IDEC
"CONNECTIONS"

ABSTRACTS: Papers
Presentations
Posters

INTERIOR DESIGN EDUCATORS COUNCIL
2001 CONFERENCE
March 27-April 1, 2001

DRAKE HOTEL - CHICAGO
CONNECTIONS

Interior Design Educators Council
INTERNATIONAL CONFERENCE ABSTRACTS

March 29 - April 1, 2001
Chicago, Illinois

Sue Kirkman
CONFERENCE CHAIR

Stephanie Watson
ABSTRACT REVIEW COORDINATOR

Charlene R. O'Donnell
ABSTRACTS EDITOR
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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 2001 Interior Design Educators Council International Conference, March 29 - April 1, 2001 in Chicago, Illinois. Proposals were submitted for one of three categories: paper, presentation, or poster. All proposals included an abstract. Proposals for papers and presentations also included a 1,500 word narrative to guarantee that the panel of reviewers had as complete an understanding as possible of the abstracts in those categories.

Each submittal was evaluated by two reviewers. In cases where scores varied, a third reviewer was added. Number of submittals accepted was dependent upon quality as determined by the resulting rank order and time available during the conference. Out of 60 proposals submitted, 42 were accepted for presentation at the conference and invited to be included in this publication.

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

- Susan Ray-Degges, North Dakota State University
- Wei Dong, University of Wisconsin, Madison
- Denise Guerin, University of Minnesota
- Dean Isham, South Dakota State University
- Linda Nussbaumer, South Dakota State University
- Shirley Singer, Iowa State University
- Melba Widmer, University of Northern Iowa

Definitions of entry categories, adapted from the CALL FOR ABSTRACTS

Paper:

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

Presentation:

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

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

Paper by
Allison Carll-White, Ph.D., FIDEC and
Ann W. Dickson, FIDEC
University of Kentucky

Purpose

Textiles connect us to global ideas and influences. They reflect the socio-cultural and economic influences of a time period by mirroring historic events, art movements, technological and scientific advancements, and other societal trends. Thus, the purpose of this presentation is to examine interior textiles between the years of 1946-1976 as a reflection of the socio-cultural and technological events that defined the post-war design movement.

Methodology

Various forms of archival research were used to explore and document the period from 1946-1976. A timeline of significant political, economic, technological, social, and artistic events was developed as a contextual framework to guide the exploration. Archival research included a review of key interior design periodicals available to the public and to the design professions. This research assisted in documenting design and scientific or technological trends that influenced textile development. Other reading included histories and treatises that discussed this thirty-year period. Interviews also were conducted with key manufacturers, museum collection curators, and historians. Visits to significant museum textile collections and the archival holdings of manufacturers provided a rich source of research information. The methodology process included identifying specific pieces that were reflective of the subject matter, key motifs and patterns, and fibers and technologies that framed the 1946-1976 time period.

Summary of Results

The thirty year period from the end of World War II to the American Bicentennial was an exciting time in the American interiors textile market. In the post-war years, the market became more global, with consumerism and the idea of disposable goods becoming rampant by the mid-sixties. Economic development brought about changes in the American life style including greater accessibility to education, increased affluence, a more mobile society, and the popularity of international travel. Technological advances further stimulated textile development and production to keep pace with the increasing demand. These advances included introductions in textile fibers, production processes, coloration, and finishes.

The 1950s saw a mix of themes influencing textile design. The developing travel market yielded exotic motifs which were counterbalanced by designs inspired by increased developments in science and technology (Marcus, 1998). A Caribbean vacation theme was as popular as one inspired
by interest in outer space. In the 1960s, the youth culture and a new willingness to experiment led to a riotous explosion of designs and heretofore unseen color palettes. Increased popularity of international travel eventually led to the introduction of ethnically-inspired textile designs by the mid to late sixties (Jackson, 1998). This trend continued in the 1970s, although as a whole, the market was dominated by a greater conservatism as exemplified by interest in historic revivals (Schoeser & Rufey, 1989).

Thus, interior textiles mirror the socio-cultural and technological events that defined the post-war design movement. The conflicts and contradictions apparent in society at large throughout this period are evidenced in textile designs. Within a historical context, interior textiles, like other artifacts, clearly make a significant contribution as visual statements which reflect the totality of an era.

References


LISTENING TO PRACTITIONERS: THE DEVELOPMENT OF A CONTINUING EDUCATION STRATEGY FOR DESIGNERS

Paper by
Lynn Chalmers and Joanne Cys
University of Manitoba and University of South Australia

Purpose

Focus group research methodology, used in this project was specifically chosen to give participants the opportunity to listen and discuss issues before expressing their own views through a questionnaire. The focus groups enabled practitioners to interact and learn, sharing ideas and perceptions as they discussed complex issues relating to the context of continued education.

The objective of the research project was to establish the continuing education needs of design professionals in Australia. We wished to determine the role the major professional organization should play in providing for those needs; and to design a strategy which would allow the Design Institute of Australia to strengthen membership, consolidate its' position as the pre-eminent professional body and support excellence through facilitation of continuing education.

The continuing education currently recognized by the Design Institute of Australia is mostly facilitated by local chapters and focuses on developing skills such as basic business acumen and CAD modeling, or it takes the form of trade shows which fulfill a social role as much as being concerned with the continuing education of the profession. We perceived a need for continuing education which would 'raise the bar' in the design professions and deal with issues of substantive and national importance such as design process and theory, international and collaborative working, and environmental sustainability.

The Design Institute of Australia needed a system, which established a national context for continuing education, gave recognition to excellent practice and encouraged participation in ways meaningful to the profession.
It was critical to build into the strategy an evaluation process, which would provide information and direction for the professional body, and provide a basis for measuring participation by members and levels of satisfaction with the programs delivered.

A CPE Activity Framework was developed which established Research as the most valued activity (8 points), followed by Structured Learning (4 points), Information (2 points) and Networking (1 point). The definitions of these categories being loosely framed, with the DIA's National Advisory Panel responsible for filling in the detail which would change over time. We wanted to build into the Activity Framework support for research activity carried out by academics and practitioners and encouragement for increasing collaboration to occur.

Summary of Results

The results of the focus group and questionnaire research led to the development of a Continuing Professional Education Strategy for the Design Institute of Australia. The report provides recommendations concerning:
• dissemination of CPE information through the development of a national database
• recognition of CPE by members, the design industry, education providers and the wider community through a system of certificates and awards
• collaboration with industry and education providers to ensure relevance, evaluation and feedback.
• formulation of CPE programs which would respond to practitioner need and serve to inspire excellence
• implementation of evaluation instruments designed to encourage participation and goal setting
• encouragement of design research initiatives emphasizing the importance of research to the design community

An implementation schedule was also provided to assist in establishing a timeframe for realizing the recommendations.

References

LEARNING FROM “OTHERS”: WHAT RECENT POSTMODERN THEORY HAS TO OFFER INTERIOR DESIGN

Paper by
Lucinda J. Kaukas
University of North Carolina at Greensboro

Purpose

In its efforts to expand and make concrete its body of knowledge, interior design has drawn a great deal from the examples of social sciences and science for conducting research. Many empirical and behavioral theories and practices, both quantitative and qualitative, have been successfully applied. A result has been an increase in the quality and scholarly level of research in interior design which has only added to the “professionalization” of this discipline. Relying on these practices, however, has also caused interior design research to often be limited to studies that fit within these paradigms.

Meanwhile, theoretical practice in the humanities, particularly in fields of philosophy, literature, art history, criticism and the visual arts has been transformed in recent years, resulting in the development of new fields in postmodern theory. An overview of research in these fields reveals clearly that these new theoretical practices dominate recent academic investigations. This paper will examine some of these exciting and thought provoking approaches to theory coming from the humanities to demonstrate how they can be relevant and useful for interior design research for the purpose of expanding the basis and criteria of that research.

Process

This paper will begin with a historical and chronological overview of examples of the major developments in postmodern theory. These examples will include ideas coming from feminist theory, particularly those centered around the idea the “Other” i.e., a marginalized member of society, and the work being done on “de-marginalization” as well as the concepts of “situated knowledges” and “essentialism”. It will also examine the genealogical method of Michel Foucault, the deconstructive method developed by Jacques Derrida, critiques of discursive practices, as well as the development of other recent theories of “visual culture” and “representation.” It will then show how these theories can be directly applied to issues in interior design research particularly the question of interior design identity, development of theory for interior design, and how to examine the visual, poetic, and semiotic aspects of interior design through scholarly methods.

Summary of Results

In its struggle to be recognized as a legitimate academic enterprise, interior design has leaned heavily on the examples of the social sciences. The examination of the more aesthetic and creative aspects of interior design has often been problematic within this model and in effect has resulted in a de-emphasizing of this aspect of interior design in its research causing some educators to ask “Where is the design in interior design?” (Marshall-Baker 1999, Hing 1999) This paper will demonstrate how theoretical practices coming from the humanities, which are now thoroughly recognized and accepted within academia, can help expand the basis of interior design research and allow the examination of concepts like creativity, beauty, aesthetics, gender issues, semiotics and identity politics.
Such an expansion of the theoretical framework of interior design research would reflect more fully the larger ranges of issues involved in both the field and academia as a whole.

References


Hooks, bell. From Margin to Center.


Hing, A. (Summer 1999) [Letter from the Editor]. Record 3. 1

INTERNET-BASED INSTRUCTION: CONNECTIONS BETWEEN INTERIOR DESIGN STUDENTS AND PRACTITIONERS

Paper by
Shirlee Singer
Iowa State University

Purpose

Connections between students and practitioner/experts were studied during Internet-based instruction in sustainable design. The course included sensitivity to environmental issues, technical problem solving and interior design. The purpose of the study was:

1. To allow students to discuss the latest sustainable design issues with practitioners/experts;
2. To assess perceptions of the interactions by participants;
3. To determine the benefits of the interactions;
4. To evaluate the connections between participants.

Methodology

Fifteen interior design students registered to take a three credit hour special issues course in sustainable design being taught on the World Wide Web using WebCT software. Practicing interior designers and sustainability experts were selected from various locations of the country to participate in chat room sessions and discussions with the group, and with individual students on sustainable design issues and practice. The teacher/researcher scheduled and coordinated student and practitioner group interactions. Internet-based instruction proved to be especially helpful in providing data for the study through the built in functions of tracking and recording participant activities.

This study uses qualitative research methods relating to the phenomenology of experiences. Grand tour questions (Creswell, 1994), questions in the most general terms, were provided in an E-mail survey to participants using non-directional wording. The non-directional wording provides working guidelines for the study rather than "truths" to be proven (Thomas, 1993, p. 35). Students and experts are free to give their perceptions of the benefits of the interactive sessions.

Works of Husserl, Heidegger, Schuyler, Sartre, and Merlau-Ponty (Nieswiadomy, 1993) provided the methodology for the study. The lived experiences recorded in detail as they happened in the chat room, on bulletin boards, and white boards, provided the qualitative data for analyses. Key categories were identified from the patterns and relationships emerging from the participants interaction data.

Data collection occurred in five ways: participant survey, direct on-line chats, on-line written bulletin boards, on-line graphic white boards, and E-mail. Practicing designers/sustainability experts and students reacted to questions organized in the class framework with narrative statements, outlines, or free-word associations. Data from students recorded by WebCT were designed to be confidential.

During the data analyses the data was organized categorically and chronologically, reviewed repeatedly and continually coded. Open coding allowed categories and topics to emerge from the interactions between the
participants. Axial coding relates assumptions, participant questions, student observations, faculty observations, and practitioner observations. Regular and repeated observations of similar phenomenon and settings occurred on-site over a two month period of time. Verification of the study included triangulation of data, peer evaluation, participant checking and length of the study.

Summary of Results

New assumptions, questions, and paradigms were formed from the data. New topics determined significant by the researcher were categorized for use in the narrative evaluation of the project. Themes common to the subjects' descriptions and interactions were identified, compared, and contrasted in tables. The pros and cons of Internet-based instruction were addressed with its blurring of education and practice, and its promise to provide high quality 21st Century education.

References


'Automatic' Quick Sketching: A Learning Theory-Inspired Teaching Technique to Build Accuracy and Speed

Paper by
Jill Pable, California State University Sacramento

Purpose

The ability to sketch in order to visualize the three-dimensional nature of architecture is a desirable quality in a practicing designer (Diekman & Pile, 1985). The content of the NCIDQ examination confirms the importance of sketching ability for interior designers. It remains, however, that the lack of sketching ability is still the foremost cause of failure of this examination (S. Klinkhamer, personal communication, 1999).

Experts in architectural sketching often complete their drawings while simultaneously engaged in and thinking about other tasks, such as talking or listening to a client. Such characteristics mirror the constructs of automaticity learning theory, which suggests that certain subskills of performance tasks may be practiced to the point of making their completion automatic without burdening short-term memory or consciously thinking about the tasks. Achieving automaticity for a task allows it to be completed quicker, more efficiently and with greater accuracy. Theorists suggest that complex tasks such as drawing may be automatized (Bloom, 1986). Thus, automaticity for sketching may be a worthwhile goal for students.

Methodology

A descriptive study investigated the progression of improvement in sketching accuracy and speed within participants. A course that employed studio exercises designed to promote automatic abilities in sketching was created and classes were conducted at a pre-architecture and an architecture institution.

