

STARS VS. CLOUDS: CREATING A COLLABORATIVE COMMONS LEARNING SPACE

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The authors engaged in a redesign of the Robert Morgan Studio space, a learning lab for Instructional Systems students at Florida State University. This is a multipurpose computer and media lab that provides a venue for engaging with courseware, teaching and learning applications, and accessing resources for specialization in digital production and dissemination. Originally intended to be a versatile computer and media lab for instructional systems courses with a specialization in digital production and dissemination, the space was found to be less than nurturing in its support of the original vision. The room was, in effect, designed without understanding the needed intent. Our goal was to provide a space for developing systems to evaluate how people learn, providing systems to help people engage in this learning. The lab needed to be deconstructed, literally and figuratively, from its austere and semi-functional layout into a more highly interactive studio; not simply individualized, but a highly social, context-dependent and collaborative achievement.

This design case chronicles the design process including the installation and post-occupancy observations of both successes and failures in the resulting renovated space. The dynamics of team collaboration viewed horizontally across campus departments and vertically within the instructional and administrative structures of each group are explored as the design process unfolds. The narrative examines the Morgan Studio redesign through the process of conceptual design, schematic design, and design development normally associated with professional design practice. The roles of idea generation, sketch drawing, and FF&E selection and installation are highlighted against a client environment where proposed and perceived design directions are subjected to a variety of end-user desires, understandings, and expectations.

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CONTEXT

A digital native is the name given to someone who grew up with technology that first became prevalent in the latter part of the 20th century and that continues to evolve today. Digital natives arrive on campus with a vastly different set of experiences and expectations than their boomer parents and teachers. They're savvy and comfortable with technology, multi-task and socialize day and night, and typically carry an assortment of technological devices with them. For the most part, education has not caught up with the needs and skills of digital natives. Education looks and acts just the same after 100 years. The images in Figure 1 illustrate the sad similarity in classroom types—about 25-30 students seated at desks with writing tops and book storage, and a chalkboard on the wall. Many such old-school classrooms still exist, particularly in older school districts and poorer parts of the country. However, to address and engage digital natives, education needs to change, and efforts at fostering new environments supportive of collaboration are therefore in order.

Outside of the classroom, virtual environments such as local coffee and snack shops, restaurants with Internet hot spots, and the growing implementation of learning commons spaces in campus libraries offer students a profusion of social



FIGURE 1. Historical and present day student and classroom archetypes.

opportunities to connect with other students, to share ideas about class work, and generally grow personal knowledge and expertise. The success of these spaces offers lessons for people creating new spaces for learning. Another venue, virtual-style digital communities, has enormous value and are vital to many students' ability to investigate and process information. However, the Internet's matrix of digital collectives too often leaves the student alone, in a dorm room or campus nook, and away from real-life interaction.

In an attempt to design for digital natives, the authors, as designers of the Robert M. Morgan Instructional Systems space at The Florida State University's (FSU) Mode L. Stone Building, wished to explore the energy of shared learning in a physically tangible social setting. The imagined space was intended to function equally well for students and faculty, digital natives, and digital immigrants, those persons who were born prior to the advent of digital technology and embraced it later in life. The goal of the renovation was to deliver greater prospects for truly collegial collaboration, instruction, presentation, and conferencing, borrowing from the lessons of social spaces.

INITIAL IDEATION AND DESIGN BRAINSTORMING

Visioning

The project's story begins towards the end of 2009. The faculty of the Instructional Systems (IS) program at FSU—8-9 in number at the time of the renovation—had a nice-sized space (30' x 30') that was under-used and in need of updating. The prevailing sense was that it had an identity crisis—was it an instructional room? A lecture room? It was a bit ambiguous. The room was, however, adequately sized relative to a typical IS classroom, which can host 15-25

students on average. In short, it was a stark, uninviting space, currently used as just another lecture room related to IS courses and lectures by people in the field who came to visit. The studio was open to graduate students (both Master's and Ph.D.) who were enrolled in the IS program. Even in its existing state, the room had so much potential. It was large, and within the College of Education (as can be said for most of the university), real estate was at a premium. It was incumbent on the IS faculty to redefine the space and avoid a "use it or lose it" scenario.

A departmental design team (IS Design Team) comprised of the following persons was established to guide the effort:

TEAM INITIATOR: a former director of the IS program that moved on to administrative duties. The Team Initiator was the initial point person for the project and coordinated a number of the early design meetings.

CO-LEADERS (2): (Val, a professor and second author; the other an associate professor that would leave the team before the project was finished). The Co-Leaders managed the day-to-day design duties and coordinated team design tasks.

FACULTY TEAM MEMBER: a new faculty member that arrived as the project was just getting started was the go-to faculty member of the IS Design Team for task allocation and coordination with other faculty and graduate students. After one of the Co-Leaders left, this member became the new Co-Leader with Val.

INTERESTED IS FACULTY (NUMBERS VARIED): particular faculty members were sought out regularly for project input but had no day-to-day responsibilities to the team.

GRADUATE STUDENTS (3-5): they represented the student user population, informed the design from a student perspective, and provided labor during the renovation.

The process started and followed a typical phased method of design beginning with client team visioning, a clear needs assessment, prioritization of goals and desired outcomes, and assignment and scheduling of resources to achieve the work.

Prior to engaging professional design help, the IS Design Team brainstormed potential uses for a new Morgan Studio and settled on a number of purposes for the space including:

- a general hangout area for IS students, faculty, and staff
- comfortable space for IS faculty meetings, IS student association (ISSA) workshops, doctoral defenses, and classroom space for technology courses
- room for special lectures and colloquia by those within and outside of the IS program
- tool development and/or beta-testing area
- development space for podcasts and other video projects to create high-quality videos/podcasts for use in IS online courses and for purposes of student recruitment
- a space to design and conduct gaming-learning research which would require the purchase of an array of games and devices for research

Initial thoughts on fit and feel were developed early on by the IS Design Team in the visioning process. To accomplish such a multi-purpose space would require careful thought relative to flexible and movable furniture (e.g., chairs, tables, white/smart boards), warm and inviting color schemes, various layouts and configurations, necessary hardware and software, access and security issues, and the coordination and scheduling of all of these anticipated events. Rather than purchasing art for the space, the IS Design Team thought it would be a good idea to create homegrown art—allowing all IS faculty, students, and staff to submit up to three graphic images to an IS art competition where jury-selected art would be proudly hung in the new Morgan Studio space. To get the color-scheme ball rolling, several ideas were generated for the room and submitted to interested IS faculty for

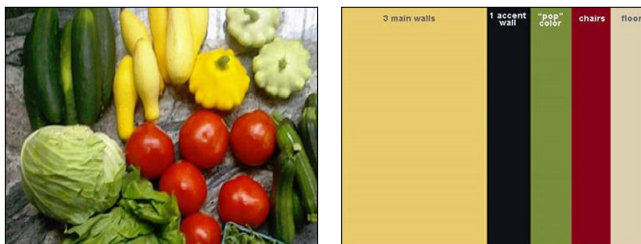


FIGURE 2. Examples of colors inspired by fresh garden vegetables and earth tones.

