

Absenting Authorship, Resurrecting Readership

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This paper describes the *Shifting Allegiances* pedagogy developed by the paper's author and tested at two different universities. The pedagogy operates on the assumptions that student concepts will be cooperatively held, and that students' allegiance to concepts will shift during the course of the term.

BACKGROUND

Given that the architectural profession faces increasing complexities such as global warming, climate change, and the urgent need for designing carbon-zero, resilient infrastructures and built environments at no extra costs, and that the academy faces the demands to create prepared professionals for this complex work layered atop already demanding curricula, we find ourselves in the midst of collisions that require us to examine the most fundamental teaching and learning practices in our discipline, in the most fundamental of learning spaces, the design studio. As Stella Lee states, "To really effect change, we need to focus on culture, and where it is solidified — in education."¹

Common methods of design teaching and learning find their roots in the nineteenth-century Ecole des Beaux Arts in Paris further reinforced by the early twentieth century practices and (design of the school) at the Bauhaus.² In an expose of "the dominant models of labor and expectations of productivity without compensation [that] transition seamlessly into professional architectural practice, perpetuating the cycle of precarity and overwork," Jacobs and Utting further write that "[t]he traditional atelier reifies and reinforces a cult of over-productivity, perpetuating the myth of individual authorship to accelerate expectations of work, heroic exhaustion, and self-exploitation."³ However, the voices that describe and give a mirror to such exploitative practices in academia and the profession are not new. In 1991 Tom Fisher asked in a *Progressive Architecture* article, "[w]hen do we cross the fine line between hard work and exploitation?"⁴ Kathryn Anthony's 1991 book *Design Juries on Trial, The Renaissance of the Design Studio* is based on eight years and ten phases of research using quantitative, qualitative methods including "...surveys..., interviews, diaries, behavior observations, participant observations and ethnographic discussions" at multiple institutions across the country.⁵ She provides chapters on time management, how to handle stress or burnout, expostulating the role of sleep and food in staying healthy and productive.

Such a culture seeded concomitantly in practice and academia is implicated in the considerable inequities in our discipline and practice as demonstrated by the survey work done by the EQxD group at AIA San Francisco.⁶ For example, the 2018 EQxD survey reports that there is a gender- and race-based pay gap in every level of the profession with greatest difference at the most senior levels. Even as the work of examining, understanding and mitigating the inequities in our profession is ongoing, we are facing great complexities and rapidly accelerating challenges in which our profession is implicated, and for which we are responsible. Global warming and the resultant issues of climate change require us to transform existing built environments to be resilient and regenerative and to design new resilient and net positive environments. Traditionally, our response in the face of such demands and needs from practice and academia would be to "work harder." In fact, the academy has responded through curricula that layers these complexities on pre-existing needs and demands for the skills that a graduating intern in the profession architecture must acquire. For example, the Net Positive studio specifically responds to the need for building energy assessments, modeling skills while having the students think systemically about architecture and its impacts through a Net Positive framework.⁷ Just learning energy modeling skills to reach Net Zero energy or Carbon Zero is no longer adequate in a 7-week studio.

It leads to the question, what can we do to create and promote humane work environments that address inequities and promote wellness while assiduously and expeditiously solving the complex problems that face humanity and where the Architecture profession, amongst others, has an urgent part to play?

SHIFTING ALLEGIANCES

In this context, the *Shifting Allegiances* studio pedagogy, incorporating fluid cooperative and individual work structures and play frameworks, may provide a solution. This pedagogy, implemented in graduate-level studios, asks students to consider all the concepts developed in the studio as being held in shared authorship and cooperative readership.