The dual task method was used to determine if automaticity for sketching was promoted for the study's 21 participants. The primary task was participants' timed creation of a two-point perspective sketch produced from a written set of instructions that specify the function of the architectural space and provide plan and elevation sketches of five objects.

To assess if participants could handle an additional cognitive task while sketching, a second scenario was presented to participants in the same fashion as the first. Two sets of verbal directions were read to the participants as they sketched. These instructions directed them to change their sketches based on two new requirements, such as adding height to a window opening or adding a floor treatment to the scene. Participants were challenged to complete the sketches with their original requirements, then stop their stopwatch. They then added the changes to the sketches to verify their mental grasping of the distracter content. A total of 30 assessments were completed by each participant.

Growth curve analyses were conducted on the participants' achievement scores and completion times to observe the progression of their sketching abilities.

Summary of Results

Gains were usually made in decreased completion times, increased achievement scores, or both. Participants more frequently decreased their completion times than
increased their achievement scores. Interestingly, most participants completed the sketch assessments with the distracter tasks more quickly than the assessments without such distracters.

Given these results, it is suggested that if both sketch accuracy and completion speed are the goal, exercises that include distracter tasks may better keep students focused on quick completion than exercises without distracters. Distracter training may better prepare students to complete the required sketching exercises in the NCIDQ examination than non-distracter training, especially as these sketching exercises are timed.

References


AESTHETICS, FUNCTION, ECONOMICS, MAINTENANCE: DOROTHY DRAPER IDENTIFIES FOUR GOALS FOR MODERN BUILDING OPERATIONS

Paper by
John C. Turpin, Washington State University

Purpose

According to Siegel (1982), nonresidential projects present "special problems" to the designer (p. 97). While texts on the history of the interior design profession allude to a difference between residential and non-residential projects, specifics are rarely presented due to the lack of information regarding the design process of the early interior decorators (Turpin, in press). As a result, the purpose of this study is to strengthen the historic narrative of the development of the interior design profession by analyzing evidence from the archival documents found at Dorothy Draper & Company established in 1935 in New York City.

Methodology

James O'Gorman's (1974) publication, H. H. Richardson and His Office, sets exemplary standards for uncovering information about a specific designer through a critical study of office drawings and writings. O'Gorman states that: "they [the drawings and documents] are priceless...they are the architect's 'professional biography. They record his experience, his development, his aspirations, his failures, and his successes.'" In a 1950 document Dorothy Draper identified four critical factors that would determine the success of modern building operations: aesthetics, function, economical expenditure, and maintenance (Dorothy Draper & Company, 1950). In an attempt to evaluate Draper's success in achieving these goals, a series of letters regarding the Hampshire House (1936), the Greenbrier Resort (1948), and the Mark Hopkins Hotel (1952) will be analyzed for content addressing the aforementioned goals.

Summary of Results

The letters were unanimous in identifying Draper's successful achievement of her goals. First, each of the letters passed on praise regarding the aesthetics of the space. They were proud of their "Dorothy Draper interiors" (H. Manche, personal communication to Dorothy Draper, January 20, 1953). One of the authors even admitted to being "dumb-founded" as to the profound effect her services had on the financial growth of the establishment (H. Smith, personal communication to Dorothy Draper, February 2, 1953). This is a clear indication that the business community was still being educated on the impact the interior design profession could have on the commercial market.

Second, the analysis of the letters indicated a definition of "success" different than that of residential projects. While home décor focused heavily on the aesthetic quality of the finished project, aesthetics and function were perceived as integral parts of a successful design for a commercial commission (Massey, 1990; Pile, 2000). For the businessman wanting a return on his investment, the financial growth of the establishment post-design was crucial to their definition of success. Furthermore, it implied that Draper satisfied both client and end-user.

Finally, Draper revealed the level of her expertise regarding the business aspects of design. Her ability to estimate and maintain
budgets for such large-scale commissions without compromising the success of the project was identified as a critical component of success tied closely to the major concern of finances for her clients (R. Young, personal communication to Dorothy Draper, May 23, 1952).

Conclusions

Draper identified that the criteria for a successful design for a business tycoon were different than that of a high-society matron. Her iconoclastic approach to design was a significant moment for the profession as a new set of circumstances and responsibilities were introduced to the complexity of the design process. As a result, Draper's success aided in the validation and legitimacy of the interior designer's expertise as a professional.

References


INTERIOR DESIGN K-12 CURRICULUM IN THE UNITED STATES

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

Purpose

The purpose of this qualitative study was to assess the amount and type of interior design curriculum available to elementary and secondary education (K-12) teachers in the nation. Primary goals were to assess and gather available interior design curriculum, identify interior design projects for use by elementary and secondary education teachers, and collect examples of curriculum models used by related fields in K-12.

Methodology

Professional experts were used to gather curriculum materials. These included secondary education teachers, higher education family and consumer science professors and teacher specialists, a state administrator of secondary education and community colleges with responsibilities in family and consumer sciences, and publisher representatives. Database resources included Internet web sites, Education Resources Information Center (ERIC), professional organizations for K-12, foundations, museums, and institutes. A framework reported by Marshall-Baker (2000) was used to develop initial key words for the searches needed by this study. In addition, the researcher and a secondary education teacher developed a second set of key words. The words were used individually and in combination with each other. A qualitative methodology, known as content analysis, was used to analyze the findings from this three-month project. Saturation of gathered information began three weeks into the study.

Summary of Results

The findings indicate that there were few developed interior design curriculum materials addressing K-12 specific age groups. If located, interior design curriculum materials were sparse, typically residential in nature, and poorly represented.

Certain avenues are currently available to infuse interior design into K-12 curriculum on a more global basis. National standards, particularly those focusing on visual arts, offer one developed channel of communication. At elementary education levels, interior design projects and activities can be developed to “support”, if not “meet” the national standards. Case studies seem to indicate that K-12 teachers are interested in using design projects to “support” the standards (Clemons, 2000). At secondary education levels, the national standards for Family and Consumer Sciences offers an established channel for infusing interior design curriculum. The School to Work movement is encouraging teachers to introduce interior design as a career in one or two semester courses. The challenge administration and teachers are having is defining the content of the classes.

A national movement of support and leadership in developing interior design K-12 curriculum is needed. Crucial and consistent funding needs to be identified. An agreed upon model for involvement needs to be established.
This study indicates that interior design curriculum at K-12 levels needs to be represented accurately, more often, and in a more comprehensive manner. Appropriate and consistent funding can make that possible. The future of the interior design discipline could be impacted positively by decisions made and actions taken -- now.

References


PERCEPTION OF SENSE OF PLACE AND SENSE OF SELF THROUGH DESIGN OF THE HOME

Paper by
Erin E. Searing, M.A. and Stephanie Clemons, Ph.D.
Colorado State University

Purpose

The purpose of this qualitative phenomenological study was to determine the role the professional residential interior designer played in achieving a sense of place and sense of self as perceived by the client. In acknowledging the symbolism that homes have on the development of personal self, residential designers are challenged to design spaces that reflect the individuals’ or family identity.

Methodology

This study involved personal, in home interviews with ten families in a western state. A purposeful sampling technique was used to identify homeowners as recommended by practicing, professionally accredited, residential interior designers. After interviews were transcribed, grounded theory techniques were used to analyze the collected data. Themes and categories emerged. Verification and authenticity (Creswell, 1998) were established through the researcher’s bias, a reflexive journal, and an audit trail (Lincoln & Guba, 1985).

Summary of Results

Analysis of the findings revealed eleven themes including relationship of sense of place and sense of self, home as a sense of place, symbolism of domestic objects, designer/client relationship, and designer’s role in establishing sense of place and sense of self. Participants indicated that sense of place referred to one’s relationship – a “fitting in” to the environment, a feeling of belonging, space that engenders a feeling of being “at home”. Sense of self was represented through an internalization of one’s identity, likes and dislikes as an individual. Domestic objects in the home defined who the participants were and what their home represented to them.

From the client’s perception, objects in their homes acted as a communication device about themselves to others. It was through association with these objects that they defined their identity and perhaps, how they fit into society. Environments have a strong impact on the development of individual identities and feelings of security. Appropriate design of a home, that supports the client’s sense of self, helps to establish a stronger identity and relationship to their most significant surrounding environment, the home.

This study revealed that clients perceive professional designers to be effective in assisting in the development of sense of place and sense of self in their homes. Educators can help students in understanding the significance of quality solutions in residential design and the symbols intrinsic to such a personal environment. Practitioners must be conscious of their own personal preferences to avoid imposing them inadvertently upon clients (Boscetti, 1987). In understanding the symbolism homes reveal in the development of personal self, residential designers are challenged to create interiors that provide the homeowner with self-identity that attains a sense of place and sense of self (Kucko, 1998).

References


ASSESSING THE SERVICE LIFE CYCLE COSTS OF INTERIOR MATERIALS THROUGH COLLABORATION

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

Purpose

Florida’s school officials are committed to build cost effective and sustainable school facilities. Sustainable design and construction require, among other things, a life cycle cost assessment of building materials. However, the tight schedule of designing, developing, and managing educational facilities, limits the time and expenses to correctly assess the full cost of building materials. As a result, the selection of interior materials is driven by manufacturers’ information, personal experience, or solely by the products’ initial cost (Drummond et al., 1999). In order to address sustainability in a practical manner, Florida’s school officials are particularly interested in the “product use” phase of the AIA (1999) guidelines for a Life Cycle Assessment (LCA) because it refers directly to costs incurred during the life span of buildings. This paper describes a collaborative research method used to expand an otherwise limited Service Life Cycle Cost (SLCC) evaluation of interior materials for Florida’s educational facilities.

Methodology

According to the AIA Environmental Resource Guide (1999), an LCA of building materials should examine materials’ costs from “cradle-to-grave”. LCA covers raw material acquisition, product manufacture, product use, product recycling, reuse, and disposal. An SLCC is a partial assessment of building materials’ life cycle costs evaluation (Kirk & Dell’Isola, 1995). It compares costs of different material alternatives over the serviceable or useful life span of a facility.

The research for this SLCC assessment used a collaborative method that involved a wide range of community representatives and academic scholars with different expertise: architecture, interior design, building construction, and civil engineering. The method differs from the AIA guidelines in the following aspects: 1) it addresses only the “product use” phase of a building life cycle; 2) it expands the understanding of the “product use” phase by adding the input of the community involved in the decision making process; 3) it combines user’s behavior observation data with published information regarding interior materials. Thus, the resulting SLCC evaluation is an in-depth investigation of “product use” costs and is only a partial life cycle cost assessment, since it doesn’t take into account global environmental impacts or the costs of disposing and/or recycling materials.

Summary of Results

A preliminary survey showed that state officials and facility managers were mainly concerned with the durability of interior materials while designers and users were concerned with performance issues, such as the acoustic, visual, and respiratory comfort of students and teachers. Therefore, researchers concluded that the SLCC evaluation should include qualitative factors and quantified costs - such as regular custodial maintenance - not commonly assessed for renovation and new construction of K-12 educational facilities. The SLCC analysis found that most building costs are incurred after the initial capital expenditure for construction. This indicates that the selection of materials based solely on low initial cost often result in service life costs that exceed the cost benefit of the initial
purchase. The collaborative method produced a decision making tool that supports making unbiased judgments about interior materials and provides evidence that less expensive interior building materials might cost more over time.

References


LIGHTING PREFERENCES OF FEMALE SHOPPERS ON WOMEN’S APPAREL SPECIALTY STORE MERCHANDISE DISPLAYS

Paper by
G. Marie Gentry, Ph.D., University of Arkansas
Karrie Ann Lindsey-Arze, M.S., Randall R. Russ, Ph.D. and Shelley Harp, Ph.D., Texas Tech University

Purpose
Retail store lighting serves many purposes for both the consumer and the storeowner or manager. Perhaps the most important purpose of lighting is to attract the customer’s attention to the merchandise being displayed. Accent lighting is used to add visual impact to displays and to compel the customer’s attention (Illuminating Engineering Society, 1991). What type of accent lighting will be most appropriate to meet the expectations of the quality shopper who is concerned with store atmosphere (Steenkamp & Wedel, 1991)? The answer is whatever makes the merchandise most appealing to the customer. Therefore, the principal purpose of this research was to investigate what type of light source will most enhance the visual appeal of apparel merchandise from a women’s specialty retail store.

Another issue that has become important for retailers is that of energy efficiency. Large amounts of money are invested in retail lighting systems each year, making it imperative that lighting costs produce a return on investment. Therefore, long term planning dictates that designers be aware of energy use when designing store lighting. The light sources in this study were selected with this in mind. Consequently, will alternative, energy efficient sources be acceptable to retail customers?

Methodology
The experimental design used in this study was a one shot design in which the lighting was manipulated in three merchandise displays. The sample of 244 was drawn from the female faculty and staff (N=2061) of a major university. The sample was asked to view three merchandise displays that were identical except for the accent lighting.

Adjustable accent lights were suspended from ceiling mounted tracks. The accent lighting fixtures used three different lamps: (a) an 18 watt compact fluorescent lamp, (b) a 70 watt metal halide lamp, and (c) a 75 watt MR-16. The lamps had similar color temperatures and high CRIIs. The displays were viewed at the same time so that participants could make appropriate comparisons. Participants viewed the displays in groups of no more than eight.