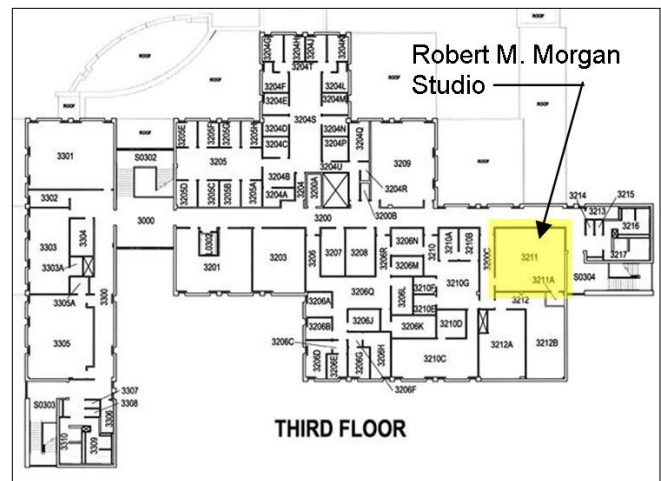


FIGURE 3. Third floor of the Mode L. Stone building showing the location of the Robert M. Morgan Studio.

their vote (Figure 2). Val used Photoshop’s eyedropper tool to directly extract colors from images of vegetables, which then were placed in a paintchip array. She proposed this color palette to represent “fresh” and healthy ideas for sustenance and optimal growth. At this stage, enthusiasm was universally high within the IS Design Team with ideas flowing freely, like water through a fire hose. It was a shoot-for-the-stars vision with a student and faculty body of energy equal to the task.

Planning

Shortly thereafter the IS Design Team decided it was time to “get serious” and to take the ideas to the next level of reality. This realization was an acknowledgement of the IS Design Team’s lack of spatial planning and design expertise. Also, it was good timing as the IS alumni had contributed approximately \$15,000 towards updating the space. These alumni viewed the existing space as “old school” with all the computers at desks around the perimeter facing the walls. Additionally, IS Design Team job loads were in full swing at this time of the semester. Therefore, during the spring of 2010, the Team Initiator contacted FSU’s Department of Interior Design looking for design assistance in renovating the Morgan Studio space. A request was forwarded to Jim, the first author, since he had just joined the faculty after a 20-year period of professional practice as an architect and designer and was eager to continue the design energy he was used to. Researching the Instructional Systems program online, the department’s website described its mission as providing “a medium for focused Instructional Systems (IS) courseware, teaching and events, learning and application opportunities, and resources for specialization in digital production and dissemination” (College of Education, 2013). Jim found the program intriguing by this self-description, and the idea of helping to re-imagine a space with rather specific and unique requirements for instruction and learning appealed to his proclivity for creative problem solving.



FIGURES 4-7 (clockwise from top left). Interior views of the Robert M. Morgan studio prior to the renovation.

In March 2010, Jim met the Team Initiator at the Stone building. After introductions, they briefly went over the project, and then walked over to the building's relatively new expansion where the Morgan Studio was located (Figure 3). The two turned down a short hall off the main corridor and opened the door into a square room that appeared to be a standard computer lab with a cold blandness. It spoke of an outdated notion of technological efficiency and economy coupled with a shallow guise of decorative appointments (Figures 4-7).

Originally intended to be a versatile computer and media lab for instructional systems courses with a specialization in digital production and dissemination, the IS Design Team found the space to be less than nurturing in its support of the original vision. Installed as a data-intensive, instructional systems laboratory with a traditional arrangement of centrally-placed worktables and wall-mounted workstations, the space was planned in the manner of a conventional computer lab wherein instructors lectured and handed out tasks to students who, in turn, plugged in and tuned out from their surroundings and peers. This model of insulated learning has become progressively less effective in the current complex and interconnected world. The team felt that a more effective model for learning would be one that fosters students' collaboration for deeper, richer learning (Dede, 2007; Shute & Ventura, 2013).

Apart from a "green wall" that was never used for video production as intended, there were no distinguishing architectural features. It was one of the most difficult spaces in architecture and interior design to plan: a square. Square spaces can demand planning symmetry that may reduce a designer's ability to create spatial variety, especially if walls cannot be added or moved. Squares can imply a 'center' to a room that poses spatial issues when a center isn't desired. Additionally, ceilings are equally hard to associate



with their floor plan counterparts unless they are lowered, raised, or separated by architectural devices such as soffits. In Jim's opinion, the existing finishes spoke to the notion that a space for instruction should not in itself be distracting. However, it was clean and non-offensive. It even had remnants of that stereotypical new car smell.

Knowing from past experiences in the profession wherein universities are usually faced with bare-bones budgets that limit design possibilities, Jim didn't expect to find that a

budget would match the direction that his design thinking was headed. But to his surprise, the Team Initiator described that a generous amount of renovation money was available. However, it was a fixed, non-recurring amount and subject to change at the IS department's discretion. The Team Initiator outlined the basic programmatic requirements for the space developed by the IS Design Team to Jim and stated that his team's direction was to 'gut and reload' the space, retaining and reusing as much of the fixed and moveable components as possible, but that they were open to completely remaking the space as the budget allowed. Without the constraints of pinching pennies or using all of the existing components, Jim began to think that the renovation team could truly remake a very staid space with some basic but creative, fun, and functional solutions.

Jim and Val began to meet regularly. After sharing some of her research in the areas of developing intelligent tutoring systems and using immersive games with what is called "stealth assessment" (Shute & Ventura, 2013) to support learning, thoughts of augmented realities in movies and television shows came to mind for Jim—landscapes of digital circuitry, or rooms as digital constructs changing as user demands require.

Val summed up the IS Design Team's goals by stating:

One big idea underlying the new Morgan Studio space is that learning is not just individualized, but a highly social, context-dependent and collaborative achievement.