The *Shifting Allegiances* pedagogy is singularized by its fluid student-led groupings of work based on thematic issues and student-identified work structures. The studio timeline

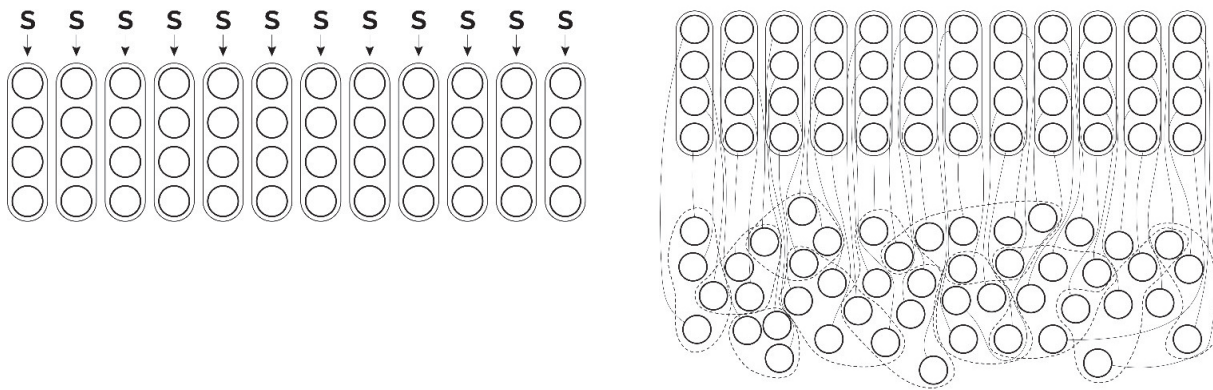


Figure 1: Setting the Table (left); Conflation (right). Students are denoted with "S." From Srivastava 2019.

incorporates cyclical patterns between individual and cooperative work, data and design cycles, and authorship and readership of collective work. Contributions incorporating peer teaching and learning opportunities are characteristic of the studio structure.

All the work in a Shifting Allegiances studio is held in shared authorship by the students. The studio cycles between individual creation and development of artifacts (authorship), sharing and presenting the artifacts in all-studio group discussions, grouping and categorization of the work represented by the artifacts (readership).⁸ This process of grouping the work into discrete categories agreed upon by the studio, develops common terminology to recognize and coalesce the artifacts into thematic categories and subsequently identify new work groups and collaborations.⁹

The pedagogy was recently implemented in three iterations: first, in the final year of a five-year combined undergraduate and Master of Architecture degree program (North Dakota State University); second, in the penultimate year of a three-year Master of Architecture program (University of Minnesota); third, at the ACSA conference titled *Less Talk More Action* (Stanford University). Earlier results were reported in presentations and in-press articles from ACSA Milwaukee¹⁰, the ACSA Teachers Conference in Antwerp¹¹, and the Reynolds Symposium¹². The following general description, summarized from previous writing from the above-mentioned list, is broadly characteristic of past implementations.

The Studio is organized in a five-step cycle. In the first step, called "Setting the Table," the students are given a design prompt, in response to which each student ('S' in Figure 1, left) contributes multiple artifacts (circles) to the table or pin-up board (Figure 1, left). "Setting the Table" calls for iterative making and artifact development, and the common activities that position the students as authors.

In the second step, "Conflation," through structured and rapid movement of artifacts accompanied with discussion, the students group the work into tentative categories. In a play format akin to the game Jenga, the students take turns to move artifacts around, creating groupings that exemplify specific issues without regard to who authored the work. Works are categorized and re-categorized based on different prompts. Responsiveness to previous moves or categorizations is inherent in subsequent categorizations. As the discussion continues, works may be repeatedly moved around the table for thematic overlap (Figure 1, right).

In step 3, "Categorization," various works are eventually grouped together based on all-students agreeing on the evolving definitions of thematic criterion and studio priorities (Figure 2, left). Works may be shared between thematic groupings. For the fourth step, "Coalescing," depending upon interest and needs for skill development, students take on groups of artifacts to develop further. They may not necessarily have allegiance to the ideas they had generated as individuals, instead inheriting the work of one or more studio colleagues (Figure 2, right). Collectively, the second, third, and fourth steps enable students to develop a common language and assign terminology to describe, identify and categorize the work thematically rather than by authorship. These common activities, conducted in a group through discussion, position the students as readers.

