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LEGITIMIZATION OF SUBJECT MATTER
IN AN UNDERGRADUATE ARCHITECTURAL DESIGN PROGRAM:
A CULTURAL AND SYSTEMS THEORY ANALYSIS

A Dissertation in
Instructional Systems
by
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ABSTRACT

This study is a descriptive investigation of the cultural and systemic processes of legitimizing subject matter being introduced into the curriculum of an undergraduate architecture program. The culture being observed and interviewed during their day-to-day encounters with curriculum and its modification is one university’s department of architecture. Legitimization is used here to mean the progress that innovative subject matter makes from being initially ill defined and informally included with instruction, to being well defined by cultural agreement and systemic records, and finally considered an integral part of the curriculum with recognized status as a title in the university’s course catalog. Employing ethnomethodological strategies, the investigator maintains prolonged contact with the members of this culture, taking advantage of the opportunities to watch and interrogate legitimization and curriculum modification taking place in the domain of sustainable architecture. Much of this happens in the face of disturbances to these processes and the culture’s reactions to those disturbances. These disturbances and reactions make the underlying processes observable and explicit to an extent not revealed under ordinary circumstances.

There are three main audiences for this study: instructional designers, architectural design educators, and those interested in sustainability and its status in a design curriculum. While sustainability for its own sake was not the primary focus here, how sustainability is emerging in this culture’s instruction and curriculum should be of interest to the latter group. Where this study is intended to provide a fundamental contribution is at the intersection of instructional design and design instruction. To date, little in the instructional systems literature discusses the architecture studio and its crucial role in architecture degree programs. When it comes to how learning objectives should or should not be applied to studio courses and curricula, the literature of architectural design education has not dealt comprehensively with systemic institutional pressures for assessment. Again, this is a descriptive study of a single department, and a glimpse into the ways that culture deals with these issues.
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Chapter 1

Existing Conditions and Research Questions

Chapter abstract

This chapter first provides an overview of current undergraduate architectural education. Then more detail is imparted about the sequence of preparing undergraduates for eventual entrance to the profession. The basic structure, longevity, and importance to architectural education of the studio model as pedagogy are discussed.

However, there are more stakeholders involved in this preparation than solely the faculty teaching undergraduate courses: the department of architecture which the faculty share with a staff and administration, the university as institution of which the department is an academic unit, the agency having accreditation authority over the department’s programs, and the architectural profession of which some portion will be alumni from the architecture program. Likewise, there is more to the education prerequisite to licensing an individual to practice architecture professionally than that obtained from undergraduate coursework alone. It is at this next point in the chapter that tensions accompanying allocation of educational responsibilities among the various stakeholders are summarized.

The construct of legitimization is then proposed and related to curriculum modification. Following this, the guiding questions that led to the structure and content of the research questions driving this study are derived, in their turn. These are meant to interrogate methods of curriculum modification and how this one or that might be adopted and applied to the current state in this department. Finally, the research questions precipitated from these guiding questions are specified, establishing their relationship to the compelling information previously presented.
Existing conditions

Introductory example illustrating range of issues in architectural education

The architect’s role as provider of expression and enabler of function through built form has long been important, not only to cultural identity and memory, but also to the daily systemic operations that cultures perform and observe in order to survive among other cultures in society at large. When the bases for agreements that distinguish cultures shift over time, what architects have to ponder and weigh in order to provide expression and enable function also transforms in response to that shifting. An example is offered here, terminating in the first round of guiding questions that will lead to this study’s research questions.

Consider the case of smoking tobacco indoors, how the acceptability of that habit has altered significantly since the Surgeon General’s warnings first appeared on 1966 cigarette packaging, and what that shift has meant in architectural terms. Prior to the governmental adoption and explication of a health professional stance on the hazards of smoking, separation of smokers from non-smokers in restaurants was at the whim of the proprietor, or the request of a patron (seen as demanding, perhaps), when it occurred at all.

The ensuing separation of smokers from non-smokers in existing restaurants has entailed resolving not only how the physical segregation is to be accomplished and maintained, but also which group to privilege as retaining the more attractive of the two isolated spaces resulting. This may be accomplished in various ways and discerned through several diverse lenses.

The physical segregation, from installing partitions and seals to additional air handling machinery for regulation of flow, can be conceptualized within a food service and dining system. Systemically, it might be more profitable for an owner to accommodate retention of both smokers and
non-smokers by splitting the square footage between them than it would be to eliminate one or the other from the restaurant altogether. Install a separation and the problem is solved for food service and dining.

From a cultural vantage, however, the range of considerations is different. For example, retrofitting an existing building for isolation often results in one of the isolated spaces being more physically attractive than the other. If the food service in a restaurant is coupled with liquor service, in an area where alcohol consumption is pervasive, then the proprietor might assign the more attractive space to bar patrons, anticipating the tendency of those patrons to smoke. If those bar patrons do indeed agree on the allowance for smoking as being desirable, then smoking has been privileged through a cultural process.

Furthermore, as smokers become more or less prevalent in an area, neither the cultural nor systemic questions are settled once and for all; the more attractive space might not always belong to the smokers. One should infer from this brief illustration, then, the continual analysis, synthesis, and evaluation required on the part of an architect in order to address affordances and constraints inherent in systems, cultures, interactions between systems and cultures, and changes to either (or both) over time.

Having made this inference, one can then grasp the substance and importance of the initial guiding questions underlying this study. First, what formal education is accepted to develop architecture students’ decisions in making provisions and enablements for their future clients and how does that education evolve over time? Pursuing this line of interrogation, when innovative subject matter is under scrutiny by a department of architecture, is there a discernable process carried out by stakeholders within the department and accounting for influences from other stakeholders outside, suggesting which subject matter will be retained (and ultimately legitimated) by the department and which will not?

In assembling a reply to the guiding question about how architectural education evolves over time, the researcher posits where evidence of such change has been found, what drivers of that change can be labeled, how those drivers act, and how the drivers, themselves, tend to mutate. To facilitate this
exploration for readers who have not participated in this sort of education, tasks and tactics in undergraduate architectural education are described.

**Components of an architectural education**

_Ant ontology outlined_

These tasks and tactics are all arranged to fall under one or more of three main topics: the studio, the undergraduate architectural curriculum in general, and the sequence of educational stages beginning with the undergraduate degree and culminating in professional practice. Generally within the United States, there are three stages preceding architectural practice. While not entirely standardized throughout the country, they are nearly so. These stages are: the accredited professional degree (for this study, an undergraduate degree), a formally structured internship, and the Architect Registration Examination. Furthermore, each stage is associated with a formal conclusive educational event, and these correspond respectively with the stages as follows: graduation, candidacy and licensure.

The studio model of instruction must be considered part and parcel of the undergraduate curriculum, and its application is both crucial to and distinctive of architectural education and its professional degrees, undergraduate and graduate. Therefore, it deserves its own treatment here, and it is from that basis that the other topics will be elaborated.

_Various meanings of studio_

The studio is one of the main topics that has remained constant over the years; that is, although the term may refer to several closely related and yet differing entities, it has done so consistently.
Studio’s pervasiveness and longevity in architectural education extends over a breadth of universities and a range of decades (Harbeson, 1926; Weatherhead, 1941; Schön, 1984; Cuff, 1992). Thus, at any given time past or present, studio has indicated all of the following: a building or site design-centered course, the room where students meet for class sessions and produce artifacts, the very group of students involved in the course, or the tasks and tactics of teaching the course.

That this single term is accustomed to encompass all these significant meanings is indicative of an august and robust presence in architectural pedagogy. “Subject areas in architecture are strongly stratified, with design by far the most honored,” says Stevens (1995, p. 117), and the place where architectural design happens is studio. Indeed, because the basis for Bachelor of Architecture programs is design, around a third of the credit hours nominally allotted to such a program are those in studio (Cuff, 1991, p. 63, cites McCommons, Haney, Ready, & Osborn, 1982, but this is still true at the department in this study, as well), with a great deal more time being spent as the actual tally than there are credit hours awarded (Anthony, 1991, p. 40 offers an account of the post-structuralist internalization of control that keeps students in studio).

Studio is also where student research is conducted. Supplemented with lectures, studios provide the opportunity to explore the histories and diversity of architectural traditions from around the world. Likewise, these traditions go hand-in-hand with the theories that explain the emergence of, and make sense from the manifestations of, architectural expressions.

As a result, design traditions and theories are both presented and practiced in studio, and herein can be interpreted a strong instructional systems foundation. Learning as retention and application of presented content is practiced in studio via content related activities and then feedback from instructors and peers about performance of those activities. And these fundamental conditions, necessary for learning to occur, can be linked directly to their explication as presentation, practice, and feedback (Gagné, 1965).
**Differences of studio from lecture**

In order to distinguish a mode of instructional content delivery for a studio course from other more common modes, consider a familiar one used for a lecture-based course, and then contrast it with that for a studio course. Certainly, many university courses are constructed as lectures whereby undergraduates congregate at large halls, there to listen for information orated by some subject matter expert as a narrative (or, sometimes for the worse, a monologue). Other than the unilateral delivery and passive reception, there is minimal interaction between the lecturer and the audience being lectured. This limitation extends even to the moderate class size of thirty students whose discussions and testing still need to be moderated in a formal manner.

Little connected with the anonymous passivity of students in a lecture course is true for a studio course, however, which is arranged to afford much more socialization and continual activity (the affordances of spatial ownership, review and critique, and overhearing, as discussed in Cox, Harrison, & Hoadley, 2009). Physically, the studio space is a workshop with drawing boards or computer stations where student manufacture the artifacts (e.g., drawings, models, animations, full scale assemblies) used to explain their projects, and then store those for retrieval throughout the duration of the course, whether a semester or longer. Typically, this workshop is open at all hours for students to work, for stretches of days at a time, if they see fit.