Comparing and contrasting the stated goals against the reality of the existing space, it became clear to the Design Team's that the lab needed to be deconstructed, literally and figuratively, from its austere and semi-functional layout into a more highly interactive studio with multiple space arrangements made possible with a variety of furniture selections and layouts.

Establishing the Mood: Project Team Reflections on the Project's Goals and Potential Solutions.

As noted earlier, the context in which learning occurs has been rapidly changing. In the FSU program specializing in instructional systems development, it was imperative that learning research be practically applied and disseminated in the spaces used for its instruction. The IS Design Team's vision of the space combined the IS department's own research (e.g., innovative instructional design, support of learning, and communities of practice) with the writings, philosophies, and applications of other experts.

So, why the focus on a social, collaborative space? Research points to a number of important benefits of collaboration that influenced the IS Design Team. For example, today's world is increasingly complex and demands an expanding range of skills. Typically, no individual possesses all of the knowledge and skills needed to solve a particular problem.

However, if two or more people collaborate, there's a greater chance of succeeding. Furthermore, collaboration is often a source of stimulation and creativity. Being exposed to alternative perspectives produces a type of cross-fertilization of ideas that can generate new insights.

To put this idea in perspective, it is helpful to consider the time when traditional educational practices had yet to be influenced by the introduction of technologically advanced systems and their associated digital data. Students spent most of their time sitting at a desk, listening to lectures from an instructor who was the repository of knowledge to be learned. The student's job was to learn the facts and other knowledge that their teacher knew, and the student was periodically tested on just how well they absorbed the information and could retrieve the relevant facts. Collaboration with other students was infrequent. This scenario captures the norm for U.S. schools that has underserved too many students for too long (Barton, 2005).

Such traditional instruction can lead to limited creativity and problem solving, especially as the student leaves the classroom. Research suggests that (a) collaborative learning has a positive effect on problem solving (Mergendoller Bellissimo, & Maxwell, 2000), and (b) problem solving is regarded as the most important activity in our everyday and professional lives (Jonassen, 2000). In today's complex and interconnected world, the importance of problem solving—especially creative problem solving—is becoming greater than ever before (Reigeluth, 1999). More and more jobs are ill-defined, so organizations need people who are able to solve problems, especially ill-defined problems. Research has also shown that, compared to a traditional didactic approach to teaching and learning, a collaborative, problem-based learning approach promotes more in-depth understanding of content (Vernon & Blake, 1993) as well as the retention and application of knowledge acquired (Berkson, 1993), fostering self-directed learning skills (Norman & Schmidt, 1992), and providing an enjoyable and stimulating learning environment for both students and teachers (Albanese & Mitchell, 1993).

Within the Instructional Systems program at FSU, the students themselves are on the forefront of a new digital world of collaboration. For example, the Instructional Systems master's and doctoral students take courses including: Designing for Online Collaborative Learning, Mobile Learning, Internet Based Inquiry, Discourse and Conversation Analysis, Technology and Learning Community, and Learning through Game Design. Years of developing instructional methods in the FSU faculty's own classes supplemented by the research of others fed an early visioning goal by the IS Design Team—that it is necessary to reduce the temptation of isolated learning afforded by laptop computers and other personal digital devices. This problem can be overcome in part by providing a more familiar and friendly setting for

sharing such as the lounge space of a dorm lobby, a community table at a restaurant, or better yet, as celebrated in the American TV series Friends, a coffee house.

There are justifications for this approach to learning and others have confirmed the value of a community approach to learning. For example, in his article entitled "Socializing in the Digital World," Daniel Kraft (2009) described an appealing scenario:

Imagine a coffee house: you go in, get your coffee and get out. This is what e-mail is doing to communication: you ask for information and you get information. Now imagine you enter the coffee place again: you wait in line; you start a conversation; and you find out that the person next to you has been working on a similar problem that you have to solve and is offering you support. What just happened is typical offline social networking activity. Two people with the same interest (coffee) meet at a place they both like (coffee place) and they build a social network to share (knowledge). The goal now is to take this face-to-face experience into the digital world and build a social marketplace. (para. 4)

Similarly, corporate business practices throughout the 1990s and 2000s have taken advantage of the value of shared expertise via social marketplace venues such as town squares, town halls, and technology lounges that can be found at academic conferences and corporate gatherings. Small groups of like-minded professionals ensure that individual voices and ideas are heard; they promote the exponential growth of that information, and generally bear out the notion that two heads are better than one.

Kraft's (2009) observations support this type of group gathering noting that:

People who actively share their knowledge build their reputation and become recognized publicly as the experts (or even friends). As a result, organizations that encourage this type of community sharing build stronger peer-to-peer and community networks, which help accelerate productivity gains. Underlying contributions of these social communities include employee attraction and retention as part of human capital management, not to mention the enablement of a more virtual organization. (para. 6)

Kraft's observations are also supported by researchers, such as Wenger (1996) who introduced the term *communities of practice*, defined as groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.

DESIGN PROGRESSION AND DEVELOPMENT

Conceptual and Schematic Design

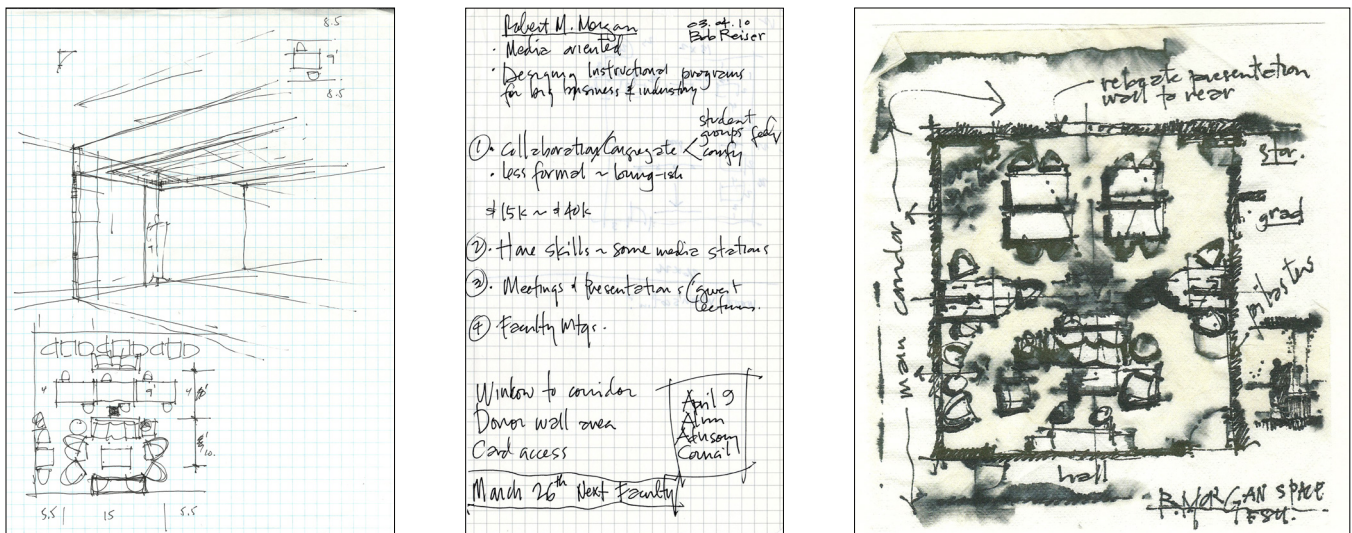
The Project Design Team saw the advantages of introducing this "marketplace" to students during their academic years. During design discussions within this team, Jim's own experiences with and notions of collaborative learning, and designing in the business of architecture and interior design came into play on this point. He reaffirmed that individual success can be advanced by participating with others of similar professional aspirations, a position that may enable students to more effectively bridge the all too common gap between academia and the world of professional practice.