Finally, in step 5 ("Cooperation"), through discussion, group and individual work expectations are outlined. At times students create cooperative work structures where they may individually and simultaneously test and produce multiple concepts to create constructive comparisons in the work. It is a form of simultaneous group iteration in a very structured format. This step marks the transition of the students from readership back to authorship as they prepare to restart the cycle.

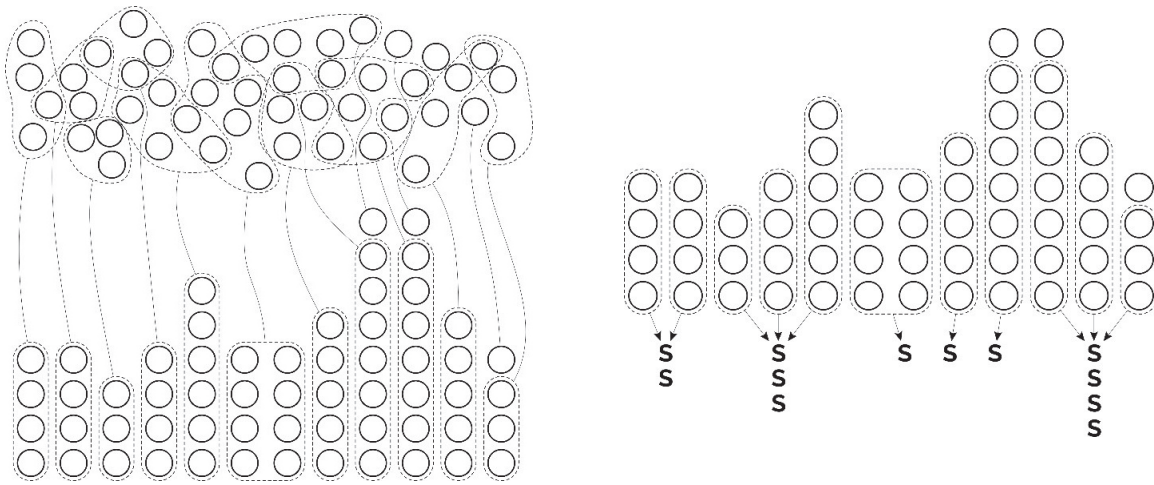


Figure 2: Categorization (left); Coalescing (right). Students are denoted with “S.” From Srivastava 2019.

The alignment exercise is the critical milestone event where Shifting Allegiances to projects or people are likely to occur. In this step, students may self-organize into sub-groups as they align themselves around particular themes. During the alignment exercise, some students choose to stay with a thematic idea that they were working on, while others choose to advance thematic ideas that had been previously developed by others. Subsequent discussions incorporate comparisons and critique of work and consideration of tools and competencies needed, shared and taught in order to meet the studio’s learning goals.

2018 IMPLEMENTATION: NORTH DAKOTA STATE UNIVERSITY (NDSU)

In the North Dakota State University implementation, the pedagogy was tested in a 15-week studio titled Responsive Skins, taught by this paper’s author. The semester was divided into three parts. In the first part, students created artifacts that mediated between the human body and the built environment, creating responsive, enhanced, and efficient human “skins.” In the second and third parts of the studio, the mediating artifacts generated for the human body were translated into responsive building skins studied first through details and wall sections, and eventually through designs for a proposed Solar Decathlon home and full-scale wall construction prototypes (Figure 3). On the first day of studio, sketches in response to the mediating artifact prompt were generated and ‘mixed, conflated, experimented with, categorized and coalesced’ (Figure 4). In response to the design prompt, each student produced three or more artifacts, e. g., sketch drawings or models. Within the set time, the group produced roughly 70 artifacts which were then sorted into thematic categories. The students self-identified into cooperative work groups based on interest and developed initial sketches inherited from various colleagues into enhanced, responsive, and efficient artifacts mediating between the human body and surrounding environments.