It is also common for a studio instructor to have no more than 10 or 12 students (a significantly lower student to faculty ratio than the 1:17 as an average across all departments at the university in this study), allowing for a face-to-face mode of content delivery, often by visiting students at their individual desks in the workshop. Synchronous dialogic presentation and feedback is the norm, and that can involve student and instructor, or student and peers, or student observation of instructor and peers.
Traditionally, the instructor will pose a problem or perhaps several problems during the semester for students to interpret and respond to, and the responses will go through multiple iterations and presentations before the final version. Continuously collocated with their peers during and beyond regularly scheduled meeting times, students construct and reconstruct their solutions and the artifacts representing them in order to convey intent and solicit comments from others, especially faculty. There might be a space for presentation of one’s artifacts to the rest of the students in one’s studio en masse, and perhaps another larger space for presentation to the entire department and reviewers invited from outside. In summation, as Stevens (1995, p. 117) puts it:

Design students are surrounded by their peers for many hours a week, often relying on them for assistance. The studio master actively seeks them out to provide criticism, and examination is public and by oral presentation.

And the presentations can occur frequently throughout the semester, although varying in scale and formality from a discussion between individuals around a student’s desk to a rehearsed final lecture by a student in front of a host of faculty and professional architects. The student presentation and expert response is the basis of a critique, often referred to by the diminutive of “crit,” at whatever degree of rigor or number of participants involved, as a particular event and of the pedagogy generally associated with studios.

Some generalizations regarding curriculum in architectural education

It is safe to assume that in most Bachelor of Architecture programs the curriculum revolves around the relationship between studio and design subject matter. So, what is the remainder of the subject matter that rounds out a curriculum, whether reliant on studio or lectures or other modes? Much depends on the individual course instructor and the degree program, and it is not unheard of for one to contradict another, yet there are still some additional generalizations that can be applied. These generalizations relate to overall categories of traditional subject matter, not individual content
topics, but these subject matter categories may be deemed consistent across architecture programs at various North American universities, in the same sense that anatomy is consistently represented across medical schools. Matrices of coursework at three different North American institutions that demonstrate this consistency are provided in Appendix A.

When in combination these categories entrench the curriculum within a program. Because curricula for Bachelor of Architecture programs are densely packed with content from one semester to the next, modification is more likely to happen through accretion of content, or assimilation, or even replacement, within individual courses than at the systemic level of a program. Otherwise, if these transformations mirrored both the frequency of changing professional foci and the scale of new subject matter categories in toto rather than by gradual diffusion, they would be radically disruptive to a program’s functioning. Architecture departments aren’t children’s toys, of course, but a crude analogy might be to imagine the insertion of additional tiles into a previously operable sliding picture puzzle: a lot of tiles would break the frame outright, but even a single one would stress the frame, alter the character of the image, and compromise the facility of sliding any tiles at all.

Esherick (1984, p.27) presents what at first appears to be a contrasting view when he posits that curricula offer “rapid response to changing social, economic, and technical conditions, quite different from the Profession’s narrower response to market conditions.” A closer read, however, confirms that he is referring to mercurial content within the primary and supporting subject matter categories that constitute the familiar curricular structure of architecture education. For example, while recent technological changes in the form of computer-aided design and drafting have been pervasively diffused throughout architectural programs, “No one writing on theoretical issues has been significantly more explicit than Vitruvius,” (p. 27). And Vitruvian theories are not altered by their packaging, whether the subject matter of theory is taught to architecture students as sociology or environmental studies. So, the subject matter and instructional viewpoint and available technologies
are mutable within the walls that define educational categories of instruction, but the walls, themselves, are sturdy.

**Other subject matter in the primary category for architectural education**

There can be subject matter categories besides design, per se, that are themselves usually taught in a studio setting. One of these is often referred to in terms of visual communication and another as building materials (as distinct from building systems).

Visual communication subject matter centers on techniques of, and practice with, manipulation of symbols of a pictorial nature as substitute for, or supplement to, or superseder of, verbal and tactile representations. Students learn to record an experience with, or communicate their intent regarding, space and the objects within it and the context around it, and the relationships among all of those. The declarative, procedural, and conditional knowledge required for sketching, drafting, and rendering in various media for visual communication are directly transferable to production of legible artifacts for design studio courses.

A building materials course is a direct application of the principles lectured about in certain building systems classes. That is, techniques of structural analysis are presented and practiced in the abstract (structural building systems) and modeled as small-scale constructions in a studio, ideally during the same semester as the abstract presentation.

**Subject matter categories supporting studio**

The construct of subject matter categories supporting studio addresses both rigorously and loosely defined courses that are required in order to contribute breadth to a program, but not as an in-depth treatment of the subject matter. The researcher here employs the term “cooperative” in the
educational sense indicative of division of labor among disciplines, as opposed to “collaboration” wherein all parties attempt the same tasks. Delivery modes in these cooperatively organized courses may vary with the particular content, and the credit hours devoted to this category constitute about a third of the overall total for the degree.

Analysis and selection of building systems (e.g., fire suppression, heating and ventilating and air conditioning, electrical power and lighting, water supply and sanitary sewers and storm sewers) provides an example of the more rigidly defined course in this category. While understanding and allowance for building systems does not constitute expertise, it will facilitate one’s professional practice. Furthermore, this is subject matter that will appear during the professional licensure examination.

Then there is the lecture or seminar-based category of professional practice, itself, representing one end of an intentional effort at bridging between academic and professional expectations from students (the other end being an educational program imposed on entry-level professionals and known as the Intern Development Program; it is discussed in greater detail below, but is intended as preparation for the professional licensing examination). In the classroom setting, professional practice subject matter acts as a glimpse into planning and administration of what a practicing architect does day-to-day.

Design tasks might be downplayed, since those already reside in the studio subject matter category. That allows time for emphasizing managerial, production, and coordination tasks both internal to an office and in dealing with a project’s external stakeholders such as clients, consultants, and contractors. In this way, students are exposed to what clients should expect as the domain of professional services, and who and what else besides the architect is involved in executing the design as built form (e.g., engineering consultants, building codes and zoning ordinances, contracts, scheduling).

Outside the classroom or studio, internships are another mode associated with practice, but as observation of practicing professionals and their cultures and systems in authentic settings. Students acting as interns encounter entry-level tasks and can make comparisons about which of those to anticipate at large firms versus small firms.
The third well-defined subject matter considered here has to do with the complementary roles of history and theory. As discussed above with regard to studios, for a student to attempt expression of some aspect of a culture involves investigation of not only the current context where the expression is to occur, but also how that context has evolved over time. This means reviewing the available or documented built forms to uncover with what priority other aspects have been valued by comparison, and what symbols have been deemed acceptable as conveyers of intent, and the agreements on conventions for performing the conveyance.

Lastly, in the loosely defined category of supporting subject matter would appear those elective courses that students use to construct a minor field of study related to architecture. Again, the aim is familiarity, not expertise. Neither the choice of courses contributing to such a minor, nor even the decision to pursue a minor at all, involves the same degree of specificity and uniformity for all students as do those courses in this category that are required.

**General education as a subject matter remainder category**

In the interest of comprehensiveness, this construct is included as a catch-all for the non-major related subject matter that has not been dealt with either primarily or cooperatively, as in non-architecture related minors. That is not to say that the proportion of these courses to the overall credit hour sum is insignificant; it actually hovers around a third. As with supporting subject matter, there are both rigidly defined components and loosely defined components.

The rigidly defined courses associated with this subject matter are the general requirements for minimum competence imposed on all programs throughout an institution (e.g., foreign languages, public speaking) as the institution’s standard of achievement in higher education. And the more loosely defined and non-required courses that could fit in this category include minors that are not related to architecture, as well as electives that serve no other purpose than rounding out a credit hour count. In any event, these
are of interest to this study rather more for the proportion of program time begrudged to them than in the subject matter they represent.

Before closing the study to them completely, the researcher deems these general education courses worthy of a final remark, touching on how their curricular allocation is ceded rather than embraced. The educational breadth provided by general education courses is perceived systemically to be an advantage to most programs, where otherwise a narrow focus would not adequately represent a university educational experience. However, in the institutional view for providing breadth to all of its programs in all of its departments and colleges, and the semblance of a well-proportioned education in the students graduated from those programs, the very nature of an architectural program is replicated, albeit unintentionally, through these general education course requirements. That is, in architecture education these courses are actually a redundancy for the most part. And modification to adapt these general education requirements (that were not generated by the architecture department or with architecture education in mind) to better serve the architecture degree programs has remained beyond departmental control. In the discussion chapter, renewed efforts at attempting this modification will be voiced.

First educational stage, accreditation, and administration

One professional degree administered through the program in this study and used as the study’s focus is the Bachelor of Architecture (BArch). Typically this program is framed as a five-year sequence of courses and accredited by the National Architectural Accrediting Board (NAAB).

The full term of accreditation between NAAB assessments of a program is 6 years, but there are contingencies for assessment visits after 2 years or 3 years, depending on the severity of a program’s deficiencies as determined by the assessors. The visiting team of NAAB of assessors spends about three
days reviewing student work, cultural aspects of the degree program, and the physical and financial resources of the department. A visiting team includes one representative from each of the following:

- Association of Collegiate Schools of Architecture (ACSA), institutions maintaining accredited architectural degree programs
- American Institute of Architecture Students (AIAS), students enrolled in university level architectural degree programs
- National Council of Architectural Registration Boards (NCARB), the administrators of the licensing examination required to practice architecture
- American Institute of Architects (AIA), the professional society of licensed, practicing architects

**Primary and supporting subject matter categories for NAAB**

NAAB does not refer to subject matter directly, preferring instead to assess programs on the basis of ill-structured and loosely defined objectives that they call *student performance criteria*, involving two levels of successful accomplishment: understanding and ability (NAAB, 2004, p. 17). As one example resulting from this lack of rigor, it is entirely plausible to substitute a portion of Bloom and Krathwohl’s (1956) definition of analysis, as examining and deconstructing information in order to make inferences and support generalizations, for NAAB’s (2004, p. 18) interpretation of critical thinking as:

> [The] ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards

yet without the question of motives or consequences of one’s actions ever entering the picture, as the remainder of Bloom and Krathwohl’s definition would have done. That is, NAAB’s version of critical thinking is actually less useful in identifying critical thinking than it is at pointing to analysis, and not even as careful at that as an already well-known source has been.
Although NAAB does not make distinctions between primary subject matter belonging to studio and supporting subject matter outside of studio as a taxonomy for its objectives, it is not difficult to sort their criteria on that basis. Among the 34 criteria, there are 14 primary, and 20 supporting (7 building systems, 9 professional practice, and 4 history/theory).

