

SPECIAL ISSUE INTRODUCTION TRENDS IN KITCHEN AND BATH DESIGN RESEARCH

Kenneth R. Tremblay, Jr., Sherylin Doyle, JoAnn M. Emmel,
Carmen D. Steggell, and Andrea Garvin

Kenneth R. Tremblay, Jr., is Professor, Department of Design and Merchandising, Colorado State University, Fort Collins, CO; Sherylin Doyle is Director of Professional Programs, National Kitchen and Bath Association, Hackettstown, NJ; JoAnn M. Emmel is Associate Professor, Department of Apparel, Housing, and Resource Management, Virginia Polytechnic Institute and State University, Blacksburg, VA; Carmen D. Steggell is Associate Professor, Department of Design and Human Environment, Oregon State University, Corvallis, OR; and Andrea Garvin is Head, Interior Design Program, Lakeland College, Vermilion, Alberta, Canada.

This special issue of *Housing and Society* is the result of a collaborative effort between the Housing Education and Research Association (HERA) and the National Kitchen and Bath Association (NKBA). The call for papers was developed in summer 2004 and distributed to over 1,500 persons. A large number of manuscripts were submitted and reviewed by the five co-editors of this issue. The nine manuscripts selected were all revised based on the reviews and are included in this issue. Funded by an \$8,000 grant by NKBA, additional copies of this issue were printed and will be distributed in April 2006 at the Kitchen and Bath Industry Show and Conference in Chicago.

NKBA is a nonprofit trade association with over 25,000 members. It has led the kitchen and bath industry for over 40 years, providing resources for consumers and industry professionals. NKBA hosts the world's largest trade show, offers educational programs, sponsors research projects, and enhances the success of its members by promoting professionalism and ethical business practices. The association also monitors national and state legislation to protect the industry, its members, and consumers.

An important link between HERA and NKBA is the NKBA's Endorsed College Program. This program was created to serve the professional needs of the industry and ensure consistent, quality education for students who desire to become kitchen/bathroom design professionals. A college applying for NKBA endorsement must demonstrate that it meets the association's educational requirements. These

requirements represent the basis of a program that the NKBA considers essential for quality education. Each student must complete classroom work and supervised internships, which will enhance and extend the classroom experiences and ensure that they have fulfilled the minimum student competencies. A number of HERA members teach in an NKBA Endorsed College Program. The goals of the NKBA Endorsed College Program are listed on page 20.

This special issue highlights the important research being conducted on kitchen and bath design. The first article examines kitchen activities of today's American households. Responses obtained from a national telephone survey revealed that households cook meals on a regular basis and frequently entertain at home, despite the perception that Americans regularly eat carryout foods. The microwave oven has taken a dominant place in the cooking activities of most cooks and households increasingly have many small appliances in their kitchens. One person usually prepares the meal, but many non-cooking activities take place in the kitchen during meal preparation and throughout the day.

Next, strategies for working with artists in kitchen and bath design are provided. A continuing trend in both home building and remodeling is to aesthetically personalize kitchen and/or bath designs to better reflect the tastes and needs of clients. One method of accomplishing this is to use custom commissioned artwork such as stained glass, murals and frescos, faux finishes, trompe l'oeil, mosaics, and painted floor cloths. Some of the topics discussed with a sample of artists and designers were: who typically generates the initial idea for custom artwork and when in the design process, what is the involvement of the client and designer, how are artists selected, and who is responsible for installation. From the results of the study eight strategies are presented, intended as helpful aids for designers working with commissioned artists to personalize kitchens and bathrooms.

The third article addresses students' attitudes toward professional affiliations and accreditations, including the importance of graduating from an NKBA Endorsed College Program. Students majoring in housing, interior design, and interior merchandising at two universities responded to a two-part questionnaire. Results revealed that only a minority of students were able to correctly identify relevant acronyms and few considered professional accreditations in their selection of universities. However, senior students stated that they were likely to join professional organizations in their careers. Findings are important when considering the resources expended by universities to obtain endorsements and accreditations, and in student opportunities to connect to professional organizations and attain credentials.