During the semester, the students submitted photographs and scans of individual works to a shared Google Drive folder every week (Figure 5, left). Prior to each alignment exercise (labeled “mix” in the figure), students would exhibit the works (depicted as blank circles) in a discussion or exhibition-style structure, prompting small-group discussions with invited guests. The guests were a mix of students, faculty and practitioners from the local art and design community. Conducted thrice during the semester, the alignment exercise typically followed the exhibit-style discussion-based review.

Subsequent to each cycle of making and authorship, the studio engaged in the alignment exercise, moving through the five outlined steps during the studio period. At the beginning of the semester, the design prompt and making portion of the exercise was time-limited and conducted in studio, typically, on the first day. Subsequent alignment exercises during the semester were based on work produced in the previous exercise, each lasting two, three, and four weeks as the semester progressed.

2019 IMPLEMENTATION: UNIVERSITY OF MINNESOTA (UMN)

At the University of Minnesota, the Shifting Allegiances pedagogy was implemented in the author’s section of the Net Positive studio, a 7-week studio in the penultimate year of the professional M.Arch. program. The Net Positive studio focuses on “developing, assessing, documenting, and representing interaction between architectural form and environmental factors, using energy modeling tools and incorporating frequent quantitative feedback”.¹³

The author’s section of the Net Positive studio implemented the Shifting Allegiances pedagogy by focusing on existing-building inefficiency as a major contributor to carbon emissions and climate change. Students were asked to demonstrate passive and active modifications of the building

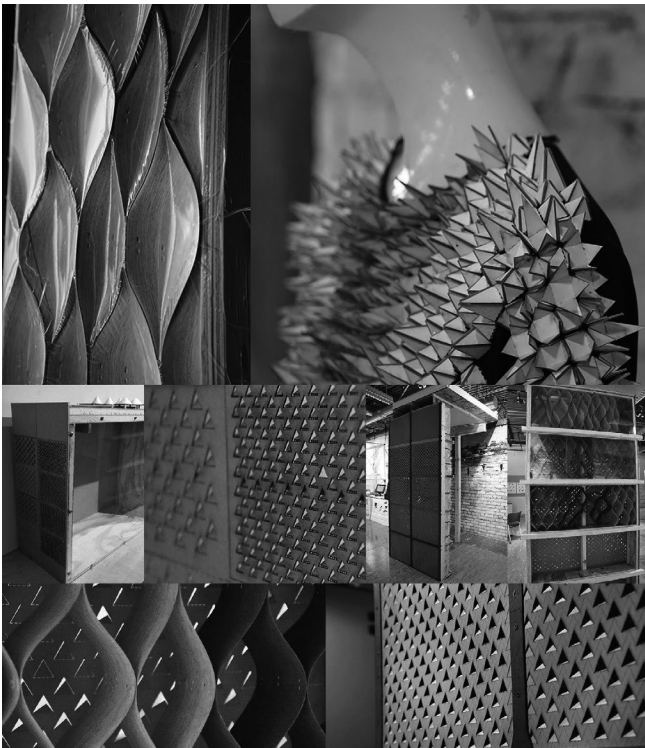


Figure 3: Program 1, examples of student work from Exercise 1, 2 and 3 at various points during the studio timeline and developed by varying groups of students without regard to original authorship. Works by Ally Hatcher, Nick Lunde, Ian Schimke, Alexander Jansen, Austin Foss and Dylan Neururer. Photos by Ally Hatcher, Ian Schimke and Dylan Neururer.

and its envelope for an 80% reduction of its baseline energy use, and to incorporate a Net Positive¹⁴ contribution beyond energy efficiency, such as water, biophilia, waste, etc. The first implementation of the five steps of the Shifting Allegiances pedagogy occurred in the second week of the studio. At this time, students were asked to produce four artifacts, selectively modified or completely replacing the building's existing boundary condition, in order to create a passive, high-performing, envelope reducing the building's estimated current energy use by 80%. The studio then gathered to conflate, categorize, and coalesce thematic categories from the work produced (Figure 5, right).¹⁵