Herein lies a distinction between curriculum subject matter and accreditation criteria. Although the criteria remain the same for all institutions, the emphasis that programs put on those criteria can vary across institutions. This is to be expected, given the previously discussed nature of the criteria, and might have been intentional on NAAB’s part in order to protect the academic freedom of its accredited programs by allowing a range of interpretations.

Using the program in this study as a case in point, one sees its curriculum concentrates professional practice criteria in one or two courses. Referring back to Appendix A, when one reads the courses at an institution on one axis of the matrix, with NAAB student performance criteria on the other axis, then one can see programs both similar and dissimilar to the program in this study with respect to this supporting subject matter.

**Second educational stage, accreditation, and administration**

Two important properties change in moving from the previous stage to this one: subject matter categories shift in degrees of consequence, and formality of the educational agenda decreases with respect to certification. Regarding the educational agenda, erstwhile university students who have attained their professional degrees and who now wish to continue on to become licensed architects must verify completion of all the hours of training in all the areas assigned by the Intern Development Program (IDP) as administered by NCARB. The internship is carried out in the context of an architectural office and overseen and attested to by licensed architects, including a designated mentor who acts as an intern’s advisor when necessary.
The formality decreases from that of the degree program because there is neither system of grading nor sequence of content presentation nor scheduling. Opportunities to practice tasks occur when it is favorable for the architectural firm. Hours spent on a task can be reported the same whether the outcomes of awareness/understanding and skills/application activities are indicative of mastering the core competencies, as IDP calls them, or not.

Moreover, when interns as entry-level employees could be drafting or otherwise marginally contributing to a firm’s productivity with their limited competencies, it might not be economically beneficial in the short term interest of the firm to set aside time for training unit activities at all. To have to do so repeatedly, say until mastery is achieved, could be actively disastrous for the intern (e.g., termination, indefinite delay in achieving candidacy), or passively harmful (e.g., if the training units are instead verified without mastery of the competency, or falsified altogether without time having been spent in the first place). The unintended result is to emphasize an accounting of hours spent on a task, and to marginalize the extent to which learning about the task and its relevance to the profession might occur during those hours.

**Primary and supporting subject matter categories for IDP**

During the IDP, professional practice supplants the studio, and everything else, as primary subject matter. Subject matter that was presented at the undergraduate level is reframed as supporting professional practice (e.g., visual communication knowledge is expected to be transferable to the production of design and construction documents), and supplemental supporting content about contract administration, office management, and project management is introduced. History and theory are nowhere to be seen on the IDP competencies, so if an intern hasn’t practiced research in traditions as an undergraduate, acquiring that skill will have to occupy personal time outside of office hours.
Training units (1 training unit = 8 hours) replace credit hours as the intern’s target of accumulation, with the goal of acquiring 700 training units in somewhere around 3 years of effort (NCARB charges a fee, $285 at the time of this study, for recording the achievement of these units and maintaining a dossier for IDP candidates). Yet, this does not indicate a discrete allocation of time either entirely to building systems or entirely to building and site design, but rather a combination of those topics with the revised focus of maintaining a firm’s solvency.

Third educational stage, accreditation, and administration

Completion of both an accredited professional degree and the ensuing IDP leads to candidacy for the last stage on the road to licensure, that being the Architect Registration Examination (ARE). Actually a collection of formal examinations (i.e., timed sets of multiple choice questions and graphic vignettes each displayed one at a time on a computer monitor), it is also administered nationally by NCARB. These examinations are offered multiple times throughout the year at a variety of test center locations, and do not need to be taken all at once (NCARB charges a fee, $1190 at the time of this study, total for all 7 examinations). In addition, candidates may retake portions of the exam that they have failed. Thus, portions may be staggered to suit the candidate, although there is a time limit of 5 years for completion of all examinations, before having to take over any examinations passed more than 5 years previously.

In keeping with the trend established by the first two stages, however, preparation for the concluding assessment is the most informal of the three. Although NCARB and a number of independent organizations offer study guides and practice examinations, it is up to the candidate to determine when to begin, and with which examination, and how to proceed from there.
Primary subject matter and supporting subject matter categories for ARE

Each of the examinations in the ARE collection is formalized to deal with distinct subject matter. Thus, once again it is easy to assign them into categories and thereby determine which is primary.

Except that history and theory remain as lost from the ARE as they did from the IDP, there is a close correspondence between the examination taxonomy and the undergraduate curriculum content (or between the examination taxonomy and NAAB criteria). Of the seven examinations, there are three having to do with architectural design, employing visual communication knowledge as graphic oriented responses, while professional practice and building systems support that with two examinations apiece.

Summary of an architectural education

There are three points to take away from the description, so far, of existing conditions related to architectural education. The first of these is that architectural education leading to professional licensure can be characterized as well-defined stages of content presentation and assessment. These stages decrease in formality and shift in subject matter emphases as a participant progresses from student to intern to candidate to architect. Table 1-1 summarizes the characteristics of these stages.

For this study, concentrating as it does on the BArch as first professional degree, the emphasis that a student encounters is on architectural design, visual communication, and the content delivery mode of the studio. The studio is both pervasive and enduring as a tradition in architectural education at the university level.

Finally, there do exist differences between curriculum subject matter and accreditation criteria, although the two overlap generously. The issue can be framed as one of system versus culture, and that
will be pursued in the methodology chapter of this study. For now, though, it is enough to repeat that although the accreditation criteria remain the same for all institutions, the emphasis that programs put on those criteria can vary across institutions.

Table 1-1: Stages leading to professional registration.

<table>
<thead>
<tr>
<th>STAGE</th>
<th>GOAL</th>
<th>DURATION</th>
<th>ADMINISTRATION</th>
<th>SUBJECT MATTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Architecture, could also be Master or Doctor of Architecture</td>
<td>first professional degree</td>
<td>150 credit hours ≈ 5 years</td>
<td>NAAB (NCARB, AIA, AIAS, ACSA), department, institution</td>
<td>-building/site design</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-visual communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-history/theory</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-building systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-professional practice overview</td>
</tr>
<tr>
<td>Intern Development Program</td>
<td>candidacy for licensure</td>
<td>700 training units × 8 hours/unit = 5600 hours ≈ 3 years</td>
<td>NCARB</td>
<td>-design/construction documents</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-construction contract administration</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-project management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-professional service</td>
</tr>
<tr>
<td>Architect Registration Examination</td>
<td>license to practice</td>
<td>up to 5 years to complete all portions, otherwise retake portions older than 5 years</td>
<td>NCARB, state where taken</td>
<td>-building/site design</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-building systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-construction documents including contracts</td>
</tr>
</tbody>
</table>

Agents of curriculum modification and their effects

Caveat regarding fluidity, mutability, and interaction of agents

Up to this point, the description of existing conditions has been a series of static snapshots. Now the time has come to convey the dynamic nature of the interactions that lead from one stage to another, or even within a stage (in this case, the stage of the undergraduate professional degree).
From here on, the agents that have been identified in these stills will not remain disconnected from one another. Two of the conflicts and synergies among them can be discerned already: the give-and-take between profession and academy regarding subject matter, and which of the two should be responsible for presenting new subject matter as it emerges. This leads to a question about the purposes and effects of the increasing complexity of NAAB criteria over the years as those relate to emerging subject matter.

Here, too, can be seen an example of dynamic shift in stakeholders’ perspectives when those who once were students become alumni and enter the profession. Their rearrangement of priorities aligns with the change of emphasis on subject matter primacy. Studio work is not so dominant in the profession as it is in academia, and design is not the be all and end all in the office that it is in the academy.

Lastly, there is consideration lent to the constraints and affordances for the program among the institutional, departmental, and curriculum committee levels. On one hand, from the institutional level, external to and bearing on the program, course assessment constraints are pending as a result of institutional accreditation pressures, and the influence of these constraints on existing and emerging subject matter is not yet clear.

On the other, from a perspective internal to the department, special topics courses wink in and out of existence from semester to semester, depending on faculty motivation to offer them. Is there some threshold to be crossed when enough of these have been aggregated, portending possible curriculum modification to include the subject matter addressed or even to legitimize its place in the hierarchy of subject matter categories?
Subject matter conflict between profession and academy

A recurring debate about separating subject matter into that appropriate for the IDP and that for the NAAB student performance criteria centers on the very purpose of a professional degree (in this case, the Bachelor of Architecture): is the purpose to train future practitioners in the skills they will be expected to use by their employers and clients? Or is its purpose to provide opportunities for research that is grounded in theory, and that practitioners draw upon but probably will not have continual access to once they leave university (indicated by the disappearance of history/theory from the IDP subject matter categories)? Or is there a continuum, perhaps anchored by these purposes, along which lies a particular program’s conceptualization of balance between the two?

One hoary illustration of this contested border can be found in the building systems subject matter and how this is framed for architecture students with regard to construction detail. At the danger of oversimplification, in architecture a construction detail is an explicit representation of a desired feature in a material or assembly, or, more commonly, the explicit representation of the location where materials or assemblies are joined (or isolated) and how that joint is to be accomplished.

Both Weatherhead (1941, pp. 27-29) and Boyer and Mitgang (1996, p. 15) cite Ware (writing in 1897) regarding the postponement of teaching “details of a practical nature” until the student has moved on to employment in an architectural office. On the other hand, as Weatherhead (p. 23) also indicates, not all universities of the time adopted this Beaux-Arts sort of orientation, and for students at the contemporary German architectural schools:

Designs were carried through to the working drawing stage, the structural elements were computed, and the plumbing, heating, and lighting equipment specified.

This is not to say the “less detailing” school of thought holds that building systems should be ignored entirely, but rather, that if a student learned how beams and ductwork and drainage pipe behaved and had a sense of how the overall design accommodated their functions, then it was unnecessary to go so far as actually to size those elements and explicate their intersections with one another through
detailing. Those who find weight to this argument do so because detailing mutates as new materials and methods appear and are diffused while other materials and methods become obsolete.

