

not  
white

*diversity in beginning design education*



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Unspoken thoughts and latent constructs are hallmarks of the beginning architecture design students' inner world. They struggle with concepts of 'self' and 'others' in formulating and manifesting purposeful design project solutions. Marcia Baxter Magolda postulates that their stage of intellectual growth is part of a predictable journey toward self-discovery. Mary F. Howard-Hamilton suggests that the developmental environment may be enhanced through a *culturally responsive* community. How might instructors utilize developmental theories to promote worldviews and diversity in both beginning studio cultures and design projects?

Baxter Magolda's (1992) *Epistemological Reflection Model* highlights four *ways of knowing* for the intellectual development of college students: *absolute, transitional, independent and contextual*. Each level is characterized by an increased sophistication in the understanding and application of information. In the sophomore year, beginning architecture design students are primarily transitional knowers who seek to understand knowledge, provide active exchanges with their peers, expect instructors to employ teaching methods that help in the application of knowledge and to be evaluated based on their understanding of the material (Baxter Magolda, 1992). In support of a positive curriculum delivery, Howard-Hamilton (2000) suggests five characteristics of a *culturally responsive* educational community supported by instructors: connect to human needs, reinforce the creation of meaning, create a community of learners, nurture a trusting environment, and treat students as equals.

Students' own stories about experiences in the design studio reveal a struggle to apply ethnic, racial and cultural identity regarding themselves and others in their projects. However, the blending of *ways of knowing* within a *culturally responsive* community positively affects both how instructors teach and how students perceive. Students become innovational when acting upon thoughtfully presented information that is sensitive to their personal intellectual lens, thus the architectural design studio is enriched.

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Unspoken thoughts and latent constructs are hallmarks of the beginning architecture design students' inner worlds. They struggle with concepts of *self* and *others* in formulating and manifesting purposeful design project solutions. In the architectural studio, design problems demand a complete understanding of not only the physical project requirements, but also personal insights through a vision of what will genuinely fulfill the desires of the client. Students' worldviews provide reference points of comparison for decision-making when solving a problem. However, worldviews are not easily accessible or understood due to students' existing developmental levels. What directions should pedagogy take to promote worldviews and diversity in both beginning studio cultures and design projects?

Educational theories supply insight to potential approaches. First, the research of Marcia Baxter Magolda (1992) in the area of college student development highlights stages of intellectual growth as part of a predictable journey of discovery. As students progress through these stages or *ways of knowing*, they become increasingly aware of their own inner thoughts and value the opinions of others. These developmental stages affect creativity in student design projects. Second, the work of Mary F. Howard-Hamilton (2000) interlocks with the research of Baxter Magolda as it suggests that the developmental environment be enhanced through a *culturally responsive* community. This implies that instructors should actively encourage the students' worldviews in the design studio. Both researchers emphasize the importance of students' interactions as a pivotal activity that results in an expanded awareness of self and others.

To validate their research, interviews were conducted with three male African American architecture students. This is neither a large nor random sample, but was utilized to enrich the story of self, others, worldviews and self-authorship in the design process. Fries-Britt (2000) observes that a study of small distinct populations can still provide powerful insights into how learning takes place and how educational environments might be improved.

#### The Research Method

Upon hearing of my research, Baylor, Hunter and Maison volunteered to be interviewed regarding their worldviews and the architectural design process. All three are upper level architecture students. While the objective of this research is to focus on beginning design studios, I felt the students were developmentally sophisticated enough to reflect back upon their recent educational experiences and provide helpful insights. The resulting stories illuminate ways in which an awareness of personal culture may be both nurtured and incorporated into design projects at the sophomore level.

Each student interviewed was provided with a release form stating the research objective. The students' identities remain confidential and pseudonyms have been selected. The conversations were tape recorded with their knowledge and permission for use in this research. Appointments were scheduled with each individual student and lasted between 30 and 60 minutes. I listened to their stories and compared them to developmental theories.

All three interviews took place in my warm, dusty office early in February 2004 amid piles of books jammed into shelves and student design projects stacked tightly against the walls. Every afternoon, the sun dimly filtered through the blinds and illuminated each eager and curious face. Armed with only one question, "How do you place *your culture* into your design projects", I encouraged the students to freely express their thoughts and determine the course of the interview. Baxter Magolda (1992), in reflecting upon her own interview experience, suggests that the subjects be permitted to talk about what they felt was important. However, they all seemed to arrive at a point during their interviews where the word *culture* required clarification to continue. I referred to the description offered by Helms (1994) in which culture provides both broad and specific levels of identity including those that represent a society as well as race, ethnicity, customs, values, traditions and histories. I quietly interjected topics when their soliloquies stopped. "How did you become interested in architecture?" "Tell me about your family." These questions provided further insight into their individual cultures. Additionally, the responses clarified the specific way of knowing that the student was using when sharing their stories.