A second planned implementation to conflate and recategorize the studio's work did not occur. Instead, students worked on combining interests to form groups that could work cooperatively, staying close to personal artifacts but sharing freely the work they had generated with the studio in order to form cooperative groupings, thematic categories, and productive structures of peer teaching and cooperative comparisons. In an exemplary demonstration of cooperative learning, the students developed and updated shared spreadsheets examining comparative energy performance and emergent questions for all-group reviews and discussions.

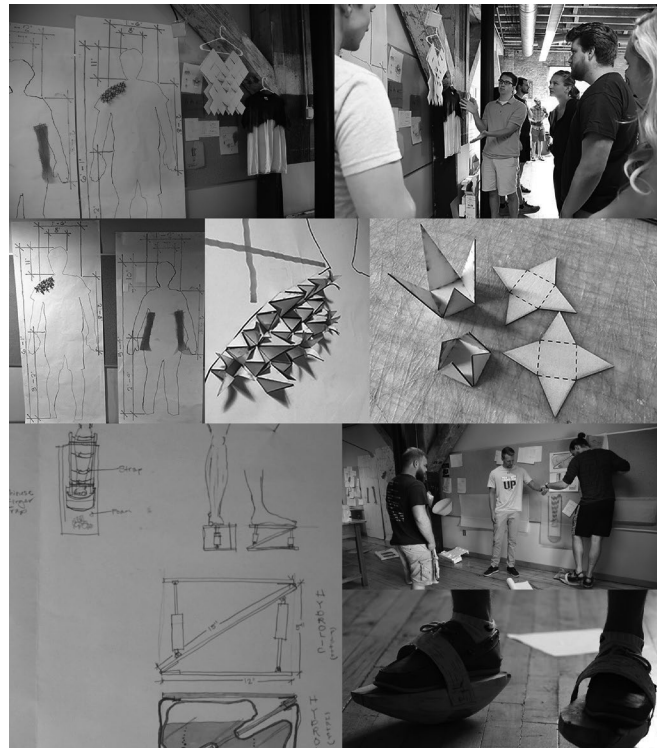


Figure 4: Program 1, examples of student work from Exercise developed in studio for discussion and experimentation in fluid groupings of students. Works by Ian Schimke, Dylan Neururer, Austin Foss and Alexander Jansen. Photos by Ally Hatcher, Ian Schimke and Dylan Neururer.

2019 IMPLEMENTATION: LESS TALK MORE ACTION ACSA CONFERENCE (STANFORD UNIVERSITY)

In response to the ACSA Stanford conference call for a hands-on experience, the author led a brief (30-minute) simulation of the five steps of the Shifting Allegiances pedagogy in a conference session. The author brought one hundred examples of work generated in the fundamental design exercise, solid-void cube. The work images were printed on 8.5" x 11" sheets of paper in black and white.

The audience was first given a short overview of the Shifting Allegiances pedagogy. Then each attendee was given ten images of the cube exercise that they would "contribute" to the discussion. The attendees were invited to take turns to move the pieces of paper around as they categorized the cube images while naming thematic ideas. This moving of papers around the table to create groupings in response to the developing themes was repeated a few times (Figure 6).