This trait of details tended to relegate detailing to one of the functional trends that is not mirrored in the academy (as referred to in the abstract to this chapter). But that tendency is not universal, and is actually the point where oversimplification is broached, because there has long been a recognition in architectural education that another aspect of details belonged appropriately in the academy. Frascari (1984) captures this aspect when he discusses how artful attention to detailing contributes not only to the understanding of the overall built form being detailed, but also to its elegance at the scale of the detail (and perhaps at some loss to standardization, or generalization of applicability, that details focusing on functionality alone might have embodied instead). So this is not to say that detailing is neglected entirely at the level of an undergraduate program, but that academic instruction in detailing can differ greatly from the way that detailing is used in a professional office.

Another longstanding bone of contention is the ascendancy of design over professional practice throughout the undergraduate degree and how that is inverted during the IDP. Cuff (1991, p. 69) encapsulates why design might not be as primary in actual professional practice as it is in the academy: clients tend to favor budget over design decisions when the two are in conflict, and good business practices curtail good design practices when the latter appear inefficient or costly with regard to time or money.

Finally, the location of instruction regarding contract administration and project management is problematic. Entry-level employees without much prior office experience are not likely to encounter these direct influences on office budgets except from afar, IDP requirements notwithstanding.

An approach to ameliorating, if not actually resolving, these dilemmas is for students to pursue internships before graduation, often during the summer months, acquiring exposure to office practices and the latest detailing trends in that manner. But summer interns are even greater liabilities to a firm than entry-level employees and not likely to provide a high return on any time invested.
Increasing complexity (if not specificity) of accrediting criteria

The document that architecture departments prepare for NAAB accreditation visits is an Architecture Program Report (APR). A review of one department’s APRs over the last 30 years or so starting in 1975 showed a greater than fourfold increase during that period in the number of criteria used to assess a program. These ballooned from 7 to 34 with no real increase in specificity (beyond either “ability” or “understanding”) in the presentation of the objectives associated with those criteria.

While it might not have been the intent of NAAB administrators to take advantage of the elastic nature of these criteria, it is awfully convenient all the same to have a vehicle for assigning responsibility regarding emerging subject matter to the academy. In the case of NAAB vis-à-vis a university department of architecture, NAAB can apply leverage to achieve its ends through the granting or withholding of accreditation that it cannot exert on the profession in the same manner or to the same extent through IDP enforcement.

Tracing the development and implementation of these criteria might provide further insight into the differences and conflicts between those and curriculum subject matter. And the results from such an investigation will be presented in the analysis chapter of this study.

An example of institutional influence

The influences of the architectural profession and the accrediting agency having been touched on, the next in line for consideration is that of the institution of which the department in this study is a part. For the undergraduate professional degree program in this study, much of the category of remainder subject matter is generated as institutional requirements. As with all majors at the institution in this study, architecture programs are likely to be rounded out by social science, natural science, mathematics, and humanities courses that lend the cachet of universality to a university education.
However, that is not the full extent of institutional influence on curriculum. Resulting from its latest visit, the regional accrediting agency for the institution in this study (accrediting the university as a whole, unlike NAAB that accredits only architectural programs) recommended that an institution-wide system of assessment be implemented. This recommendation was in turn relayed to all departments and programs within the institution, although worded more strongly in the manner of a directive with deadlines. Among the assessments to be performed at the program level is that of alignment between course objectives and program goals, with the anticipated result of curriculum modification when those are misaligned.

The directive is peculiarly problematic in several ways and will be dealt with again in the analysis chapter. For now, though, the case of architectural design as primary subject matter and studio as content delivery mode is considered. Levels of measurement in the learning of design whether nominal, ordinal, interval, or ratio, need not apply consistently from one individual to another. When objectives may vary in nature among cognitive, psycho-motor, or affective, and then differing among individual students within a single assignment, normative grading is out of the question because comparisons are meaningless, and criterion grading has little point when mastery is variable or even ill-defined. Furthermore, development of a rubric to classify the achievement of objectives is confounded when the dimensions to be measured can include any combination of product, process, presentation, or progress, again within a single assignment and depending on the student.

Traditional craft-based pedagogy, such as that for studio courses, does not yet seem to map well onto even explicit, much less standardized, assessment. That’s one reason architecture students produce portfolios and let viewers make judgments of ability or understanding based on direct evidence and individual prejudices.

Another reason is that a single grade for a course represents some mean of assessment results with respect to multiple objectives, but does not account for variance among those individual assessments. Thus, an average grade could be indicative of one extremely high measure and one
extremely low measure on two different objectives, or it could just as easily be produced from two measures, neither of which is extreme.

While this inadequacy of course grades to provide measurement of individual objective alignment at the program level is addressed in material accompanying the directive, it is perhaps an oversight that the more basic questions of determining measurement validity and instrument reliability are not. Ironically, the consequence is that the directive urges explication of assessment without itself being explicit regarding how to tell if an assessment is worth making.

In fact, this concept of learning objectives as mutable moving targets should be of the very greatest interest to instructional designers. Here in architectural design education is an as yet untamed and uncharted wilderness, through which it is unlikely that any known instructional design methodology will produce consistent success.

This is not to say that instructional design theories have avoided addressing studio instruction entirely, but that only some have even skirted the issue. For example, Hannafin, Land, and Oliver (1999) propose open learning environments that can have several of the studio’s characteristics (e.g., individual student interpretations of the problem to be addressed in class). However, the focus of open learning environments seems to be the manufacture of simulations that marginalize the abstract features of, say, architectural design, in favor of immersing students in a situation that is more pragmatically manipulable (anchored instruction). So, instead of asking the question about what does the use of materials and scale in a built form represent with regard to its culture of origin, the inquiry becomes one of production, as in how the form shall be assembled.

In this case, assessments could be developed around learning objectives related to artifact production or presentation techniques, and might even inform evaluation of students’ learning of subject matter along the lines of comprehensive design as coordination of building systems. But the internal validity of such assessments would be limited at best, and more likely questionable, with regard to the actual design processes that vary among the individual students in a studio.
And open learning environments are an exceptional case. Typically, when instructional design is presented to interested parties (such as institutional administrations) for the first time, learning objectives are framed as much more well-defined, facilitating assessments and aligned with equally clearly defined goals. This construct is associated with Heinich, Molenda, Russell, and Smaldino (1996) who synthesized such objectives from four components, referred to by the mnemonic of A, B, C, D: audience of students, behavior to be performed as evidence of learning, context or conditions of the performance, and the degree of competence indicating success at learning. While still a popular gateway to instructional design, this construct is not applicable to studios (which resist consistency of objectives and universality of objective application), and this issue will be taken up in the discussion chapter.

Curriculum committee

Then there is the organization of curriculum modification as sanctioned within the department. At this institution, departments are responsible for defining their own curricula, with modifications submitted to a faculty senate (with representatives drawn from departments across the institution), having its own curriculum approval committee, for review. For the department in this study, the origin of curriculum modification is the departmental faculty acting as an entire body, and on the advice of a curriculum committee whose members are appointed by the department head from among those faculty.

The charge to the curriculum committee is made by the department head as a list of the issues to be attended to and a ranking of those issues by urgency and importance. It is up to the committee members to schedule their meeting times and assign what issues will be addressed as they see fit with regard to the charge.

Indeed, when this study began it was not known whether any of these procedures had been codified, or followed, or even how the committee was formed, and there were no records of
committee meetings from previous semesters. So discovering how the committee met and performed its functions, and with what degree of formality (e.g., do only those on the committee participate in the committee’s decision making, or are consultants and surveys employed), was crucial to finalizing the unit of analysis for this study, as referred to in the methodology chapter.

In arriving at that unit of analysis, it became apparent to the researcher that there were influences that nudged what was otherwise known as the architecture faculty’s academic freedom (itself limited by the course descriptions that lend legitimization to subject matter) in one direction or another (e.g., institutional general education requirements, professional trends, NAAB criteria). So what the architecture faculty in general and the curriculum committee in particular were dealing with, semester by semester, was not wholly contained within the department alone, even though the way it was dealt with was formulated there. In fact, because the interpretation of architectural design remains inherently contestable, it is imperative for faculty to adopt a reactive pedagogy in order to avoid the appearance of indoctrination (American Association of University Professors, 2007) that might otherwise result from focusing studio instruction on particular subject matter and associating that with specific learning objectives.

Summary of influences on curriculum

The scope of the influences on the program’s curriculum range from the local committee within the department and, in turn, its enclosing institution, to the national accreditation agency and across the encompassing reach of the profession. Given that, it would be unrealistic to suppose that the whole cloud of interactions could be modeled by the construction of some mechanical orrery.

What it is possible to do is to frame this study initially by recognizing not only the robust conflicts among those influences, such as the ebb and flow of subject matter responsibility between profession and academy, but also the novel disturbances, such as the institutional assessment
directive. These provide the initial access to, and explanations of, relationships among stakeholders (students, faculty, administration, alumni, etc.) that can be probed for insights regarding the underlying values and motivation that provoke the responsive behaviors, and ultimately any patterns emic to the department in this study.

**Research questions**

**Introduction**

A curriculum structure and causes of curriculum modification have been outlined already. What is left in this chapter is to consider paths along which change might occur. One way to commence that is to establish the endpoints of such a path, with the caveat that these endpoints are constructs that need to be defined for this study.

Once that chore is accomplished, the research questions impelling this study can be derived. This is done by reviewing the guiding questions for each of the preceding topics and generalizing the common theme.

**Legitimization**

According to Esherick (1984. p. 27), “The best indication of what architects do, and by inference what architecture intends and claims, is in course descriptions in the catalogues and bulletins of the architecture schools.” Jack Matson, Professor of Environmental Engineering at Penn State, took this a step farther by equating the identification of subject matter in a course name, or description of it in a
course bulletin, with legitimizing it, or acknowledging that it is appropriate and expected to encounter this subject matter in a curriculum (personal communication, November 1, 2007).

The construct of legitimization thus denotes one possible endpoint for the path of subject matter introduced as a curriculum modification. In this case, the department has recognized the subject matter as contributing substantially to the goals of the program and accepts at least some of the responsibility for its educational dissemination to students.

Academic legitimization is not the only possible endpoint, however. There is the trivial case, of course, where subject matter is examined and dropped perfunctorily from both the profession and academy. And there is the case of professional legitimization where the profession accepts the responsibility for education.