Subjects evaluated each display using twenty bi-polar adjectives. The questionnaire was designed to measure appeal of merchandise displays.

A global test was performed using the standard Likelihood Ratio Test (LRT) for comparing the three light sources. Since the global test identified a significant difference among preferences for the three light sources, subsequent analyses using a MANOVA test identified specific aspects that elicited significant group differences.

Summary of Results
This study was successful in identifying a viable alternative to the standard tungsten lamp used in merchandising displays. There was no significant difference in the overall

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preferences for the garments illuminated by the tungsten halogen and the metal halide lamps. The important implication for retailers is that the metal halide lamp has a higher efficacy, lower operating cost, and a longer life than the tungsten halogen, making it a more efficient alternative.

References


THE MIDDLE EAST: UNACKNOWLEDGED SOURCE OF THE GOTHIC STYLE

Paper by
Theodore Drab, Oklahoma State University

Purpose

Investigation of historiography dealing with medieval Europe reveals significant variation in the acknowledgement of Middle Eastern influences on the architectural style that would, in the Renaissance, be pejoratively termed “Gothic”. Art, architecture and interior design survey texts ignore or minimize the impact of the East, while historians outside these specialties provide information that point to the Middle East as the source of design elements typically associated with the style. The re-evaluation of external influences on European design in one style’s genesis will motivate educators and students to question the validity of Euro-centric analyses relative to every style’s development.

Process

This paper examines standard design history texts’ treatments of Middle Eastern contributions, and compares them to findings of scholars specializing in medieval and Islamic history. Since “it is no longer possible to imagine a valid historical narrative constructed from a single point of view” (Beecher, 1998), a variety of accounts of the Gothic style’s development are addressed, representing historians of various specialties and nationalities.

Interior Design Histories. Whiton (1974) and Blakemore (1997) make scant reference to the impact of the Crusades on the development of the Gothic style. The former text treats “Islamic Arts” as part of a chapter entitled “Miscellaneous Design Arts”, while the latter uses the word “Muslim” once in the chapter covering the Middle ages. European invention of the style’s elements is an assumption promoted by both authors.

Architecture Histories. Most of the texts reviewed assert that the pointed arch was not a European invention. Hamlin (1953) states that it was “probably borrowed from Moslem prototypes, while Gloag (1969) qualifies that it had been dormant – its latent possibilities unappreciated, until a new experimental spirit in architectural design” in Europe brought it to full fruition (p. 144). Yarwood (1987) credits Islam with the development of the pointed arch, as well, but qualifies that “it was employed without comprehension of its constructional possibilities” (p.57). Kostof (1985) essentializes Islam as a single, static culture (Pyla, 1999). Middle Eastern contributions are acknowledged, but their significance to Western design is downplayed. Medievalists and Orientalists. Specialists like Jairazbhoy (1972), Watt (1977) and Tronzo (1997) offer detailed evidence and convincing arguments for revising our estimations of Eastern contributions. Their research confirms European acknowledgement during the medieval period of its debt to the Middle East. Significant elements like the pointed arch, the ribbed vault, and stained glass were masterfully employed in the
Middle East centuries before their introduction to Europe. That introduction, according to Tronzo and others, was in Sicily, decades before Vezelay or St. Denis.

Summary of Results

Interior design history survey texts fail to provide students an accurate and complete treatment of the Gothic style. Information long available in architecture history texts has been disregarded, as have been the findings of specialized scholars, and an oversimplified version of the facts presented. Recognizing this situation is the first step in rectifying the inaccuracies, toward promoting a fuller understanding and appreciation of every culture’s contribution to the built environment and to humankind.

References


THE PUBLIC'S OPINION OF ARCHITECTURE, INTERIOR DECORATION, AND INTERIOR DESIGN

Paper by
Caren S. Martin, Ph.D., Denise A. Guerin, Ph.D., and Delores A. Gintiner, M.A.
University of Minnesota

Purpose

The purpose of this exploratory study was to identify the public’s opinion of architecture, interior decoration, and interior design, and determine how these opinions were influenced. A focus of this investigation was to determine if the public considers any of these practices to be professions; thereby creating a perception of influence. Additionally, was not known to what degree the public believes that these titles identify professionals, unlike the certainty with which they identify such titles as “doctor” or “lawyer” (Author to be identified, 1999). This analysis also documented the public’s opinion about the practitioners’ representative tasks, responsibilities, qualifications, and characters.

Public opinion theory served as the basis of this study. Schoenbach and Becker (1995) define “opinion” from a public opinion survey perspective, as an internal “attitude” or “belief” that addresses an object. Abbott (1988) says that practices attain and maintain professional status through a combination of internally controlled actions and management of external influences, socioeconomic conditions, and public audiences.

In this study, the influence and interaction of four theoretical constructs were examined: attitude, belief, personal identity (demographics), and interpersonal communication (knowing a practitioner). Variables were measured to determine their influences on the public’s opinion of the three practices. Two external forces, mass-mediated communication and societal socioeconomic conditions, as constants were not measured (Price & Oshagan, 1995).

The study was focused on testing three hypotheses: (1) the public’s internally held beliefs regarding architecture, interior decoration, and interior design are influenced by personal identity and interpersonal communication, (2) the public’s internally held attitudes regarding architecture, interior decoration, and interior design are influenced by personal identity and interpersonal communication, and (3) the public’s internally held beliefs and attitudes regarding architecture, interior decoration, and interior design are influenced by the interaction between the variables.

Method

A study population of 1,500 adult residents that received a self-administered mailed questionnaire in the fall of 1996 was selected by using multi-stage cluster sampling to achieve a geographically representative sample. Response rate was 26.6% (400 questionnaires) from this national survey. Due to the exploratory nature of the study, it incorporated several types of questions, and numerous statistical analyses of multiple independent and dependent variables. In some instances, both Likert-type and Osgood’s Semantic Differential measurement techniques were used (Isaac & Michael, 1971).

Summary of Results

Hypotheses one and three were supported by the findings, however, hypothesis two was not supported. In general, the study does consider
architects and interior designers to be professionals, but not to the degree they do doctors. As illustrated by their beliefs and attitudes, the public is not sure what role practitioners play in terms of their responsibilities or qualifications. Also, knowing a practitioner was found to be a both positive and negative influence on their beliefs about the practitioners.

The study’s identification of the public’s opinions and their origin will provide the design practices a focus for reeducating the public. This could increase the practitioners’ access to the design of the built environment and thereby promote sustainability and quality of life.

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FLORAL PATTERN PREFERENCES OF ASSISTED LIVING RESIDENTS: ENHANCING INTERIOR ENVIRONMENTS THROUGH TEXTILES WITH NATURAL MOTIFS

Paper by
Susan Zavotka, Susan Borgers and Nancy Rudd
The Ohio State University

Purpose

As our aging population continues to grow, so too will the expected number of elderly persons moving into congregate housing such as assisted living facilities (National Resource and Policy Center on Housing and Long Term Care, 1998). The ease of adaptation for those persons will be dependent upon a variety of factors such as individual competencies, environmental press, and personality type (Lawton, 1982; Lawton & Nahemow, 1973; Fogel, 1992). This paper is based on the theoretical framework that nature can play a major role in environmental adaptation by providing opportunities for relaxation and reflection (Kaplan, 1995; Kaplan, Kaplan & Wendt, 1972). Such opportunities do not have to be limited to the outdoor environment. In fact, assisted living residents with limited mobility can benefit from natural motifs incorporated throughout interior decors. The purpose of this study was to determine floral pattern preferences of older adults residing in assisted living facilities. Since many older adults are unable to participate in outdoor activities, it was hypothesized that textiles (in the form of draperies) could create a garden-like atmosphere for the benefit of those confined to interior spaces.

Methodology

Ninety residents from ten assisted living facilities participated in a four-part personal interview survey. Part one obtained demographic information, part two solicited information about current and/or former gardening interests, part three focused on floral pattern preferences, and part four identified overall favorite pattern preferences. Three display boards were used for parts three and four of the survey. Each board contained three black and white images illustrating three floral pattern types (realistic, stylized, and abstract) with varying degrees of coverage. Black and white images were used to ensure that pattern preferences were not influenced by color. Preferences by pattern type, pattern coverage, overall favorite pattern, and descriptive words were recorded. Data were analyzed using descriptive statistics.

Summary of Results

The survey results revealed that over 57 percent of the residents preferred realistic floral patterns in comparison to stylized (37.8 percent) or abstract (4.4 percent). The residents in this study identified specific feelings such as relaxation, refreshment, and harmony with certain floral patterned textiles. This alone suggests that the older adults surveyed possess an appreciation of nature. More importantly, textiles in the form of floral patterned draperies may facilitate environmental adaptation for residents experiencing physical or psychological frustrations. From an interior design perspective, incorporating realistic floral patterns throughout the social spaces of assisted living facilities would most likely appeal to a greater number of residents. However, interior designers should also
include stylized patterns in perhaps smaller social spaces in order to satisfy a broader range of pattern preferences among residents.

References


Presentations
Interest and Improving Learning

Presentation by
John Weigand and Sara Butler
Miami University

Purpose

The intent of this presentation is to discuss the merits of using hands-on construction exercises in the Interior Design Materials classroom and to suggest that perceived hindrances to this approach including time, expertise, cost, and lack of facilities and equipment need not limit its use. The framework for this argument is an experimental materials course which incorporates hands-on, active learning. This presentation evaluates active learning against course objectives using student and instructor assessment, and suggests that it is both a viable and achievable teaching strategy in the materials classroom. Further, the evolution of this course and its active learning component over a three-year period is highlighted.

Methodology

Current research and educational theory support the value of active, hands-on learning in the classroom, even though this technique is infrequently used in the teaching of interior materials. Alfie Kohn argues that, traditional education assumes a separation between knowing and doing, with the result that students at best just acquire algorithms, routines, and decontextualized definitions that they cannot use and that, therefore, lie inert. Off you want to learn how to play the piano, you've got to play the piano.1

Hands-on active learning is a key component of an Interior Materials class that was fundamentally redesigned in 1995. A central project involves the construction of full-scale walls by teams of 4-5 students over roughly a half-semester period. Student teams construct their walls based on drawings provided by the instructors, ensuring that students make a strong connection between actual materials and processes used in their wall and the drawings needed to communicate the design of their wall. Each wall is complex, involving non-conventional geometries and details, door and window openings, and a variety of finish treatments. Each is different from the other. Students are also asked to explore new possibilities for their wall, so that an appropriate balance is struck between facilitating an understanding of conventional construction materials and assemblies and facilitating an understanding of the designer's responsibility to use these materials in new and unconventional ways. If we only teach students to replicate design standards, we divorce the understanding of interior materials from the creative process. Students also learn about materials as they perform in combination with--rather than in isolation from--other materials. Importantly, the different phases of construction parallel in-class lectures. Advantages and disadvantages of various materials and systems (ease of construction, code compliance, cost, etc.) are discussed in class at the same time as students are working with the actual materials. Several perceived limitations to this type of hands-on learning in the materials classroom are challenged. The experience is evaluated against learning objectives for the course via several assessment methods.
Summary

Project and course assessment indicate overwhelming support of the hands-on project as an informative and enjoyable way to learn about interior materials and a process of creative discovery, integration, and collaboration.

References


Proceeds of the Interior Design Educators Council International Conference (85).


Cognition and Connection in Spaces for Children with Asperger's Syndrome

Presentation by
Katharine E. Leigh, Mary Beth Robinson and Erin Friar
The University of Oklahoma

Purpose

Two aspects of Asperger's affect physical interface with the learning environment: visual thinking and sensory sensitivity. These children and adults demonstrated the use of mental picturing through the translation of action(s) into sequential pictures to serve as mental reminders. Designers of the built environment also picture space. How can this visualization of the built environment be explored through the eyes and minds of children and adults with Asperger's Syndrome to study the ways in which these individuals perceive their surroundings and picture it in terms of visual imagery and the physical interface of the individual as affected by light, noise and visual clutter? How can children with Asperger's, who require socialization opportunities filter out environmental interferences impairing their ability to function in the classroom? How can their environment surround them with positive sensory interaction? This research investigates the environmental interface required for individuals with Asperger's to succeed specifically in the learning environment through the application and integration of environmental controls within a learning pod.

Methodology

Visual Thinking and Sensory Sensitivity. The mind of the individual with Asperger's constructs visual images or pictures in order to recall abstract ideas and trigger auditory information. In this manner, these individuals approach ordering of their surroundings, events and activities in a manner similar to designers of the built environment through the construction of mental images. Access to visual prompts through electronic imaging can encourage visualization and alternative strategizing. Auditory, tactile and visual sensitivity require controls that can be tuned to the individual. Access to music, acoustical and light control and camouflage can reduce auditory and visual stimulation. Periodic vibration or massage can provide tactile sensitivity especially if coupled with appropriate surface textures. Using a profile of Asperger's dimensions derived from research by Atwood and others focusing on autism and Asperger's, the elements of a learning pod based upon current workplace strategies is constructed to fit the tasks at hand.

Hart (1993) outlines methods for successfully integrating teaching theory with technique. These methods provide the framework for the design dimensions necessary for a conceptual framework to support the learning module. Students also require opportunities to communicate and therefore the pods may be linked or joined in different configurations.