With the goals of this new space contextualized in his mind, Jim spent time on site taking notes, measuring and photographing the space, beginning to explore conceptual layouts of a roughly square space based on the programmatic requirements established earlier by the IS Design Team (Figures 8-10).

Jim started organizing the information and undertook a number of brainstorming sessions on his own, crafting multiple plan layouts aided by loose sketch perspectives illustrating a variety of conceptual fit-and-feel scenarios. Each sketch illustrated an alternative plan layout for the space, proposing the retention or deletion of existing finishes, and suggesting furniture shapes, sizes, types and arrangements. Five planning solutions (Figure 11) were generated and formed the basis for design discussions in a Project Design Team meeting. Quick-sketch hand perspectives were developed in order to better illustrate the three-dimensional character of proposed designs, thereby giving the project team an easier way to "see" the space outside of the plan drawings. Jim believed that options were an effective way of developing consensus among project team members, counteracting individual wants and needs that might indirectly influence one's ability to collaborate with a minimum of bias.

Sketches were initially emailed back and forth between the Team Initiator and Jim until there was a sufficient set of plans, perspective imagery, and loose detail sketches that met as many programmatic requirements as possible. This package of material was used in the first design review session with the Project Design Team.

Once again, past experiences as an architect moderating a committee of clients suggested that the one step forward gained by the Team Initiator, Val, and Jim would be reduced to two steps back by the remainder of the committee. Design by committee...it was inevitable. Jim anticipated a variety of individual interests, perhaps personal agendas, would push the design in too many directions for such a small space: there wasn't going to be enough square footage to accommodate the variety of uses developed in the visioning stage, and the team would default to furnishing



FIGURES 8-10 (left to right). Design process notes and sketches.

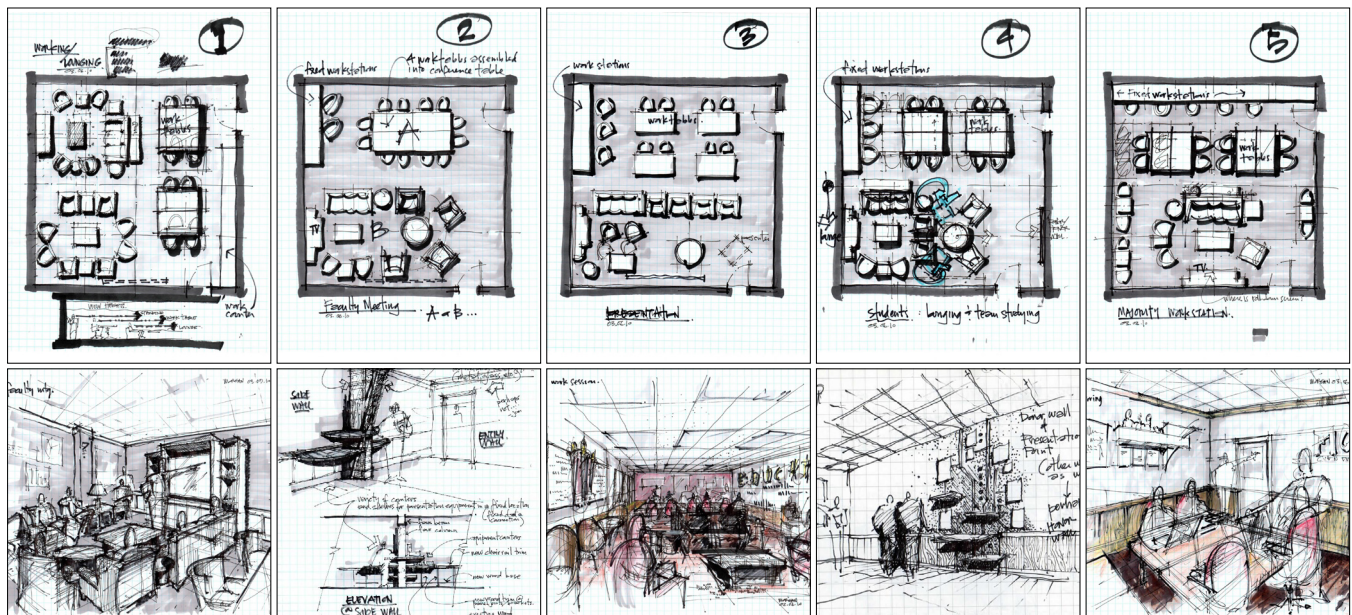


FIGURE 11. Plan layouts and sketch perspectives of conceptual designs.