But there is also the scrum where both academy and profession push the educational responsibility toward each other, marginalizing the subject matter in both theaters rather than legitimizing it in either. The contentious situation resulting may be manifested, for example, in how accessibility (for disabled persons) to buildings is dealt with by both the academy and profession. And a closer glimpse at this example will be offered in the methodology chapter, serving as an introduction to the subject matter scrutinized in this study.

For now, though, this is why legitimization in communities devoted to architectural education is unique:

- It affects instruction about design, which is already unique, itself, in educational terms (and underresearched).
- It is manifested and traceable by its path in the construct of studio methods (that is, for architectural design education there is an additional and more important avenue when compared with the lecture and laboratory courses that are sufficient to serve other fields).
• It is, itself, affected and differentiated by whether the subject matter is focused for students in terms of critical thinking (innovatively, as in theoretically informed investigation) or commercial preparation (legislated, as in orientation for professional practice).

Guiding questions

_How does subject matter-based curriculum modification happen currently?_

This is a low-level reporting of mechanism and observable behavior. There is no investigation of motive or consequence, only description of activities: not who raised the issue of subject matter inclusion in a curriculum, or why, but rather that the issue was raised in such-and-such a forum; not who proposed the first course title using the subject matter’s name, but rather that the catalog of this date first carried it.

Such is the work of documentation and discovery for later analysis. The body of this chapter lays the groundwork for a continuation of this reporting throughout this study.

_What are the practices that lead to legitimization, and whose prevail?_

Possible results of subject matter-based curriculum modification tend toward legitimization or marginalization. This chapter has identified possible influences contributing to one or the other, but the practices (customs, reifications, habitualizations, and institutionalizations) embraced by each remain to be detailed.

Furthermore, when in conflict whose practices prevail? There may, in fact, be influences of a nature that has not even been considered yet when it comes to the impedance or acceleration of
legitimization. For example, in the case of accessibility, did legislation drag that subject matter de facto (if not de jure) into the profession’s area of educational responsibility?

**Why does curriculum modification happen at all?**

This question is at the crux of this study’s very nature. One might just as well ask what the direct effects of subject matter-based curriculum modification are on the values that distinguish an academic community as a culture. Keeping this guiding question in mind is what makes the study important to some stakeholders and beneficial to others:

- It is important for the instructional design community to gain insight into another design community’s processes related to: determining what is the subject matter that students in a given major need to master in order to succeed as professionals; deciding what should be covered in an undergraduate program and what left to the profession; and increasing the probability that learning will occur based on the content delivery mode, and the effectiveness, efficiency, and engagement of the content, itself.

- Design education, and particularly architectural design education, is not yet addressed by instructional design to any degree. At this point, almost any insight that can be facilitated from research will broaden understanding about instructional design in that context. Insights derived from this study could prove beneficial as applications to a host of curriculum developers in design fields, pedagogical theorists speculating about teaching and learning design, and educators specializing in the subject matter chosen as the vehicle for the study (about which more will be said in the methodology chapter).

- It is important to the architectural community of educators for those reasons, and for the additional one that craft-based traditions need some examination from time-to-time, providing their practitioners with material for critical reflection. In order for current processes to inform future
efforts at improving instruction, learning, or curriculum, it is necessary to understand what those processes mean to the community, and the individuals within that community, perpetuating those processes. How do they occur, and why do they occur? When do they change, and why do they change? What do they mean?

- Finally, the researcher believes that these results will benefit architecture students, of whom he was once one and could have used some benefits, because it will aid in understanding the community of which they are a part of and the one they intend to enter professionally.

**Statement of research questions as summary of this section**

There are some clarifications of terminology (e.g., related to academic communities) to follow in the literature review chapter, of course. Otherwise, the questions that follow are the organizing principle of this study: everything so far has led to them, and everything that ensues will refer back to them.

What is the process that an academic community devoted to architectural design education follows when modifying its curriculum to introduce subject matter into its undergraduate program, and why is this process privileged over others? What and who influence the choice of subject matter chosen for introduction? How is that general subject matter or specific content legitimized or marginalized over time through subject matter-based curriculum modification?
Components and stages of architectural education

Existing conditions in architectural education were roughly sketched, with a stress on those to be found at the department in this study. Accounts were offered of the basic components of the studio and of the undergraduate architectural curriculum in general. And the sequence of educational stages from undergraduate student through licensure candidate was explained.

Once this context had been established, a taxonomy of subject matter categories (primary, supporting, and remainder) was presented in order to distinguish the allocation to these categories of often similar subject matter yet with differing emphasis at each stage. The researcher posited that subject matter could rapidly emerge or disappear from these categories without affecting the hierarchies, thereby describing one way that subject matter-based curriculum modification happens currently.

Influences on curriculum modification and possible outcomes for subject matter

Possible influences on subject matter-based curriculum modification were represented as a range including profession, accrediting agency, institution, and department. Drawing on that range, the researcher indicated accustomed areas of conflict between sources of influence, such as that between curriculum subject matter and accrediting criteria.

The construct of legitimization was introduced as a possible outcome for subject matter emerging in a curriculum. And, when conflict of influence was considered, a second outcome of marginalization was needed to classify that impedance to legitimization.
Chapter 2

Review of Literature

Chapter abstract

In this chapter, the differences and similarities between systems and cultures are presented. The argument is developed for why systems and cultures should not be investigated independently from one another, as has been the custom to do. For example, limiting the construction of this study to an instructional systems orientation would relegate to obscurity the richness of a community in interaction with the system’s rules. Likewise, to constrain the study as one of a cultural nature would be to neglect aspects of the cultural norms as reactions to and interpretations of systemic rules.

At the risk of a strained analogy, consider the example of a game with which an observer is unfamiliar. For a study to place the current rules for the game in the hands of that observer would be a systemic approach, without showing the game being played. If the game were played in font of the observer, without an explanation of the rules, then the observer would see the cultural processes of norm compliance and interpretations of the rules, but without the background needed to understand their development and use. But both to see the game as it is actually played and to have the rules in hand indicating how the game was intended to be regulated, is to vastly increase the likelihood of understanding from the glimpse being provided. And that is the aim of this study.

Individual terms of the research questions raised in the preceding chapter are investigated with respect either to previous usage in other studies and references, or for assembly into the constructs needed for this study. Specifically, the terms academic community and curriculum modification are
discussed in detail, while *legitimization*, which was already raised in the existing conditions chapter, is reviewed and clarified.

The construct of academic community is established. This construct is fundamental to the boundaries of this study’s unit of analysis and critical dimensions of phenomena (themselves requiring clarification before the framing of the study can continue).

The argument is then advanced as to why it is appropriate to consider curriculum modification as a cultural process in order to address the research questions. Metes and bounds are suggested for what a curriculum comprises, and what sort of curriculum might be encountered in this study, based on review of prior development of curriculum theories.

Finally, the construct of legitimization is parsed, and its connection to the cultural process of curriculum modification is explained. This construct was broached in the preceding chapter in order to make the research question comprehensible at that point. However, the path along which emergent subject matter is led to legitimization needs some additional attention here in order to make a compelling case for legitimization of that subject matter as an outcome.

**Academic community**

**Introduction**

The researcher introduces the construct of academic community, and posits that such a community has both cultural and systemic aspects. An analogy is structured to demonstrate that, while the concepts of culture and system can be described independently of one another, they do not occur independently. This does not imply that for any given system there is one and only one culture, nor does it imply the converse, but rather that where one aspect is evident the other must be expected in proximity.
It is further demonstrated that, while a system’s tasks might be transferable to another culture, it is not likely for cultural behaviors to be transferable at all. An explanation is offered for disallowing generalizability of cultural and systemic interactions, in favor of access to them.

**Definition of community**

Application of either term, system or culture, implies agreement, cooperation, and sharing among participants in some endeavor. This endeavor might be an active pursuit, as in manufacturing widgets, or a passive one, as in respecting conventions of symbol usage.

Wenger (1999. pp. 72-85) characterizes these implications as a triad of *engagement, joint enterprise,* and *shared repertoire* when analyzing a community of practice:

- engagement in actions for which the meanings are negotiated among community participants
- joint enterprise as response to situation in which they are participants “in spite of all the forces and influences that are beyond their control”
- shared repertoire of resources for negotiating meaning

From this analysis, the researcher makes two initial observations, one an obvious point and the other more subtle. First, there is certainly a community that satisfies Wenger’s criteria as defined around the activities and negotiated meanings needed to staff and manage an undergraduate degree program. And the joint enterprise of its participants is academic to the very core, whether directly instructional or indirectly administrative.

In light of that, the exercise of associating Wenger’s criteria with specific practices is trivial. Do the participants (viz., faculty, staff, students, and alumni), engage in actions of an academic nature as their focus for convening every day, and have the meanings of these actions been negotiated by the participants? Yes, they prepare syllabi and teach courses in keeping with their interpretation of the curriculum, they make reports to the dean about their interpretations of success in teaching, they gather at
faculty meetings to renegotiate meanings and affirm their perpetuation of symbol interpretations to be shared across the range of participants, and so on.

The subtle point is in the community’s mission as joint enterprise. Not that the community lacks one, but rather that the opposite might be the case: joint enterprise can be seen through at least two different lenses, and what is more, without recognizing a distinction between the contrasting orientations. In the case of this academic community, is the joint effort of its participants to provide students access to a collocation of scholars where the probability of learning related to the profession of architecture is relatively high because resources are allocated to facilitate it? Or is that joint effort instead to take students as input and convert them into architectural interns as output, certifying their readiness to begin the next stage?

Therein lies not a contradiction, but a complementarity, since both are applicable simultaneously without dissonating one’s cognition. How is this so?

In order to loosen this apparent tangle for inspection, the researcher offers an analogy from the physical sciences in the form of the electromagnetic field and the relationship between the dynamic magnetic fields and electric fields that comprise it. The electric force on a charged particle can be described independently of the magnetic force. Likewise, the magnetic force can be described independently of the electric. Neither of these forces can occur, however, without the other. Furthermore, and this is crudely put, they are interchangeable depending on one’s inertial frame of reference.

