involvement in distance education has focused on technology and training (Dillon & Walsh, 1992; Gillespie, 1998), with only minimal and conflicting research on the direct comparison of time spent teaching "at a distance" versus the more traditional on-campus model (Abacus, 2000; DiBiase, 2000; Visser, 2000). This study will present time-and-task records of an instructor and assistants teaching similar computer-aided design courses at two Midwest state universities during spring semester 2002. Both courses were developed prior to the start of this study and required only routine maintenance. One course relied on approximately 75% asynchronous communication (i.e. distance education), while the other course used approximately 75% synchronous communication (i.e. face-to-face instruction). Students in both courses utilized a substantial amount of technology for communication and completion of course projects. The two courses had identical content but dissimilar instructional models.

Methodology

This case study is an experiential analysis using time-and-task data collection methods. The distance course included one instructor, 18 students, and five teaching assistants. The face-to-face course included the same instructor, 111 students, and 38 teaching assistants. The instructor and the teaching assistants self-reported their time spent working with the students in these two courses. Independent t-tests were used to compare the time spent teaching both classes for the instructor and for the teaching assistants. Categories of teaching tasks (coordination, student contact, assessment, and face-to-face or virtual instruction) were also compared.

Summary of Results

Comparative data based on daily time logs imply that teaching a course with a high amount of distance education methodologies takes more time than teaching a comparable course with a lesser degree of technology infusion. Results indicate both faculty and teaching assistant time was significantly higher for the asynchronous course than the synchronous course. Discussion items include the amount of email correspondence between students and faculty, differences in student demographics and achievement, assessment time, and the difficulties using technology to deliver the asynchronous course. Suggestions are provided for utilizing technology in interior design education and the benefits of teaching with a hybrid model of asynchronous/synchronous instruction.

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INTERIOR DESIGN IN K-12: A FRAMEWORK AND EXPANDED MODEL OF INTEGRATION

Paper by
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Purpose

The purpose of this qualitative study was to develop a framework, to be used on a national level that would illustrate the integration of interior design content into elementary and secondary (K-12) levels, including distribution channels for interior design curriculum materials. The goal was to accurately educate youth concerning the career and profession of interior design.

Methodology

Five focus group sessions (Miller & Keech, 2000) were held between June 2001 and April 2002. The first three gathered information from experts in interior design and K-12. Participants were selected based on the broadest possible range of geographic and professional representation within constraints of the budget. Each focus group session and personal interview was taped and transcribed. Coding and analysis was performed using a grounded theory method (Patton, 1990). Based on findings from the first three focus groups, a framework for infusing interior design content and a model of integration was developed. To assess the validity and applicability of the proposed framework and model, the final two focus groups – with participants from the four expert areas -- were held March and April 2002. These experts represented such states as North Carolina, Illinois, Louisiana, California, Texas, and Colorado. As a final evaluation to verify one section of the proposed framework, the researcher contacted the executive director for FIDER (Kayem Dunn, personal communication, May 1, 2002). As a result, the *Pre-Professional Assistant Level Standards* were replaced in the framework by the *FIDER First Professional Standards 2000 (Adopted)*.

Summary of Results

The K-12 Integration Framework emerged from three different sources: the findings of this study, study of other published frameworks from related and unrelated disciplines, and a previously proposed K-12 model for integrating interior design (Clemons, 1998). To be effective, the framework had to support national education academic standards.

Features of Proposed Framework
- directly supports national academic standards; including visual arts (part of fine arts) standard
- integrates the philosophy of career preparation (formerly school-to-career) throughout all levels (Clemons, 1998)
- suggests use of existing channels, such as Family and Consumer Sciences (FCS) and the Full Science Option System (FOSS).
- uses FIDER Standards to guide development of categories for interior design content
- offers suggestions for format of delivery of materials to K-12 students/teachers
- offers examples of interior design lesson plans to accomplish integration goals
- incorporates technology education, literacy, and critical thinking skills as goals for integration
- acknowledges the need for assessment at all levels

- addresses all grade levels in elementary and secondary education

In addition to the developed K-12 Integration Framework, a model was designed to capture the framework in graphic representation. The model was also animated in a three dimensional environment and saved to compact Framework (e.g. the manner in which K-12 teachers are educated and re-certified).

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CREATING HABITABLE SPACES--PARTICIPATION, INQUIRY AND PRACTICE

Paper by
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Purpose

This paper explores the potential for a fresh approach to practice that aims to improve the quality of habitable spaces for humans. A newly constituted design process is proposed that requires the participation of stakeholders (clients and end-users) and researchers, along with design practitioners, as a first step toward increasing the control that people have over their lives and their buildings (Lefebvre, 1974). This new model is called the Design, Research, and Stakeholder (DRS) Practice because it redefines the standard design process used by most architects and interior designers. The DRS Practice is modeled in part on Action Research (AR) because it rests on the following principles (Greenwood & Levin, 1998): 1) real world research methods that focus on gaining information and solving problems; 2) democratic inclusion of the stakeholders; and 3) taking actions oriented to change the design of buildings or interior spaces for the better.

Context

The DRS Practice was developed during our involvement in the pre-design programming for design and renovation of a 30-year-old College of Law facility for 1,300 students and faculty members at the University of Florida. The senior author and colleagues used Action Research to inform the stages of planning and exploratory design that included pre-design assessment, programming, and generation of schematic and conceptual designs for a law library addition plus a new classroom building. Based on research about design teamwork (Macmillan, Steele, Austin, Kirby, & Spence, 2001), this project recreated the various dimensions of the design process, focused on the social aspects of teamwork in design, as well as on the previously ignored critical role of the end-users. A co-researcher role was introduced for the end-users as the missing part of the standard process used currently in many design practices. An equitable partnership became the essential character of the DRS Practice, because it 1) required inclusive decision-making by all DRS roles, 2) shifted the designer-centered approach toward democracy and research, and 3) promoted design solutions that were concordant with stakeholders' values, beliefs, and preferences. Thus, the DRS Practice process is defensible on both theoretical and practical grounds.

Summary

A DRS Practice seeks satisfying design solutions and begins with an extensive pre-design program. In this case, the pre-design program was made a part of the University's Request for Proposals used for hiring the College of Law project's architects and engineers as well as the construction management firm. As we continue to verify the data collected as part of the pre-design program and the stakeholders remain involved in decision-making, the DRS Practice process shows promise for delivering a better building than is possible using traditional programming.

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CASE STUDY: DESIGNING OFFLINE SPACE USING ONLINE WAY FINDING DATA

Paper by
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Issue

Of interest to designers creating physical space is the way in which individuals navigate through cyberspace and whether paradigms exist between virtual navigation, physical circulation, and cognitive mapping. This project investigated online way finding methods and examined whether online navigational systems can inform the design of offline/physical environments.

Method

Students collected and analyzed the circulation structure of e-retailing web sites. Paths, districts, nodes and landmarks were identified, as were navigation and activity patterns. The second phase of this project asked students to utilize their navigational and way finding knowledge of a particular e-retailing web site in the design of a physical retail establishment. Relying on the web site analysis from the first phase, students began to explore schematic ideas for an offline archetype of the online store. Designs were digitally constructed using AutoCAD 2000 and 3DS VIZ software. Final solutions were presented to a jury of student peers and faculty.

Summary of Results

Results confirm that parallels between online and offline navigational structures exist and that online navigation can be analyzed according to traditional way finding theories for physical space. Findings also suggest that students' physical design solutions possessed greater attention to path development and the creation of legible landmarks than typically occurred in previous studios where online navigational analysis was not a primary component. In addition, many of the final design solutions proved to be more interactive and experiential than past studio output. Consequently, using an alternate method to study way finding behaviors may author a heightened awareness of circulation and navigation for both online and offline retailing environments.

DOES DAYLIGHTING SIMULATION HAVE A PLACE IN A DESIGN STUDIO?

Paper by
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Purpose

Daylight plays an important role in the shaping of interior environments. The difficulty of predicting the performance of daylighting has been widely reported in the literature over decades (Lam 1986; Novitski 1990, 2000; Ubbelohde 1998). Numeric scheming and physical/ computer model are the principle methods of daylighting simulation. Computers in design studio in interior design schools are largely used to producing compelling visual imagery of the design projects that demonstrate very little environmental or even functional understanding of the buildings (Cuff 2001). However, the recent advances in computer-aided design and rendering compel another look at visually simulating daylight (Ubbelohde 1998).

Through this paper we discuss our experience with the use of computer-aided daylight simulation during the *design process* in a design studio and its effect on student learning. Notable designers are known to have built very basic, crude physical models to study daylight within their designed spaces, with results accurate enough to base their design decisions upon. Hence, should daylighting simulation using computers really require specific skills for use in the design process? We address our concern in the use of computer-aided daylight visualization tools from a similar standpoint.

Methodology

Through our literature review, we found that the need to conduct the analysis of daylighting of a project to seek insight into the design process, in a traditional electronic design studio setting, has been completely overlooked so far. Unlike previous research and literature, we seek to determine if there is room for daylighting analysis as one of the ingredients within the dynamics of an electronic design studio, without requiring a daylight seminar course or a studio entirely dedicated to exploring light and space.

Two strategies were adopted for daylighting investigation in the studio based on the related technological advancements when the studies were performed, both striving to achieve equal ends. The first investigation was a combination of traditional CGI-based methods with the physical model results carried out in the design studio, such that one extended the capabilities of the other. This was conducted when radiosity-based software programs were not commercially available. The second investigation included the radiosity-based daylighting visualization systems, which had by then become commercially available for use in CAD (Lightscape).

Summary

Our experiences show that CGI-based visualization, particularly when used in con junction with traditional physical models, was much more useful and effective in the design process, being closer to the fluid nature of design process. Although radiosity based visual simulation is capable of producing more realistic images, its success in the design process was limited to studying simple, clearly defined interior spaces. It required specific skills to be learned. Interoperability issues, fuzzy settings for materials and

daylight, and understanding the limitations of the underlying simulation models and algorithms resulted in depletion of studio time from the design process. We believe that best learning happens in a studio integrated environment. What is needed today is a software program based on our hybrid approach that is a convergence of modeling and daylighting simulation to enhance the student learning in a design studio setting.

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THE EFFECT OF FLOOR TEXTURE AND PATTERN ON WALKING TIME AND STABILITY OF PERSONS WITH ALZHEIMER'S DISEASE

Paper by

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Purpose

The incidence of Alzheimer's Disease continues to rise, increasing the need for specialized housing. Interior designers involved in the construction and renovation of Alzheimer's facilities have the opportunity to enhance quality of life for persons suffering from this disease. To this end, the study investigated the impact of carpet texture and pattern upon walking time and stability of persons with Alzheimer's Disease. Knowledge of floor texture and pattern 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 107 Alzheimer's respondents was solicited from adult daycare facilities and retirement communities within a 27,000 square mile area. Caregivers signed consents and provided demographic data. Respondent vision was assessed for depth perception (W. Bryan, personal communication, March 26, 2002), distance vision, color blindness (Vicron Optical, 2002), and visual field (Blasch, Wiener, & Welsh, 1997). Respondents walked a series of seven 4'x15' carpet paths, each depicting a different pattern: solid, mottled, mini-print, checkerboard, leaf, floral, or oriental. These patterns represented a range in motif size and value contrast while meeting the standards for an accessible floor surface (Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities, 1991). The researcher timed each walk and analyzed a videotaped recording to complete a rubric of observed deviant walking behaviors. A panel of experts, pilot study, and interview script enhanced study validity (Floyd, 1993).

Summary of Results

Significant differences emerged in walk time due to texture and pattern and in number of incidents due to pattern. In texture, slower walk times were associated with the pile texture. Within texture, patterns with large motifs and strong value contrasts were most problematic. For the four patterns with pile texture, the large floral pattern prompted the higher walk time and greater number of incidents. For the three level-loop textures, the checkerboard pattern posed the greater challenge. Patterns receiving the shortest walk times and lowest number of incidents in each texture were the patterns having the smallest motifs and lowest contrast.

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MUSIC, ENVIRONMENTAL DESIGN, AND THE CHOREOGRAPHY OF SPACE: A REPORT ON THE 2000-2002 SYMPOSIA IN BADEN-BADEN, GERMANY

Paper by
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Purpose

Over the course of three years, three Symposia were developed to provide opportunities for scholars to compare and contrast the structures and processes associated with music, environmental design and other arts-related fields. The Symposia were an integral part of the annual Conferences of the International Institute for Advanced Studies in Systems Research and Cybernetics (IAAS). The term 'environmental design' in this context includes interior design, architecture, landscape architecture, urban design, and urban planning. The term 'arts-related fields' includes disciplines associated with the ordering of space such as dance, theater, and sculpture. The Symposium theme was to be addressed using principles and processes of systems science and cybernetics. The intent was to expand the possibilities for creative exchange between disciplines and to provide a strong framework for analysis of the results. Thematic questions of the symposium were posed as follows. How do the systemic properties of these disciplines correspond? How are systems elements (such as form and line) or principles (such as rhythm and balance) integrated within a particular work? Is there potential for a multi-disciplinary language within the arts? If so, what methodologies and technologies are necessary to create it?