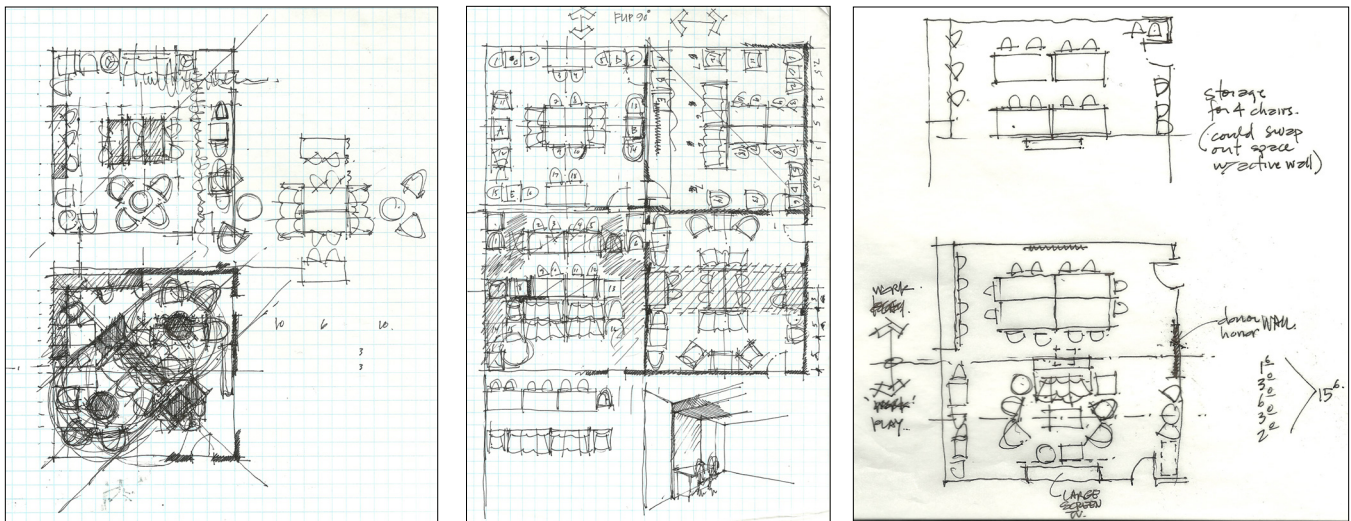
the space with old university inventory, or they wouldn't remove the built-in tables. It was an unwarranted fear, but Jim knew that it tended to plague the best of intentions in the realities of professional design practice. However, as was the case with the budget and "gut and reload" openness of the team, Jim's fear of anticipating team confrontation was quickly eliminated.

Design Development

The Project Design Team was very focused and straightforward with a common goal of re-humanizing and re-energizing the space. Using the notes, plan layouts and sketch perspective drawings Jim brought to the meeting (Figure 11), the team reviewed the progress to date, discussed the

users' observations, and proceeded to push the design forward. During the discussion, Jim was able to quickly sketch over the drawings with new ideas, trying to capture memories of conversations in graphic form, relying on a technique of graphic facilitation by using "sketchnotes" to record and manage the group's efforts.

Simply put, sketchnotes are visual notes drawn parallel to and interpreting a verbal discussion. Craighton Berman, visual artist, suggests that "through the use of images, text, and diagrams, these notes take advantage of the 'visual thinker' mind's penchant for make sense of—and understanding—information with pictures... this form of rapid visualization forces you to listen to the lecture, synthesize what's being



FIGURES 12-14 (left to right). Sketchnotes from the initial project team design review session.

expressed, and visualize a composition that captures the idea—all in real time” (2011, para. 2).

The notion was that if the renovation team could see their ideas being graphically realized real-time relative to their verbal discussions, they would be free to more clearly, concisely, and completely express their thoughts. The ensuing sketches (Figures 12-14), aside from being a graphic set of meeting minutes of sorts, created a road map of the final design—a visual summary of the paths taken, where the road(s) forked and how and why, and seeing the logical transition from one idea to the other and their dependent relationships. The sketches represented a synthesis of the Project Design Team’s ideas with each member able to claim a measure of ownership, leadership, and followship in the design.

Also at this time, the Team Initiator included Jim on a conference call convened with the team leader’s colleagues from instructional systems departments at Penn State and the University of Georgia to discuss spaces in their program that had similar operational functions and faculty/student uses. The goal was to gain insight into the needs, goals and objectives that informed and influenced the design and installation of their respective spaces. The discussion focused on room layouts, student/faculty usage types and patterns, methods of instruction employed in the spaces, and equipment requirements—audio, video, fixed, and mobile. Jim and the Team Initiator were able to query the conference call participants, which led to an informal post-occupancy evaluation of both the successful and not-so-successful results expressed in Jim’s sketch notes (Figure 15).

The dominant theme of this conference call was that a mix of learning areas was best—from formal to informal—with a variety of furniture types and styles, and the ability to transform the space into several instructional specific layouts at a moment’s notice was desirable. This design had the best chance of producing a highly creative and functional space.

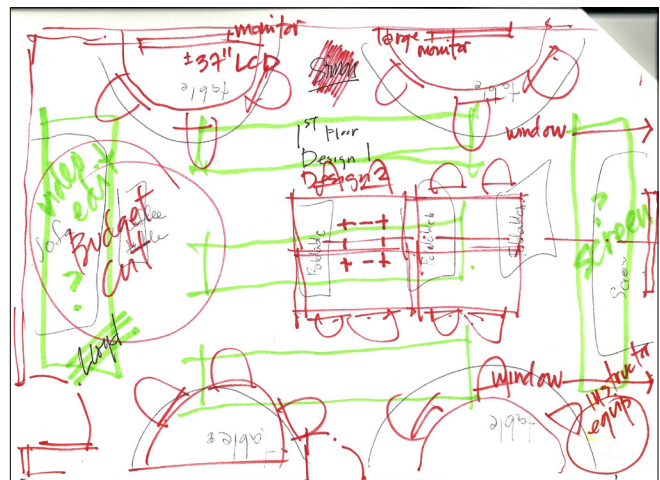


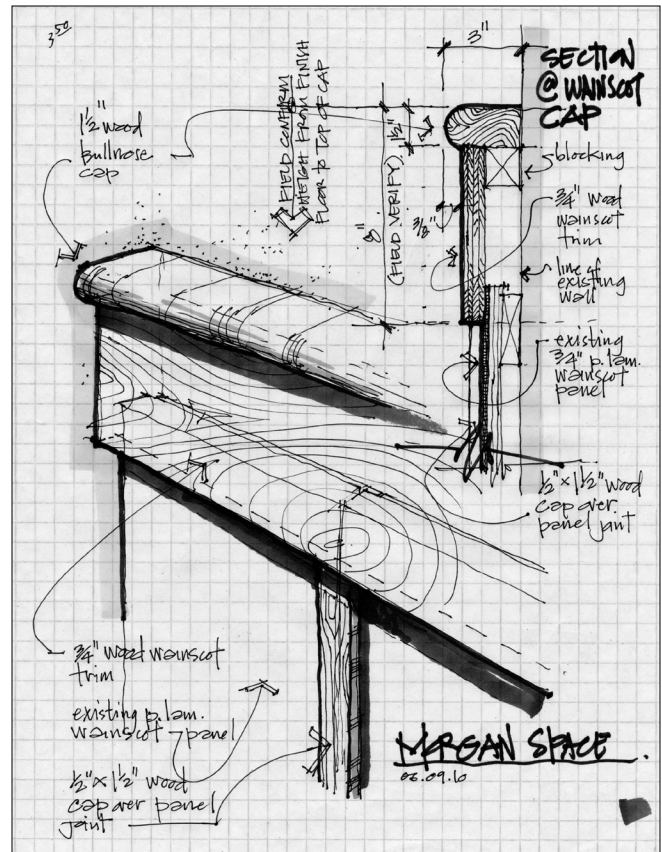
FIGURE 15. Conference call sketchnotes.