If a community were susceptible to analytical decomposition, like that performed on an electromagnetic field, then one pair of necessary and sufficient aspects would be that of culture and system. It is possible to describe one independently of the other, but it is not likely to encounter one without the other. And, depending on one’s frame of reference, it might be possible to confuse one for the other, or even conflate the two so as to make them indistinguishable, all without any apparent harm or impediment to one’s continued phenomenological functioning in the community. Indeed, why would the difference be consciously noticeable if everything makes sense either way?
Yet, there might be an advantage to this study from parsing the community, and that will become apparent in the treatment of critical dimensions of phenomena in the methodology chapter. For the moment, though, it is enough to pursue this analytical decomposition analogy and compare the natures of these two aspects.

**Definition of culture**

The intent conveyed through a voluntary act, and the interpretation derived from it, rely more on the conditions agreed upon between actor and observer than on the task, itself. When Geertz (1973/2000, p. 6) cites Ryle with regard to winking, his point is that the act involves a richer set of meanings than the contraction of a single eyelid as a task. In a culture where the wink is agreed upon to symbolize a surreptitious consent, or perhaps to signal the winker’s indulgence in facetiousness, the intent and interpretation of the act involve an accustomed alignment of the triggering task and the triggered recognition, taking into account the context in which it is performed.

An observable behavior or trigger might be conceptualized as one of the smallest and simplest units associated with a culture. However, culture is “not complexes of concrete behavior patterns” (Geertz, 1973/2000, p. 44), but rather “extragenetic” (i.e., not instinctual) rules and recipes for governing behaviors. Thus, although behaviors can be articulations of a culture, cultures are not congruent with symbol systems. Geertz writes that these systems ignore the “informal logic of actual life” (p.17), and that the notion of applying formalized analysis to a culture is a cognitivist fallacy (p.12).

When Allan (1998, p. 45) writes about culture as a construct not born of instinct, citing Berger and Luckmann in support of that, his views resonate with those of Geertz. And Allan further reiterates Geertz’s complaint about identifying culture with signification systems at the expense of “agency and affect-meaning” (p. 10), returning to this later when he observes that cultural theorists err when “issues of emotion and culture are generally regulated [sic] to the realm of values” (p. 39).
From this, the researcher begins a working definition of culture with its property of having pervasive norms, but also experientially tempered applications of them. A corresponding non-example is that cultures are not manufactured from a combination of behaviors alone, and certainly not from either extreme of tasks that are rigidly bound up with one shared meaning or those that can be entirely dissociated from any such meaning.

A further defining property of cultures is that, being derived from the otherwise chaotic interaction of individuals, each with a unique manner of making sense from the environment, they are, unlike many systems, “inherently unstable, precarious, and susceptible to change,” and must “constantly be produced and reproduced” as a result of this instability (Allan p. 41-42 critiquing Weber’s subjectivist orientation).

For this study, then, a culture is a group of people who share behaviors, practices, and values based on their agreements about the meaning of the phenomena they encounter in the environment they inhabit. There are implicit rules that govern what it is that behaviors and artifacts signify, how to interpret them, and how that varies with the context of the encounter. But any and all of these components must be considered dynamic of nature, in the sense that perpetuation of the culture relies on reproduction and not on slavish replication as continuity.

**Definition of system**

Although for this study the researcher bases the construct of system on those that involve people, typical definitions are not so restrictive. For instance, von Bertalanffy (1972, p. 417) describes systems as “set of elements standing in interrelation among themselves and the environment,” including elements that are real (objects existing independently of observer), conceptual (relying on symbols such as math and music), and abstract (conceptual but corresponding with reality as in science). In its simplest form,
the external view of a system can be diagrammed as a black box that fills the interval between input entering a system boundary and output leaving.

Hutchins (1996, p. 27) refers to a system as a group of elements that collectively form a pattern and interact with a purpose. Pattern and purpose are both affected when any of the individual elements is changed, but neither can be predicted from an individual element. Thus, a system is non-reducible without knowing both all the elements before reduction and the relationships between each element and any other.

From these definitions it can be seen that the inherent instability associated with cultures is not of the same magnitude of concern and emotional investment when it comes to disturbing a system: if an element in a system changes, and if the system is robust, the response to the disturbance will be a tendency to resume the same approach to stability as before the disturbance. If the system is brittle then it will take another path, perhaps toward a different form of stability (as in equilibrium or periodicity) or maybe toward divergence. All in all, the literature regarding systems is somewhat less passionate and more clinical than that for culture.

How does this contribute to the construct of system needed for this study? To begin with, when this study refers to a system it is in the sense of human systems and not lifeless artifacts such as electronic systems or naturally occurring phenomena such as ecosystems or endocrine systems. The systems to be dealt with here run along the lines of complexly institutionalized relationships among people, such as those in health care or industry or, in this case, education.

The most straightforward way to characterize such a system is through its explicit rules and hierarchies, as in this person answers to that one by making such and such a report. The report contains this information gathered in that manner with regard to making such and such a decision, and so on. The point is that there is an organizing (as opposed to agreement) of people in order to achieve some purpose, and that the system’s survival relies on its approach toward, or maintenance of, some form of stability. Thus, a system is the sum of its purpose, its rules, its performers, and affordances and constraints.
affecting its stabilization. Such an educational system writ large might include a national secretary of education, a state’s department of education, a town’s school board, the administration within each academic unit (the principals for elementary schools, middle schools, and high schools in a district), the faculty, staff, and students at each of those units, and a community of taxpayers financing the operations. For each of these stakeholders, regulation of their participation in various portions of the system can be traced to specific bureaucratic protocols.

**Example of difference between system and culture**

A combination of terms as “cultural systems” is made by several of the authors already cited. However, the researcher prefers to allow much less crossover in the use of the terms culture and system for this study because, while the inherent characteristics of each appear analogous to one another, actually these are fundamentally different, as are the pursuing of goals and the embracing of values.

Take the boundary of a system, for example. Hutchins (1996, p. 101) encapsulates this as where the system’s structure changes, and cites Bailey’s definition applied to an information structure. So, for Bailey, a system ends where the information available changes from systemic to entropic. Generalizing from Bailey’s definition, the boundary for a system is where some task makes no progress toward an objective. Outside the system boundary, the contraction of an eyelid can be recognized as intentional, but it has no place in a critical path aimed at some specific end, and the resources expended in the contraction cannot be optimized in some known pursuit. Unusable input indicates no effect on output and generates no interest. Experientially, the encounter is ignored.

For a culture, the boundary is that a behavior has no meaning related to a custom or practice. So, outside the cultural boundary, the wink does not refer to an agreement either about how winks are used or about demarcating the context in which a wink may be made. This does not imply that an observer cannot recognize the wink for a symbol, only that the observer outside the culture has little clue what it is the
symbol signifies. Ignorance of agreement indicates no interpretation and generates no coherence.

Experientially, the encounter is puzzling.

**Extent of system and culture interdependence within community**

Tosti and Jackson’s diagram of system and culture complementarity, presented in Lineberry and Carleton (1992, p.236) is shown here as Figure 2-1. As such, it makes a concise summation of the preceding items and definitions.

A culture is seen to relate values, practices, behaviors (e.g., the studio culture that must be discussed as a section in an undergraduate program’s Architecture Program Report presented to the NAAB accrediting agency). By contrast, a system (labeled “strategic processes” in original diagram), would be more formally policy-based (e.g., a departmental strategic plan for future development included in the same Architectural Program Report) than a culture, with the system having a hierarchy of goals, objectives, and tasks.

![Organizational Alignment Model](image)

**Figure 2-1**: Comparison of systemic process aspects with cultural process aspects.
The researcher posits that Tosti and Jackson’s complementarity abstraction can be extrapolated further. In the same manner that the overall constructs do not exist without each other, the components of those constructs also correspond (as shown in Table 2-1).

Table 2-1: Correspondence of components among constructs

<table>
<thead>
<tr>
<th>properties of community</th>
<th>level of influence on community</th>
<th>target variable</th>
<th>systemic component of property</th>
<th>cultural component of property</th>
</tr>
</thead>
<tbody>
<tr>
<td>joint enterprise</td>
<td>strategic</td>
<td>why</td>
<td>goal</td>
<td>values</td>
</tr>
<tr>
<td>shared repertoire</td>
<td>operational</td>
<td>who, what</td>
<td>objective</td>
<td>practices</td>
</tr>
<tr>
<td>engagement</td>
<td>tactical</td>
<td>when, where, how</td>
<td>task</td>
<td>behaviors</td>
</tr>
</tbody>
</table>

Interaction across community boundary

How does the environment external to a community influence that community’s mission (purpose of community) and vision (desired state of the community) and the components thereof? Returning to Figure 2-1, in some cases this influence is apparent, as when stakeholders attempt to affect results of the community’s joint enterprise, thereby modifying some level of component, whether at the strategic, operational, or tactical level.

As previously listed, stakeholders include the department of architecture faculty, staff, and administration, the institution of which the department is an academic unit, the agency having accreditation authority over the department’s programs, and the architectural profession of which some portion will be alumni from the architecture program. These may now be separated into internal and external categories with regard to the community boundary, with the faculty, staff, and administration being internal, and the institution, accrediting agency, and alumni as external. This may seem an arbitrary division, but will be justified further in the methodology chapter.
Typically, external influence crossing the boundary can have one of four results, with several permutations of these that vary by level. Overall, two are simple: rejection as both systemic and cultural aspects, and acceptance as both systemic and cultural aspects. In the first, the community remains as it was, and in the second, the community changes to conform with the intent of the influence.

Yet, there might not always be so direct an answer as this, and the researcher offers the following operationalization as another possible response: consider the conditions where the boundary of the community and that of the systemic aspect and that of the cultural aspect do not entirely coincide. One boundary is porous and another is closed.

In this region of ambiguity, some gestures can advance a purpose but present no meaning while others have a meaning but no purpose. Take for example, the case of an institution, acting externally to a community, and crossing the systemic boundary by modifying the community’s objectives, but without addressing the community’s cultural practices. What results is a disturbance to community stability in the form of community dissonance, similar to that occurring between what Argyris and Schön (1974) called espoused theory and theory-in-action for individuals. In this case, the unresolved conflict might be manifested as lip service by the community toward the systemic change, while maintaining the previous cultural practices.