Methodology

A call for Symposium papers was issued each year, submittals were juried and papers submitted were published in the proceedings documents. The 45 minute presentations were grouped according to discipline or relationships between methodologies utilized. Composers, musicians, music theorists, interior designers, architects, landscape architects, performance artists, dancers and sculptors representing more than 60 countries made presentations over the three-year period.

Summary of Results

The Symposia featured creative and original responses to the questions described above. Most participants compared the systemic qualities of at least two disciplines and approximately half believed that their own discipline held potential as the basis for the multidisciplinary language.

The authors experimented with general systems science methods for measuring qualities of a particular work and comparing it with another. Use of theories of one discipline for comparison with another necessarily involves the advance identification and application of nomenclature, terminology, and types of relationships relevant to a specific body of work. They asserted that, with a domain expert in each discipline assigning value to particular attributes of a work, it is possible to achieve computational comparisons between such works as a piece of music and designed interior. For example it is possible to calculate the levels of systems science terms such as strife and entropy in a given work and to compare this value to that of another work. For interior design, application of such systems science based techniques may be useful for program analysis and project management as well as for development of a

multidisciplinary language. The symposia have brought about creative exchange, new connections between scholars of different disciplines and a new subject direction for the system science/cybernetics Conference. A fourth symposium focusing on development of these explorations is planned for 2003.

INTERIOR DESIGN, IDENTITY POLITICS, AND FEMINISM: PROBLEMS, PARALLELS AND POSSIBILITIES

Paper by
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Purpose or Issue

Much of the recent history of Interior Design as a profession has been concerned with the examination and clarification of its identity. In response to often adverse criticism from the field of architecture and to the inaccurate stereotypes existing in the public realm, Interior Design has worked diligently to clarify what it is. (Marshall-Baker, 1999) In this effort, Interior Design's path, parallels feminism's effort to bring respect, legitimacy and understanding to ideas about women.

Process/Context

This paper will explore and analyze the similarities between the problems of identity politics of Interior Design and those of women and efforts made to remedy them. Both Interior Design and women have responded in a similar fashion to their identification as inferior to their counterparts – men and architecture. In the first-wave of feminism women struggled to show that they were as capable as men and that with proper access to education and experience could do the same jobs they did. Interior Design similarly has fought hard to show that is as competent and professional as Architecture. This analysis will show how feminism has now critiqued this strategy of comparison and has moved on to a new phase in its theoretical approach to identity politics. (Sarap, 1983; hooks,1984; Connell, 1990; Nicholson, 1990)   It will outline these recent theories in feminism and show how that may be appropriate and useful for Interior Design.

Summary of Results

This paper proposes that the field of feminism and women's studies has developed an extensive range of theoretical writings on the subject of identity that can offer Interior Design practical insights and new ideas in their own struggle. The paper will outline some of those theories such as 'dynamic objectivity.' 'standpoint theory,' 'situated and partial knowledges' and 'women's ways of knowing' and show how they could be applied.

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WORKPLACE ANALYSIS: CROSS DISCIPLINARY SOCIALIZATION

Paper by
Roberta L. Kilty and
Sirirat Tavanapong
Michigan State University

Purpose

To discover if a selected workplace supported Peer Socialization and benefited the scientific work environment, this exploratory study investigated the interrelation of Use Patterns and Proximity between break areas and 1) the private office and 2) the laboratory within a scientific research facility on the campus of a major university.

Process and Context

Five variables representing architectural elements and organizational practices were examined. The non-experimental, cross sectional research took place in a Natural Setting. Independent variables were not under investigator control. The unit of analysis was the individual user. Two floors of the facility were studied due to approximately identical plan layout and space allocation.

Methods used included observation, questionnaire, and the mechanical measurement of physical distance.

Thirty minute observation periods were used to record time of day, number and type of users, activities, and discussion content. A representative sampling of weekdays and times of day was used. Findings guided questionnaire development.

The self-administered questionnaire contained multiple choice, Likert Scale and open-ended questions. Subjects volunteered to participate by completing and returning questionnaires. Questionnaires were returned within a month's time to a pre-designated location.

Distances measured were those between 1) the user's private office and closest break area and 2) between the user's laboratory and closest break area.

A non-probability sampling approach was used with approximately 70 persons participating. The sample consisted of 15 faculty members, 11 research associates, a few laboratory assistants, and a majority of graduate assistants. Findings were reported in aggregate only, maintaining participant anonymity.

Descriptive statistics were used for questionnaire data. Measuring proximity was partially based on frequency of use and room number of office or laboratory. A Reliability Test determined internal consistency of the break area usefulness scale. The Priori Contrast Repeat Measure determined mean differences within each group of conversationalists. The Paired Samples Test compared mean differences between the two groups of conversationalists. The Pearson Correlation determined the relationships between independent and dependent variables.

Summary

The exploratory study addressed break area use among scientists at a university facility. The sample consisted of faculty, research associates, graduate assistants, and laboratory assistants occupying offices and laboratories on two floors.

Between 65% and 80% agreed that break area conversations had benefited work related activities, idea generation, and social networking. The frequency of break area discussions had significant relationships with 1) time spent in face to face discussion with colleagues (Pearson Correlation of .408, significance at .01), 2) time spent in the laboratory (Pearson Correlation of .628, significance at .01) and 3) break area proximity to the private office (a negative .582 Pearson Correlation, significance at .01). The only factor significantly correlated with break area usefulness was frequency of discussion. The higher the frequency of discussion, the greater the score of break area usefulness. The view and window, quick access from workstations, and presence of microwave and refrigerator were considered favorable break area features. Lack of cleanliness was unfavorable.

The authors believe that effective, desirable socialization can be achieved through appropriate organizational practices and workplace use.

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PROFICIENCY WITH AND EFFECTIVENESS OF DESIGN AND COMMUNICATION TECHNOLOGY IN DISTANCE DESIGN STUDIO EDUCATION

Paper by
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Purpose

The purpose of this paper is to provide findings of distance learning research relative to specific digital design and communication tools and, in particular, to determine which tools are more or less helpful in the process of collaborative distance design. This determination is important both as a way of informing the purchase of hardware and software, and because the use of appropriate tools will contribute to the efficiency in the instruction of the distance studio experience.

Methodology

The distance studio teamed an upper-level architectural studio at one institution with an interior design studio at a second institution. Students from both programs, in four- to five-person teams, executed real-life projects currently on the boards in two different professional offices. The projects were defined by the practitioners and then critiqued on a daily basis by three to four practitioners in each office throughout the duration of the studio (approximately 10 weeks). Using web-based technology, professionals could engage the studio in real-time (scheduled studio critiques), or asynchronously, at their own convenience. Communication occurred in several ways using e-mail, instant messaging, threaded conversations on electronic bulletin boards, desktop video-conferencing, FTP document sharing, and Timbuktu (shared computer desktops). Design software included Dreamweaver, Flash, Adobe Photoshop, Illustrator, Pagemaker, Premier, Form•Z, AutoCAD, and Cosmoworld (VRML). Peripherals included scanners, printers, digital still, video cameras, phones, and faxes. This study evaluates the proficiency and effectiveness of the tool students used in the ten week design project.

Hasell and Scott (1996) indicate both technology and collaboration as top priorities in design education. "Distance education…methods and materials will require testing for their effectiveness." In order to determine the proficiency and the effectiveness of various communication and design tools, data were collected from students via a survey process. One instrument used a pre- and post-assessment that asked students to rank their *proficiency* with communication and design tools on a 5-point Likert-type scale. Correlations between and within groups were tested using the Wilcoxon test for non-parametric data. A second instrument used a post-assessment that asked students to assess the *effectiveness* of communication and design tools on a 5-point Likert-type scale. Scores were ranked by mean response. To complement the use of Likert-type surveys, the authors also implemented open-ended, written assessments pertaining to the use of communication tools, team collaboration, and the use of design tools.

Summary of Results

1. Distance collaborative design should synthesize digital communication tools with face-to-face communication.

2. Technologies which facilitate synchronous communication (chat, desktop videoconferencing, telephone) most closely approximate face-to-face communication and should be given high priority in the digital studio.

3. The immediacy of the internet renders it a powerful communication tool. Given its increasing impact within both the academic and professional arenas, inclusion of web design in the interior design curriculum, as early as the first year, is strongly suggested.

4. Obsolete or redundant tools should be identified and eliminated. These might include the fax machine, conventional mail, and even e-mail.

5. The distance internet studio appears to be highly supportive of learning across the spectrum of tools, so long as risk taking is supported and students have freedom to explore different tools where appropriate. Students will generally learn and spend more time with tools which are fundamentally easier and which are seen as contributing to the task at hand.

6. The distance internet studio also appears to foster the exploration and mastery of digital design software.

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CRITICAL FACTORS FOR ACCESSIBILITY AND WAYFINDING FOR ADULTS WITH MENTAL RETARDATION

Paper by
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Purpose

Architectural accessibility for people with disabilities has been the subject of extensive research and examination for quite some time. With the passage of the Americans with Disabilities Act (ADA)(1990), architectural accessibility to public buildings became a civil right, and state and the international building codes began to reflect this right (2000). While the ADA has done much to make buildings accessible for people with physical impairments it has had virtually no impact on environmental accessibility issues for people with mental retardation. One of these issues is wayfinding, or the act of finding a path to a desired destination.

This study examined and assessed environmental features that cued wayfinding behavior for 13 persons with mild mental retardation and compared these results with the wayfinding behavior of 10 persons from the general population. The study also sought to evaluate how a person's cognitive resources influenced their wayfinding actions. The study was exploratory in nature and sought to gather information on an under-explored topic, that of wayfinding and accessibility for persons with mental retardation.

Methodology

Through the use of a field study participants were asked to find any public restroom in Rosedale Center, a large regional shopping mall. None of the participants had ever visited the mall. Participants were asked to perform the task twice. The wayfinding activity was timed and scored using a decision-making typology that assigned a hierarchy to the various levels of decision-making. Additional variables that were examined included signage, landmarks, color, lighting, maps, wayfinding learning style, wayfinding methods, previous experience with malls, orienting initially to an information source, and spatial layout.

Summary of Results

Results showed that the participants from the general population (control group) were approximately three times more efficient during the first trip than the experimental group. However, on the second trip, the experimental group nearly matched the time of the control group's first trip. In addition, there are observable differences in wayfinding abilities between the persons in the control group and those in the experimental group, notably orienting initially to a source of information and knowing who was a safe person to ask. Some of the variables that were found to be important to wayfinding success include signage, landmarks, spatial layout, and previous knowledge of mall settings. It was also found that this space did not support the most common wayfinding learning style, that of point-to-point wayfinding or linear style. Furthermore, persons with mental retardation were able to form cognitive maps, contrary to findings from a previous study.

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EFFECTS OF LIGHTING SOURCE ON VISUAL PERCEPTION OF AROUSAL AND PLEASURE: A CROSS-CULTURAL COMPARISON

Paper by
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Purpose

According to researchers, consumer behavior is influenced by the atmospherics of the shopping environment (Bitner, 1990; Donovan & Rossiter, 1982; Grossbart, Hampton, Rammohan & Lapidus, 1990; Kotler, 1973-1974). Store atmospherics describe the special sensory qualities of retail spaces which can evoke a consumer's emotional and/or cognitive states that influence consumer shopping behavior. Previous research shows that lighting is one of the major contributing factors in retail store atmospherics. (Cuttle & Brandston, 1995; Gardner & Siomkos, 1986; Kotler, 1973-1974; Lopez, 1995; Rea, 1999). Therefore, the purpose of this study was to identify and compare the subjects' perception of lighting as a factor in arousal and pleasure according to culture difference with regard to color rendering index and color temperature of fluorescent light in a simulated retail setting.

Methodology

The Independent variables were the color temperature and color rendering index of the T8 fluorescent lamps, and the cultural difference of the subject. The cross-cultural group was compared at two levels, Caucasian American and Korean participants. The variable of color temperature was compared at two levels, 3000 K and 5000 K. The variable of the color rendering index was compared at two levels, 75 CRI and 95 CRI. Therefore, there were four lighting conditions for the experiment of this research. To identify potential differences, the responses of 49 American subjects were compared with the responses of 49 Korean subjects between the nineteen and thirty-four years of age. All subjects had a limited knowledge of lighting and were screened for color blindness before participation in the study. Random selection of lighting conditions was used, and a waiting period of 3 - 5 minutes was observed between each lighting condition in the Lighting Technology Laboratory. All conditions, except lighting variables and group of subjects were held constant in the laboratory. An ANOVA was used to analyze the effect of the independent variables on the perception of arousal and pleasure.