Fortunately, FSU’s Morgan Studio was shaping up to be just that with the Project Design Team’s formulated goals.

With design meetings and consultations completed, the project took off in earnest. The next stages involved selecting and implementing one of the layout plans that Jim had crafted that would truly support learning in an optimal setting. The IS Design Team re-emphasized to Jim that based on research, learning is at its absolute best when it is active, goal-oriented, contextualized, and interesting (e.g., Bruner, 1961; Bransford, Brown, & Cocking, 2000; Quinn, 2005; Vygotsky, 1978; 1987). Instructional environments should thus be interactive, provide ongoing feedback, grab and sustain attention, and have appropriate and adaptive levels of challenge. Assuming the responsibility for maintaining design intent, Jim was to ensure that the installed design stayed as close to these criteria as possible during installation.



FIGURES 16-19 (clockwise from top left). Val (upper left in red shirt) and her team during the demolition and build-back phase of the work. Patching and prepping of walls and installation of a new chair rail cap.



INSTALLATION

Shooting for the Stars

By this time, Val's initial Co-Leader partner had left and had been replaced with the new Team Faculty Member. Additionally, the Team Initiator moved on to a newly appointed administrative role and handed over team leadership to Val. Practicing what she preaches and taking the notion of immersive learning a few steps further, Val led the Project Design Team's hands-on demolition effort by removing existing fixed work-counters and shelves while retaining and prepping the existing single-layer applied wainscoting board for a new, custom chair rail that, with its 2" depth and white paint, became a very noticeable component of the room's architectural finish (Figures 16-19). They patched and prepped the walls, refinished all surfaces with new paint (named butter cream and toasted coconut), and installed the new chair rail cap at the top of the original wainscot panel that was not demolished and left in place. The chair rail was designed by a local carpenter based on Jim's sketches (Figure 17).

As the demolition, repairing, and painting were progressing, Jim and Val began discussing the loose, informal, and almost residential coffee shop type furnishings and accessories that were to supplement an existing set of tables and chairs. The

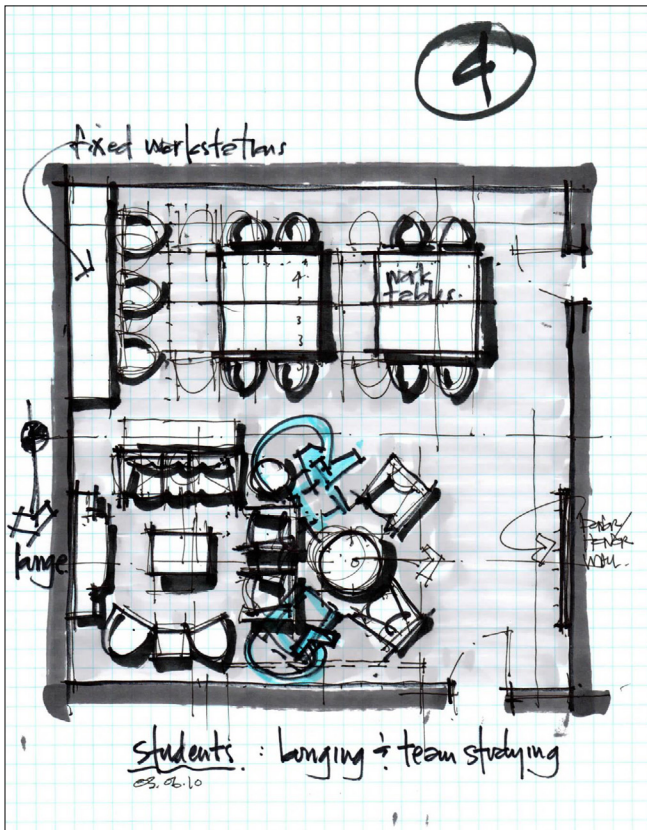
existing tables and chairs would remain for more formal settings of learning instruction. Broad ideas about furnishings fit-and-feel were voiced in the IS Design Team's early vision meetings and were mostly based on each member's experience with social spaces they frequented. However, proceeding with actual selections was subject to the Project Design Team's approval of the appearance of the finished architectural shell. The general ideas around the new furniture were that it needed to be warm, comfortable, colorful, and inviting a person into the space. This would counteract the space's current perceptions by others as an unfriendly, laboratory-like atmosphere. In its current state it was just another classroom, and that pattern needed to change.

Before purchasing, Val played around with an online space planning program to get a sense of what would fit the space, and how it should be configured. Configurations were constructed around various groupings (e.g., sofa, love seat, 1-2 chairs, ottoman(s), lighting fixtures, area rug, and 1-2 tables). Constraints included the need for both a lounge area and a work area, so the team placed the warm, inviting new furniture towards the back half of the room where the large-screen monitor would be located. The Project Design Team also decided not to change the orientation of the

projector/screen as that would have cost too much money, and it remained toward the front of the room.

Based on the fit-and-feel that Jim had suggested in some of his earlier sketches mixed with the team's thoughts on furnishings, finishes, and accessories, Val led the Project Design Team in selecting furniture from a local furniture store to accommodate a range of seating layouts with unique forms and bright, robust colorations. Val made arrangements for applying stain resistant coatings to the upholstery, confirmed price discounts and reduced delivery and installation costs, and established logistics and scheduling. The installers initially arranged the furniture (Figure 22) per Jim's plan sketch number 4 and its accompanying sketch perspective (see Figures 20-21), which illustrated a linear grouping of furniture centered on a tall armoire that was intended to hold gaming systems, manuals, textbooks, and a large flat screen television. Budget restraints and television size reduced the armoire to a low television console. Jim's teaching schedule at the time prevented him from participating in the installation. Regardless, the design intent in the

FIGURES 20-22 (clockwise from left). Furniture selections, finishes, and artwork typical of the first furniture installation.



sketches had been clear, and the installation moved forward without incident. Once installed, the Project Design Team sat in the furniture, looked at it from different positions, and then modified the layout to simulate more of a coffee shop/bookstore atmosphere.