Early on in the conversation, two of the participants – themselves experts in foundation-design teaching in which the solid-void cube is a common exercise – conjectured which school and whose studio the particular works had been made in. This line of discussion quickly positioned the discussants as experts, critics,

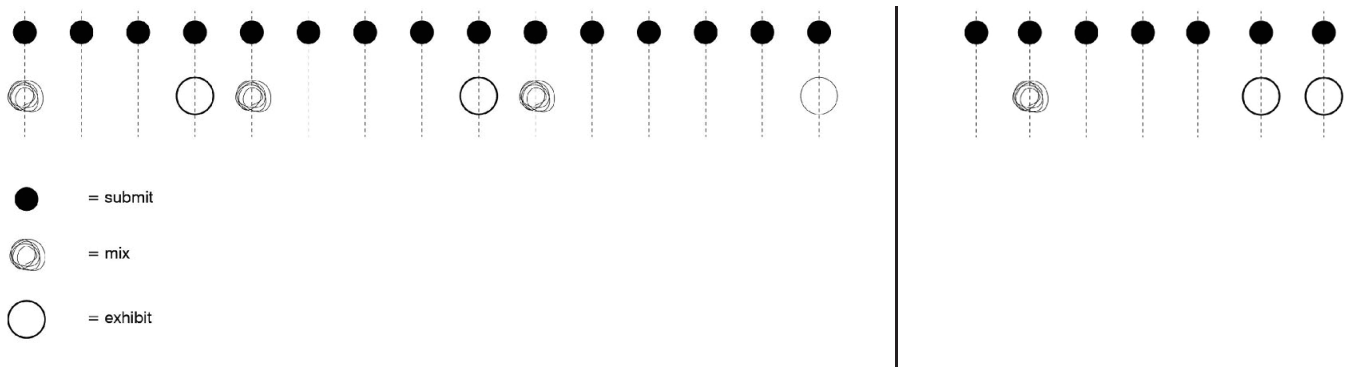


Figure 5: Shifting Allegiances semester structure. First example (left); second example (right). Each week is depicted by a dashed vertical line; individual works are shown with dark circles, labeled “submit.”

and judges rather than as authors or learners (i. e., the roles that the author asked them to play). At first, the attendees’ discussion was based on readings of form, without too much movement of papers to indicate groupings or democratized participation. Fairly soon, recognizing and reflecting on the fact that they were judging the work rather than participating in it, the attendees started categorizations based on a theme of heavy and light tectonics and related modeling materials. Yet, the conversation and terminology remained focused on the purview and concerns of foundational design exercises instead of taking new leaps toward thematic ideas explicitly unrelated to foundations design pedagogy (e. g., efficiency of the form in terms of environmental impacts, labor and economy, construction methods, gendered spaces, environmental impacts of materials).

OBSERVATIONS AND DISTINCTIONS

Several details distinguished the three implementations of the Shifting Allegiances pedagogy from each other and were most likely responsible for the differing outcomes in terms of discussions during the Shifting Allegiance exercise, the variations in the structures and roles that the students and conference attendees adopted, and whether they were successfully able to see the exercise as a productive form of play that allowed them to deal with complexity through cooperation. These varying details were, the duration of the studio or exercise differed in each case, as well as the timing of introducing the alignment exercise in the semester. The types of artifacts produced (or used) by the students (and attendees) for the purpose of categorization differed in each implementation such as sketch models and drawings (or images of others’ works). Lastly, the scale and type of work at the moment of the first alignment exercise also differed between studios and conference.

In all cases, the author positioned the Shifting Allegiances pedagogy as a form of play. The NDSU and UMN studios responded productively while the author did not have a follow-up to the categorization done during the conference to observe its play-based outcomes. Based on Johann Huizinga position about play for adults, “play is superfluous.” Play for adults is therefore not “ordinary”: it allows them to step into a temporary sphere of activity with its own disposition, such that while play is in progress it has “movement, change, alternation, succession, association and separation.”¹⁶ Jane McGonigal, in her book *Reality is Broken*, states that “[G]ames ... are the quintessential autotelic activity. We only ever play because we want to. ... [G]ames actively engage us in satisfying work that we have the chance to be successful at ... And if we play long enough, with a big enough network of players, we feel a part of something bigger than ourselves - part of an epic story, an important project, or a global community”¹⁷. In the Shifting Allegiances pedagogy, students playfully found alignment between projects, creating and furthering thematic groupings that would not have existed in individual work. The hoped-for outcome that the students would take ownership of a particular thematic category based on interest, whether they were the original authors or not, and develop it further, was successful in both the studios.