Summary of Results

The results of the visual perception of arousal show that there were significant differences for the main effects of culture group [F (1,96) = 6.36, p = 0.013] and color temperature [F (1,288) = 11.98, p = 0.000]. American subjects estimated all lighting conditions as more arousing than Koreans. The higher color temperature of 5000K is more arousing than 3000K. The results of the visual perception of pleasure show that there was a significant difference regarding a three-way interaction [F (1,288) = 8.83, p = 0.003]. American subjects estimated 95 CRI with 3000 K lighting as giving the most pleasure, while 75 CRI with 3000K lighting is the most pleasant for Koreans. Implications from this study include applications to store lighting techniques that enhance the visual perception of arousal and pleasure and appeal to consumers from different cultures.

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Posters

MAKING INTERIOR DESIGN HISTORY NEWSWORTHY

Poster by
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Purpose

The history of furniture and interiors course is a core component of most interior design programs. For many schools, the history course is traditional in nature, stressing lecture format and papers focusing on historic structures, furniture pieces, or motifs. However, this does not provide students with an in-depth picture of a given culture. In studying history, students need to understand that historical styles evolve from social, cultural, economic, and political factors of a given time. The purpose of this poster is to share with interior design educators the results of an assignment that examines the concept of design as a historical continuum. Through the development of a historical newspaper students are able to study furniture and design within the broader context of social, political, economic, and technological perspectives unique to a given time period. In addition, the assignment enhances research skills, expands creativity, and reinforces writing skills.

Methodology

The creation of a historic newspaper was completed in student teams of three. Each team was responsible for choosing a specific time period (Egyptian thru Georgian). In developing the research into a newspaper format, the teams were challenged with the following requirements:

- Newspaper must have a name.
- Minimally, the newspaper needs to have the following sections
    - Local and National News
    - Lifestyles (news involving trends in the home, fashion, society, etc.)
    - The Arts
    - Entertainment
    - Sports
    - Classifieds
- Newspaper must contain both graphic and written information.
- Students are expected to incorporate at least ten references. A reference list must be incorporated with newspaper.
- Newspaper should include names of team members.
- Copies of newspaper need to be made and distributed to each class member.

Summary

The historic newspaper project was well received by both students and viewers alike. An important aspect of the project was the opportunity to advance higher levels of learning by directing students to research, discover, analyze, differentiate, explain, organize, and apply historical information in a creative format.

The poster presentation will include examples of the historic newspapers.

APPLYING PROBLEM-BASED LEARNING TO TEACHING INTERIOR DESIGN IN A COLLABORATIVE TEACHING-LEARNING SETTING

Poster by
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Purpose

This paper deals with the challenges involved in the development and implementation of an interdisciplinary assignment using Problem Based Learning (PBL), in a collaborative teaching/learning setting. PBL values an environment that is student centered where learning occurs in small groups and teachers serve as "tutors." Within this environment, problems provide the organizing focus and stimulus for learning and are a vehicle for the development of problem-solving skills. New information is acquired primarily through self-directed learning.

This assignment required a multidisciplinary, collaborative team of students to develop a small business proposal for a retail venture which culminated in a juried competition. These teams – made up of students in retail merchandising, interior design, and graphic arts classes – applied their knowledge and skills toward the completion of one common project. The goal of each project was to complete the interior and exterior design of a store, the merchandising of the selected mix, and the design of the store logo and signage.

The objectives of the project were:
- to allow the student to become proficient in problem solving, using prior knowledge to construct new knowledge needed to solve the problem;
- to allow the student to develop proficiency in self-directed learning
- to help the student develop team building skills;
- to give the student the experience of working with a "professional" in another field; and
- to give the student the opportunity to be evaluated by a practicing professional.

Methodology

Under the guidelines of PBL, students were given a problem statement that was ill defined, requiring the students to collaborate and investigate what they did not know. Upon completion of the projects they were judged by a jury of three professionals, who represented banking, space planning, and graphic design. Each student group also gave a multimedia oral presentation to the class and faculty. The department sponsored a senior show and reception, allowing the seniors to display their work to others across campus and to professionals.

Summary

This collaborative project provided the students and faculty with challenging problems to solve. Working in teams was difficult, at least at first. What seemed to cause students the most stress was the different role of the faculty. While new material was introduced when necessary, most learning was self-directed, determined by the groups based on their particular problem. In this way the project simulated "real world" experience. Faculty challenges were centered mostly around the fairness of group grades and unequal efforts among the team members. In spite of the difficulties, the project was quite successful. The students were proud of what they ultimately accomplished. Knowing that their efforts would be judged and

exhibited encouraged the students to put forth their best efforts. An informal survey of the students indicated that in hindsight they felt working with another "professional" was a valuable experience. The faculty also believe that the results were worth the effort put into the development and implementation of the project. The initial success of this project insures that it will be used again.

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A COMPARISON OF GREEN AND CONVENTIONAL FINISHES & FURNISHINGS: OCCUPANTS' PERCEPTIONS OF IAQ

Poster by
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Purpose

The purpose of this pilot study was to explore occupants' perceptions of indoor air quality (IAQ) in their offices 24 months after construction was completed. A comparison was made between respondents who had offices in a building that had been renovated using conventional furnishings and finishes and respondents in a new building that used green furnishings and finishes that were selected to minimize off-gassing of noxious gasses.

Context/Process

Environmental Protection Agency considers indoor air quality (IAQ) the most significant environmental problem facing the public (Grubb, 1998). It is estimated that 21 million of the 70 million Americans who work indoors are subject to poor IAQ (Grubb, 1998), and that about 1 million US commercial buildings have poor IAQ (Moretz, 2000). Factors that are considered to influence IAQ problems include sealed buildings to reduce energy consumption and lifestyle changes that are related to people spending more than 80% of their time indoors (Grossman, 2000).

A survey with both open and closed questions was developed, pre-tested, and sent to all 97 individuals (professors and staff) who had offices in two buildings on a mid-western university campus. Following a second mailing, a response rate of 64% was achieved. Statistical analysis of the data included frequency tabulations to describe the population and correlations to determine if there were statistically significant differences between the groups at the $p = .05$ level of probability.

Summary of Results

Overall IAQ scores were significantly higher for the Green building than for the Conventional building. Surprisingly, there were not statistically significant perceptual differences in the evaluation of individual factors affecting IAQ (e.g. stuffiness, temperature, humidity, presence of contaminants). Temperature variations were the most problematic IAQ factor in the Green building, sometimes causing them to leave their offices. Both groups believed that IAQ problems decreased their productivity. The majority of people in both buildings reported sick building syndrome symptoms (such as dry throat or dry eyes) that improved when they left the building. Conventional building respondents reported more symptoms than Green building respondents reported. However, the presence of symptoms did not correlate with the amount of time individuals in either building spent in their offices, suggesting that it was the total time spent in the building that was important to their well-being. When asked about the ideal "healthy" office, the feature mentioned most often was operable windows. Contrary to the literature, occupants of both buildings believed that IAQ in their offices was poorer than outside air quality. Conventional building occupants were more concerned about IAQ and believed IAQ was affecting their health to a greater degree than Green building occupants. In conclusion, although most materials should have completed the off-gassing process at the time of the study, occupants of the building that used conventional finishes and

furnishings reported more difficulties with IAQ than occupants of the building that used green finishes and furnishings. This pilot study should be expanded to encompass more buildings and a larger population and should be supported by objective measurements of IAQ.

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CASE STUDY: SWEDISH GROUP HOMES

Poster by
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Purpose

The study's purpose was to document advances regarding Sweden's alternative housing concepts and application to elderly people with dementia. One issue concerned Sweden's ability to take care of its own. The presentation focus is on whether or not these advances facilitated interaction between elderly people with dementia and their environment.

Context

Sweden is widely recognized for its humane design approach. The investigator sought to study representative group homes, each addressing human needs from a different economic, cultural and/or religious base. For a sense of consistency and comparability, six group homes were visited in separate cities, four in Gothenburg, two in Malmo. Seven criteria, in bold text, selected from a list of 11 (Paulsson & Almberg, 1991) could be observed with minimal disruption of people and activities.

- Essential spaces such as entry, kitchen, living room, etc.
- Dining room and table spacious enough for (everyone).
- Furniture belonging to elderly in common spaces, reminiscent of old lifestyles. . .
- Simple surveyable layout for individual spaces, accessible, convenient for those with mobility, vision or hearing disabilities.
- Large kitchen with layout enabling several people to work together.
- Simple, close connections between individuals and common spaces.
- Simple layout, easy to survey, avoiding corridors with lots of doors.
- No activity for outsiders within home.
- Location of service assistants' rooms . . . outside group home to be used by visiting relatives.
- Common activities of great therapeutic value to elderly with dementia.
- Fire safety attention in entire home.

Interviews were conducted with Dr. Jan Paulsson, Doctor of Technology at Chalmers University of Technology, with administrators and caretakers of the various facilities. Selected readings, on site observation and photographic documentation of existing facility conditions took place.

Summary

An expanded synopsis of findings, anecdotal descriptions, and annotated photographs will be presented. The first four criteria were achieved in all facilities. Four of the six homes had a large enabling kitchen. Two maintained simple, close connections. Only one possessed the simple layout.

One home was homey and small, on a single upper floor with a separate service building available for dining and socialization. Another only housed Jewish people. Contrary to administrative expectations, resident compatibility did not result. Another 1950-60 home was institutional in character outside the residents' quarters. Within, personalization was evident. Another home was termed the facility for rich

people by the sea, but had a confusing floor plan. In Sweden it is unlawful to lock facility doors. A solution was to install so many opening mechanisms that it became too complicated for residents.

The primary criteria statement which developed from this study is: *To provide a degree of complexity which will inhibit undesirable behaviors while maintaining enough simplicity to facilitate activity performance and maintain individual freedoms.* It has universal application.

The author believes that continuing study and evaluation will support further design concept development and creativity. People can "live on their own terms" and even segregate themselves if they choose. This knowledge benefits residents, administrators, design educators, students and practitioners.

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WORKPLACE AS A RESTORATIVE ENVIRONMENT

Poster by
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Purpose

An area that is beginning to receive more attention, but still lacking much empirical research in the context of the workplace is the role of the natural environment. Much research has been performed on the ability of nature to restore our capacity to direct attention, in other words to be able to concentrate or focus (Tennessen & Cimprich, 1995). However little research of this sort has been performed on the built environment including the workplace and its potential to be designed with restorative qualities. The purpose of this poster is to provoke thought and stimulate new research in the field of interior design within the context of restorative workplace environments.

Process

Work is called "work" for a reason. It requires effort; it requires directed attention. Whenever directed attention is used it is depleted (Kaplan, 1982). However, it can and must be restored. If it were not restored we would be reduced to mush for brains and most likely directed attention would have run out altogether early on in life. The reason it does not run out is because we need it. We need it to survive and we need it to function, especially in the workplace. But exactly how and where is directed attention restored? This question perplexed researchers Stephen and Rachel Kaplan at the University of Michigan and laid the foundation for what was to become their Attention Restoration Theory.

Attention Restoration Theory carries the basic idea that an environment can be psychologically restorative if it possesses four specific components (Kaplan, 1995). These four components occur naturally in the outdoors; hence natural environments are most often considered to be the ideal restorative experience. There have been numerous research studies involving Attention Restoration Theory. These studies most often compare and contrast a potentially restorative experience in an urban environment to that of a similar experience in a natural one.

Nature does play an important role in the work environment. A great deal of research speaks to its restorative qualities, something that indoor workplaces seem to lack in themselves. But, what if in addition to natural elements the built environment could also be designed to possess the same four components found in a restorative experience? With the level of stress experienced in today's workplace and the amount of money that goes into creating it, it is imperative that designers, educators, and researchers take a closer look at this question, learn how to design restorative environments and increase the demand for empirical research regarding such.

Summary

This poster aims to focus on the four components outlined in Attention Restoration Theory as they may apply to workplace design. A properly designed restorative environment holds the potential to restore one's ability to concentrate. It also decreases fatigue while increasing altruism, patience, flexibility and optimism- something every workplace must never get enough of.

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Presentations

THEORY AND PRACTICE: THE NEED FOR A DISCOURSE IN DESIGN EDUCATION

Presentation by
Akemi Miyahara
University of Manitoba

Purpose

One of the challenges of teaching a professional curriculum is how to deal with the relationships between theory and practice. Professional practice is often assigned a peripheral and loosely defined role in the design curriculum and typically occurs near the end of the educational program. Practice issues are difficult to address in the curriculum, because they are mostly tied to experiences in the practice environment. Perhaps for this reason, professional practice courses often focus on procedures rather than issues that characterize the whole of design practice and culture. This limited view of practice, I suggest, reinforces differences and works against a meaningful examination of practice in the design discourse.

This presentation argues for a more intensive examination of practice in the professional interior design curriculum. It will discuss the role that the professional practice course can play to develop a dialogue that explores the theory/practice relationship in education and the profession. Methods developed for a professional practice course at the masters level will be described.