On the other hand, when a shift in cultural practice renders a system redundant, the resulting dissonance in a system is entropic. Either the system ceases to exist, reverting to disorder, or what subsystems remain have to be realigned, whether with one another or with entirely different systems. So, to return to the tobacco industry example, as tobacco use becomes less acceptable, the resources that no longer serve to produce and research tobacco as a crop might be aligned with agricultural production of a different nature and in pursuit of a different crop.
Academic community summary

The construct of community was assembled from what the community’s members achieve, in terms of their systemic goals, and what its members are, in terms of their cultural values. This is not to say that a community has the lenticular property of merely appearing to be a system from one angle and a culture from another, but rather that both system and culture must be present simultaneously for a community to exist, and that the features of one aspect are analogous to those of the other.

Can one community pursue the same goals that another community does without embracing the second community’s values? Yes, that means the systems overlap, but the cultures do not, as when one program prepares its students to value construction detail and another does not, but both programs produce architects. Can one community embrace another community’s values without pursuing the same goals that the second community does? Yes, in that case the cultures are similar, but the systems differ, as when one program produces engineers and another architects, but both are prepared to value sustainability.

Essentially, a community can neither pursue goals without embracing values, nor embrace values without pursuing goals. The former would imply cultural coercion and the latter, systemic inertia, but in either case the complementarity of culture and system is upheld.

Both of these extreme conditions result from a dissonance between espoused theory and theory-in-action. In this study, the researcher applies those categories of theory to being and achieving, respectively, with the realization that in the messy world of human interaction instances of dissonance between those two are likely to exist. Now, that dissonance might feedback usefully and then correction of misalignment between systemic capabilities and cultural aspiration would occur. Or, if that dissonance were pervasive then it would indicate instability just as unsupportable to a community as its lack of either a culture or a system would be.
Curriculum and its modification

Introduction

First, an interpretation of curriculum is offered, and curriculum modification in an academic community is briefly mentioned. Descriptive and explanatory models of curriculum, and the systemic characteristics of these models, are discussed.

Curriculum is then approached from a different theoretical vantage, as in how modification is related to the culture within an academic community. When compared to the systemic lens, a cultural orientation is predicted to derive insights more convincingly from this study’s resources than a systemic one would.

Systemic approach

From the preceding chapter, it is known that the phenomenon of interest to this study is an academic community’s process of legitimization for innovative subject matter. One likely source of data regarding this process is the curriculum used in the community’s degree programs, especially the changes to that curriculum.

Eisner (2002) categorizes a curriculum into three aspects: explicit, implicit, and null (the null curriculum, or what is not taught, complements the example of subject matter inclusion by demonstrating exclusion). These are adequate for a first pass at definition, if one allows some crude associations of explicit with systemic and implicit with cultural. The null curriculum might also prove useful in data collection and analysis, because it has the same function as a non-example when one is defining a
concept: the example demonstrates what must exist or be had or be done in consistency with the target concept, while the non-example completes the picture by demonstrating what must not.

With Stark and Latucca (1997), it is easy to continue the construct of community, as a combination of system and culture, into the systemic aspect of explicit curriculum inclusion and modification. In fact, they offer (p. 20) that a curriculum comprises its own subsystem of goals, objectives, and tasks within an academic community. They define curriculum (p. 10) as an academic plan that has at least the following elements: purpose, content, sequence, learners, instructional processes, instructional resources, evaluation, and adjustment.

They do not employ systems terminology per se, but their diagrammatic approach is systemic in nature and makes clear that there is a system boundary. Within this boundary are instructional and evaluative and resource allocation tasks to be operationalized into sequence and content, and these tasks constitute the objectives needed to achieve an educational purpose.

As will be related in the discussion chapter, it is necessary from time to time to demonstrate differences in community members’ philosophical bases for curriculum as a means of explaining their range of interpretations of systemic rules. An aid to this analysis of methods for determining necessary and sufficient subject matter is Stark and Latucca’s educational philosophy taxonomy (p. 25) that they have assembled from supplementing Levine’s 1978 Carnegie Commission report with their own categories:

- Perennialism (roughly corresponding to the radical humanism category of Eisner, 2002) and Essentialism, both of which deal with developing one’s rational abilities through exposure to traditional subject matter (e.g., reading, science, mathematics), with perennialism directed less at a corpus of declarative knowledge than with procedural and conditional, while essentialism seems instructor-centered, tending toward vocational preparation (if not quite so constrained in outlook and scope)
• Existentialism, where meaning is constructed by the individual, and concentrating on a more individual development (similar to bildung, in the manner that Bleicher, 2006 sees it integrating knowledge and expertise with moral and aesthetic concerns in the course of an individual’s self-formation, and incorporating features of Eisner’s cognitive pluralism, 2002)

• Progressivism as experiential and problem oriented (Dewey, 1938/1997 is the well-known exemplar here)

• Reconstructionism as in the renovation of society to alleviate a dominant culture’s oppression of the marginal ones within its influence (Eisner, 2002, uses the term reconceptualism, cf. Freire, 1971); this orientation is also of interest with relation to the values-laden content of sustainability in architectural design that will be used as a vehicle for the study and, furthermore, for its connection between Freire’s construct of *praxis* as action/reflection/action and Schön’s (1992) reflective design conversation as seeing/drawing/seeing or seeing/moving/seeing)

• Vocational preparation (Veblen derided this in 1918, but it still remains at the heart of the conflict between profession and academy as evidenced by Giroux, 2007)

• Value development as in denominational perpetuation that Eisner (2002) equates with religious orthodoxy

Obviously, these are all so broadly inclusive that some portion of each could apply to any curriculum, and it is likely that bildung, experiential learning, and societal reconstruction will all appear in a description of this study’s community. Therefore, it is doubtful that a robust orientation adhering to one and only one of these philosophical lines would either be prominent in the community already, or emerge from it during the study.

Jones (2002) must not entertain these misgivings, however, because she frames the control of curriculum, especially in professional degree programs such as this study’s, as a prize in the struggle between academic perennialism and everything else, citing a number of reports (pp. 8-9) that
“demonstrate a dramatic challenge of the academy’s traditional belief that mastery of the discipline should be the principal measure of collegiate success.”

In opposition to Stark and Latucca’s avoidance of systemic jargon, she prefers systemic references throughout her text, but does not resort to particular educational philosophy terms. Two prominent examples are her approach to inclusion of subject matter in a curriculum based on projected outcomes, and her recommended approach to curriculum modification that relies heavily on Rogers and his model of innovation adoption throughout a system.

Indeed, Rogers and Shoemaker (1971) skirt the issue of philosophical underpinnings, and frame adoption in terms of the innovation’s attributes. For them an innovation has comparable degrees of advantage, status, reward, compatibility, complexity, and triability, and these predict how accelerated or impeded a legitimization will be.

**Shortcomings of systemic approach alone**

There are at least three areas wherein systemic approaches by themselves are inadequate or inappropriate for defining curriculum for this study’s academic community. Jones’ (2002) work is both problematic and exemplary in that the conflict between academy and profession (much as already discussed in the first chapter of this proposal) she reports is over subject matter that already lies, in fact, within the discipline of architecture (on p. 18 she lists communication, critical thinking, and constructing multiple solutions for complex problems).

Secondly, systemic approaches to curriculum definition and modification tend to rely on systematic processes such as feedback loops (Hutchins, 1996, p. 3) that can be constructed and scheduled rigorously. Although trial and error and iteration are hallmarks of design and education about design, it is not apparent that legitimization of subject matter is a disturbance, itself, to be monitored via feedback
loops, or the community’s response to a disturbance, for which process the measurement might be an ill-defined moving target.

Thirdly, to apply systematic processes in a systemic manner requires an attribution of objectivity to the subject matter (Marsh and Willis, 1999, p. 151, talk about the upgrade, from mere objects or events, when framing improvement to a system as increasing effectiveness and efficiency, as if these were not also objectively based measures). Integrating subject matter into a systemic curriculum is thereby facilitated because the subject matter appears abruptly, in a form both matured in composition and fixed in effect, as through autopoiesis. As was mentioned above regarding the philosophical orientations, that is not a reasonable expectation for a community.

Cultural approach to curriculum modification

As a predecessor to Eisner’s (2002) explicit, implicit, and null curricula, Behar (1994, pp. 6-7, citing McNeil, 1990) makes a distinction between hard curriculum and soft curriculum. For her, hard curriculum aligns with organizational mission as logical, justifiable, and empirically confirmable, while soft curriculum is not as concerned with tasks and objectives as it is with political and moral behaviors. In order to grasp the cultural aspect of a curriculum, it is necessary to successively excavate layers from a thick sediment of representations and get to the heart of that soft curriculum.

The certificate issued by an academic institution represents completion of a set of courses at a given degree level. Completion of this collected and sequenced set of courses, in its turn, represents a student’s exposure to, and competence at, certain declarative, procedural, and conditional knowledge and skills. The knowledge and skills represent the subject matter that the stakeholders (institution, accrediting agency, and community offering the program) determine to be necessary and sufficient to warrant the certification.
All these strata serve the researcher as bases for assembling and arranging concepts related to curriculum. The questions of why specific innovative subject matter should activate the values of members in this community who initiate a legitimization process, and which of the community’s practices are affected by that innovative subject matter, and how the subject matter diffuses throughout the community are ones that a systemic approach for analyzing generalities cannot deductively interpret: the meaning of the process to community participants would be obscured or lost.

Fullan (1991) also distinguishes systemic from cultural aspects in curriculum change. Systemically, there can be a reallocation of resources, introduction of new subject matter, or a revision of the content delivery. Culturally, curriculum change might indicate a transformation of beliefs, altogether a good deal more consequential on both the personal and community scale.

When beliefs change, any resultant ambiguities must be resolved and new agreements made, especially over the acceptability of a new knowledge base. Say that one were to look at the cultural aspects of curriculum modification as paradigm articulation writ small (or schema accommodation writ large, for community instead of individual). Then for Kuhn (1996), this process would include the bounding of the subsequent inquiry to both align with the tenets of the favored paradigm and abandon the obsolete one. And one should expect displacement and supersedure as power relationships shift in response to a disturbance.