When the furniture was delivered, students, staff, and faculty from the department were invited to view and experience it. The nearly universal perception was that the arrangement, colors, and fit-and-feel were on target. Val received very positive comments from students, staff, and faculty who had seen the space. Pictures of the studio she had posted online garnered a number of positive reactions including messages from students keen on using the space for work and community building. A typical faculty email response about the new space was:

You really came through on this and I am very appreciative, as will be the alumni when they see it, and our current and future students and faculty as they make use of the studio over the coming years. Thanks for doing such a great job!

Excitement was palpable—equally from IS students, faculty, and staff.

From start to finish, the design and installation had gone smoothly. The big idea for the room, delivering greater prospects for truly collegial collaboration, instruction, presentation, and conferencing in a highly social, context-dependent and collaborative setting, stayed intact through all the sketching, the meetings, the demolition, refinishing, and the furniture installation. The project design team had collaborated well, and the final product spoke to the notion that sometimes, initial aspirational dreams do come true. At least that is the impression that Jim had in the spring of 2011 when Val's photos of the furniture selections and emails about the department's purchase were being shared almost on a daily basis. At this point however, Jim had not visited the renovated space other than during its demolition.

Flash forward to eight months later. Jim received an email from a director in the College of Education, who was not part of either the original IS Design Team or the Project Design Team, stating "it looks great, just like you designed." Wow... it was the kind of validating comment any designer loves to hear. Jim opened the attached images of the room like a birthday present. However, the space didn't look like the pictures he saw in the spring. Reaching for the stars seemed to have had a setback.

EVALUATION AND ADJUSTMENT

Landing on the Clouds

The photos taken several months after Jim's last contact with the project showed a changed project, even though he perceived the project had months ago come to a close. The biggest change was in the furniture; it had been

reinterpreted from a spirited assortment of residentially scaled and student-centric items to a more sedate, corporate version of a lounge space (Figures 23-25). Gone were the color, visual texture, and variety in shapes and forms. Changes due to budget, product availability, and even client preference are realities in the design world especially with projects of medium to long durations. Perhaps the department had run into one of these issues over the summer. A follow-up email from the Team Initiator invited Jim to visit the space, which he accepted. Jim was eager to see the space and learn more about what happened with the project.

Visiting the renovated space, it was easy for Jim to see that the space had taken on a new feel. Regardless of the furniture change, it was still nice. It was not just newness in decoration and product, but a tangible difference that characterized the space's volume. The static rigidity of multi-person tables and one-size-fits-all workstation chairs had been eliminated. Additionally, the space had warmed up considerably with the application of the original wall color selections established early on in the design process. The existing wainscot's custom chair-rail cap helped reduce the scale of the room while adding a sleek line separating changes in paint color. Somewhat accidentally, there was a pleasant revival of the existing carpet (originally seen as unattractive and targeted for replacement), as new wall colors addressed the previously unnoticed stippling of smaller color accents in the existing carpet's gray-brown yarn.

Although students and faculty had yet to occupy and use the room (it was not formally open) and there were no classes or studios in the space over the summer break, it was already easier to imagine the simplicity of arranging diverse seating and instructional layouts from event to event. Jim noticed the furniture was a bit smaller in scale, lounge chairs had casters for easy movement, and coffee tables were smaller and lightweight. The space succeeded in supporting the idea of communal learning in keeping with the notion that alternative places are important for learning to take place. The variety in furniture size and type allowed for a degree of flexibility in seating arrangements that the original, pre-renovation equipment was not intended to accommodate. It appeared to Jim that a broader range of instructional techniques relying on flexible furniture groupings could be accomplished with little effort and on a moment's notice.

Regrettably though, the final space lacked a certain playful energy that was such a vital part of the original design direction. Jim reasoned there were a number of possible reasons for the shift in the final outcome. Possibly those with the final say on the room perceived the manner in which the space was being used required a shift in the room's fit and feel toward something more serious. Maybe they thought the original furniture package had catered to a very particular type of user rather than a broader range of users. The re-use of original desks and chairs, while necessary, appeared to



water down the effect the new furniture was able to make. Jim had anticipated the Morgan space would succeed similarly to how unique boutique hotels did as one-off or one-of-a-kind hotels catering to smaller and more specific traveling audiences - rather than the one-size-fits-all category of small hotel chains that accommodate the masses. The space certainly looked good, no doubt. It was clean and crisp in a way that most likely addressed a measure of durability required by institutional furnishings and maintenance budgets, and spoke to the innocuous but generally comfortable settings of small scale doctors and dentists' office waiting rooms.

So what happened? In late March/early April of 2011, a colleague notified Val that College administrative leaders including the Team Initiator had removed all the newly selected items and decided to install furniture with a more conservative style and color. The space retained the original notion of two distinct areas: one small area a mix of flexible lounge seating and a large-screen TV area intended for group interactions, and the remaining space a more traditional arrangement of worktables and desk chairs for more formal gatherings (Figures 26-29). However, the space appeared to have backed off from the more bold statement originally designed and installed. Even the toasted coconut accent wall had been repainted (to beige), and a collection of vintage movie posters acting as temporary wall art that Val had selected had been removed and replaced with enlarged versions of Jim's earlier design sketches, and plastic plants had been added. Val made inquiries with those that made the changes and the main explanation given was that the furniture needed to be "industrial strength". From the authors' perspective, the underlying full reason(s) for the changes remain unanswered. Understandably disappointed yet committed to maintaining the level of collaborative goodwill she had given and received during the project's duration, Val decided not to pursue the matter further and instead moved on to considering uses for the room.



FIGURES 23-25 (clockwise from left). Furniture and finishes re-selections.

Val and Jim also noticed another issue within the finished space. The Morgan Studio's final arrangement appeared to be the result of accommodating too many uses into too small of a space. Rearranging the room for any one activity demands time that impinges on the intended instruction. Jim perceived that this could partially be due to a lack of adequate storage space to keep unused furniture. With every piece of furniture occupying the space, tight quarters with little circulation were created resulting in a rather crowded, jumbled, and disorganized appearance. Nonessential furniture is typically forced into corners or lined up against walls, thereby further reducing the studio's perceived visual quality. Additionally, he anticipated there may not be sufficient time between classes to make layout changes that require moving furniture in and out of storage for partial and total room rearrangements. As a result, the most common use defaults to a conference room setting which tends to be the least physically and mentally taxing plan.



FIGURE 26-29 (clockwise from top left). Current space layout, furniture selections, and finishes.