#### Ways of Knowing and Diversity Theories

All college students experience a developmental sequence of awareness. Baxter Magolda's (1992) *Epistemological Reflection Model* provides a framework that illuminates college student development through stages of *ways of knowing*. She describes students as interpreting or making meaning of "... their education experience as a result of their assumptions about the nature, limits, and certainty of knowledge." (Baxter Magolda, 1992, p. 3) Four stages of knowing define the model for knowing by students: *absolute, transitional, independent and contextual*. (Baxter Magolda, 1992) The stages are further defined by how each gender accepts, interprets and communicates information. Beginning architectural design students, whether they are freshmen or sophomores, primarily fall into the absolute or transitional stages and this is where the discussion will remain focused. The Epistemological Reflection Model also recognizes fluctuations and simultaneous use in the several areas of knowing as well as specific gender patterns.

Absolute knowing for both men and women provides a recognition that core assumptions regarding knowledge is absolute and that knowledge resides in the purlieu of the instructor. (Baxter Magolda, 1992) When asked how he incorporated his culture into his design projects, Baylor commented, "...no one told me I could do that." Maison reflects, "[I'm] usually just trying to meet the requirements of what to do. Teachers talk about design and how something should be done and not why. You never really think about culture being part of the design concept." This perception of knowledge is most dominant in the freshman year and begins to

taper in subsequent years. Teachers are expected to dole out knowledge in a clear and concise manner and students' evaluations are based upon this precise acquisition. Students' peers share information obtained from the teacher but do not consider themselves as legitimate sources of information. Students are on a quest for 'right' answers. Any discrepancies in information are viewed as variations in explanation on the part of the teacher and not genuine differences. Additionally, women function in the *receiving* pattern in absolute knowing while men function in the *mastering* pattern. (Baxter Magolda, 1992) These are generalizations and Baxter Magolda observed in her research that there is crossover between the patterns.

As receiving pattern absolute knowers, women primarily listen and record facts and information while men, as mastering pattern absolute knowers, demonstrate that they are interested in class activities and want to participate. Classmates talk to create a comfortable atmosphere if they are women and the men engage in debating and quizzing to help each other. The men expect the instructor to use interesting teaching methods. Women want more opportunities to demonstrate knowledge and be tested based on their knowledge of material while men examine feedback from the instructor as a means of improvement. Women accept a variety of opinions regarding information and when there is a discrepancy, they rely on personal interpretation. Men who observe differing degrees of detail in their studies resort to research and consult other authorities regarding the conflict.

In transitional knowing, students alter their attention to understanding information over simply acquiring it. (Baxter Magolda, 1992) Hunter demonstrates his developmental change by observing, "...it's who you are and what you express. So be expressive in your architecture. I've been working on that...since my sophomore year." Teachers need to correlate facts to real world experiences and create conditions that nurture learning. This parallels many design projects that incorporate real sites or clients. Also, sharing a common project across several architecture disciplines such as lighting, interiors and architectural design, builds team work skills and simulates professional working conditions. Evaluation is based on comprehension and not regurgitation. Projects replace tests in the design studio. Uncertainty is addressed by selecting processes that lead to decision-making with a diminished reliance on persons in authority. Emphasizing research over a banking education promotes self. Transitional knowing begins to appear in the freshman year, is slightly more prevalent than absolute knowing in the sophomore year and is most dominant in junior year. Women function in the *interpersonal* pattern as transitional knowers and men function in the *impersonal* pattern. (Baxter Magolda, 1992) Again, there can be a gender crossover to opposing patterns.

As interpersonal pattern transitional knowers, women are concerned with learning practical material and gathering opinions from others to assess ideas. As impersonal pattern transitional knowers, men prefer to understand concepts and not memorize them, and favor exchanges of opinion through debates. Women are predisposed toward a rapport with the teacher that includes opportunity for self-expression. Men favor understanding information accompanied by challenges. Baylor demonstrates that he wants a challenge, but also the opinion of the instructor in resolving problems, "I try to do everything outside of the box in terms of architecture. If something can't be done, hopefully with a professor's help, I can do a little more." Women want to be evaluated based on individual differences while men desire fair evaluations that are practical. Uncertainty becomes a focus for women as they resolve it through personal judgment. Men are equally focused on certainty and uncertainty which they resolve through research and logic. Hunter reveals that he moved from an absolute knower to a transitional knower in his sophomore year, "From the start, everything is programmatic. Later on, the curriculum gets looser. The professors are a lot easier. You get to use more of your flavor or your taste."