Summary of Results

Using conceptual dimensions, the design team developed the Mo-TEL, an interactive pod similar to the pieces of a puzzle that are separate but can be combined into a learning site, with immense physical and non-place specific flexibility. The Mo (mobile) TEL (total environmental link) is comprised of units that combine technology in order to view and hear audio and videocassettes, access the Internet, access coping imagery and increase communication networking. The Mo-TEL is
a place for learning aids and tools that promote re-organization after use and supports organizing and integrating information more readily, enhancing social understanding, social skills, social flexibility and self-control.

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ACADEMIC EXCELLENCE CONNECTS TO OUTCOME ASSESSMENT

Presentation by
Judith Matthews, Ph.D.
Sharran Parkinson, Ph.D.
Ohio University

Purpose

The purpose of this presentation will be to describe an assessment plan for an interior design program located in a university setting. The end of program outcome objectives and internal and external measures will be presented and discussed. The program was designed and implemented when the university president requested that all academic programs utilize an outcome assessment plan to assure academic excellence.

Methodology

The first step in the assessment plan process was to identify the end of program objectives. Faculty in the school discussed and determined that the following end of program outcome objectives would be necessary for graduates:

1. Students will develop a knowledge base and the ability to acquire information in their specific program area.

2. Students will demonstrate the ability to communicate effectively using, oral, written, and graphic and technological methods.

3. Students will synthesize creative and conceptual solutions to problems utilizing the knowledge base acquired in interior design.

4. Students will develop professional attitudes and behaviors including the attitude of lifelong learning and advocacy for both the professions and clients.

5. Students will develop an ability to evaluate programs and client needs and demonstrate an evaluative attitude toward their experiences both classroom and experiential.

The above outcome objectives were reviewed by advisory board members at the annual board meeting. After this review, the objectives were formally accepted; then, internal and external assessment measures were identified and employed to assess how well each of the above objectives should be met.

Summary of Results

The 4 major areas of external outcome assessment measures include the advice and expertise of the advisory board, alumni surveys used as measures to assess end of program outcome objectives; internship preceptor evaluations allowing an external review from a participating design professional; and accreditation by the Foundation for Interior Design Education Research.

Internal assessment measures include 3 stages of portfolio reviews throughout the curriculum. Portfolio reviews facilitates positive proof of knowledge base outcomes through student self-assessment and faculty assessment of students work. Another internal assessment is the students mastery of course objectives utilizing exams, case studies, scholarly papers, oral presentations, faculty evaluations, and self-evaluations.

In conclusion, all of these areas of external and internal assessment have helped the
interior design program to develop and implement successful strategies for improvement; thus meeting the program's end of program outcome objectives as shown above. This presentation will encourage discussion, provide to the audience the outcome assessment evaluation tools (e.g., survey instruments, evaluation forms), and provide discussion as to how to implement outcome assessment in an interior design program.
CONNECTING PARADIGMS FOR CULTURE-BASED ISSUES IN INTERIOR DESIGN STUDIOS

Presentation by
Abimbola O. Asoko, IDEC, Associate AIA
The University of Oklahoma

Purpose

Design like every other field is influenced by political, economic, cultural and social forces. However, current design education is dominated by Eurocentric cultures, thus, ignoring non-western cultures. The author presents a model for integrating culture-based issues in creative thinking and problem solving using studio-based examples, which permit exploration of diversity using inclusion, contribution and transformational pedagogical approaches.

Process

Grant (1991) notes the creative innovations of non-western cultures have often been suppressed and excluded from design education to avoid multiple contexts that may lead to contradiction. The 1990 United States Census indicates ethnic minorities make up 20% of the population. This represents an 8.6% and 7.5% increase from the United States population statistics of 1960 and 1970 respectively (United States Bureau of the Census). These trends suggest the need to respond to our multicultural environments in design. Null (1999) suggests "the new focus will require designers who have sensitivity to and an understanding of diverse cultures; design schools must prepare students for the global environment and workplace of the future". The question posed to the designer is how cultural heritage is reflected in the design of the built environment? These questions can only be answered by introducing more insight into non-western cultures in design curriculums. Two studio-based examples will illustrate the inclusion, contribution and transformational pedagogical approaches of introducing students to alternative design theories, which explore diversity. In the first example, students integrate culture-based design issues in the design of large-scale commercial spaces. The second example is from architecture design and human factors, a second year studio course, where interior design students explore the relationship between architecture and interiors. Using the inclusion and contribution approaches, students are presented precedents from non-western environments in order to determine the relationship of cultural elements to new building types, and important issues that may inform design. In the transformational approach, non-western precedents are used as a basis for discussing design elements and principles. In both projects, research included an examination of traditional and contemporary environments through case studies to determine the interface of culture and the physical environment.

Summary of Results

- Students found culture-based design issues a significant element of their future work environments;
- Student examined contemporary environments and found that practitioners integrate culture-based issues in design;
- Culture-based design projects increased the interaction and socialization among students of
different cultural backgrounds in the studio;

- Culturally sensitive design integrated people with their surroundings rather accessorize an environment with cultural objects;

- Students' creativity was enhanced by studying non-western cultures affecting their perception of "the other"; and;

- Students emphasized the similarities between cultures thus reinforcing the importance of diverse cultural perspectives in design.

References


CONNECTIONS: MULTIPLE CHEMICAL SENSITIVITY AND INTERIOR DESIGN EDUCATION

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

Purpose

Multiple chemical sensitivity (MCS) involves an increased sensitivity to many chemicals--petrochemicals and their derivatives--encountered daily (Bower, 1997). People with MCS react to these chemicals and become increasingly ill. In the last several years, there has been a greater awareness of the effect of indoor air quality on MCS individuals. Most interior designers are aware of MCS; however, after working in the design field for several years, habits are hard to change. To solve this problem, we must teach students about MCS and environment affects on MCS individuals. Students will set precedence.

Review of Literature

Our homes should be a respite from the daily routine, but for many individuals, it has become potentially dangerous for various reasons--three are related to indoor air quality for MCS individuals. 1) We spend more time indoors, 2) we have man-made products that emit chemicals into the air within our built environment, and 3) our buildings are constructed to be airtight in order to conserve energy. Our energy tight houses do not allow gasses emitted from products to escape. Chemical sensitivity is increasing because of the number of chemicals within our environment. Since we spend the greatest amount of time indoors, chemicals within the built environment have caused the increase in chemical sensitivity (EPA, 1993, Pilatowicz, 1995).

MCS individuals experience a synergism of chemical build up. The combined action of chemicals is greater than sum of the individual action of chemicals. One chemical mixing with another chemical creates a volatile reaction within the body (Bower, 1993). With the increased use of chemicals in manufacturing products for our built environments, many individuals have developed MCS. These individuals need a safe home environment--free of chemicals.

Methodology

Individuals with MCS were interviewed for this study. The participants range in age from 24 to 72 (16 to 36 at the time of exposure), and live in the Upper Midwest. Similarities between literature research and collected data were found: symptoms, diagnosis, causes, attitudes, and solutions.

From this study, a teaching method using the Interior Ecosystem Model (Guerin, 1992) and MCS matrices were developed. The teaching method and MCS matrices focus on aspects of the natural (NE), behavioral (BHE), and built environment (BTE). The matrices examine aspects of MCS--symptoms, progression of the illness, interior products, interior environment, and housing. First, students learn about symptoms and the synergistic affect of chemicals. Second, they learn about the relationship between volatile chemicals and MCS symptoms. Third, students will learn the interior products that contain pollutants (Anderson & Benoist, 1994; EPA, 1991). Fourth, students will learn about the appropriate environment and to compare housing types. These matrices will aid in the instruction of MCS through the Interior Ecosystems Model.
Summary of Results

The teaching method will aid instructors in educating interior design students so that they will understand the indoor air pollution problems faced by MCS individuals. Then, students will understand the importance of good indoor air quality in creating designs that are environmentally safe for MCS individuals.

References


DESIGN PSYCHOLOGY IN THE FURNITURE DESIGN STUDIO: CONNECTING NEW APPROACHES TO CONCEPT-BASED DESIGN

Presentation by
Mary Beth Robinson, M.S., The University of Oklahoma
Constance R. Forrest, Psy. D., ForrestPainter Design

Purpose

Design Psychology is the practice of architecture, interior and landscape design in which psychology is used as the principal design tool. This presentation explores the use of Design Psychology in the process of designing furniture.

Using Design Psychology in the design process gives students the opportunity to analyze their connections with compelling environmental experiences, and use these experiences to develop a project concept. Using a Design Psychology approach, the client's personal perception of the built environment essentially becomes the concept.

Methodology

The author(s) assigned third year interior design and architecture students a chair design project. The students themselves became the "client" and engaged in peer exchange to assist in the analysis of the information derived from design psychology exercises. The concept squares exercise (Leigh, 2000) was incorporated in the process as a bridge to link the initial design analysis data with the final chair concept -- a "springboard" for exploring significant chair forms.

Using a method developed by Forrest, a Design Analysis was administered in two parts, consisting of the Design Psychology exercises in Part I and the analysis and integration of the responses to the exercises in Part II. Part I involved three interview and assessment exercises: Israel's "Environmental Timeline and Mental Map", and Forrest's "Favorite Place" and "Five Objects Inventory."

Part II of the Design Analysis focused on the students' current living spaces. The students integrated the information in Part I by writing a brief essay exploring symbolism, past influences, and the relationship of past environmental experiences to the design choices they have made in their current living spaces. Students used the information from the analysis and integration to discern specific design elements of light, color, texture, sound, and arrangement of space to create a "design prescription" (Forrest, 1997) for changes in these spaces to make them more consistent and congruent with the psychological profile of themselves they had developed in the design analysis.

Peer exchange was used to help students analyze their personal essays. To aid students in the translation of the design analysis into a design concept, or "prescription", the author(s) used Leigh's word analogy and concept square exercises. Students developed a list of keywords, or word analogies that formed the basis for the concept squares.

Once the personal dimensions revealed through the word analogies were expressed in the two-dimensional graphic of the concept square, students began to quickly explore significant chair forms through sketching and
study models. Students wrote a design concept statement that reflected the relationship between the compelling data from the design psychology exercises, the word analogies, concept squares, and the ultimate design of the chair.

Summary of Results

Incorporating a Design Psychology approach to concept development in furniture design revealed an ability in students to distinguish between the established, expected design approach and a more authentic, original, and unexpected design approach. Moreover, the significant reflection required early in the design process resulted in rapid decision-making about design elements, and pointed students in directions they would not have anticipated without the design psychology techniques.

References


Forrest, Constance; Israel, Toby; Painter, Susan; and Subotincic, Natalija. Design Psychology: A Clinical Approach to the Person/Environment Relationship. Symposium, American Psychological Association, Boston, 1999.


PRACTICAL THEORY APPLICATION FOR DESIGN SOLUTIONS

Presentation by
Jennifer D. Webb, Ph.D., University of Arkansas, Fayetteville
Lynne Richards, Ph.D., Oklahoma State University
Margaret J. Weber, Ph.D., Oklahoma State University

Purpose

The purpose of this presentation is to illustrate the application of theory to design solutions. Theory is often discussed in class at the graduate and undergraduate level yet it is seldom carried into the design studio. Theory establishes a "cause and effect relationship between variables" (Best & Kahn, 1986). The theory can then be modeled and subsequent prepositional chaining (Reynolds, 1971) can relate specific portions of the theory to the design solution. This process will be applied to the design of a senior living environment; drawings of solutions will be presented.

Theoretical Framework and Process

The frameworks implemented for the creation of an assisted care living facility include environmental press theory (Lawton and Nahemow, 1973), continuity theory (Atchely, 1989), ecological theory (Altman & Chesner, 1989), and self-presentation theory (Goffman, 1959). Each of these theories addresses behaviors of human beings in the context of the proximate natural, built, and social environments. Environmental press theory examines the fit between the individual and the proximate environment; environmental demands and therefore design decisions may encourage the use of skills and behaviors which might otherwise atrophy. Continuity theory addresses the individual's need to maintain external and internal structures throughout the life span. Inherent to continuity are remembered experiences and skills and familiar people, environments, and infrastructures. Ecological theory provides a holistic framework for understanding the interrelationship between the natural environment, world views, behaviors, environmental cognition and environmental outcomes. Self-presentation theory provides a structure to understand the individual's public and private performances and the ways in which he or she manipulates the proximate environment to achieve the desired performance. Each theory will be discussed briefly and the concepts utilized in creating a design solution will be summarized.

During the problem solving process, theories from environmental design, aging, and psychosocial disciplines were reviewed and the four noted above were selected for implementation. Each theory was carefully read and diagrammed using theoretical modeling techniques. The model then guided the generation of prepositional chains tracing the relationship between variables. In the final step, the prepositional chains were used to generate components of the design solution.

An example of propositional chaining using Atchley's continuity theory is written: (1) If internal continuity is maintained by remembering experiences, then reminders of those experiences will facilitate continuity. (2) If reminders of experiences facilitate internal continuity, then display of mementos will be important. (3) Design elements to include: personal display area for photos, awards, mementos, public display of events in community's history, selection of art to include local geographical features and built landmarks.
Summary of Results

The components generated from the described process were synthesized into a final design solution. These theories offer ways for designers and researchers to process and organize knowledge about the environment and to create more comprehensive design solutions for people. Theory application provides a way to address the design in a holistic method addressing physical and psychosocial needs along with the natural environment and community structure. This technique can benefit students and professionals alike in complex problem solving.