Process

A professional practice course for a masters level program was developed, guided by the following objectives:

• The course must foster a critical discussion of professional practice
• The discourse must involve practitioners, students, academics and related professions
• The course must provide a broad overview of practice issues, both national and global
• The course must meet F.I.D.E.R. standards for professional practice

The course brings together students, practitioners and educators to explore issues of practice. The aim is to develop dialogue that focuses on issues rather than procedures and seeks connections between the theoretical and the practical rather than defines boundaries. The assignments are based on collaborative relationships between practitioners and students. These include a case study, issue-focused seminars and team teaching. The course references were also expanded to include a bibliography of journal articles and class scheduling was altered to encourage reflection and on-going dialogue.

Summary

Student evaluations of this course recommended more 'hands-on' experience in practice, such as an internship or co-op. The contact with practitioners was seen as a strong learning experience. It generated comments such as: "the first hand opinions of the practitioners really made sense"; "it was very informative to learn about the various professional styles that are practiced"; "case studies revealed the 'real world' and basic understanding of which firms we wish to work for". Students also desired more information on job search techniques and portfolio and resume development.

Situations of practice are difficult to simulate in the context of the studio and classroom and, as Cuff (1991)

points out, may be pedagogically at odds with the goals of an academic curriculum. Yet, it is clear from the research, as well as course evaluations and conversations with students that practice knowledge needs to be more forcefully addressed in design education. We must look at ways for knowledge and application to co-exist within the curriculum.

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THE FOUR PILLARS OF RAPPORT: A CRITICAL INGREDIENT IN E-LEARNING

Elena J. Kays, Ph.D.
Virtual Professor

J. Bruce Francis, Ph.D
Capella University

Purpose

The purpose of this interactive presentation is to explore ways in which the techniques and benefits of the studio method can be brought to the online environment. The particular issue to be addressed is the way in which the initial online communications between teacher and student can be used to establish that most critical (and generally unexamined) characteristic known as *rapport.* If rapport can be established in the online classroom, e-learning becomes both high-tech and high-touch. Create an environment where students and teachers can communicate freely and help one another, and the energy and passion of the real studio can be approximated in the virtual environment.

Methodology

One of the most important contributions by design educators to the art and science of pedagogy is the studio method. A highly interactive and student centered environment, it is at its best an energetic, collaborative community of creative and expert thinkers and self-regulated problem solvers. It is the ideal place to search for solutions to design problems. The rapid development and spread of e-learning creates enormous opportunity for interior design educators to bring the power of studio learning to the online environment. At the same time, the online medium presents serious challenges to the studio educator.

The focuses on the importance of developing meaningful rapport between the teacher and the student at the beginning of an online course that is so critical to establishing and maintaining the strengths of the studio method. A preliminary model, The Four Pillars of Rapport, are a new series of best practices for establishing and maintaining rapport while optimizing metacognitive skills in an online environment. The Four Pillars of Rapport, experience, reflection, conceptualization, and action envelope a spiral that enhances deep meaningful learning through environment, immersion, collaboration, and support through iteration.

The framework for the Four Pillars of Rapport draws primarily from three areas: adult learning theory, brain-based learning theory, and constructivist pedagogy. Taken together, the framework describes a self-directed active process of learning in which knowledge is constructed that is dependent upon the learner's prior experiences, knowledge, and patterns of organizing and mentally structuring that knowledge (Jonassen, 2000). Putting the process and principles together yields a new conceptual model for online instructional design that can be called *Iterative Collaboration* (IC) (Kays, 2002). The establishment of rapport is a necessary step in the Iterative Collaboration model.

Summary

The studio method has already provided educators with a successful student-centered learning environment. E-learning provides an entirely new medium to translate some of the studio methods and experiences to optimize learning in a totally new environment. The technology is only a tool that can

convey the ability to create a rich, organic, and highly collaborative experience. The establishment of the Four Pillars of Rapport creates a strong but flexible framework that helps build learning communities and facilitates a dynamic, self-organizing system.

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THE CONSORTIUM ON DESIGN EDUCATION: INTERIOR DESIGN WITHOUT BORDERS FOR STUDENTS IN NORTH AMERICA

Presentation by
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Frank Harks
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Mount Royal College

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Purpose

Consortium for Design Education (CODE) is a tri-lateral project that merges international dialogue, design experiences, and student exchange into the interior design curriculum for six institutions representing Canada, the United States, and Mexico. The purposes of CODE were to institute: (a) trilateral North American student exchanges, (b) joint design projects through virtual charettes for interior design students, and (c) a means of exposing students to the North American nature of the profession in order for them to recognize, realize and capitalize on innovative opportunities, thereby improving quality of community life and the environment in North America and contributing to continental economic development.

There were two significant components: (a) virtual design charette consisting of international teams of interior design students, and (b) the exchange of selected students each fall term over a period of four years. The intent of the exchange is to provide students' with an opportunity to study in another North American culture other than their own. The virtual design charette, referred to as the Repentina (a Mexican term), provides an international team experience for upwards of 80 interior design students.

Process

In order to bring this project to fruition, interior design faculty from each institution toured the six participating institutions in a whirlwind tour during May 2000. The purpose of the tour was to provide an opportunity for faculty to build camaraderie, review student work and school facilities, and develop a formal agreement of exchange. The tour was comprised of two weeks of intensive work and collaboration with various officials and myriad levels of administration from the institutions; details of the exchanges

and virtual charettes were formulated.

The Virtual Charette. The goal of the charette (Repentina), was to take interior design programs beyond geographic boundaries and employ technological and international approaches to a design problem.   The goal of the Repentina was to provide an intensive two-day design experience for the interior design students whether or not they actually participated in the exchange.   Specifically, the Repentina was designed so that students would:
> (a) Understand the cultures of other team members,
> (b) Collaborate virtually to produce a collective result,
> (c) Consider all potential contextual issues relating to the needs/ideas/solutions,
> (d) Generate solution(s) that enhances the profile of the interior design profession,
> (e) Develop solutions that would benefit the community, and
> (f) Invite the public to participate in, review, discuss and evaluate the project.

The International Exchange.   The other significant component of the CODE project is the exchange of students.   There have been more than 30 students who have participated in a physical exchange relocating to another country for one school term. The presentation will provide an overview of the students' experiences while on the exchange.

Summary

Faculty, students and administration value the contributions made, and the work it takes to create an authentic global and technologically advanced environment. The CODE project embraces a philosophy of integrating a global community into the interior design curriculum at institutions of higher education. The project intends to create an international environment that is fluid, continual and fosters an interactive environment among North American students, faculty and administration.

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MATERIAL CULTURE MODEL: AN AID TO UNDERSTANDING STUDENT CONCERN FOR ECOLOGICAL DESIGN ISSUES

Presentation by
Connie Thibeau Catsis

The material culture model provides a tool to develop a dialogue among educators to understand the perspective of ecological design values held by interior design students.

Despite multiple exposures to presentations on ecological design issues, a recent assessment revealed that students in a senior level interior design studio ranked the item representing ecological design in the 25% percentile. In order to understand what precipitated the disappointing results, an investigation of models that provide a framework to study value issues were reviewed.

The material culture model offers a framework in which to discuss the interpretation of macro forces in relationship to micro forces. Macro forces are defined as social, technological, economic, political, artistic, and natural conditions in our society. Micro forces are defined as the interpretation of needs in relation to values, attitudes, and beliefs. Implicit versus expectancy-value theory (Tolman, 1932) suggests that individuals may be attracted to goals that involve implicit need as well as self-attributed need for them to take action (McClelland, Koestner, & Weinberger, 1989). In addition, the level of expectancy in reaching the goal must be high in relationship to the task difficulty of reaching the goal. Task difficulty must be presented as moderately challenging (Brehm & Self, 1989).

Interior design students have the potential for significantly contributing to and influencing the ecological movement in our society. To do so, they need to understand the interaction of macro and micro forces in our society. The material culture model may aid student understanding in how to interpret the forces they encounter in society. If they gain in their understanding, they may become more vision-directed, value-focused, total-quality minded, as well as a stakeholder in our culture (Wind & Main, 1998).

Using the format of the material culture model, educators would be asked to assess, as well as discuss, students' awareness of ecological design issues in relation to their observations of student values, attitudes, and beliefs. Efforts to develop a continuing communication process concerning this issue will be presented.

LOOKING FOR ESSENCES IN DESIGN: A PHENOMENOLOGICAL APPROACH USING POETRY

Presentation by
Roberto Rengel
University of Wisconsin-Madison

Purpose

The purpose of this presentation is to share a method of inquiry devised to increase students' awareness of the built environment and its special qualities. The method was used as part of a graduate level, multidisciplinary course. It combines phenomenological inquiry as a way of looking at designed environments with poetry as a means to capture and communicate what is seen and experienced.

Process

Interior design and landscape architecture students were required to explore and record meaningful qualities of place. They were to look at places using the mind of a phenomenologist and the heart of a poet. They had read selected excerpts from Norberg Schulz' writings (1971, 1980, 1985) and were acquainted with three short poetry forms (Janeczko, 2000; Stoller, 2000). Personal observations had to be about qualitative aspects of the built environments such as the way they embrace and shelter, the way they facilitate certain actions, or the way they inspire, delight and become meaningful in people's lives. Students were required to ultimately record their observations using a combination of photography and poetry. The three poem form used were haiku, tanka, and cinquain.

Haiku poems were required to present a scene and give some idea about the context. However, it was up to the authors to decide what to include about the when, where, and how of the scene or action. Tanka poems had the additional requirement to include some subjective comment or reaction. Cinquains had to focus on one subject, and qualify it in the next four lines

Summary

The final outcomes of this project are being finalized and collected. Preliminary indications suggest that students are learning to look at the environment in more receptive ways and are improving at distilling the essence of meaningful environments and their parts. The brevity and specificity required has forced students to choose what observations to include carefully and select only those particulars that truly contribute to the quality of the experience.
So far, the approach has been beneficial and seems promising as a tool to explore meaningful essences and details of the built environment. The brevity of the poems, although constraining, also has the positive effect of making the process of composing them enjoyable, since the burden is brief and gratification comes fast.

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PLACE JOURNALS: USING COGNITIVE INTERACTION THEORY TO ENHANCE BEHAVIORAL AWARENESS IN DESIGN

Presentation by
Lisa Waxman
Florida State University

Purpose

This presentation will expose the audience to the research in the area of cognitive interaction theory. This theory will be used as the theoretical underpinning for establishing a method by which beginning interior design students may become more aware of the behavioral aspects of their surroundings. Specifically, place journaling will be use as a means to expose students to the social and psychological aspects of environments and the relationship between humans and the built environment.

Background

Students and Standards. Many beginning design students come into interior design programs with an interest in design and an overdose of HGTV. Students begin their studies with a very limited idea of what interior designers do and the factors that must be considered to create spaces that support the needs of those who use them. It is the responsibility of the design educator to assist students in expanding their knowledge of the profession and their place in it. The *Foundation for Interior Design Education Research (FIDER) Professional Standards 2000* requires that "student work must demonstrate understanding of the theories of human behavior and interior environments: the relationship between human behavior and the built environment (FIDER, Standard 2, 2000).

Cognitive Interactionism. Cognitive-field interactionist psychology originated in Germany during the early part of the 20th century. Cognitive interactionists believe thinking is a reflective process where people either develop new or change existing insights or understandings. Kurt Levin conducted some of the pioneering work in cognitive field interactionism. The basic assumption that underlies his work is that people are situationally purposive, meaning people reside in a cultural and social environment (Bigge and Shermis, 1999). Levin believes that a people inhabit life spaces, which includes their psychological environment as well as their non-psychological environment. He refers to the non-psychological environment as the *foreign hull*. Levin felt that the boundary between the life space and the foreign hull was permeable, suggesting that aspects of the physical environment affect the individual. A more important implication is that Levin also saw this permeability as bi-directional, meaning people could be viewed as agents of environmental change.

Behavioral Awareness in Design. One of the most important goals of and architect or designer is to create a good fit between people and their physical settings. Creating an environment that is functional and visually satisfying, one that fosters a positive attitude and is likely to contribute to feelings of well-being, requires knowledge and experience (Scott, 1989). Gifford (2002) lists six different kinds of personal impressions in making an appraisal of a space: descriptions, evaluations, judgments of beauty, emotional reactions, meanings, and risk or safety. The personal assessment of a place, whether positive or negative, is influenced by a person's background, social class, age, mood, and educational level all influence personal impressions of places as well. Anderson (1997) suggests 4 processes to evaluate an artwork that can be carried over into the built environment as well. These processes include reaction, description, interpretation, and evaluation.

Process

The goal of the place journal project was to provide an opportunity for students of interior design to become more aware of behavioral aspects of the built environment. Students received a number of lectures and were involved in reading research prior to beginning the project to help them prepare for the experience. Students were asked to immerse themselves in six different environments. They took photos or sketched the space, and record their impressions regarding the space. Gifford's (2002) and Anderson's (1997) guidelines were used as a basis for appraisal of the spaces. Each student then combined the photos, sketches, and written comments in a unique booklet.