Absolute knowing and transitional knowing are the two dominant stages during the freshman and sophomore years with transitional knowing remaining dominant throughout the undergraduate experience. In absolute knowing, there is no reliance by students on their peers as purveyors of information. Students can not view themselves as possessing answers. Answers must be right and can only come from the teacher. There is very little opportunity for worldviews and personal culture to appear as part of a solution to a design project. In transitional knowing, the students begin to exchange information and opinions and relate them to problem-solving. Students consider the opinions of others as having potential value and actively communicate with each other to acquire it. When asked by their peers for an

opinion, they begin to view their own ideas as beneficial. However, worldviews and personal culture are not considered as potential resources when searching for design ideas; students are not developmentally ready to acknowledge them. Once an awareness of personal culture becomes apparent, students begin to knit together their culture with design problems as they search for solutions. Baylor and Hunter tell me how they believe they have incorporated their personal cultures into their design studio projects in the past. Baylor begins, “The first thing that comes to mind is color. When people think of African Americans they think of Africa... blues, purples, yellows. There were many different tribes and they all used different colors.” Hunter concurs, “Colors. I like color. Colors that say something...and are emotional. They’re signs of warmth and joy...and that reflects back on past times to slavery. [Colors gave them] comfort.”

Later, Hunter, who is the oldest participant and is furthest along in the architecture program, eloquently details how he has begun to link his culture with architectural design as a sign that he is progressing toward independent knowing. He reflects on two earlier design projects and comes to a linear awareness about the fluidity of space in architecture:

[The design projects were both about] togetherness. In history...African Americans say that all they could do was to hold onto one another. It’s important for us to get together. Things come together when they’re open. Even though there may be different spaces and different levels but once you experience the building...you see the spaces come together...they become a whole. One unit. That’s kind of neat! I never thought of that like this. The relationship. The progression of these ideas.

Baxter Magolda’s (1992) seminal research is confined to the discreet student population of Miami University and is affected by the characteristics present in the dominant white culture of the general student body as well as student and institutional cultures. As a foundational theory, it does not address cultural differences presented by diverse populations. To thoroughly understand their developmental levels and provide support for the awareness and application of worldviews, instructors must intertwine knowledge of the Epistemological Reflection Model with current research regarding learning and diverse populations.

Torres, Howard-Hamilton and Cooper (2003, 15) support McEwen, Roper, Bryant, and Langa’s nine factor model that incorporates African American culture into college student development: (a) developing ethnic and racial identity, (b) interacting with the dominant culture, (c) developing cultural aesthetics and awareness, (d) developing identity, (e) developing interdependence, (f) fulfilling affiliation needs, (g) surviving intellectually, (h) developing spiritually and (i) developing social responsibility. All three students spoke to these issues.

The story about their struggle to interact with the dominant white culture produces rich student stories and also addresses the development of cultural aesthetics, identity, interdependence, social responsibility and surviving intellectually. Baylor relays his experience about blending into a new class:

When I’m in a new class, at most out of 16 students, three are black. When I first came I saw...maybe one or two. We would mesh... we would congregate all the way down the [design studio] room....That’s one thing that we did was we all bonded quickly because you can put the model black students...in the palm of your hand. We are all pretty decent friends with each other.”

Hunter describes how black students support each other:

When we see other [black] people in architecture, we team up and help each other out. Because for the simple fact that some people don’t want to open up to me. They may know something that we may need or understand a little more than we may have understood. It’s easier to work together. That’s important too.

Maison is more subtle in his description and equates his classroom experience with growing up in Georgia, “Living up here...the people up here aren’t as nice. I prefer southern hospitality. You can run into somebody down there and not even know them and start a conversation.”

#### Pedagogy that Promotes Worldviews in the Classroom

The quest to achieve the integration of worldviews and self-culture in studio design projects calls for an understanding of self-authorship as defined by Baxter Magolda (1999, p. 6) as “...the ability to reflect upon one’s beliefs, organize one’s thoughts and feelings in the context of, but separate from, the thoughts and feelings of others, and literally make up one’s own mind”. Making up one’s own mind refers to students integrating their self-knowledge with that of knowledge communities to arrive at a deeper understanding of self. (Baxter Magolda, 1999) Furthermore, Baxter Magolda (1999, p. 6) concludes that “Teaching...becomes a matter of understanding and welcoming students’ ways of making meaning and simultaneously engaging them in a journey toward more complex ways of making meaning.” The following researchers make recommendations regarding effective pedagogies linked to Baxter Magolda.