The timeline and duration of the various implementations differed. The first studio (Responsive Skins at NDSU) was a 15-week semester, while the second studio (Net Positive at UMN) was a 7-week half-semester module. The third implementation (at Stanford) lasted 30 minutes as a demonstration or simulation. In both studios (NDSU and UMN), students were tasked with a complex task in the studio’s short timeline. In the



Figure 6: Shifting Allegiances ACSA conference structure. Sorting the solid-void cube exercise.

UMN Net Positive studio, students were charged with inventing responsive skin interfaces in order for existing buildings to not only achieve a net zero target but also make a net positive contribution to surrounding environments and communities. In the NDSU Responsive Skins studio, students worked at multiple scales (from details, to wall sections, to the whole building) to develop Net Zero performance. Seized of the seriousness of the task at hand in both studios, students took the opportunity to cooperate constructively as a group, making substantive contributions to the studio and their peers' learning, while simultaneously building individual skills.

At NDSU, during the 15-week semester, the students were introduced to the concept of fluid shifts between scales, works, and self-identified groups on the studio's first day. In response to a design prompt to sketch ideas for a mediating artifact between the human body and environment for enhanced and efficient performance, each student sketched multiple ideas within a set time limit and then proceeded to conflate authorship as they categorized work. They finally coalesced in groups around thematic ideas based on interest. This process of fluidly moving between issues and work groups at any given stage during the semester became common, and students looked forward to the next stage with interest and eagerness. Students took on new issues at every stage. The work groups formed in various permutations and combinations purely based on interest in working on a particular issue, through particular representative methods, and with particular colleagues, while developing specific skills. All but one of the students shifted between thematic categories fluidly, exploring various content areas as related to responsive skins in support of Net-zero and Net-carbon performance at all shifts throughout the semester. In contrast, during the 7-week UMN studio, the students were introduced to the Shifting Allegiances exercise in Week 2, after they had spent a few days developing ideas for passive and active responses. By the second week in studio, the students had developed at least four concepts that interested them. In Week 2, when students worked on identifying thematic issues, they found it difficult to coalesce the works based on thematic categories. Instead, combinations of ideas were pursued by groups of students or individual students based on interest.

In the NDSU responsive skins studio, the initial sketches were grouped based on broad categories such as acoustic, vision, or gravity enhancements between the human body and environment, rather than on specific details about how these enhancements were conceived or deployed. Whereas in the UMN studio, because the work had been further developed for a week and a half before the categorization exercise, the ideas were more developed and harder for the students to let go of and merge. Therefore, combinations of seemingly disparate concepts became common. For example, waste composting, double-walled envelopes, and urban systems infrastructure, individually developed, were combined together for a group