Selected References


PROGRAMMING SPACE PROGRAMMING

Presentation by
Thomas L. Houser, The University of Georgia

Issues

Few designers refute benefits reaped by graphic space programming. They recognize the value of information gleaned from analytical tools such as matrices, adjacency diagrams, and allocation charts. Yet many move away from graphic programming to preserve project time.

The first challenge accepted here was identifying space programming graphics suited for computer-aided design. The second was responding to how designers intuitively generated these graphics. The third was customizing CAD software and writing new commands for graphic programming—in other words, programming space programming.

Process

Identifying Challenges and Setting Goals. Five basic challenges existed:
1. Identifying which programming tools lend themselves to CAD;
2. Determining appropriateness on various project types;
3. Evaluating ease of editing during interactive project meetings;
4. Facilitating presentation of programming graphics; and
5. Creating seamless software and user interfaces with the basic CAD program

Graphics Selected. Interaction matrices, plan prototypes, adjacency diagrams, and allocation charts were selected. Virtually every space programming textbook references these types of graphics. They also appear more compatible with CAD drawing and editing techniques than with conventional drafting practices. Finally, all seem appropriate for diverse project scenarios.

CAD Alternatives to Conventional Techniques. Software customization and programming tools employed include macros, new commands, dialog boxes, and symbol libraries. Students access these through pull-down menus, toolbars, image selection boxes, or command line entries. All new tools look and feel like the base CAD program. Examples follow.

Students create interaction matrices with image menus, macros, and new commands. The software draws the matrix, adds note columns, and positions annotations appropriately.

Numerous furniture libraries house blocks with industry-standard clearances. Students configure prototype room layouts by snapping blocks together. Next, they pick two perimeter points. The software computes the area, rounds it to the nearest 10 or 25 feet, draws an allocation shape, and adds information to the programming database.

Allocation charts are computer-based equivalents to Pena’s “brown paper.” Students choose square, circular, rounded, or rectangular shapes. Each represents a space with a given square footage. Rectangular proportions are based on building bay widths or the Golden Mean. Repeated spaces may be positioned in rows, columns, or clusters. The software automatically draws, aligns, and labels each shape. With one click, data is extracted for spreadsheet analysis.

Adjacency diagram options include shapes listed above, plus diamonds and ellipses.
Students represent strengths of relationships with macros requiring three mouse clicks. Graphic enhancements include symbols for entrances, views, and daylight. Custom line types reflect buffers, barriers, and circulation.

**Presenting Programming Graphics.** Students plot graphics at larger scales for programming critiques and at smaller ones for written reports. They present and edit graphics during dynamic digital sessions. Students frequently bind final graphics with portfolio drawings.

**Summary of Results**

Faculty note students edit computer graphics more than those drawn by hand. They appreciate having programming graphics in student portfolios.

Students report the software facilitates program evaluations. With computer-based techniques, they more often describe programming graphics as “thinking tools,” than as “presentation drawings.” They also appreciate how efficiently allocation charts lead to conceptual plans.

**References**


WHAT IS HOMELIKE? CONSUMERS ASSESS ASSISTED LIVING BUILDINGS

Presentation by
John P. Marsden, Ph.D., Auburn University

Purpose

Assisted living, a relatively new form of specialized housing for mentally and physically frail older persons, has been promoted as a residential or homelike alternative to traditional long-term care. However, few have actually studied whether consumers perceive assisted living buildings as homelike. The purpose of this submission is to present a study that examined whether the interior common areas of assisted living buildings are perceived as homelike by older persons and family members who could be involved in the relocation decision making process. The study also explored physical features that contribute to homelike character.

The study is relevant for several reasons. Assisted living, estimated to be a $24-30 billion industry in the year 2000, is one of the fastest growing industries in the United States. (Assisted Living Federation of America, 1998). This is partly because the number of persons aged 85 years and older increased 39.3% in the last decade (Assisted Living Federation of America, 1998), and those over the age of 100 include the fastest growing segment of our population (United States Senate Special Committee on Aging, 1991). With advancing age, there is a greater likelihood of impairments that necessitate specialized housing. A number of gerontologists have also stressed the need for homelike character in long-term care settings (Brawley, 1997; Calkins, 1994; Cohen and Weisman, 1991, Pastalan, 1990), but only a few have examined homeyness in relation to assisted living buildings (Brummett, 1994; Marsden and Kaplan, 1999; Regnier, 1994). Even fewer have investigated homelike character in relation to assisted living interiors from the users’ perspective (Teaford and Zavotka, 1997).

Methodology

The study was based on photographs of twenty-five existing assisted living buildings located in Alabama. All facilities were constructed between 1992 and 2000 and included fewer than 100 units but more than 30 units. Scenes typically focused on interior entryways, common living rooms, or common dining rooms. Two groups of participants from Alabama were included in the study: (a) 100 older adults living in retirement housing and (b) 100 family members between the ages of 40 and 64 with an aging relative who was living in or might be a candidate for senior housing in the future. A face-to-face interview format was used. Participants were asked to evaluate 18 common living rooms, 18 common dining rooms, and 14 entries in terms of homelike character. Responses were structured through sorting tasks for each interior space. In addition, participants were asked, in an open-ended format, to articulate their judgments.

Summary of Results

Several analytic approaches, using both the numeric ratings from the sorting tasks and the open-ended responses, were executed to discover underlying perceptions for both groups of participants. Findings suggest that different types of seating arrangements, light fixtures, ceiling heights and shapes, as well as the scale of rooms, views to the outdoors, the presence or absence of items that provide opportunities for activities (e.g. piano, bookcases), light colors, comfortable furniture,
and accessibility contribute to a sense of homelike character in assisted living.

References

MAKING CONNECTIONS BETWEEN VIRTUAL REALITY AND THE DESIGN PROCESS: A MEDIA AND LANGUAGE FOR PRESENTING INTERIORS IN FOUR DIMENSIONS

Presentation by
David Matthews, M Architecture, Ohio University

Purpose

This presentation seeks to explore the unique relationship between film and virtual reality to reveal qualities of time as an element of interior design. As part of this exploration, it is the objective of the author to propose a language of "time" that is common to virtual reality and interior design. By communicating in a common language that exists between interior design and virtual reality, designers can then engage in presenting and testing elements of time in the design process as defined by John Zeisel (1986).

Methodology

The methodology is comprised of four distinct steps. Phase One involves establishing an exiting vocabulary of time and motion in the visual arts. Phase Two is systematically building relationships between film, virtual reality and interior design. Phase Three includes reviewing the current literature of time presented in design fundamentals textbooks. Phase Four is the synthesis of findings with Zeisel's "imaging, presenting, and testing."

Summary of Results

Complex issues of time, as established in film, can be presented with virtual reality and communicate issues of interior environments. The merit of virtual reality may be in its ability to present complex ideas of time that other media cannot express. The ideas of time that are represented in virtual reality then, in turn, can be tested, or critiqued, using the vocabulary established in the theories of filmmaking. This presentation only suggests the basic theoretical framework between the relation of film, virtual reality, and interior environments. More research needs to be conducted to test how concepts from film apply to interior environments.

References


York, NY: Press Syndicate of the University of Cambridge.

“OH, NOW I GET IT!”: THE EXPERIENTIAL DESIGN EDUCATION CONNECTION

Presentation by
Ken Special, M.S, Western Carolina University

Purpose

Interior design professors are always looking for new and creative ways for making meaningful connections between the classroom and students’ eventual practice in the field. Our design program was invited to compete in the design of an exhibition in the South’s premier indoor and outdoor living exposition, the Southern Spring Show, held in Charlotte, North Carolina. Involvement in the Southern Spring Show would provide the potential for a hands-on construction project which could bridge the knowledge chasm between what is learned in the classroom and how it is applied in design practice. The competition was incorporated into a class called Problem Solving in Interior Design.

Methodology

Week 1. This project was begun with the understanding that students had three and a half weeks to conceive a solution, plan it, construct it, and transport it to Charlotte. Inspired by the British kitchen spaces they had seen in England during the summer of 1999, the students decided to create an English country vignette for our assigned 10 foot by 10 foot space in the Charlotte Merchandise Mart.

Week 2. A major home improvement chain contributed low cost flat panel, birch veneer cabinets which the students transformed by adding dimensional moldings to the drawers and doors. The students applied a hand painted and hand rubbed antique finish which enhanced the cabinetry of this classic English style country kitchen. Special features included a textured stucco hood over a donated AGA cooker with a claret finish.

Week 3. The walls of the display space itself were sponge painted which resulted in a mottled appearance which proved to be an effective background accent. A terra cotta tile floor was laid using toned grout with a wood plank perimeter. The name for the exhibit, “Bloomin’ England”, came about after a discussion triggered by our extensive use of loaned greenery on bracketed shelves and elsewhere to accessorize our Anglo-themed setting.

Summary of Results

In an amazingly short three and a half weeks, the complete exhibit was designed, constructed, and installed. The comprehensive nature of this project proved to be an ideal follow up to required interior design curriculum classes such as Architectural Construction Process and Architectural Detailing and Furniture Design previously taken by the students. They were able to apply information learned in the classroom in a direct, pragmatic, and fully realized way. The students learned about construction products and their application, installed ceramic wall and floor tiles, plank flooring and worked with a wide range of hand and power tools.

The type of direct engagement with a design problem such as the one presented to the students in this class, can, as demonstrated here, eventually lead to a strong and fulfilling sense of accomplishment and understanding.
for the participants. "Bloomin' England" was a bloomin' success for all concerned. The final outcome for their efforts was to be rewarded with first place honors in competition with six other design programs from the region.
UPDATING EDUCATORS ON PRACTICE: A METHOD AND MANUAL

Presentation by
Stephanie A. Watson, Dee Ginthner and Denise Guerin
University of Minnesota

Purpose

Although casual visits to design firms are important, the quality of information gained could be improved through more formal and structured visits. Therefore, the purpose of this project was to develop a method for interior design educators to systematically collect information about current design practice while observing in design firms. This information can be integrated into teaching and used to help shape design curriculums. After piloting the method, we developed a manual for interior design educators to use for systematic observation of design practitioners. The objectives of the project and subsequent manual were:

1. To strengthen the link between education and practice through educators systematic and serious presence in the firms,

2. To provide instruments for educators to assess current practice, and

3. To contribute to student learning and curriculum revision when educators take this information back into the classroom.

Process

Researchers have documented information about design practice and practitioners' opinions about the preparation of entry-level designers. The Foundation for Interior Design Education Research (FIDER) Standards and Guidelines (2000) were used to study the competencies needed for practice. Hines, Albanese, and Garrison (1994) concentrated on FIDER's knowledge categories that comprise the needs of residential and non-residential interior designers. Lee and Hagerty (1996) compared occupational expectations between interior design students and practitioners.

Studies often point out differences between practitioners and educators instead of linking them in a shared experience. Educators need a way of knowing what specific tasks and knowledge are used in current practice on a daily basis. Additionally, educators need to determine if their programs reflect current practice, and to do so, they need to observe designers in situ.

An observation and interview procedure was developed, piloted, analyzed, and revised. The outcome was the implementation of some of the findings from the pilot into our curriculum and the development of the Design Practice Update Manual.

To develop and pilot the procedure, we:

2. Selected twelve firms of various size, location, and specialization for observation and interview.
3. Interviewed the design directors about firm practices.
4. Observed and interviewed entry-level designers and documented their activities on the preliminary observation instrument.
5. Refined procedures and instruments.

Summary of Results

There were two noteworthy results. First, the findings from the observations and interviews revealed:

1. Computer skills need to include more than AutoCAD (i.e. PhotoShop, Page Maker, PowerPoint, and Excel). We added assignments to projects that incorporate these needs.
2. Residential design includes a focus on remodeling. We may increase content in the residential construction curriculum.
3. Verification that manual drafting and technical sketching continues to be used in practice and therefore, will not be decreased in the curriculum.
4. Quick rendering techniques are frequently used in preliminary client presentations. This confirms our move to illustrative sketching as a communication tool over full rendering.

The second result was the revised method and instruments and the development of the Design Practice Update Manual. The Manual will be available for distribution at the conference and will be the focus of the presentation.

References

INTRODUCTION OF A LAPTOP COMPUTER REQUIREMENT IN AN INTEGRATED DESIGN STUDIO

Presentation by
Virginia North, Arch.D., Lawrence Technological University

Purpose

The purpose of this presentation is to examine the impact laptop computers had on interior design and lighting design components of an integrated design studio course. Reaction of students and faculty will be considered along with a comparison of student work from this course and one prior to the laptop requirement.

Background

Since the mid-1980s, when a few schools in Australia began requiring laptop computers for their students, use of laptop computers in universities in the United States has steadily increased (Bauer, 1998). There are a variety of reasons why universities have begun to require laptop computers such as lack of funding for computer labs (Learning Technologies Report, 1999). Others have done it to improve students’ abilities to acquire technology skills and to increase their communication and learning methods. Research conducted on laptop programs in the 1990s, indicates that laptops contribute to the quantity and quality of student work along with improved motivation to do the work (Albion, 1998). Several universities that have had successful laptop programs surveyed students and found that up to 90% said they benefitted from these programs (Holleque, 1996; Sargeant, 1997).