Outcome and Conclusion

This project has been part of an environmental behavior class in a FIDER accredited program for three semesters. The real-life experience of recording the details of the space allowed for a better transfer of learning. Class discussions were also enhanced when students share their place experiences. Students have been able to apply the information learned in this class to studio classes taken in subsequent semesters. Our FIDER team also responded well to this project and listed it as contributing to the fulfillment of Standard 2 of the 2000 FIDER standards.

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DESIGN FOR THE FUTURE: PREPARING DESIGN STUDENTS TO BECOME GLOBALLY ORIENTED CITIZENS

Presentation by
Donna Zimmerman, Assistant Professor
University of Wisconsin-Stevens Point

Purpose or Issue

A trend in many U.S. colleges and universities is to initiate programs and curricula to better educate students for a diverse society and interconnected world. The purpose of this presentation will be to introduce a curriculum model that prepares students to design for the future by addressing these initiatives within an interior design program.

Methodology or Process/Content

Many American college-age students have little or no knowledge of cultures other than their own and therefore exhibit an apparent lack of awareness, appreciation and even curiosity for the rich design traditions of other cultures. This issue is especially apparent in students attending institutions in small communities located in some relatively isolated areas of the country. For example, a high percentage of the student population at the University of Wisconsin-Stevens Point is composed of first-generation college students who grew up in rural areas and have had no exposure to urban environments let alone the multicultural population that resides there. A large percentage of these students have never traveled outside of the state. Consequently, the design students that lack multicultural experiences and knowledge have real limitations developing creativity and inspiration for their design work. Along with the lack of exposure come misconceptions about and negative attitudes towards groups that are "different" from the general population of a certain community.

As our world becomes more globalized and America becomes more ethnically diverse it will become increasingly important that designers are enlightened about different cultures and their influence on shaping the built environment both locally and globally.

One approach to the need for multicultural exposure as well as in response to a mandate requiring six credits of cultural diversity for all students at the University of Wisconsin-Stevens Point, is the development of two courses in the Interior Architecture department that address these issues and expose students to a multicultural design perspective. The two courses are; a cross-cultural survey of applied design in non-western cultures and a survey of design focusing on minority cultures in the U.S. In addition, the Interior Design faculty is very active in providing international study opportunities for design students.

Summary

The need for every student to be exposed to multicultural issues is extremely important in today's world but its even more imperative for design students. If we as design educators want to provide a well-rounded education for our students, prepare them to enter the workforce and become cutting edge designers then it is our responsibility to provide courses that foster students' curiosity about the world, prepare them for surviving in our increasingly diverse society and globalized world and help them to become globally-oriented citizens sensitive to the culture of others.

DEVELOPING A GLOBAL PARTNERSHIP FOR INTERIOR DESIGN STUDIES TO CHALLENGE ETHNOCENTRISM

Presentation by
Dinah Lazor
American University of Sharjah
United Arab Emirates

Purpose / Issue

Ethnocentrism refers to the tendency to view one's own cultural group as superior to others, a tendency common to most, if not all, human societies.(Regan, 1996). The purpose of this presentation is to stimulate interactions on the following four issues which are strongly influencing and shaping the pedagogy of interior design: goodness in design, global accessibility for the design lecture/ studio via technology, cultural diversity and sensibilities in design, and the transformational learning experience. These issues are ones being explored in both academia and in the design profession. Innovative professors and designers are implementing strategies to capitalize and incorporate these issues into the design process. This exploration is four fold in that it first seeks to identify the methodology currently in use. Secondly, to examine combining these issues into a mutual beneficial program to create a model for global-partnership in academic interior design projects/assignment. Next is to recognize the need for and to establish a network, database or clearinghouse to foster communication for these partnerships. The last is to recognize the tendency toward ethnocentrism and to encourage participation in a cultural/global model program to broaden perspective views.

Process

The issues will be explored using quantitative content analyses and qualitative analysis of the evaluations. A content survey will be conducted in the fall of 2002 to identify the number of current or completed design lecture/studio projects that have as a major component some aspect of the four issues identified. National and international and schools will be survey by an e-mail document. The results will be presented during the conference to provide a compressive overview of the number and scope of these lecture/studio projects. A literature survey will be completed and the results highlighted at the presentation to identify the approaches that the profession and industry are taking as reflected in literature, CEU seminars and conference topics. A panel format will be included with the presentation. The invited panelist will share experiences in their endeavors to incorporate these issues into their teaching. It is speculated that the interaction of presenter, panelist, and participants will generated the following results and recommendations.

Summary / Recommendations

A quantitative compilations of the number and scope of programs both academic and professional addressing global accessibility with a cultural focus supported by digital communication resulting in projects which have either identified or implied goodness in design as evidenced by designs that reflect and understanding of and respect for the individual and the culture. A qualitative response should also emerge as the value of these experience are evaluated both from a personal and professional perspective. It will be recommended that these issues be future development into a model program for virtual extreme transformational cultural/global lecture/studios. It will also be recommended that a database be established of schools interested in forming a partnership to pursue projects of this nature. The database will identify the nature of the project, the social and cultural focus, the recourses available such site, plans, interview

with stakeholders, the suggested time frame and the technology required to support the assignment. In summary technology will be used to level the playing field to allow schools of any size to provide their students with the opportunity to become citizens of the world.

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THE ALMAGATION OF ORIGINAL ARTWORK & INNOVATIVE PRESENTATION TECHNIQUES

Presentation by
Jeff Johnston
Purdue University

Purpose

How can we as educators best prepare our students for the demands of working in a profession that requires graphic communication and design be combined with technology and still assert an affinity to ways of the past? The question answers itself, we combine hand sketching with progressive techniques and technologies used in many of the professional offices today. It is our responsibility to prepare our students with a foundation of knowledge, which propels them into the job market. Lets give our students an edge, let's prepare them with graphic erudition, which affords them sound "hand graphic" proficiency coupled with the use of ground-breaking rendering technology.

Process/Context

Hand sketching is alive and well in most AE&I firms across the nation. The ability to quickly sketch an idea for a client or produce a quick color sketch will always be necessary. The use of hand graphics in the genesis of design or the conceptual stage is a standard. Conceptual design has a need for free-flowing thought, only through many failures do we obtain success and to be successful we must be capable with our hands graphically to communicate our ideas. Only through simple hand sketching, are we able to innovate visionary solutions. Modern technology can only enhance what the hand has created, however in our profession we are budgeted a small amount of time for the design process. Using a machine to render drawings permits a project manager to cut the time spent, and lends flexibility to change within the design itself yielding minimal loss of time and budget dollars.

I have been given the opportunity to develop curriculum for a sophomore level course exploring techniques of design communication and integrating multi-media methods and tools for architectural presentations. While practicing in the profession, I have noticed client response to a hand-produced graphic increased when the rendering was produced using multi-media technology. This relatively simple rendering technique is achieved when original artwork or Auto Cad drawings are placed into Adobe Photoshop and are then rendered using color fills.

Summary

Students seem to understand the gist of this process and use these techniques as a presentation tool to polish their design process drawings, finalized plans and perspective sketches. They also see the merits of using Photoshop for board composition and layout. By resaving the file and changing the color fills they can rapidly produce several color scheme variations in a short amount of time. There is no limit to what or how our students can create innovative solutions and presentations. I have found by using my personal web site as a resource, students are able to access step-by-step methods and techniques discussed in class, which gives them the flexibility to explore and utilize their own creative approaches in class, or on their own time. As society moves to a paperless environment, I feel it is necessary to keep on the cutting edge of new technologies while keeping a high regard for the artistic skills of the past.

INTERACTIVE AND MODULES APPROACH FOR TEACHING THE CONCEPT OF SKETCHING AND RENDERING

Presentation by
Wei Dong
University of Wisconsin - Madison

Purpose

While taking advantage of interactive multimedia technology and CAD capabilities, this presentation will demonstrate the enhancement of instruction for specific dynamic design concepts and the fundamental principles in related sketching color rendering courses of the interior design curriculum. In addition, we will share our experience using the modules approach of color rendering to benefit various design studios, and related fields.

Process

Visual Tools for Interior Design
The knowledge, skills, and ability for visual analysis, representation, and communication of design ideas are fundamental for success as a designer. Visualization is a language that interior designers must learn to use effectively, both as a means of visual communication for their designs, and also as a tool for visual self-evaluation of the design process.

Mimic vs. Concept
In the past, sketch and rendering have been taught as a technique or skill and not as a language for visual thinking and communicating. In other words, students have traditionally been replicating the work of professionals. Students were given a book of final renderings and learned the techniques as they attempted to mimic the images. They learned the skills to mimic appearances but failed to learn the concept of design communication.

Project Description
In order to correct this problem, the fundamental concepts of sketch and rendering should be clearly included as a major part of visual communication course. This project involves the design and creation of an interactive, multimedia-teaching tool in order to become more proficient in the visualization of forms and spaces for the interior design major. The project is composed of five modules for use in the course ETD 320: Sketching and Rendering for Interior Design. In addition, six core interior design courses can use the individual module (s) to fit the needs of their instructions. Each module has its own introduction, vocabulary, and other specialized sections as follows:

Module I: Concepts for understanding the relationship between 2D plans and 3D forms;
Module II: Perspective as a dynamic design visualization tool;
Module III: Material: to gain the experience of materials and their properties as represented in design visualization;
Module IV: Light for understanding the properties and dynamics of lighting and representation in design visualization;
Module V: A review as a self-test for understanding the above contents.

Conclusion

This teaching approach has two innovative features: integration of technology and visualization into visual communication courses and it is cost effective by introducing the modules into other studio courses. In the past, the instruction for studying color rendering mostly by used the text to try to explain dynamic contexts of sketching and rendering. Now students may use the interactive visual method and they find themselves moving one step closer to reality.

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SEE ME, SEE YOU: A DIALOGUE ADDRESSING A CRITICAL DEFINITION OF INTERIOR DESIGN AS A PROFESSION

Presentation by
Anna Marshall-Baker
University of North Carolina at Greensboro

Hank Hildebrandt
University of Cincinnati

Purpose

A critical question in the legitimacy of any profession is the understanding and perception of its professional services within the context of society. Thus, the legitimacy of interior design as a professional discipline in our contemporary society is interrelated to evolving social needs, professional shifts of design services, economics, advances in knowledge of design and materials, and accelerating technologies. The purpose of this presentation is to examine important aspects of professionalism in interior design by assembling a panel of representatives from professional organizations, academia, business, print media, and industry to respond to issues that have evoked questions of legitimacy and professional registration standards.

Process and Objectives

We will assemble a panel of representatives from professional organizations in design, academia, interior design publication media, business, and industry. Each representative will prepare in advance of the panel discussion, responses to a set of critical questions concerning the intellectual rigor, professional specificity, and service value of interior design. The forum will begin with a matrix developed to codify, position, and test content areas germane to the discipline of interior design such as historical theory and precedent, social and cultural theory, formal design theory, and professional services. The matrix will be used during the presentation to not only map content qualifiers made known throughout the discussion, but also to organize and direct the discussion. A moderator will record responses and direct or guide the panel members across various issues, questions, or concerns, as necessary, while engaging responses or remarks from the audience.

Objectives. The objectives of the presentation are to:
- bring accountability to published statements from organizations and institutions;
- examine and critique shared and distinct content between architecture, design, and interior design;
- construct an analytical map of distinct and shared content topics of theoretical, skill, and technical issues;
- engage in critical examination of the perception of design standards; and
- inform and further the discussion from previous forums using this panel dialogue format.

Audience Interaction. The panel discussion will involve the first half of the presentation period, and members of the audience and panel will use the time remaining to critique, add, modify, or clarify comments and matrix content. The information will be recorded and simultaneously projected to enable everyone in the session to view the information as well as the evolution and construction of the matrix. Thoughts, statements, suggestions, ideas, may be added, subtracted, moved, edited, critiqued, or revised during the session. The moderators will compile and prepare the material generated during this forum to be available during the conference and for further discussion among the members of IDEC in a successive

presentation or publication.

Conclusions

We anticipate that a panel of representatives from interior design and architecture practice and education, regulatory organizations, print media, business and industry combined with conference attendees will enable the completion of the matrix with animated discussion. Regardless of the content qualifiers in the matrix that emerge during the session, each attendee will leave with a visual image of the profession of interior design.

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MERGING THE VIRTUAL AND THE REAL: THE DETAILED CONNTECTION BETWEEN PRODUCT AND INTERIOR DESIGN EDUCATION

Presentation by
Novem Mason & Stoel Burrowes
The University of North Carolina at Greensboro

Issue

Abstract or conceptual design projects are the most accepted venue for teaching and learning interior architecture…"the virtual." These projects provide opportunities to enrich design work with a theoretical and philosophical basis, but pragma is often lost. Such projects can lack "reality" because they are never built or installed. With the exception of scaled presentation drawings, scaled models, and materials sample boards, the critical value of proportion, scale and human interface is lost. The tactile experience of materials, their texture, weight and mass is misunderstood. The need for accurate detail is ignored and the critical connections of material components are poorly explored and developed because they are rarely built and tested full scale…in "the real."

