

Discovering the Theory in a Documented Practical Design Activity and Using It as Inspiration in One's Own Design Work: A Graduate Level Course

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A graduate level course was developed to teach students to discover the theory in a documented practical design activity and use it as inspiration in their own design work. Development of this course was inspired by Pedersen's (2007) article, which posits that theory is present in everyday activities and that recognizing these theories helps users to understand and generate knowledge. Bye's (2010) article, emphasizing the importance of a research-based process for design was also fundamental to the course development. Patternmaking as identified in the Pattern Magic texts by Nakamichi (2010, 2011, & 2012) was selected as the practical design activity and body of works for study in this course. The course goal was for students to go beyond copying the patterns in Nakamichi's book and to develop an understanding of the theoretical principles behind her patterns, so they could apply them in new ways to their own designs.

The course components were arranged to guide students through a structured research and application process, culminating in original garment designs. The 16-week course was taught in fall 2014, with the following components:

Background and Preparation: Weeks 1-2. The importance of and methods for design research were discussed based on assigned readings (Bye, 2010; Pedersen, 2007). Basic principles (Dart Manipulation, Added Fullness, and Contouring) in the Joseph-Armstrong (2010) patternmaking method were reviewed and discussed as a starting point for understanding theory in patternmaking in a system all students already had much experience using. Finally, students drafted and fitted sloper sets to fit the half-scale forms available for use in our department and a full-scale dress form of their choice.

Design Activity Study and Application Assignments: Weeks 3 – 7. These assignments were the structure provided to guide the study of Nakamichi's works. Students completed five. Each week, each student (two Master's and two Ph.D.) and the instructor selected one Nakamichi pattern to study. The approximately 50 different patterns were divided among the students over the 5-week period. Twenty-five total pattern studies were completed. Work was completed in half-scale.

Students patterned and produced a fit muslin of the selected design (Fig. 1). Next, each studied their pattern to discover what they had learned and could apply to future work. The following questions were provided for guidance: (a) What type of flat patternmaking is this: Dart manipulation?, Added fullness?, Contouring?, Something else?, A combination?; (b) What are the basic rules and principles of this pattern?; (c) Are these rules and principles always true?; (d) What rules of traditional patternmaking are "broken" in this pattern?



Fig. 1 Loophole A

Students then created their own design (pattern and fit muslin) by applying the rules and principles of this pattern in a different location of the garment (Fig. 2). Participants then studied their own designs to discover what they could learn and apply to future work, guided by the following questions: (a) Did you stay true to the basic principles of the original pattern?; (b) Where did you move the pattern manipulation and how well did that work?; (c) Do all the same rules still apply?; (d) Did the need for new rules appear when you made this change?

The final step of each assignment was for students to prepare a presentation of what they learned to share with the class. It was important for the students to learn not only how to research the design practices of another, but also important to learn to document and disseminate their findings. These patternmaking studies and application were documented as blog posts on <http://patternmagic.weebly.com/>.

Developing a Framework of Theoretical Statements: Week 8. The group discussed the theoretical statements found in their collective study of Nakamichi's Pattern Magic texts. Some fell into existing categories present in Joseph-Armstrong (2010) and new ideas also emerged.

Application of Findings to Original Designs: Weeks 8 – 16. Students designed, patterned, and sewed two original garments, based on their interpretation of the theoretical statements found in Nakamichi (2010, 2011, & 2012). In the last week of the semester, students presented their garments to a group of department faculty.

The strategy was very effective in fostering the desired learning outcomes of teaching students how to discover theory within documented design practice and to apply findings to their own work. Selecting a patternmaking practice that was foreign to the participants forced a strong engagement with the work to understand and apply it. By first drafting and sewing the patterns, participants engaged with the work in a hand-on way that could not have been accomplished by simply reading the texts. Provided questions were useful in helping students to identify the theory in their practical work. Finally, students created imaginative original garment designs that exceeded their previous patternmaking skills and while inspired by Nakamichi's principles, went significantly beyond simple replication of her designs. Students understood and applied the theoretical principles in new and exciting ways. The course format will be continued in future semesters using a variety of innovative patternmaking techniques for study.

References

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Fig. 2 Loophole A at the shoulder