Process

To test what would eventually become a university-wide requirement for laptop computers, a sophomore level design studio course that focuses on interior design and lighting design was selected to use laptop computers for one semester. Eight sections of the course were offered during winter of 2000 with eighteen students in most sections. All faculty were provided the same laptop computer and software that students had and all studios where the course was taught were wired with Internet connections.

Students and faculty provided input at the end of the semester on use of laptop computers. Student work was examined at the end of the semester and compared to projects from the previous year.

Results and Implications

Approximately half of the students who took the integrated design studio course responded to a questionnaire on their use of laptop computers in the course. The most frequent use of the laptop was for CAD (53% N=57) and second was access to the Internet (28%). Student work in general was improved in several ways by use of the laptop program. There was an increase in both quantity and quality of the work. The availability of CAD at school and at home by all students allowed the projects to progress more quickly. Ability to communicate with each other and the faculty was improved also.

An interesting result of the laptop program was better student work that was non-computer generated. Models of interiors, hand
sketches and rendered perspectives were all better than in previous semesters.

**Audience Interaction**

Student work from classes using the laptops and those not using laptops will be shown for comparison. Examples of faculty teaching methods using the laptops will also be discussed. The audience will be asked to participate in a discussion of pros and cons of required laptops in an interior design program and recommendations for successful implementation of a laptop program.

**References**


THE CASE FOR A DOCTORATE IN DESIGN EDUCATION

Presentation by
Neville Clouten, Ph.D., Lawrence Technological University

Abstract

The paper recognizes the design professions’ roots in humanism and science, and discusses a middle ground that is less trapped in dichotomies between disciplines. The purpose is to bring together two seminal writings in education which can enhance opportunities for leading design practitioners to enter the academy and, at the same time, add richness and meaning to junior faculty as they endeavor to better understand their students. The writings of Donald Schön and Howard Gardner provide the setting for bridging ideas from interior design practice and educational theory. Schön was influenced by conversations between a coach who practices with artistry and students in graduate design studios. A series of experiments with post-professional reflective practice studios has been implemented during the past decade.

The particular post-graduate design education encourages the practice of reflection-in-action in two ways:

- first, by the ways in which the outstanding practitioner practices - how he/she reflects on his/her own practice, how judgment has developed, and how an enhanced knowledge of educational theory assists in how he/she coaches, criticizes, demonstrates and reflects with the studio participants.

- second, by the way that the studio itself becomes a setting for reflection — how all participants in the studio engage in the dialogue of reflective practice and how they communicate changing perceptions.

Gardner’s definition of intelligence and the categorization of eight independent potentials resulted from the daily bridging of the disciplines of neuropsychology and educational theory. The Multiple Intelligences of Linguistic, Logical-Mathematical, Musical, Bodily-Kinesthetic, Spatial, Interpersonal, Intrapersonal and Naturalist are described. For design educators, the inclusive nature of Multiple Intelligence theory and Schön’s reflective studio model are important for the ways both focus on an individual’s many potentials and skills. The bringing together of the two content areas assists in defining a middle ground between theory and practice, the educational intent being to develop individual design student potentials both through a better understanding of the student and through reflective conversations initiated by leading practitioners.

It is suggested that the continuing search at the intersection of design practice and teaching can be the focus of a studio-oriented doctoral degree. The proposed Doctor of Design Education balances courses in educational theory, practice studios, and a dissertation of applied research. As an alternative to the Doctor of Philosophy, the studio-orientation of the proposed doctorate will influence how we teach at all levels of design education.

References


GETTING INDUSTRY CONNECTED-"SCHOLARSHIP MARKETING STRATEGIES"

Presentation by
Rick L. Bartholomew, IFDA, MS, Oklahoma State University

Purpose

To present a process of strategies for implementing an education and industry collaboration to foster faculty design scholarship opportunities. The presenters' intentions are to motivate and encourage faculty to engage in the investigation, discovery, and integration of their focused scholarship into the industry arena and to share the possible benefits one may obtain from such a relationship. The presentation will document a five-year long project called Native Lines, which is a research, design and development endeavor supported and funded by a nationally known furniture and retail fixture fabrication company.

Process

The presenter has determined a Ten-Step Process to create a scholarship marketing strategy for design faculty in establishing potential industry collaboration opportunities. This process is one that was proven successful through win-win proposal approach and has positive future implications which will be presented as is listed below.

Scholarship Focus. Determine an area of expertise.
Research Industry Focus. Investigation of collaboration opportunities.
Industry Match. Select the best corporate fit.
Define the Project. Develop a strong purpose and set of objectives.
Develop a Marketing Plan. Establish the parameters, commitment, incentives, and promotional exposure.
The Agreement. Creation of the legal rights, interests, and implications.
The Connection. Preparation for the proposal meeting and presentation.
Win It. Closing the proposal and finalizing the financial support.
The Engagement.

The presenter will share the collaboration experience with examples of the products developed, fabricated, promotional materials and publications, and future directions for the project. The media used will be color slides and overheads.

Summary of Results

The collaboration experience has resulted in a six-year bi-annual contract for the presenter that has produced a fifteen sets of furniture prototype documents, two collection sets of fabricated furniture pieces and multiple derivatives of those pieces, and the design of four new collection lines. Copyright and trademark proceedings have been determined, in addition to negotiated percentages of profit for the project participants. Promotion and marketing strategies have been implemented the past three years which has resulted in gallery showings and exhibitions across the country, and numerous printed brochures advertisements in trade journals and magazines that has given recognition to the presenter and his institution. This education and industry relationship has fostered internships and full-time employment for a number of our design students and graduates; and recently, has initiated the development of accessory items and custom rugs to compliment the Native Lines and additional collections. These projects have increased employment with the collaborating industry
member and has now the executive attention to expand its facilities for future economic development.

References


POLISHING OUR IMAGE: A MODEL FOR ETHICAL DECISION MAKING

Presentation by
Bridget A. May, Ph. D., Marymount University

In today's fast paced and competitive world, Interior Designers can readily forget or ignore ethics. Sometimes, they simply don't recognize moral issues or may not possess adequate ethical decision making skills. When designers adopt questionable policies and practices, the public's impression of the entire profession suffers. Although Interior Design has made great strides in improving its professional image, this picture can easily become tarnished. Preserving one's integrity in today's business climate is not easy at best. Both ASID and IIDA have Professional Codes of Ethics, but they may not provide sufficient guidance in some complex situations. Designers need a model to identify the moral issues and analyze choices for action. To be effective, ethics awareness should begin in Interior-design education. Research indicates that formal education in ethics can positively affect a student's outlook and decision-making skills (Can Ethics Be Taught?, 2000).

Purpose

The presentation intends to stimulate discussion on the importance of ethics in interior design practice and ways to include the topic in interior design education. The model presented was adapted from similar examples to give students a framework for ethical decision-making, enhance their critical thinking skills through evaluation and analysis, and challenge them to examine their own personal worldviews and develop measures for right and wrong action in practice. At the heart of the discussion are the definition and practices of a professional interior designer.

Process

The model applies four selected theories of ethics to a case study. The process involves identifying moral issues, uncovering possible actions, and evaluating those actions according to ethical principles to arrive at a decision. The theories, which are particularly applicable to Interior Design, are easy to assimilate and use. Utilitarianism considers the consequences of one's choices to determine which provides the greatest good for greatest number. In an orientation toward duty, Deontology argues that one should do what is right irrespective of the consequences, intentions, and/or motivations. Rights Ethics asserts that individuals have rights that may be more important than utilitarian considerations or duty. Focusing on the individual, not deeds, is Virtue Ethics. Virtue involves excellences of life, which revolve around the qualities of character by which individuals habitually recognize and do the right thing.

Summary

Professional ethics are an essential part of maintaining a positive image for Interior Designers. In many situations, determining ethical choices can be difficult, particularly for today's students who often lack ethical decision-making skills. Interior Design education should present direction and models. A process of evaluation and analysis using principles from ethical theories and situations from design practice is suggested here. As students use it to work through the situation to determine right action, they are challenged to examine their own worldviews and address complexities within interior design practice. While this does not guarantee that they will make ethical choices now or later, teaching skills for making ethical decisions helps assure that they can critically evaluate and assess an issue with ethics in mind.
References


PROBLEM SOLVING FOR THE "REAL WORLD": STUDENT INTERACTION WITH ADJUNCT PROFESSIONALS AND COMMUNITY INVOLVEMENT

Presentation by
Candace Pearce, Katherine Warsco, and Heather Moss
East Carolina University

Purpose

The restoration/adaptive reuse of a ninety-year-old commercial building project actively involving the participation of the community provided a forum for experiential learning. As a method to simulate problem solving associated with design consulting firms, a practitioner alumnus mentored one student for senior thesis project.

Background & Objectives

A circa 1926 three story historically significant commercial property provided a venue for multiuse design criteria including full service restaurant on the third floor, open-air bar on the roof, office space on the second floor and multiple entry retail space on the ground floor. The focus was to establish the Blount-Harvey Building as a valuable historical, architectural site in need of special recognition as a local landmark; such status, and commensurate tax incentives, would motivate the owner to restore the building, thereby contributing to Main Street Restoration. Under the mentorship of an interior design alumnus, these criteria became the focus for a senior thesis project with development of the following as project objectives:

- Integration of community service with design practice;
- Development of social skills promoting team problem solving that fosters partnering with allied professions and community leaders; and
- Integration of project management practices with design practices specializing in building restoration/adaptive reuse.

Process & Evaluation

Acting as a "new hire" under the direction of a designer/owner of a consulting firm, the student worked with local professionals, both public and private to solve design issues including code and accessibility to create presentation materials suitable for preleasing the restored building. The instructor played a tertiary role, serving as one among many professionals involved in the cooperative effort of downtown development. The student's research and subsequent design proposal served to establish a precedent for the restoration of the Blount-Harvey Building as a vital economic impact to the downtown commercial district.

Student evaluation was based on the following criteria: comprehensive scope of solutions; attention to client and community needs; applications of rules and principles of design; and professional conduct.

Outcome & Conclusions

The restoration proposal was presented in the Art Museum to an audience including the local downtown development association, the city planner, the building owner, the potential tenants and others with principal interest. The local newsletter carried the story of the
presentation as part of a series on downtown redevelopment and restoration. This project enabled the student to gain valuable experiences dealing in the community as a provider of information, regulations and creative solutions. Group problem solving, managing time relative to the schedules of multiple interest groups, and establishing rapport with a variety of community factions were challenges that went beyond conventional experiences in the classroom. The student created a high quality product even as the community enlarged, and continually refined the scope of that project. Experiencing this process under the guidance of a practitioner with ties to the interior design program provided the student with a level of personal investment that enriched the team spirit and fostered a valued identity as student transitioning to the "real world" of the design profession.

References:


CONNECTING BEHAVIORAL RESEARCH TO INTERIOR DESIGN THROUGH ANNOTATED DRAWINGS

Presentation by
Julie Smaglik Temple
Western Carolina University

Purpose

This presentation will submit compelling reasons for the use of behavioral annotations to accompany design drawings. Typically, this technique is reserved for client presentations, yet the benefits pervade the entire design process. The technique of behavioral plan annotation incorporates floor plans (or other design drawings) with written text (annotations) referring to human behavior in the environment. Current use of behavioral annotations, elements that compose this technique, and a method of incorporating this technique into the design process will be illustrated.

Methodology

The first method of discovery was a literature review to assess the usage of behavioral annotations within interior design, architectural design, and environmental research, and to define the elements utilized in behaviorally annotated plans. To achieve this, content analysis was performed on 187 sources including: the Journal of Interior Design, the Journal of Environmental Psychology, Environment and Behavior, the annual conference proceedings of the Interior Design Educators Council and the Environmental Design Research Association, and books located by a keyword search. In addition to these sources, five of the most frequently used introductory interior design textbooks were reviewed (Potthoff and Woods, 1995). These textbooks provide insight as to which core topics constitute the foundation of interior design education and include information relating to human factors and psychological effects. The occurrence of definitions, procedures, or illustrations that related to behavioral annotations in each of the sources was noted.

Secondly, a five-stage design process was analyzed for possible integration of the behavioral annotation technique at various stages of the process: programming, schematic design, design development, implementation, and evaluation.

Summary of Results

In total, 20 occurrences relating to behavioral annotation were retrieved. This indicates that the technique of annotating design drawings with behavioral information is not widely used in the interior design profession. Analysis of the associated literature revealed a limited use of this technique either as a method to illustrate text or as an aid in the design process.

Integrating this technique with the design process produces several benefits. In the programming stage, inclusion of behavioral information enhances the program by supplementing the physical requirements with behavioral requirements and provides direction for developing alternative solutions. In schematic design, it aids discovery and decision-making by bringing attention to what is known and unknown regarding expected behaviors for the space. This technique also acts as an effective tool for exchanging information among design team members. In the design development, it assists in clearly communicating behavioral research and
involves the client in feedback and decision-making processes. Inclusion in the implementation phases provides communication of the behavioral intent of the space to parties not previously included and serves as an orientation tool for personnel when provided in training materials. Results of observations made during post-occupancy evaluation benefit both designer and client.