Val was interested to learn others' perceptions of the finished space in general, and also in regard to this space issue. She conducted a brief informal survey of five IS faculty as well as 12 students and three staff members. Some of these persons were on the IS Design Team as well as the Project Design Team. The post-installation evaluation results revealed the following uses and perceptions of the "new" space:

I use it for teaching doctoral seminars and research group meetings, as well as defenses. It's just a standard conference room set-up. It's less than optimal because of the location of the computer in the back of the room, but at least with the conference table people can see each other when talking (better than the locked down chairs in other classrooms). I like the outlets in the floor. They're really helpful.

We're usually too lazy/have too little time to reconfigure the room for different uses. Regarding seminars in this context -- the big table in the middle is awkward and everyone wants to sit in the comfy chairs, so we end up with a cluster

of people in the back corner and (most often) the presenter standing along the wall by the door, with the table between them. We could change it (break up the table, do a table + chair set-up like we used to have -- but we'd still have the awkward computer position, but at least there's more of a stage set-up then). The podium and comfy chairs being on the same side is a problem because the TV is between them and the line of sight is broken up. But if the podium goes on the other side, we hit the door.

We did need a conference room type set up for teaching seminar style classes and this room fits the bill. Might not be sexy, but it really is a need that we had. I think that we've come to think of the room as such, which maybe has cut down on its use for other purposes.

We definitely did not need those desks [in the room's original version] installed along the walls. It's good that they're gone. Spacewise, the tables do get in the way of other uses at times.

To date, we have used the space for the following activities: ISSA has held Friday Socials on two occasions, ISSA has held a couple of meetings in the space, we hosted a COE Open House Tour last year, held a holiday pot luck party, ISSA Orientation, IS Photo Shoot, and Alumni Council Breakfast.

I teach my class EME6507 (multimedia development for instruction) there. I think the space fits our needs because our class usually involves design meetings and the furniture that is roll-able makes it easy for the design meetings. We could divide and reassemble furniture (chairs, tables, single sofa) into different corners so students in different teams can find relatively separate space for their meetings. But the lab is relatively small, so sometimes it can be too crowded with the furniture and people. The decorating pot (the plastic plant) with the standing lamp sometimes gets in the way between the white screen and students.

It is very cold in that room (high 60s, Fahrenheit) with no access to the thermostat so that it is not an inviting, warm space (literally and figuratively).

I have taught Advanced Design in the new Morgan Studio. One advantage is the movable tables for group work and project teams. One disadvantage is it is very tight when more than 14 students are enrolled.

The responses were generally neutral, and it was clear that the studio's watered down appearance diminished the excitement it portended. From Jim's perspective, the project went smoothly and without any hiccups right up until the administrative appropriation of the space's furniture design, the changed paint colors, artwork replacements, and addition of the plastic plants. Given that email communications indicated design proposals and decisions had been shared at all levels of the department and college's hierarchy, the furniture reselections were puzzling. Protocols had been followed, budgets were adhered to, schedules were met, and the clients—faculty, students, staff, and alumni—had expressed a high degree of satisfaction with both process and product. Perhaps the upholstered furniture could have been specified as contract quality, but the Project Team had anticipated traffic in and out of the space was going to be controlled and measured. The space was locked with keycard access only. Non-IS students would have little or no access. One could anticipate that limited and monitored access would reduce wear and tear on the furniture.

Retrospectively, Jim should have recommended that a furnishings and accessories presentation showing furniture types, fabric samples, and performance specifications be held that involved all parties constituent to the studio's use. A presentation would have allowed the project team to explain the design with a measure of design "weight" that may have convinced those who eventually replaced

the furniture to go with the project team's proposal. This may have cemented administrative approval earlier in the process. Such a meeting might have also allowed the project team to proactively respond to administrative concerns early in the design rather than retroactively defend the first package of new furniture.

An assumption Jim made during design was that the project team had been working off some type of standards document for renovating spaces in their building. He should have investigated if there were departmental, college, or university renovation criteria for furnishings that were tied to the funding source, building owner, or program benefactors. These codes or regulations may have dictated furnishings and accessories suitability and guided the project team toward more specific selections of furniture type and construction. As noted earlier, administrative leaders decided to couch their answer for why the furnishings Val had selected were changed out with a reference to their needing to be "industrial strength". Although Jim believes the change had its roots in differences of opinions in matters of personal style and taste beyond Val's control, selecting contract quality furniture could have been pursued as an option.

Lastly, those who ultimately rejected the furniture design could have made their reservations known earlier in the design process, especially since they had been informed of design decisions and schedules by the project team in a timely manner as the design was progressing. Perhaps there could have been a meeting prior the final furniture replacement wherein the furniture selections could have been reviewed against the design intent for the entire space. Instead, the installed furniture was removed and replaced unilaterally in an overnight manner. Actions such as these can leave persons feeling unappreciated and can instill a degree of ill will, leaving a design team of volunteers (which was the case for this project) reticent to engage in similar service activities in the future.

The space today is certainly nice, and more than anything it is evidence that great intentions can indeed be followed up with good results. However, in more ways than not, it falls short of one of its original core reasons for being—it lacks the freedom and perhaps frivolity of one's favorite social marketplace: the coffee shop. The Robert M. Morgan space ultimately succeeded in taking a step forward in its support of spaces and places that foster both conventional and unconventional modes of learning and instruction. The directive to renovate the space and create something new and more usable was accomplished to the users' general satisfaction. Ironically, its original reason for being—a place for teaching instructional techniques—may allow the space itself to potentially become the student, "learning" how to shape itself relative to the activity in progress. The hope is that faculty and students will treat the space as they do their favorite coffee shop by rearranging the furniture regularly to

suit their needs, rejecting the default room layout when necessary, and letting the space develop according to architect Louis Sullivan's law that "form ever follows function" (1896).

Design brainstorming and idea generation succeed when the client/design team achieves a certain measure of collaborative buy-in. Early-established goals and objectives, when informed by physical constraints, budget realities, and/or personal preferences, can allow for a measure of design freedom that produces great work. Left out, any one component can alter the project's success at the very last minute. Ultimately, these factors come into play as a project moves forward and addressing their unique requirements inevitably tempers even the grandest of schemes.

Design perfection is rarely achieved in the built environment, and perhaps the expectation of initial dreams coming true is in itself merely a dream. The design process is sufficiently long, complex and can involve so many points of view that divergences from an earlier path can occur. Thus, design committees seemingly must shoot for the stars, but perhaps be prepared to land in the clouds of a lesser, but still serviceable result.

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