Product design education and teaching interior products design in interior design curricula offer the opportunity to bridge the void between and merge the "virtual and the real." Products, which are the focus of product design studios, are typically smaller in scale than architectural and interiors projects and lend themselves to manifestations as full scale prototypes. Success requires critical analysis of human factors and critical exploration and development of construction details. In addition, it requires skill in construction or production and craft in shaping, forming and finishing materials. These design issues can best be taught through the processes involved in the completed product, from program through prototype.

Process/Context

The curriculum in the presenters interior architecture program includes a furniture design studio that is one of four studios their third and fourth-year students may elect to take fall semester each year. During the past four years, the presenters have used a series of carefully selected projects and student design competitions as the forum for student design exploration in both interior products/furniture design studios and lighting design courses. These courses are part of a 142-semester hour sequence of courses in a five-year studio based interior architecture curriculum.

Project and presentation requirements and expectations may include:

- Theory and philosophy readings
- Technical readings and methodology studies
- Tours and visits to furniture design and manufacturing facilities
- Study of precedents and inspirations
- Thorough study and conceptual design investigation and development
- Drawings, models, digital modeling, models of details
- Fully developed construction documents
- Full scale prototype
- Written concept/designers' statements

Summary of Results

Results from the past four years have indicated that integrating an interior products design studio in the interior architecture curriculum has had a positive impact on student learning throughout the studio curriculum.

- Increased interest on the part of students to take the furniture studios
- Heightened interest in design and in the process of making
- Improved knowledge and increased concern of construction detailing and technology
- Improved detail and material development of projects in other studios by students who have taken the interior products studio.

Awards and honors received by student entries in national and international competitions indicate the program measures favorably with other interior architecture programs nation wide and brings national recognition to our program and university.

THE IDEA CIRCLE: FROM PRACTICE TO THEORY TO APPLICATION IN THE CLASSROOM

Presentation by
Theodore Drab
Carol Bormann
Oklahoma State University

Purpose

As part of a program bringing interior design practitioners to campus for extensive interactions with faculty and students, Janine James, founder of the New York firm The Moderns, introduced a problem solving technique called The Idea Circle. While the technique, as its name suggests, is effective in concept generation and program development, its applicability to the other phases of the design process makes it a valuable tool. This presentation will trace the theoretical underpinnings of The Idea Circle and explore ways in which the technique, developed in the realm of practice, can benefit the quality of student learning in interior design studio courses.

Context

The Idea Circle is essentially collaborative and interdisciplinary. Rather than occupying the center of the circle, the designer is relegated to the periphery. There, with the new title "Solutionist", the designer is joined by team members representing the various facets of problems in the real world; the client, science and industry, people committed to the health of the end user and of the planet, as well as those representing business strategy and marketing/communication issues. Everyone with a vested interest in the design outcome is involved, with no one having primacy in determining either the outcome or the process employed in achieving it. In James' model, the central position is occupied by Truth (the goal of design), Passion (the road to truth) and beings called Concept Pollinators, team members who operate as part-time monitor, cheerleader, clarifier, or reflective questioner as the need arises.

The team armature that characterizes the Idea Circle is related to Taylor's Panel Consensus Technique (1972) and Gray's Interest Based Problem Solving Process (1996). Like Dillon (1982), James proposes that the team engage in problem *finding* activities rather than merely accepting a pre-defined task. At the core of this insistence on recognizing, discovering and, perhaps, inventing problems is the realization that the value system shared by team members, akin to the "synergy" that Rigsbee (2000) describes, both anchors the team and the design solution it generates. Denton's application of Darwinian theory (1999) is also apparent in the Idea Circle, where the creation of more ideas than needed and the valuing of mutation are important features. Versions of what Prince (1968) called "evocative questioning" and of "supportive questioning (Syer and Connolly, 1996) are also to be found.

Summary

Inspired by both Janine James' convictions and by the quality of her firm's design products, two studio courses have successfully employed the Idea Circle in problem finding, concept development, and programming phases. Employing the team model to evaluate schematic and design development presentations enable students to analyze from a new perspective, or from multiple perspectives, based on the role they fill within the Circle. The technique's multidisciplinary nature has made it eminently applicable to the academic sphere. Its collaborative nature provides students the opportunity top broaden their perspective on design to include the contributions of others around them who share their goal of creating a better world.

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USING A SEARCHABLE DATABASE TO INFORM DESIGN, EDUCATION, AND RESEARCH

Denise A. Guerin, Ph.D.
Caren S. Martin, Ph.D.
University of Minnesota

Purpose

The purpose of this presentation is to demonstrate the capabilities of InformeDesign[SM]. This database includes hundreds of Research Summaries of articles that were published in refereed journals. Research Summaries include identify the design issue, key concepts, and evidence-based design criteria. We will demonstrate how design practitioners, educators, or students can find the literature for a new project.

We will demonstrate how interior designers can access InformeDesign[SM] when they work on a healthcare project to determine if any research has been done on dialysis rooms or by a layperson looking for information about assisted living environments for an aging parent. We will demonstrate how educators can conduct a literature search for a research project. These are skills that educators have, yet the ease of access to research literature will aid their work and provide a means by which they can add to the body of knowledge. Additionally, we will introduce a method by which educators can team up with practitioners to document an innovation in practice or identify a practitioner's need, all via InformeDesign[SM].

Context

The goal of InformeDesign[SM] is to facilitate practitioners' use of current, evidence-based information as a decision-making tool in the design process, thereby improving the quality of design solutions and enhancing the public's health, safety, and welfare. Furthermore, educators and students can use this in research projects or studio projects. The Internet-based Web site will go live in December 2002 as a free, independent Web site. It is important for as many user types, i.e. practitioners, students, and educators, to be exposed to the services of this resource. We believe it can change the way design is practiced and ease the educators search for relevant research for a research or design project. Students will learn how to use this Web site and will take it into the field with them. Educators must be the ones to present it to them and show them the value of using research as a basis for their design decisions.

Summary

The voice of the educator is required to prepare new design practitioners for a more demanding world. Educators introduce innovation to the design community by introducing it to their students. It is very important for educators to learn about and contribute to the continuing development of InformeDesign[SM] so they become the ones who demand evidence-based research of their students' project solutions. Educators, researchers, and practitioners can utilize this revolutionary way to educate the design community and enhance design practice.

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INTERIOR DESIGN AS INHERENTLY GREEN PRACTICE: A NEW LOOK AT PAST TRADITIONS

Presentation by
Mary Anne Beecher
University of Oregon

Purpose and Issues

Recent negative publicity suggesting that interior designers practice limited "green" practice because they believe that sustainable or green design solutions are less important to their clients than matters of cost and aesthetics reinforces popular images of the interior design profession as consumer-oriented, taste-based, and wasteful. The purpose of this presentation is to demonstrate that much of interior design practice integrates intrinsically green or sustainable principles at a fundamental level. By tracing green and sustainable practices using specific examples from history, it is possible to understand environmentally responsible design as part of the discipline's tradition.

Context

A critical review of published twentieth century interior design histories by Tate and Smith (1986), Massey (2001), and Whiton and Abercrombie (2002) produced three specific characteristics that are indicative of environmentally responsible design practice. They are: 1) a strong tradition of preservation and re-use; 2) the importance placed on materiality; and 3) the emphasis placed on the effect of architectural spaces and systems on people. Re-making architectural spaces and objects by altering them physically or by transforming them through the application of new finishes and furnishings has been the "bread and butter" of interior design practice since its inception. In the process, designers are educated to be mindful of the material composition of the goods that they specify or create. The emphasis placed on ergonomics and spatial organization and sequencing exemplifies the importance that making efficient use of space and materials has played in defining design practice.

Summary

This analysis of published histories of twentieth century interior design revealed that works by a significant number of designers over the twentieth century exemplify the three principles of conservation, materialism, and efficiency. The strong application of the reuse of extant site conditions, attentiveness to materials and concern for efficiency promotes the profession as a leader in the practice of environmental responsibility throughout the twentieth century.

Although it must be acknowledged that the desire to practice environmental responsibility through the application of these principles has not always been consciously motivated, the generation of less waste and a more careful use of resources is often the result. Therefore, it is possible to understand interior design as a discipline that is inherently "green" in its fundamental approaches to solving design problems.

This study also reinforces the idea that history is more than just a series of names, dates and descriptions. A review of the approaches designers have taken to developing their solutions reveals possible new interpretations of the significance of their accomplishments in the definition of a culture of interior design practice. Focusing on the principles identified here brings the work of progressive interior designers and architects who are particularly involved with the design of interior spaces to the forefront of design history. Promoting this newly framed perspective on interior design practice may encourage contemporary

designers to embrace green practice in their current and future work. It will also help to generate an alternative popular perception of interior design activity.

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THE 3 C'S OF CODES: CONSCIOUSNESS, COMPLIANCE, AND CREATIVITY

Presentation by
Rosemary Kilmer, ASID, IDEC
Purdue University

Purpose and Issue

The purpose of this presentation is to introduce a method of teaching codes in a creative manner so the student understands the relevance of codes and regulations while retaining the information for future applications. This method involves performing a "Code Analysis" on an existing project versus memorization and examination.

Process/Context

In order for students to comprehend the laws and regulations that govern the built environment, it is more effective to break them down and spread them throughout the 4-year curriculum versus offering one dedicated course. This way, we feel we are interrelating and reinforcing significant concepts throughout the curriculum. Laws, codes and regulations are introduced in lecture format in the freshman year. In the sophomore and junior level studio courses, students are introduced to only a few of the codes and regulations, such as, occupancy classifications, occupancy loads, egress, fire separation, ADA requirements, and interior finishes, which they must apply to their projects. However, not until the first semester of the senior year is all codes and regulations that apply to a commercial interior project, culminate in a thoroughly researched and applied assignment.

The "Codes Analysis" project requires the students to complete a code check/analysis on an existing space that is mixed-use occupancy and is 10,000 to 20,000 sq. ft. They analyze this space in terms of:
- Occupancy classifications/loads
- Types of construction/allowable building sizes
- Means of egress
- Fire resistant materials/construction
- Fire protection systems
- Plumbing/Mechanical Requirements
- Electrical/Communications Requirements
- Finish/Furniture Selection
- Accessibility

The students analyze the plan and determine what codes and regulations apply to the project, what is in compliance, and what is not in compliance. If a particular area is not in compliance they must indicate, generally in a graphical manner, what would need to be done to bring the area up to code or in compliance. The project consists of both written information as well as a graphical presentation. The graphical presentation, which is rendered and color-coded, adds a sense of "creativity" to an otherwise highly technical and complex subject matter.

Summary

The project that is given to the students is a "preliminary design plan" that includes several code violations. As the students become conscious of the codes and their application, they begin to recognize the violations within the plan, which in turn, generates questions and discussion. The whole class gets into a discussion as to the theory behind the particular code and its relevancy to design. Also, after the students have had the opportunity to analyze the given plan(s), guest speakers, such as a Code Officials

and Fire Marshall, are brought in for further information and questioning. While not commonly presented in a colorful graphic format in the practicing profession, the final project allows the student to express their understanding of the building laws and regulations in a very creative manner. This approach has proven to be highly successful and a very helpful vehicle for students to retain pertinent information about specific codes and regulations that apply to interior environments.

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THE FREETOWN PROJECT: HONORING THE PAST / ENHANCING THE FUTURE

Presentation by
M. Jean Edwards
Thomas Sammons
University of Louisiana at Lafayette

Issue

In the past urban renewal has often meant the destruction of neighborhoods and the removal of buildings in the name of progress. In their haste to attract dollars, architects, designers and developers have often destroyed the very fabric that makes a neighborhood attractive in the first place (Jacobs, 1961). Zoning, in particular, has left us with a version of neighborhood that becomes exclusive rather than inclusive, and destructive to a more comprehensive view of community (Kunstler, 1996).

Throughout the spring and summer of 2002, the Community Design Workshop, working with architecture and interior design students in cooperation with city government, took on a project in a primarily residential neighborhood that over the years has been a model of integration, both of races and of cultures (Dismukes, 1972). The issue for the Workshop was to develop design strategies that would preserve the positive features, while offering enhancements to the quality of life and work. The plan that was developed demonstrates an integration of historical elements into a vision for the future of this vital area. The vision itself is the result of the integration of ideas from landowners and residents, business owners and government officials, in addition to those of the architects and interior designers.

Process / Context

In public charettes conducted at the beginning of this project, participants identified several key concerns that they felt the plan needed to address. Outstanding among these was the need for "connectivity." This meant not only greater connection between the diverse neighborhoods in the area, and greater connection to the nearby down town and university areas, but also a more pronounced sense of connection to the unique past of this community.