In conclusion, this study assists the connection of behavioral research to design practice by demonstrating that behavioral annotations aid the designer in communicating research findings, enhancing design solutions, and increasing awareness of the behavioral implications of design.

References

IDENTITY AND THE INTERIOR ENVIRONMENT: CONNECTING SOCIAL COGNITION THEORY AND INTERIOR DESIGN

Presentation by
Lisa M. Vogel, Colorado State University

Purpose

This presentation aims to:
1. Expose the audience to research concerning identity expression and the interior environment
3. Introduce how this information helps to support three Indicators in the FIDER Professional Standards 2000, thus ensuring relevance for interior design educators.

Background

It is generally accepted by design researchers and practitioners that identity is expressed through interior environments (Cooper, 1974; Csikszentmihalyi and Rochberg-Halton, 1981). Cooper (1974) saw the house as the “basic protector of [man’s] internal environment” (p. 131), representing or symbolizing the unconscious self. Csikszentmihalyi and Rochberg-Halton (1981) further supported this notion with findings that indicated that houses and their associated objects might symbolically represent conflicts within the self, express qualities of the self to others, signify status, define group membership, create bonds between people and encourage socialization.

Though design researchers are familiar with the work that has been conducted regarding identity and the interior environment, the theoretical underpinnings for these premises are frequently overlooked in current design literature. Social scientists have long considered the expression of identity in regards to the interaction process and how people make decisions. Social Cognition Theory, the broad theoretical category that covers theories about “...how people make sense of other people and themselves” (Fiske and Taylor, 1984, p.1), includes how people perceive others, classify and stereotype them, and understand why others behave the way they do. Theories such as Symbolic Interaction (Mead, 1934), Symbolic Self-Completion (Wicklund and Gollwitzer, 1982), and Presentation of Self (Goffman, 1959), all of which fall under the Social Cognition umbrella, help to explain how people identify and attempt to communicate their identities through the design of their personal environments.

These theoretical constructs and the associated literature are important to interior design education as they help to meet several Indicators within two Standards found in the Foundation of Interior Design Education Research, Professional Standards 2000. Standard 2: Design Fundamentals requires that “student work MUST demonstrate understanding of theories of human behavior and interior environments: the relationship between human behavior and the built environment” (FIDER, 2000). The study of Social Cognition theories helps to explain how people represent themselves with their interior environments. Standard 8: Professional Values requires that “the program MUST incorporate learning experiences that develop knowledge of client and/or user needs and their responses to the interior environment” and “the program MUST provide learning experiences to: lead
students to understand the designer's ability to affect people and the environment" (FIDER, 2000). The study of identity expression will help to provide students with a more thorough comprehension of how their role as an interior designer will affect the client in his/her environment.

Process/Summary

Narrative inquiry, through the examination of real-life stories, will provide the framework for audience interaction (Portillo, McLain-Kark, Dohr, and Danko, 1999). The researcher will facilitate interaction by asking the audience to share their 'stories' regarding identity expression, both from the classroom (how they teach it), and in the field (how they negotiate it). Discussion will also center on the identified FIDER standards and how they can be supported with study of this subject.

References


CONNECTION BETWEEN FILM AND INTERIORS: APPLICATION OF LIGHTING TECHNIQUES TO DESIGN EDUCATION

Presentation by
Jinbae Park, Ph.D., Miami University

Purpose

Among many other multi-media educational materials, films can be applied actively to design education. This study addresses the possibility of using movies as efficient references for creating lighting design concepts in interior design projects. The purpose of this study is to help students recognize movies as a useful inspiration for developing ideas in design and produce lighting effects appropriate for interior design projects. Through the process of analyzing lighting techniques used in the movies, students could get a method of creating innovative lighting effects for interior space as well as selecting inspirations and applying them to the design projects. The value of this method comes from increasing the number of excellent visual examples available for inspiration, study and critique.

Process

The experimental design of this study is based on library survey and content analysis. Selected for this study were those movies considered to be useful to design education. Specific scenes valuable for lighting design studies were obtained from 60 movies. Stories, scenes and contents of the selected films were systematically analyzed and categorized by lighting design technique. Lighting techniques found in the movies include territory of light, colored lighting, beam play, back-lighting, wall-wash, silhouette lighting, shadow play, and decorative light etc. Lighting techniques and effects often elicit emotional responses in story telling. And these techniques also work as allegories which are suggestive to audiences. Additionally, there has been an increasing trend toward the use of varied lighting techniques in interior design projects. Professional designers and students are required to produce many different moods and effects for special places and purposes. Various qualities and techniques of lighting design work as an active and essential element in interior space. Movies provide inspiration for lighting techniques and effects in interior settings. This presentation will include slide and video of both still and animated images from the selected films.

Summary of Results

By creating an experimental method of introducing films into the design studio, fundamental understanding of the lighting design techniques can visually and effectively be brought to the students. Lighting design techniques and effects found in the movies can successfully be used as efficient references for students to understand and create concepts for different lighting spaces. As a result, students can produce creative lighting techniques and also can acquire future lighting design solutions by selecting metaphors from the sequence of films as good design sources. This process in the lighting or interior studio program will offer students the possibility of extending inspiration into other design works as well.

References


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Comparison of Physical Features of Two Independent Living Facilities: Relationship to Resident Satisfaction

Poster by
Katherine S. Ankerson, University of Nebraska-Lincoln
Betsy S. Gabb, University of Nebraska-Lincoln

Purpose

Design and construction of various independent living facilities for the elderly have increased substantially in the recent past (Olson, 1998). Population trends projected by the U.S. Bureau of the Census (1992) show continual increase in the percentage of the population 65 and over, and the construction trend is likely to continue into the foreseeable future (Metz & Russell, 1998). There exists a need to provide documented evidence of effective design choices in this building type (Taylor, 1998). The goal of this project is to identify particularly effective or ineffective physical attributes of existing facilities and relate them to resident satisfaction. This poster presents a case study comparison of two independent living facilities to determine identifiable physical characteristics that may be linked or contribute to resident satisfaction.

Methodology

Preliminary research to narrow the field of senior living possibilities was accomplished by evaluating 14 facilities in two metropolitan areas. Researchers identified management structure, social programs, wellness approaches, total number of residents, individual unit sizes and attributes, and overall price structures of the 14 facilities. Two facilities were selected based on similarities in each of the aforementioned categories, in order to better isolate only physical differences of the facilities for comparative purposes. Specific areas of investigation were narrowed to include only the public spaces of the facilities for this project.

Post occupancy evaluation was used to garner responses and attitudes about the facilities from the user's point of view. Evaluation questions and observations focused on residents' use and perceptions of physical attributes of public areas. Site observation and mapping was used as a method to observe social patterns in the public spaces, as well as to record patterns and frequency of use. Issues examined include: frequency of use, level of formality, color, light, convenience, and, both positive and negative attributes of the spaces.

Summary of Results

This poster presentation will focus on the objectives of the project, the development of the post occupancy evaluation survey instrument, the site observation instrument, and the results gained from each. Photographic comparison of public spaces within the two facilities supplement residents' response. Ultimately, information gained may be used to develop informed design strategies for the creation of living environments that make a positive contribution to quality living for independent aging individuals.

References

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Using Virtual Environments to Determine Older Adults' Preferences and Functioning in Assisted Living Private Spaces

Poster by
Joan McLain Kark

Purpose

The purpose of this study is to explore the use of virtual environments to determine older adults' preferences in assisted living private spaces. Virtual environments, particularly the CAVE™ (Cave Automated Virtual Environment), have strong potential as research in environmental design evaluation (McLain-Kark & Lee, 1998). This research project provides insights on the technical aspects of developing interior design computer models for the CAVE for use with older adults.

Methodology

Using the CAVE, we will first determine how older adults function in various configurations of private living spaces. Second, we will determine what trade-offs adults are willing to make in the configurations of private living spaces. Third, we will determine which configuration of the private living space in assisted living do older adults prefer. Finally, given their preference, we will determine whether they prefer the open or semi-open plan.

We first designed four different configurations of a 400 square feet of assisted living space. Using the same basic plan, we varied the amount of square footage devoted to one of the following spaces: sleeping, food preparation, social, or storage. These designs were modeled using 3D Studio Viz and then converted for testing in the CAVE.

The CAVE is a 10' x 10' room made of projection screens. A supercomputer projects stereo images onto the screens while stereo glasses enable users to see stereo 3D images in full scale (NCSA, 1998). The researcher will use a wand to navigate the assisted living private living space with one older adult at each session. A total of 60 older adults over age 65 will be tested on their functioning and preferences in the assisted living space.

Summary of Results of the Investigation

Our work provides several insights regarding development of virtual environments for testing with older adults. We have found that careful attention must be given to modeling the interior for the assisted living environment. That is, much of the furniture available in computer "tool" kits is not appropriate for testing with older adults. Sofas and beds are typically too low for older adults. In addition, the strong contemporary style of the furniture is not familiar or preferred by most older residents and thus would provide a strong distraction when conducting the research. Our challenge in the computer modeling of the furniture was to create traditional styling; but, at the same time, the complexity of the geometry (i.e. number of polygons) needed to be kept low so that the real-time animation in the CAVE would run smoothly. To accomplish this, we created a "budget" of 80,000 polygons (40,000 faces) for each model, a polygon count which we have found to be the maximum for smooth navigation in the CAVE. Another technique, extensively used in game development, is to use large amounts of bitmap images which can simulate more complex geometry.

We share our experiences and insights regarding development of virtual environments so that other researchers may be inspired to use this exciting tool for research.
with older adults and for environmental design research.

References


PEOPLE IN e-SPACE: TOOLS FOR ANTICIPATING BEHAVIOR IN CAD

Poster by
Thomas L. Houser

Purpose

Interior designers recognize that proxemic zones impact how people interpret and use space. Educators routinely cover these topics in various courses throughout their curricula. Students are expected to apply this knowledge while designing projects. This may or may not happen. The challenge accepted here was to develop computer-based software for designing with proxemic zones in mind, anticipating behavioral impacts on end-users, and documenting that such considerations were made.

Process

Identifying Challenges and Setting Goals.
Four basic challenges existed:
1. Deciding how to evaluate the positioning of people, furnishings and equipment within a space;
2. Determining how to employ proxemic zones as space planning considerations;
3. Choosing how to document student awareness of proxemics; and
4. Deciding which CAD customization tools best addressed each topic.

Evaluating the Positioning of People in Space. Complex relationships exist among people, furnishings, and obstacles within a space. Distance and relationship evaluations made here are based on the interaction zones established by Edward T. Hall in The Hidden Dimension. There are two distinct ways to evaluate these relationships. The first is among people seated within a space. The second is between an individual at the entrance to a room and another person or obstacle within the space.

Employing Interaction Zones While Designing. There are two easy ways to consider proxemic zones while designing: draw them as you go, or include them within prototype furniture layouts. Either approach is well-suited for CAD. Both techniques were developed for this project.

Choosing CAD Customization Techniques. The evaluation tools used here involved writing command macros, programming new commands, scripting dialog boxes, and developing symbol libraries. Students accessed these tools through pull-down menus, toolbar icons, image selection boxes, or direct command line entries. Some examples follow.

One macro overlays proxemic zones at locations picked by the designer. The density of overlays highlights the variety of personal and social zones available to end-users.

One command places a person at the entrance to a room, calculates the distances to people and objects within the space, and identifies the proxemic zones involved. Another command suggests changes to meet desired interaction zone relationships.

Dialog boxes retrieve distance information from the drawing. They also present relevant proxemic zone standards to reinforce classroom learning.
One symbol library includes standards for meeting ADA guidelines. Another includes generic furniture layouts, based on interaction zone considerations.

**Documenting Sensitivity to Interaction Zones.** Students maintain an interaction zone drawing layer. There, they indicate various proxemic zones present within conversation groupings, including places for people using wheelchairs. They also place an individual at the entrance to each room and evaluate distances from that person to people, furnishings, and obstacles within that space.

**Summary of Results**

Faculty members report that the software has had a positive impact on the consideration of behavioral ramifications while designing. They also feel students demonstrate more proactive stances towards these issues. Students report that the software facilitates the design and evaluation process. They especially appreciate how behavioral considerations can meld seamlessly into the design process.

**References**


A COLLABORATIVE APPROACH BETWEEN THE CARPET AND INTERIOR DESIGN INDUSTRIES TO PREVENT FALLING AMONG OLDER ADULTS

Poster by
Joan I. Dickinson, Auburn University
JoAnn L. Shroyer, Texas Tech University

Purpose

On average, 25% to 50% of older adults have fallen within the last year (Brown, 1995; Hausdorff, Edelberg, Mitchell, Goldberger, & Wei, 1997; Schoenfelder & Why, 1997; Shroyer, Elias, Hutton, & Curry, 1997; Tinetti & Williams, 1998). Individuals who are 65 years and older have a 30% chance of falling annually; and, as individuals age, falling becomes more prevalent as 50% of those over the age of 80 will fall per year (Brown, 1995; Donald & Bulpitt, 1999; Rawskey, 1998; Resnick, 1999; Shroyer et al., 1997; Steinweg, 1997; Tinetti & Williams, 1998). The figures cited above illustrate the national concern regarding falling; (Rawskey, 1998) however, falling is not considered an inevitable part of aging as there are many controllable factors that can reduce fall risks (Mahoney, 1999). The design of the built environment, for example, plays a large role in falling and is cited as a major cause of falls among senior citizens (Sattin, Rodriguez, DeVito, Wingo, & The Study to Assess Falls Among the Elderly (SAFE) Group, 1998; Shroyer, 1994; Shroyer et al., 1997). In particular, many falls experienced by the older adult occur when a change in body position is required such as walking on different floor surfaces (Hausdorff et al., 1997; Maki, 1997; Woolley, Czaja, & Drury, 1997). Thus, the purpose of this research was to examine how a commercial-grade carpet affected balance among older adults. A floor-covering focus was important because floor materials have been cited as a major contributor to falling problems. In fact, floor materials were estimated to cause 600,000 fall injuries in 1998 (Gibson, 1998).