"Rethinking the guidelines for kitchen storage" offers a fresh look at an important topic. Research data were collected through inventory surveys of households and sorted by small, medium, and large size kitchens, as well as by 16 item categories. A sample inventory for each item category was mocked-up

in standard spaces 12 inches deep, by needed length, to determine running inches of storage space. Small kitchens had 655 items needing 1,047 running inches; medium kitchens had 820 items, needing 1,377 running inches; and large kitchens had 1,019 items, needing 1,519 running inches. A conversion factor was developed to determine shelf/drawer frontage, a measure more useful to designers. Recommendations adopted by NKBA included increasing total storage in the kitchen, using shelf/drawer frontage to calculate storage, distributing storage among types of storage, allowing flexibility in achieving the total running inches, and increasing recommended counter space to allow counter storage areas.

Sustainable design is the focus of research on greening kitchen and bath cabinets. This article illustrates a process that resulted in the development of an environmental education system for consumers to identify and compare green scores of cabinets for kitchens and baths. The environmental education system contains a matrix and a label for providing information about cabinet construction and a cabinet questionnaire, which is the rating tool. These information tools can help consumers fairly evaluate and compare manufactured cabinets based on their impact to the near environment and human health.

“Developing cabinet prototypes for a universal design kitchen” prioritizes features for older women who want kitchens that can adapt to their changing needs and allow them to continue to prepare meals in their own homes. During the first year of data collection, interviews were conducted along with videotaping of participants while they prepared a typical meal in their homes. Results were applied in the construction of free-standing kitchen furniture with modular components that are easily adjustable. The second year focused on refining the prototypes, analyzing the ergonomic benefits of the cabinets, and obtaining feedback from consumers and providers on the usability of the cabinets. Participants first cooked one food using the modules in a traditional arrangement; then they rearranged the modules into a configuration of their choice and prepared the same food again. Participants invariably arranged the modules into configurations that improved the ergonomic characteristics of the cooking experience.

The next article considers universal design features and product characteristics for kitchens that are essential for new, single-family homes. Based on the results of a survey answered by universal design experts, universal design features and product characteristics considered essential for kitchens were identified. General features considered essential included adjustable height shelves in wall cabinets, stretches of continuous countertops (same height) at 32" – 34", and an option for high toe kick space (9" x 6"). For the kitchen sink, features included 27" – 29" minimum clear knee space under the sink, a disposal or two-basin sink, and a rear mounted drain. Essential faucet characteristics included faucet controls with single levers (crosses or loops), non-slip textures, an easy to control flow rate and

easy to adjust temperature, and a display/label with easy to distinguish hot from cold with letters and color.

The development and use of a supportive kitchen features checklist that can be used with homes designed for older adults are described in article eight. A list of design recommendations based on empirical research was compiled and organized into categories of supportive features. Design recommendations were provided for most elements in kitchens and point values were assigned to individual supportive features on the basis of safety and ease of use. An assessment tool was created, providing the means to compare kitchens in different homes on supportive features. Sixty homes in age-restricted retirement communities were observed and photographed using this assessment tool. Results revealed that the kitchens studied had 46% – 76% of the possible number of recommended supportive kitchen features.

The final article identifies the need for advanced study in kitchen and bath design and business among segments of the kitchen and bath industry. Both advanced level competencies impacting the career paths of professional kitchen and bath designers and the use of Web-based distance education to achieve educational goals are discussed. A quantitative analysis of a survey of the NKBA voting membership found a majority demand for advanced study. The findings revealed areas of expertise expected of an employee with advanced study as well as topics of interest for continuing education and/or master's degree program. A majority of respondents perceived that continuing education units would be more attractive if they could count toward a master's degree and that their firms would approve of employees pursuing advanced study completed on-line while continuing their present employment.

We hope that you enjoy reading this special issue of *Housing and Society*. There are many implications provided in these articles that can serve as the basis for both practical application and future research. Future collaborative efforts are planned to enhance the housing and interiors available to consumers.