Participants insisted that the area remain essentially residential. They expressed the need for a greater diversity of housing types in order to accommodate a full range of income levels, from professionals who work in the adjacent downtown area to students who attend the nearby university. They wished to modify the impact of commercial development on the residents. They complained of noise and litter generated by the patrons of the bars and clubs along a particularly unattractive commercial street known as the "Strip." Finally, the community expressed a desire for more public space and amenities.

Summary

The Community Design Workshop used history as the connective tissue to address the concerns expressed by the community. Public spaces and streetscapes became opportunities for the inclusion of elements that linked the present to the past. Proposals for commercial development and new housing carefully negotiated the essentially single-family residential character of the project area. Both respected the traditional scale and style of the residences in the neighborhood (Holl, 1998). Interior design students focused on the adaptive re-use of a building that housed the oldest family-owned business in the city, and the development of a public plaza to celebrate the various cultures that had settled in and developed the area. The resulting proposals represented an integration of the past into a progressive design for the future.

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VISUAL COMMUNICATIONS: AN INCREMENTAL APPROACH

Presentation by
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Washington State University

Purpose

Interior designers rely heavily on their visual communication skills to present their ideas and concepts to clients. The purpose of this presentation is to discuss a teaching strategy that was developed to introduce visual communication skills early in the interior design curriculum. The strategy involves a very specialized exploratory approach to teaching design visualization. The goals of the course were 1) to develop the students' appreciation and understanding of the complex role of visual communications in presenting design work and 2) to give the students a visual language that will enable them to represent a design concept graphically and 3) to work quickly, within time constraints, to produce a professional representation of their ideas.

Context

A close look at the average college campus reveals an increasingly diverse student population that challenges college professors to develop a varied and educated teaching style (Cho and Forde, 2001). Watson and Thompson (2001) found that all learning styles were present among interior design students demonstrating the need for a varied approach to teaching a large class. ID 205, a class that typically enrolls with up to 50 students, exposes the students to numerous medias and visual communication techniques through a fast paced pedagogy aimed at widening students' visual horizon. McCarthy (2001) found that developing only a limited number of highly polished visual skills stifled students' imaginations resulting in rather conventional and formulaic end results. Thus the aim for this class was to use a more varied approach, providing the students with enough background to be able to make choices and experiment.

In order to demonstrate measures of success, sophomore studio projects done before the teaching strategy was introduced in ID 205 and studio projects done after the introduction of the strategy were compared. An instrument was developed to measure outcomes. Four years of student work is compared.

Summary of Results

The level of visual communication skills was clearly better among the students who completed ID 205 versus the students whom did not. The studio projects presented after the introduction of the new class showed a tremendous increase in graphic presentation of concepts and ideas. The students were better equipped to work independently in a studio setting, translating their ideas into visual form, straying away from the more literal interpretations of space and portraying more of the meaning of their designs. Students were empowered by techniques that enabled them to bridges the gap between studio and lecture courses.

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SYNTHESIZING CRITICAL THINKING, THEORY, CREATIVITY AND PROCESS IN A DESIGN STUDIO: IS THERE A NEED FOR A NEW COMPUTER, LEARNING TOOL FOR INTERIOR DESIGN?

Presentation by
Lori Brunner
Iowa State University

Purpose and Issue

Design students may be obtaining a broad range of knowledge in their university experience, but there needs to be a more explicit integration of their growing knowledge base with a systematic method of thinking, understanding, exploring and applying in the interior design studio. Thus, the design studio provides a venue and an instructional technology tool provides the means of integrating these activities. The purpose of this presentation is threefold. First, to lay the foundation for this hypothesis and provide guidance for developing an instructional tool, a brief overview of interior design trends, systems thinking and design process paradigms are outlined. From this investigation a list of objectives for a proposed computer tool is presented. Second, examples of instructional technology and business information systems pertinent to the design studio tool are discussed. The third purpose is to discuss how these computer tools could be translated to the interior design education setting. The issues to explore are 1) is there a need for a new computer, learning program for the interior design environment, and 2) what might be the hurdles to overcome or the points to address in development?

Process

The development of this idea commenced with the belief that the traditional design studio needs assistance—to reinforce process, systems thinking, knowledge retention and acquisition and understanding of terms. Investigating what the interior design profession sees as future trends in the profession tested this hypothesis. With this premise confirmed objectives for the new computer-learning tool were developed. Based on these objectives, research began into existing instructional technology and business information systems for their bearing on the interior design model. What *attributes* from existing examples could be translated, altered and/or combined into something specific to interior design? This presentation outlines some interior design applications and invites audience members to discuss other examples for further development of the model.

Summary

Existing instructional technology and business information systems provide insightful examples from which to build, combine, and tailor to the interior design studio model. For presentation and discussion purposes a preliminary prototype is diagrammed, which includes attributes of existing computer models. The prototype strives for a user-friendly interface, information for both deep and shallow knowledge of a particular area of study, a focus on design process stages, and multiple types of media and links for the learner. This prototype/diagram provides a means for audience discussion.

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TEACHING AND LEARNING IN VIRTUAL REALITY: USING COMPUTER SIMULATION TECHNOLOGY IN TEACHING AND LEARNING INTERIOR LIGHTING DESIGN

Presentation by
Jin Feng
Purdue University

Purpose/Issue

This presentation will share the author's experience of using computer simulation technology in an interior lighting design class to improve the teaching and learning environment. The focus of discussion will be on how the simulation technology can change the way of teaching and learning, enrich and expand the course contents, and access unlimited resources beyond physical and fiscal limitations.

Process

In a course on interior lighting design, the computer simulation and visualization software Lightscape was used to enhance the learning experience. The simulation technology allows the students to model the environment they design and virtually light it. The simulation provides not only photo-accurate images of the space for aesthetic evaluation, but also photometric data set for quantitative analyses. Facing their designs virtually realized in simulations, the students obtained direct and interactive feedback that inspired them for further refinement of the design solutions. In such a way, the difficult imagination-based teaching and learning mode of the past was replaced by a virtual-reality-based experience. The use of computer simulation technology also made available unlimited resources for lighting experiment. With the simulation technology, a student could virtually install almost any luminaire in the world in his or her model to experiment its lighting effect. This liberated the students from our limited experiment facilities and materials. By experimenting with luminaires of different types and models, the students obtained deeper understanding of the features of luminaires. The use of computer simulation also lifted the exploration of daylighting to a new level. With the simulation technology, the instructor could evaluate the students' work more accurately and effectively. Criticism became more objective, convincing, and therefore constructive.

Summary

The use of simulation technology has revolutionized the teaching and learning environment of lighting design. Compared with similar designs in previous years before the use of computer simulation, the projects completed by students using computer simulation show obvious improvement in design quality in both artistic and technical terms. Through the virtual experience of the complete cycle of design, build and evaluation, the students obtained better understanding of the relationship between lighting plans, specifications, selection of interior materials, and actual lighting effects and technical measurement. The use of simulation technology also opens up new possibilities to support our effort in the paradigm change from illuminance-based design to luminance-based design, and eventually realize the integration of interior design and lighting design.

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THE THREADS THAT TIE THE DESIGN TOGETHER: INTERDISCIPLINARY DESIGN COLLABORATION

Presentation by
Karen Clarke
The New England School of Art & Design at Suffolk University

Rita Daly
The New England School of Art & Design at Suffolk University

Purpose

To provide graphic design and interior design students with a conjoined learning experience involving the design of a café. The goal of the dual project is to offer a real life scenario, enriching the design concept and enhancing the learning process. The singular viewpoints and talents of the students from each discipline, as well as the social interactions between them, provide a unique experience in interdisciplinary design.

Methodology

Students in the sophomore-level graphic design and interior design studios were teamed together for a period of six weeks. After agreeing on the artist on whom they wish to base their design, they worked together at integral points to strategize on the concept, the name of the café, planning, signage, and the menu. Each design discipline researched precedents, and observed and photographed the site. Meeting collectively to discuss the process, the interior design students resolved space planning issues, three-dimensional forms, and the selection of materials and finishes. The threads of graphic elements woven throughout the design defined and enhanced the space and added professional finishes to the teams' presentations.

Outcomes

- Broadened the students' experience and understanding of each other's disciplines.
- Demonstrated ways in which graphic design plays an integral role in the design of space as well as wayfinding.
- Identified the role of each discipline in the design process.
- Strengthened conceptual development.
- Allowed students from different disciplines to work together, gaining confidence in their abilities.
- Enhanced social cohesion.
- Provided preparation for real world work situations.

Collaboration

The collaborative process heightened the social aspects of learning and work. The project taught each group of students about the other's discipline, the value of other viewpoints, and the need to work together to a common end. The outcomes were found to be very positive and rewarding and the project provided a rare opportunity to gain teamwork experience and skills for use in the professional world.

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DESIGNING FOR THE FUTURE: PROACTIVE RESTUCTURING

Presentation by
Allison Carll White and Ann Whiteside Dickson

Purpose/Issue

A town hall discussion at the 2002 Santa Fe IDEC Conference revealed that many interior design programs are in the process of restructuring. This follows a national trend that many universities are undergoing, particularly in light of a lean economy. Yet restructuring can leave interior design programs in a vulnerable position if they are not proactive, particularly in light of low student/faculty ratios, lack of external research dollars, and low visibility on campus. Restructuring efforts have benefited some interior design programs while others retain their vulnerable position. Thus the question must be posed, how can interior design programs design their future to make the restructuring process a win/win situation?
The specific objectives for this presentation are to:
1. Present an overview of current restructuring principles and trends in American universities, particularly as they impact interior design programs.
2. Present an illustrative process of how to proactively position your program to initiate a positive restructuring experience.
3. Promote discussion among program attendees that presents successful responses to restructuring to help overcome fears that prohibit proactive responses to the changing university climate.

Process/Context

In light of emphasis on restructuring that is occurring on university campuses, an illustrative process for participation in the reorganization process will be presented. This process is grounded in research- based principles described by Kezar (2001) and is useful in thinking about a systematic process of restructuring. Application of this process is reflected in recent restructuring that impacted a FIDER accredited interior design program, where faculty initiated a proactive plan for restructuring their program. This process included garnering unified commitment to restructuring among all involved faculty and setting a direction and developing goals that were student/program oriented. An essential part of the process included presenting a unified approach and being politically savvy. Further, it was deemed essential by the faculty to increase program visibility on campus and within the design community. Finally, the process included learning from the mistakes of others, educating the uninformed an/or the incorrectly informed, and keeping the pressure on and being vigilant.

Conclusions

Interior design programs have not done a good job of proving their value to the university, particularly in light of increasing foci on research and external grant procurement. Too often it appears that interior design becomes the victim of change due to lack of a proactive stance. According to interior design practitioners, collaboration and broadening the design approach is essential to success in the work place, so ways must be found in academia to cultivate the skills to work in interdisciplinary relationships (IIDA Foundation, 2001). Based on this message from the profession, restructuring may provide interior design programs with the opportunity to rectify changes needed to meet the demands of practice. However, simply moving the program to another home will not guarantee success. Faculty in interior design programs must take a proactive stance prior to restructuring if they are to achieve positive results.

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ANIMATION AS AN EXPERIENTIAL DESIGN INVESTIGATION

Presentation by
Phillip Tebbutt & TL. Ritchie
Department of Interior Design, Louisiana State University.

Purpose

This presentation investigates an expanded methodology explored in the sophomore Interior Design Studio I, pertaining to the relationship of the time-space sequence in the experience of architecture. One does not know a space in a single view. Through a series of conceptual projects, utilizing traditional 2d and 3d design techniques and progressing to digital 3d modeling, the students investigate experiential space-time phenomena. Can animation be used in an effective way to teach the principles of design and spatial composition in an immersive manner?

Methodology

The investigation began with the documentation of a chosen route used everyday through the design building. The students were to capture at least nine images in a sequence, using a camera, on a route, of their own choosing. This, in turn, led to studies in the following areas:

- Time and perception of place.
- Time and evolution of design through process and evaluation.
- Time and presentation of ideas with regard to the dissemination of information.

Through a series of exercises students learned to abstract, deconstruct and reconstruct shapes, forms, and volumes from three dimensions through two dimensional manipulations and back to three dimensions again. The Exercise had the effect of simplifying the forms and gave them an opportunity to re-evaluate the composition of elements within their designs. The series of manipulations were used as a vehicle to discuss and introduce some basic design vocabulary such as primary elements, properties and articulation of form, collisions of geometries, organization of form and space, circulation and movement, proportions and scale, and ordering principles such as transformations, rotations and repetitions.

Each student was required to produce a virtual version of their physical cardboard model and then design a 15-30 second route to fly or walk through their virtual world. They were then asked to form groups and develop a sequence, a timeline or storyboard of a route through all the spaces designed by the class. Music students were asked to review the two and three dimensional interpretations of spatial sequences and to create sound scapes that musically illustrated the character of each spatial set. The arrived at virtual reality, is not only a communication medium, but also a tool for the process of deconstructing the visual time travel into a series of frames, frames filled with volumes, forms and facades. This allowed the students to design their presentations and not merely use graphic tools to represent it.