Howard-Hamilton (2000) suggests that a culturally responsive curriculum be created to nurture classroom activities that promote worldviews. Baylor recounts a classroom experience that did not promote diversity, “In history class, we learned about European architecture, American architecture, Chinese architecture but not our culture.” Howard-Hamilton (2000, p. 50) concurs with Kitano (1997) and her three tiered course change model that exists in classrooms: (a) level one, the exclusive course where the

instructor maintains a banking strategy of receiving, memorizing and repeating information; (b) level two, the inclusive course where the instructor introduces new viewpoints without elaboration; and (c) level three, the transformed course where the instructor challenges the students to think about diversity topics. It is the transformed course change that will create opportunities for a diverse educational environment that promotes an understanding of personal culture and respect other groups and opinions. This is the result when the power and privilege of the instructor in the classroom as well as the banking education model is modified in favor of student reflection. (Howard-Hamilton, 2000)

Kitano's ideas are supported by Torres, Howard-Hamilton and Cooper (2003) who recommend that faculty redesign their courses to reflect diversity and to accomplish this, faculty first need to be secure in their own multicultural points of view. The instructor's attitudes and values are mirrored in their teaching and consequently, influence the attitudes and values of their students. (Hurtado, Milem, Clayton-Pedersen & Allen, 1999) In the design studio, instructors must reflect both by behavior and speech, respect for and understanding of diversity. When the students are comfortable, they are more likely to express their true feelings, right or wrong, in an atmosphere that is not judgmental. It is clear that class discussions lead to thinking and learning about diversity.

Baxter Magolda (1999, p. 9) verifies the research of Kitano and Torres, Howard-Hamilton and Cooper with her recommendation that "...teachers model the process of constructing knowledge in their disciplines, teach that process to students, and give students opportunities to practice and become proficient at it." Howard-Hamilton (2000) endorses revised classroom norms:

Designing a curriculum that is culturally responsive should include the following norms (Wlodkowski & Ginsberg, 1995): 1. Coursework that emphasizes a connection to human need or interest so that the students can feel a part of something that is relevant to them, 2. Teachers who are collaborative with the learners by helping them understand the creation of meaning and the virtue of their own thinking, 3. Students working together as a community of learners, 4. Students and instructors assuming a blame-free and trusting belief in people and their potential to be transformed, [and] 5. Students being treated equally in the classroom and invited to address behaviors, practices, or policies that are prejudicial. (pp. 50-51)

The students made recommendations regarding culture in the classroom. Baylor suggests a way to break the ice and begin to create a community of learners:

The teacher could do things to get us out of our comfort zone. Stand up [and] say 'Hi, my name is...' Things like that. Sometimes you might catch a student fumbling on words. It's fun. Just the fact that you're sitting next to other students.

Baylor presents a reason to integrate culture in course work, "I've never heard [teachers talk about] it [culture]. I think it is important [to talk about] because it give you that extra boost of confidence." Hunter reflects, "First of all, [teachers] mentioning it [culture]. I think it's important to say. This is the first time I'm talking about it. I wonder what I would do consciously thinking about it in my projects." Maison makes the connection between appreciating culture and its application to the profession, "Culture should be specifically talked about. [These same ideas] would apply to a client. You would find out their interests, history, thoughts and ideas. Then make some sketches."

In addition to the application of developmental and cultural theories in the classroom, there are two approaches that will lead students to think specifically about their worldviews. First, the students have already suggested that group discussion is an appropriate approach to lead a class toward thinking about their own personal culture. However, the language used by the teacher to explore a student's inner world needs to be specific. The scientific question is always *what* and not *why*. The question, "Why have you done this", will more likely produce defensive excuses. The question, "What have you explored to arrive at this conclusion", will result in thoughtful narrations that may lead to student self-revelations.

Second, the one-on-one interview process suggests an alternative approach to achieve cultural awareness in the classroom. I have consistently remained in awe of the interview process as a venue to teach the very topic I am exploring. It has been my experience that with

one explicit question, a student begins his or her monologue that twists and winds its way to a new awareness. Each student injects his or her own truth to the topic at hand and enriches it with personal stories and references. I am always honored to be the recipient of their stories. Their conclusions are remarkably similar; there is an awakening. This qualitative approach is strongly supported by Baxter Magolda in her research. A variation of the interview approach might be explored in the classroom as a new teaching strategy.

Robert Grudin states, "To learn is not merely to accumulate data; it is to rebuild one's world." (1990, p. 152) After reflecting upon their subsequent narrations, these three architecture students became acutely aware of each of their own individual cultures and only then, understood the implication of the original question. A very slow "Ahaaaa!" escapes from Baylor's lips. "I never thought of putting my culture into my design; no one ever told me I could." Baylor shakes his head in pleasant surprise at the revelation. "I've always known that my culture is my African side but it's my LOVE! I can incorporate everything!" Hunter has a similar experience. "[This is] the first time I'm talking about it [culture] now. I wonder what I would do consciously thinking about it in my projects." He looks away to some unknown point in the room. Maison reflects, "[As far as culture is concerned], I never thought of using it that way." He quietly stares at my empty desk. Baylor solemnly concludes, "This has been a moving experience." The awareness that culture is a legitimate source of inspiration for architectural design and personal growth becomes a startling and common conclusion.

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