Methodology

A total of forty-five subjects were tested. Balance was measured using the NeuroCom computerized balance machine, and subjects were assessed while standing on the NeuroCom balance plate. Balance readings were collected for each subject while standing on the balance plate covered with a commercial-grade carpet and without carpet. The carpet for this investigation consisted of a 28 ounce, 1/10 in. gauge, solid gray, level loop, and 3/16 in. pile height. This carpet specification represented the most commonly installed commercial-grade carpet (RBI International Carpet Consultants, 1998).

Summary of Results

Eight males and 37 females were tested. The mean age of the group was 72.84 (range 60 to 87; S.D. ± 5.35). The mean number of medical conditions (X = 0.689; S.D. ± .793) and mean number of medications (X = 1.73; S.D. ± 1.32) were relatively low. The majority of subjects (n = 23) had no history of medical problems. Subjects experienced limited difficulty maintaining static balance when standing on the selected carpet. The results from this research are encouraging in that older adults, interior designers, and architects can use this information to specify floorcovering products similar to the carpet in this study in order to reduce fall risks in the interior environment. Moreover, this investigation empirically tested
a design element cited as a falls-risk factor in order to give older adults and designers more concrete evidence that will help improve safety within the interior environment.

References


Acknowledgments

The authors would like to thank BASF, the Carpet and Rug Institute (CRI), and the International Interior Design Association Foundation (IIDAIF) for their valuable contributions in this research effort.
MORE THAN JUST A SHOW: COLLABORATIONS CROSSING DISCIPLINARY BOUNDARIES

Poster by
Bradley Whitney, Virginia Tech

Purpose

Design majors at our university are scattered across several colleges and departments. This fragmentation typical of many universities leads to designing in isolation. Oftentimes, students and faculty are unaware of the activities and scholarships occurring in related design areas. In an effort to integrate our interior design program with other design disciplines, two important collaborative exhibits were planned: one examining design from the 1950's collaborating with apparel design, the other exploring human proxemics in architectural and virtual environments collaborating with fine arts. Different in concept, both exhibits shared three common goals:

1. To provide an educational exhibit that was applicable to design students university wide,
2. To provide an educational exhibit that elevated the knowledge of design in the surrounding community,
3. To present common philosophies design areas on campus share.

This poster presents how these collaborative efforts were brought to fruition and discusses plans for future collaborations across our campus.

Synopsis

Halfway Back: design legacy from the 50's. There were two reasons in choosing the decade of the 1950's. First, finding ourselves at the turn of a century it seemed necessary to reflect on where our design heritage has been and recognize how elements from that specific era have moved forward into the future. Featuring furniture, photographs, and art pieces representative of 50's design supported the hypothesis that influential trends from the era can still be found throughout design today. Second, the apparel design program has a historic costume collection that is under used and under appreciated by areas other than Clothing & Textiles. By exhibiting 50's historic garments within a design context, the collection received visibility and educated a larger audience about the importance of viewing cultural artifacts.

Mind, Matter, Molecules: poetry of the unplace. In contrast, the philosophically driven second exhibit posed questions pertaining to our interactions with space. Using concepts from Gaston Bachelard's Poetics of Space, specifically the metaphor of home, the exhibit explored various spaces found in our modern/cyber world. The exhibit incorporated light, video, and computer generated imagery offering an environment for introspection. Illuminated sheets of vellum defined the physical space; conceptual text and video echoed qualities of inner space; and digital video cams addressed the uncertainty of cyber space.

Outcomes

Each multi-disciplinary show accomplished a number of objectives. An opening reception was held for both exhibits where each collaborative member discussed their area of expertise and responsibility in the project.
Although university design students represented the largest audience, the local community was also invited. During each running, lectures were given in the exhibits to classes across our design areas. Students were asked to complete assignments pertaining to issues in the exhibits that included writing or sketching. The impact on student learning was further apparent in discussions occurring in the studio.

Conclusion

Oftentimes with collaborations, successful partnerships are formed between faculties from different academic areas. These two collaborations prompted the discussion for future efforts with other areas: exhibits collaborating with architecture, a multi-disciplinary workshop with theatre arts, and designing a student competition with landscape architecture.
UNIVERSAL DESIGN STUDIO INSTRUCTION

Poster by
Beewan V. Chang, Kenneth R. Tremblay, Jr., and Brian H. Dunbar
Gensler and Colorado State University

Purpose

Universal design optimizes product and environment usability by acknowledging human functional needs that change throughout the lifespan (Leibrock & Terry, 1999; Null & Cherry, 1996; Story, 1998). To prepare students for implementing universal design into their professional practice, interior design educators need to equip students with working knowledge of and sensitivity to universal design and people with disabilities (Welch, 1995). Although universal design is taught in many design programs, few studies evaluating universal design teaching strategies are reported (Gabb, Lodl, & Wrightt, 1995; Marshall-Baker & Weidgreen, 1996; Schwarz & Hennigh, 1995). This research examined effects of a teaching unit on students’ attitudes toward and knowledge of universal design and people with disabilities.

Methodology

A component of a junior-level interior design studio course consisted of a six week long universal design project, with results entered into a university-sponsored competition. Students incorporated the universal design concept as well as building and life safety codes in redesigning a motel into housing for students with disabilities. A teaching unit was prepared and delivered to help students with the design competition. Strategies included lectures on universal design, guest speakers who provided outlooks on the built environment from perspectives of persons with disabilities, printed resources, class discussions, simulation exercises in which students experienced problems involved in negotiating the built environment by persons with disabilities, and an exercise in which students evaluated an environment in terms of ADA compliance. Students then completed a concept statement, a scaled floor plan, a reflective ceiling/lighting plan, and selection of colors and materials. A pre- and post-test survey of the 32 students was utilized to examine differences in knowledge of and attitudes toward universal design and people with disabilities before and after completion of the teaching unit.

Summary of Results

After the teaching unit all students believed that universal design and ADA would influence their future professional work. Students’ attitudes toward people with disabilities as measured by the Attitudes Toward Disabled Persons Scale (Yuker, 1988) became more positive. Students displayed positive change in their attitudes toward universal design concerning the concept’s scope, benefits of applying universal design, and importance of universal design to interior design education. Divergent attitudes were expressed toward cost of universal design, similarity between universal design and ADA, and users benefiting from universal design. Considerable enhancement occurred in understanding of the seven principles of universal design. Statistically significant differences between pre- and post-test responses existed for each of four indices created from survey responses: self-perceptions of universal design and ADA (t = 5.75, p = .00), attitudes toward people with disabilities (t = 2.24, p = .03), attitudes toward
universal design ($t = 2.64, p = .01$), and understanding of universal design principles ($t = 5.12, p = .00$).

Recommendations are to (1) incorporate universal design into courses throughout the curriculum for reinforcement and assimilation of the concept; (2) involve user consultants in various phases of the design process when teaching universal design; (3) engage students in collaboration with consultants in experiencing and discussing environmental barriers; and (4) incorporate non-studio teaching formats. Following these strategies will broaden students' knowledge, increase sensitivity, and provide sources of information regarding universal design.

References


Darwinian Design and the Evolution of Form

Poster by
Kathleen Gibson, Cornell University

Purpose

What is the connection between Survivor television and our culture? According to Herbert Muschamp (2000) in his article Architecture’s Claim on the Future, there is a recent cultural shift centered on evolution and human origin. Take for example, the Venice Biennale’s Seventh International Architecture Exhibition this past summer. Led by Professor Greg Lynn, U.C.L.A.’s entry, called the Embryonic House, was an experiment that evolved new form through the use of high-end computer graphics software. In critiquing this new style of architecture, Muschamp notes that “blob” design “looks like things you would expect to see rising from an electronic version of the primordial ooze” (Muschamp 2000).

While the physical merits of this new design paradigm will be challenged, the cerebral potential is vast. As with splicing genetic strands of DNA together, how might designers join two disparate ideas together to create the unexpected? Imagine adding together Frank Lloyd Wright’s Falling Water with Frank Gehry’s Guggenheim Museum in Balboa, Spain. What would the hybrid look like? It is this hypothesis that guided the authoring of a studio project called “Morphopolis”.

Methodology: The Morphopolis Project

Primary to the project’s goal was the process of combining two dissimilar forms together; in this case, a two-story structure with a smaller interior object. After both three-dimensional seed models were constructed, the computer morphed them together, generating one hundred virtual offspring (children). Hand techniques were used for the second generation of transformations (grandchildren) and the computer was utilized once again for the third generation of hybrid form (great-grandchildren). The data was recorded graphically in the form of a family genealogy tree.

Summary of Results

While limitations exist within the software itself, this researcher found the morphing process to be a successful venture for breeding new three-dimensional form and authoring a new method for the generation of new form, termed “cyber-iation”. Associating design and the design process to that of evolution and Darwinian theory links designers not only to their ancestors, but paves new roads toward the future.

References

mathematical feedback loops; Computer Graphics Forum, 5(4), 313-316.
PROFESSIONAL DESIGN COMMUNICATION IN A GLOBAL ENVIRONMENT

Poster by
Cynthia Mohr
The University of Memphis
Memphis, TN

Purpose

As we prepare our students to work in the 21st century we must provide opportunities that give them more than the basic technical skills required for employment. We must seek out new methods of doing the job that will equip our graduates with a higher level of skill and a broadened perspective of the 21st century workplace. The ability to communicate with e-mail is a standard for contemporary professionals. The next layer of information that our students will be called upon to use is the configuration and electronic transfer of documents and images. This project provided the platform for introduction of these methods of professional communication.

Process

As a part of a summer Study and Travel in Art course based in France, students were required to record their experiences using text and digital images and send them back to the home university using the internet. A student at the home university then uploaded the images to the department web site so that parents, students and other interested parties could become familiar with the sites visited and student experiences. The images were also used to provide visual reference for design proposals prepared by student teams. Equipment utilized included: two Kodak DC290 digital cameras, Lexar memory cards with USB download capability, Macintosh G3 Powerbook, 100M Zip drive, extra sets of rechargeable batteries, and power converters/plugs.

Summary of Results

Utilizing previous experience with technologies in foreign settings, the project was a success. Cyber cafes were used for transmitting images and text. The time spent with each student in a one-on-one experience as they prepared their daily report was an unexpected bonus. Initially there were difficulties using the European keyboard, which is formatted differently than the US keyboard. Fingers that were used to finding letters in one spot were frustrated when they were in different locations. Typing the message on the PowerBook and copying it to the Zip disk, which was then used at the Cyber Cafe, eliminated this difficulty. For the purposes of this poster, a computer will be used to display the website created by the students and the digital camera download process.


WIRED STUDIOS AND COORDINATED COURSES

Poster by
Ann L. Black and Kevin Klinger
University of Cincinnati

Purpose

The purpose of this poster presentation is twofold. First, the connection and coordination between a sophomore interior design studio and a computer seminar course is explored and second, the most recent outcomes of the two courses are presented as an example of how this practice can result in stronger design work and high quality presentations.

Methodology

For the past decade, the sophomore studio and a computer seminar course (the students’ 3rd computer course) were developed to work hand in hand exploring the computer in the design process. The courses have evolved as software and hardware capabilities have advanced, but what hasn’t changed is the expressed effort to connect the content and coordinate the courses to enhance the learning experience.

In the spring of 2000, the studio was the nerve center for the two courses. The room was wired and networked with the college computer center and well as having Internet access. Each student was required to have a desktop or laptop computer and it was on his/her desk throughout the quarter. Students were introduced to several software programs in the seminar course – Photoshop (image), In Design (layout), form Z (3rd model) and Dreamweaver and Go Live (web design) and used them all for producing the studio project.

The design project for the quarter was to design a childcare center. The center included administrative spaces, classrooms for infants, toddlers, and preschool classes, a large muscle room, and support spaces in approximately 12,000 square feet in a rural site next to a river.

Summary/Outcomes

This studio had its share of successes and disasters. Once the students began to realize the potential of three-dimensional modeling capabilities they became more assertive in their design explorations. They were more willing to try different ideas because of the ease with which the computer can save, duplicate, and transfer elements. The level of quality was also outstanding when issues of visual presentation content and composition was being communicated and reinforced by two professors in two classes. Hardware and software problems caused frustration but students developed a network that came to the aide of each other.

Interior design students can especially benefit from using 3D modeling software with its ability to explore lighting, color, and materials in the built environment at a more rapid rate than traditional methods. Now, with the computer’s almost instantaneous and accurate representation of interiors, students are able to realize the potential of their design solutions.