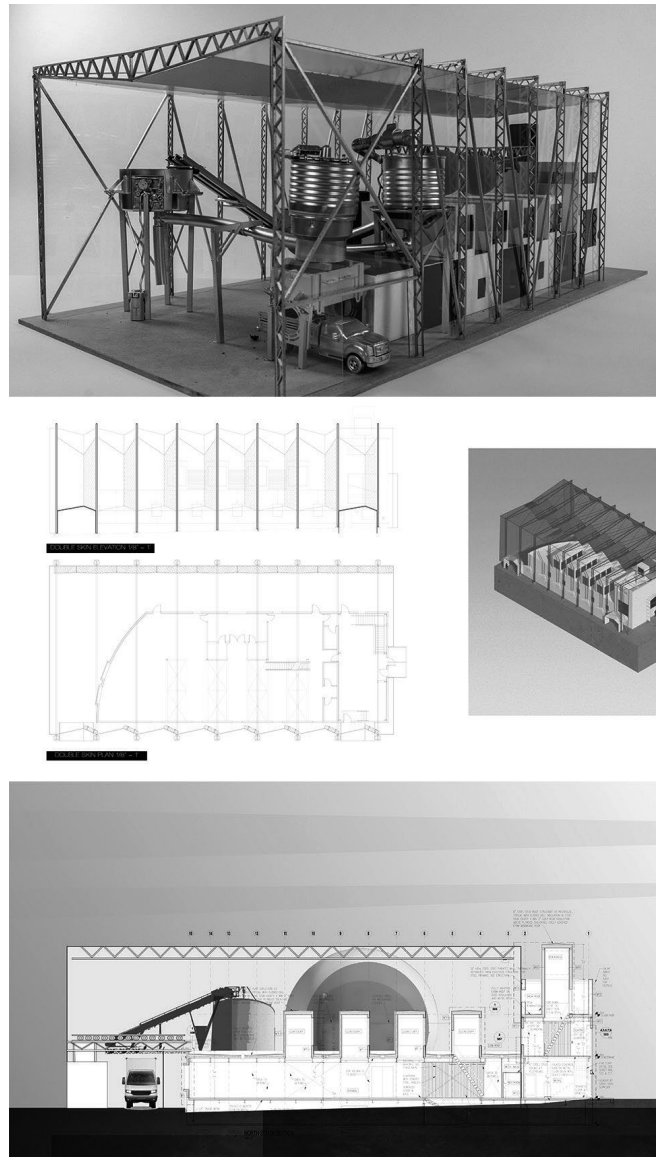


Figure 7: Transforming the existing ice-cream factory to add composting functions to support urban infrastructure, double wall envelopes, Works by Ashleigh Grizzell, Garrett Hulse and Adam Rosenthal.

to work on (Figure 7). Another group coalesced around formal interventions in the existing building based on a biophilic approach. This group decided to develop individual concepts within that broad category, only sharing background research. In both the studios, there were students who worked individually (three at UMN and one at NDSU). The combination strategy rather than categorization and coalescing worked well for the UMN studio because of the short studio duration. Although multiple shift iterations were not possible due to the combination of themes, and students did not individually develop multiple concepts, students were able to pursue multiple concepts in group settings, some developed by colleagues and some self-developed and learn new skills.

While the third implementation (at the conference) cannot fruitfully be analyzed at par with the other two studios, it nevertheless offered some important distinctions. The major difference present in the third implementation – that the participants were not themselves the authors of their “contribution” and that they were working with images of the artifacts rather than the actual artifacts – had a profound impact on how the exercise evolved. At NDSU and UMN, the group dynamics during the Shifting Allegiance pedagogy differed significantly from the one at ACSA conference. The university students, spontaneously adopting a more game-like structure, were careful to take turns while taking risks with rapidly trying different categorizations and discussing decisions to finalize thematic categories with all voices participating in the conversation. The students tended to pay more attention to concepts raised and discussed by colleagues who had taken turns to categorize the work prior to them, and in turn, influence the subsequent conversation. At the conference, the attendees spontaneously took on the role of critics or judges of the work rather than the contributors, authors, and readers in order to further learning and understanding. Their choices for thematic categories were more targeted, where prior knowledge of the purpose of the exercise played a role. Lastly, participation in the discussion was uneven, with couple of attendees leading the discussion in a small group of people.

A final comment concerns assessment. Although the instructor was positioned as an observer, and had not given explicit instructions regarding adherence to any specific format for the Shifting Allegiance exercises, the studio grade was substantively dependent on constructive contributions to the studio as a whole, in addition to ability to achieve growth in individual skills within cooperative work structures. In short, students who are able to engage multiple, inter-related issues, able to respond productively to works and concepts that were not of their personal authorship, and are able to develop their ideas in pursuit of stated aims (e. g., responsive skins, Net Positive), will benefit from the structured cognitive diversity within the Shifting Allegiances studio environment.

ACKNOWLEDGEMENTS

Student work described in this paper was completed at North Dakota State University and at the University of Minnesota.

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