Summary

It became apparent that the images and connections between the measurement of time and the intervals measured in cross sections along the students' paths were synonymous with animation.
It also became apparent that it is reasonably hard for anyone to talk descriptively of animated sequences. In this case, the visual medium of animation is the most suitable.

Ultimately we would place the virtual environments onto our web site and will allow a free navigation of the spaces. Then users can visit the virtual environment and navigate any path or route they choose.

Audience Interaction

This will take place via questions and answers session at the end of the presentation. Samples of student animations will stimulate these discussions.

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ALLEGORY OF FORM AND SPACE IN FILMS: APPLICATION OF FILM LANGUAGES TO DESIGN EDUCATION

Presentation by
Jinbae Park, Ph.D.
Miami University

Purpose

Film as a genre of multi-media is becoming an integral part of design education. This study addresses the use of movies as efficient references for creating space design concepts in interior design projects. The purpose of this study is to help students recognize the film as a useful inspiration for developing ideas and produce meaningful design elements in accordance with the main concept of the space. Through the process of analyzing visual allegories used as backgrounds in the movies, students can devise a method of creating innovative design ideas, and providing meanings to each design element they use spatially. The value of this approach comes from increasing the number of stimulating visual examples that inspire research, creative design process and evaluative critique.

Process

The experimental design of this study is based on library survey and content analysis. Selected for this study are movies considered to be useful to design education. Specific scenes have been identified as valuable for interior design studies, contained in more than 90 movies. Stories and scenes of the selected films were systematically analyzed and categorized by different spatial languages used in films. Allegories of space found in the movies can be categorized into spatial composition, specific style of the space, shape, pattern, and color applications that become dramatic architectural elements. These major elements of the interior design are clearly visualized to achieve intended purposes in story line, through the tools of dramatic aesthetics. Successful examples of design elements found in each category become valuable references for design studies. The study includes the process of converting the visual languages found in the movies to useful information for producing elements for design studio projects. Through the process of exploring and analyzing hidden allegories of the space in films, ideas of applying them to produce the meaningful design elements can be unending.

Summary of Results

Developing an experimental method of introducing films into the design studio accelerates the role of imaginative design elements as well as that of spatial composition. Visual languages used in the film often control emotional responses in story telling, and also work as allegories, which are powerful elements to audiences. Allegories of space, form, and color found in movies become successful and meaningful references for students, which promote understanding through creative ideas. Students can recognize the variety of allegories in each setting of the movies and understand the stories through environmental clues that demand analysis and thoughtful evaluation. By selecting metaphors from the sequence of films as good design sources, students can produce significant design elements supporting the main conceptual context of the space. This process in interior studio programs will offer students the possibility of extending newfound inspiration into their other design works. The multi-disciplinary study also contributes to the students' ability to perceive visual symbols in another medium acquiring knowledge, through the discipline of film.

PRESERVING THE PAST AND DESIGNING THE FUTURE: A TALE OF TWO COMMUNITIES

Presentation by
Abimbola O. Asojo
University of Oklahoma

Purpose

This presentation explores the revitalization through design of two communities that experienced oppression. In the first example, students design a museum of African-American culture in Boley, Oklahoma, to reconstruct the town. In the second example, students design affordable housing in Khayelitsha, South Africa, a squatter settlement that resulted from apartheid.

Process

Boley Museum of African-American Culture. Boley is a historic African-American town, located in Oklahoma. Blacks that migrated from south to northern and western communities in hopes of escaping oppression around 1900 established the town. A recent project had interior design sophomore studio class design the interiors of the Boley Museum of African-American culture. The design problem was to develop interiors for a museum and an accessible bed and breakfast annex to the existing two-story building on the site, which currently houses the museum collections and an inaccessible bed and breakfast on the second floor. At the beginning of the project, students were presented with case studies from African and African-American culture to expose them to design in cultural settings. Students made several trips to the site to meet with the clients and survey existing conditions. User requirements were developed to include a gallery space, gift shop, outdoor sitting, storage and support facilities, as well as restrooms. Word Analogies and concept squares (Leigh, 2000) were developed based on the precedent studies. These were transformed into three-dimensional abstract models that formed the basis for their concepts and design solutions.

Khayelitsha, Cape Town, South Africa. South Africa estimates its total squatter population to be at least 5 million. The objective of this project was to design low-income housing in Cape Town, South Africa. Students were presented a cross-disciplinary survey of Khayelitsha, which focused on design and social issues. The survey explored housing the urban poor in Cape Town through case studies, field research, design aesthetics, analysis of local materials, skills, and construction techniques. The class had several video-conferencing sessions with the students and professors of Technikon University, Pretoria, South Africa. The sessions addressed South African design aesthetics, slums, and squatters, and also involved several design critiques sessions. The students were very sensitive to the issue of apartheid in South Africa and avoided approaching the design solution solely based on the stylistic influences of the apartheid government (Cape Dutch Style). In the design solutions developed, the recurring elements were traditional South African elements, pitched roofs, and natural forms.

Summary

These two projects illustrate how students use design to rebuild communities that have experienced oppression. In the case of Boley Museum of African-American culture, design precedents are drawn from African and African-American environments in an effort to revitalize this historical black town. The design proposal was included in a US Department of Transportation grant application by the Boley Economic Development and Redevelopment Authority (BEDRA). In the South African case, an identity

free from oppression is proposed by limiting the influences of the Cape Dutch style of the oppressors. Thus restoring pride in the traditional heritage of this long oppressed community.

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THE PROFESSIONAL PRACTICE COURSE: A COLLABORATIVE EXPERIENCE THROUGH MODELING AND ASSESSMENT

Presentation by
Laura E. Prestwood
Texas Christian University

Purpose

The purpose of this presentation is to examine varying perceptions from design students, design educators, and design practitioners with regard for the following question: What skills does an entry-level interior designer need to be competitive in today's design practice? Additionally, the presentation provides a model for how collaboration in the classroom between design educators and design practitioners can shape design students' perceptions. The basis for the presentation is an assessment project conducted in the professional practice course. The presentation should stimulate discussion, demonstrate the validity of the need for modeling and assessment in the classroom, illustrate an application, and share the assessment outcomes.

Process

The assessment of varying perceptions was conducted in the professional practice course through a series of blind surveys. The surveys were developed with the Office of Assessment at the university. The surveys were distributed to the interior design students enrolled in the professional practice course as well as to the interior design educators within the university and the design practitioners from the university's Interior Design Advisory Board. The surveys were conducted at the beginning of the semester in which the professional practice course was taught.

Initial findings from the surveys were tabulated and used by the course instructor as the basis for classroom discussions throughout the semester. These findings were also shared with the participating design educators and design practitioners from the onset of the semester. The findings, however, were not revealed to the students until the completion of the course and only after students completed a final survey.

Throughout the semester design educators and practitioners collaborated both in the classroom and outside the classroom to address areas of varying perceptions. Field trips and site visits to various design firms were conducted and guest presentations in class were given in response to varying perceptions and to facilitate collaboration between educators and practitioners. Ongoing collaboration and dialogue served as a model to students for suggested involvement after graduation.

Incorporating student internship experiences as a means of assessment facilitated the integration of practical experience into the classroom. Additionally, this integration was augmented by innovative teaching methods for active learning through student participation and interaction. The culmination of the study was a final survey conducted at the end of the semester to determine student perceptions.

Summary of Results

Varying perceptions about industry expectations of design graduates must be addressed as part of design education. The professional practice course, taught as a capstone experience in a student's interior design program of study, offers a forum for ongoing collaboration and assessment. As such, the course must go beyond defining and exploring basic business practices to becoming the culmination of a degree plan.

Coupled with the internship or practicum experience the professional practice course is a fitting capstone experience. Educators are role models. Students learn as much from observation as they do from tests and assignments.

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INTERIOR DESIGN AND SUSTAINABILITY!
FIDER & NCIDQ – YOUR DECISIONS CAN MAKE THE DIFFERENCE!

Presentation by
Geethapriya Balasubramanian
Iowa State University

Purpose and Issue

Global warming, pollution, depleting natural resources and increase in landfills will be the major challenges faced by humanity in the 21st century. A greater awareness of these issues and their repercussions has necessitated a strong, collective movement to build a clean, safe, healthy and sustainable environment. Interior Design's role in this collective effort cannot and should not be overlooked.

In interior design, both 'education' and 'practice' need to have their due share of awareness, information and exposure to sustainable design solutions. While the Foundation of Interior Design Education Research, FIDER, checks the educational standards, the National Council for Interior Design Qualification, NCIDQ, certifies interior designers for professional practice.

This presentation attempts to analyze the standards stipulated by FIDER and NCIDQ, and evaluates interior design education and profession's role in addressing 'sustainability' issues. It uses IDEC as a common forum to have a healthy interaction and suggest improvements in these standards to benefit the profession and the larger whole – Our environment.

Process / Context

The built environment, from its construction to its demolition, contributes to various environmental problems. While concepts like design processes, codes and practice strategies are dealt in interior design education and practice, 'sustainability' is not addressed with equal vigor. Strong education standards and professional practice requirements can help bridge this gap.

The standards stipulated by "FIDER Professional Standards 2002" and "NCIDQ Candidate Handbook" were analyzed to evaluate their emphasis on sustainability. The Leadership in Energy and Environmental Design, LEED, rating system for interiors was used to understand the energy and environmental implications of interior design elements.

FIDER Professional Standards 2002. These standards stipulate that students should have an understanding of sustainable resources, but is described as a desirable and not a critical indicator. Education is at it's best when it prepares the students for the changing world, and the need confronted today is a safer environment. Hence, sustainability issues must be considered as a critical requirement in education. This would prove to be a significant start which eventually will create a big difference in the future of interior design.

> **NCIDQ Considerations.** NCIDQ examinations and programs like the Continuing Education Credits, CEU, are committed to identify Interior Design Professionals who are competent enough to serve the public. The CEU monograph on sustainability issues reveals the importance of the subject. But, considering the educational and experience background of the eligible candidates, it is appropriate to address 'sustainability' strongly in the qualifying examination.

Summary

The analysis of FIDER and NCIDQ stipulations reveals an emphasis on design processes and health, safety and welfare issues. But, sustainability issues require a stronger and explicit standpoint. They must be approached as a mandatory requirement rather than as a complimentary aspect of interior design. This move would portray the profession's commitment towards the welfare of people and their environment. The presentation also identifies FIDER and NCIDQ as the right organizations that should tighten the hold on the Interior Design field and guide it to a higher level of professional dignity and satisfaction – because their decisions can make the difference.

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MATERIAL PERFORMANCE EVALUATION SYSTEM: A TOOL FOR ENHANCING GREEN LEARNING

Presentation by
University of Oregon, Department of Architecture
Laura M. Bunselmeyer, Masters Candidate June '03
Assist Prof. Brian F. Davies

Purpose

The lack of defined standards for sustainable resources has become problematic for both students and instructors of interior design. A manufacturer may claim to provide a "green" product but the standards by which they are judged are unknown and the parameters used to determine ecological impact are unclear. Thus, many students and educators are left creating projects with no means to effectively navigate and prioritize vital materials specification criteria. The following presentation offers a respond to this need by examining the creation and implementation of a formalized tool for selecting sustainable interior finishes, based on criteria that combine design intent, product performance and environmental quality.

Process

Research for this project began with an examination of existing evaluation tools for the specification of sustainable interior finish materials. Initial investigation yielded existing programs which exhibited many of the desired specification criteria. However, the disparity between assessment methods for each program and the lack of focused interior finish material data prompted the authors to develop a new prototypical tool for sustainable materials evaluation entitled MPES (Material Performance Evaluation System). The system was piloted in an existing materials application course and its effectiveness was charted through project implantation, class discussion, and feedback sheet data.

Summary of Results

Based on these student evaluations and in-class experiences, the authors compiled a list of the most valuable aspects of the MPES system along with corresponding drawbacks.
Value:
1) Projects utilizing the MPES tool demonstrate objective selection of sustainable finish materials.
2) Students cited the MPES tool as a positive aid in coordination of materials selection criteria
3) Students attributed an increased awareness of ecological criteria for materials selection to the MPES tool.
4) The course instructor indicated that the self-contained format of MPES was well suited to implementation within the context of existing course curriculum.

Drawbacks:
1) Students cited a need for greater clarity in category assessment instructions
2) BEES software, utilized in the "Environmental Performance" category, was found to be deficient in comprehensive interior finish material information. This limited students' ability to accurately assess the environmental impact of finish selections.
3) Locating product information regarding recycled content, company reclamation practices, and resource sustainability was difficult and time consuming. This was reflected in final materials selections, which lacked a comprehensive sustainable assessment due to an absence of information.