**Theoretical support for retaining a cultural aspect**

Wenger (1999) characterizes a community as having some joint enterprise in spite of forces beyond their control. Therefore, insight apropos a cultural process is to be gained from studying a community’s cultural biases toward locus of control that the process as enterprise is meant to override. This inference is made even more compelling in the context of the curriculum modification process as a source of possible transformation of beliefs and values.
Douglas (1999) provides one descriptive theory to justify this leap, and the cultural biases she labels as *grid* and *group* involve, respectively, structure as individual constraint due to social location within a community, and incorporation as the unity among community members. Groups that are strongly incorporated within the grid of a complex social structure tend to be hierarchical, while groups that are weakly incorporated with respect to a complex structure are isolated. Groups that are strongly incorporated in a weak structure tend to be egalitarian, and, finally, groups that are weakly incorporated in a weak structure tend to be competitive.

As Douglas explains, there could have been more than the four cultural biases derived as permutations from these two axes, but the model was both sufficiently parsimonious and allowed for a wide distribution of cultures. Furthermore, the biases were not intended to indicate either fixity or an absence of conflict within and across cultural boundaries.

Lastly, Barnett (1953) grounds in theory the conditions for an innovation’s entry across the boundaries of a culture, and the researcher used this work as the foundation for initial data collection on the topic of the previous and current states of the subject matter acting as the vehicle for the study. For example, the initial inquiry of and dialog with community members was informed by Barnett’s constructs of idea accumulation and concentration: if someone considers himself a cultural innovator, then what was the state of knowledge and elaboration of the subject matter when the subject matter coalesced as an innovation?

**Curriculum modification summary**

Systemic approaches to curriculum and its modification were weighed in the balance and found wanting as a basis for this study. This is not to say that the systemic aspect of this study’s community is to be ignored from here on out, but rather that the systemic and cultural aspects must be considered side by side. The systemic aspect will be treated as an item of complementarity and will remain of worth to
the comprehensiveness of the study and as a tool for abstraction and analogy when necessary to explicate cultural complexities.

Further theoretical support was provided for the choice to retain the cultural aspect of the study in addition to the systemic. And curriculum was defined as both a cultural and systemic product, thereby justifying investigation from either perspective.

Legitimization

Introduction

The construct of legitimization is reviewed first as result from a process and then as a process, itself. Whether means or end, process or product, legitimization is hence as ambiguous a term in its application as design and studio were shown to be. A scheme designating possible stages and properties of legitimization is outlined.

Possible relationships of legitimization with cultural theories are indicated. Limitations and constraints of these relationships are raised. This acknowledgement of incompleteness begins a justification for a qualitative approach to the study that will be continued in the methodology chapter.
Relationship of Legitimization with Curriculum Modification

*Legitimization as product of curriculum modification*

Curricular legitimization can be modeled as a disturbance to an educational community’s curriculum from introducing innovative subject matter, if the disturbance plays out to a successful resolution of incorporating the subject matter in the curriculum. Or legitimization can be constructed as the successful resolution, itself.

The appearance of a commonly recognized term, with mutually agreed upon constituent parts, in an institution’s course bulletin is an indication of legitimization. For example, if the innovative subject matter were related to sustainability, then the community administrating the program, for which a course on sustainability has been added to the curriculum, employs the term “sustainability” in the course title or course description. This employment implies further agreements, as well:

- Some content under the heading of sustainability will be included in the instruction, no matter who teaches the course. The community has taken pains to address perceptions of sustainability throughout the institution of which it is a part.
- The content that may be included under the heading of sustainability has been defined for the community offering the course, no matter who in the community is the instructor. The community has ensured that the meaning of the course content is shared by its members.
- What has been defined as sustainability in the community is actually referred to by name as “sustainability” within that community.

This last item is not a trivial concern, and possesses even greater significance for values-laden subject matter such as sustainability. This is made clear in Freire (1974) when he talks about “naming the world” as a method for teaching the language skills of coding and decoding. Naturally, an academic
community at the university level is not going to have difficulties with coding: the point is that there is a meaningful relationship between the name and the constituent concepts comprising the subject matter so named, and that in agreeing to a name for the subject matter, the community reifies that relationship, protecting it from tampering by individuals.

**Legitimization as curriculum modification process**

Continuing from that last statement, the researcher suggests that those conditions for legitimization of subject matter do not appear abruptly and entire, as Athena from the forehead of Zeus, but are instead preceded by formative stages. Naming, or rather consistent conceptualization and reference throughout a community and eventually extending beyond, is necessarily one of the first of these stages.

Others along the way, which are not intended here either as sequential or mutually exclusive or exhaustive, might take account of:

- Casual inclusion of innovative subject matter in existing courses, but not listing the subject matter in either the course syllabus or institutional course description bulletin: this might be either spontaneous or premeditated on the part of the instructor, but could not be anticipated from other instructors.
- Informal inclusion in existing courses as an incidental topic that might or might not be addressed by course assessments.
- Informal explicit response to influences external to the community: an example would be to honor the request of Architecture 2030 to add that "the design *engage the environment* in a way that dramatically reduces or eliminates the need for fossil fuel" (2006, emphasis in original) as design project description wording.
- Formal explicit response to influences external to the community: an example being to address NAAB’s student performance criteria labeled as “Sustainable Design”
• Explicit appearance in syllabus, or headlining the title, for a temporary course

• Explicit appearance in syllabus, or headlining the title, for a course to be included indefinitely as an elective, and indicated by description in institutional course bulletin

• Explicit appearance in syllabus, or headlining the title, for a required course in the program, and indicated by description in institutional course bulletin

• Implicit settlement in either academy subject matter or profession (refer to preceding chapter)

These cases do not take into account how the community or individual instructors sequence and deliver the content within and between courses. The possibilities are that the innovative subject matter fills a gap, marginalizes existing subject matter by partial displacement, or replaces existing subject matter in its entirety (these are analogous situations to schema theory accretion, assimilation, accommodation, so perhaps curriculum is worth consideration as community schema).

Another mechanism for introducing innovative subject matter is as an overlay for simultaneous or complementary delivery with existing subject matter. For example specifically with respect to design education, Latucca, Terezini, and Volkwien (2006) report the results of a large multi-institutional group of academic communites’ formal explicit response to an accrediting agency’s influence regarding emphasis on design in engineering curricula. In this instance, existing subject matter was overlaid with design oriented activities and deliveries without measurable detriment to students’ learning either existing or new. Unfortunately, it is not known how the faculty cultures and related systems at the studied institutions were affected, because those were not the focus of the report (student performance was) and if any such data were collected a relevant analysis was not included in the body of the report.

Finally, when does innovative subject matter progress to the next stage of legitimization, or become stabilized, or get dropped? Hand-in-hand with the process of legitimization goes that of justification, as in course and curriculum evaluation. In the competition for resources, of which an
important dimension is instructional efficiency, individual and group metrics are influences on a legitimization process that are internal to the community.

*Ties to theory*

If not exclusively the focus, systemic aspects of legitimization have been stressed up to this point. It just might be easier for a researcher to make that presentation because it is the side of legitimization that one sees readily. For Blumer (1969, pp. 18-19) it is the facade of objectively perceived joint action that is underlain by a set of meanings sustaining it, rules supported by a cultural process in group life. The joint actions that one sees a community make cannot be interpreted by themselves. There is a history behind each of them, and legitimization as a process is no exception.

Per Blumer’s symbolic interactionism (pp. 2-5), things such as objects and concepts have meanings for a community member, and these meanings are “formed in the context of social interaction” and “derived by the person from that interaction.” But the actual use of an established meaning is a process of interpretation involving the person’s indication to himself of the thing having meaning (internal cultural process) and then a contextual investigation of the meaning in order to direct his action. Therefore meaning does not reside exclusively in the thing, the person, or the cultural action. And that meaning is not fixed for any given thing, but rather exists only as a cultural creation and only for as long as the culture sustains it or revises it.

Turning to Berger and Luckmann (1967), one sees that the effects of cultural action by a community are not limited to immediate protection from individual tampering with cultural processes, such as legitimization. Instead, as members enter and leave a community, there obtains a patina of historicity and objectivity to cultural processes, coloring what had previously been initiated merely as individually habitualized behaviors and typified practices. Over time, the result is an institutionalizing of
the cultural actions and processes, or, as Berger and Luckmann phrase it (p. 59), “The ‘There we go again’ now becomes ‘This is how these things are done.’”

Worse, for those researchers looking to unpack cultural actions and processes of a community, Wenger (1999, pp. 58-61) and Berger and Luckmann (1967, p. 89) predict that where there is a patina of institutionalization there is also a likelihood of its ossification into reification. That is, the cultural process becomes an object in its own right, replacing historicity with facticity (cf. axiomatic, self-evident, cosmic law, divine will). To discover whether or not that is associated with legitimization in this study’s community lends some interest and worth to the undertaking.

**Legitimization summary**

As a construct, legitimization was considered both as a product and as a process. It was found to reinforce the perception of complementary relationships between system and culture within a community.

Systemic and cultural aspects of legitimization were detailed, although it was easier to talk about the systemic aspect, and it became apparent that uncovering the cultural aspect would not be so straightforward. Theoretical support was summoned to help explain this, contributing to the compelling nature of this study, and directing the study’s aim away from generalization.

The study’s focus became one of induction and looking for insights peculiar to this specific community, that would coalesce or precipitate from the different sources in the community and their outlooks and their artifacts. The ease of privileging cultural as primary, and systemic as secondary, was certainly at first appealing; clearly, less was known about the former, making it more attractive to one’s curious nature. However, it would have constricted the range of these initiation points to discount the influence of systemic aspects, so it was finally concluded that systemic and cultural aspects of legitimization would be investigated as complementary concepts, documenting the former while in search of the latter (as discussed in the next chapter).
Chapter summary

Throughout this review, terms in this study’s research question, posed at the conclusion of the preceding chapter, were defined and examined in the context of previous studies. The purpose of this was to establish first the proposition that a community could be considered as a combination of system and culture, and secondly that this combination extended to its components.

Once those were made evident, the specific process of legitimization was parsed until it appeared that the systemic aspect was more accessible than the cultural. Thus was revealed the platform for the study: describe the systemic aspects of the legitimization process and try to discern their influence on the cultural aspects, as well as the reciprocal (the differences among the rules as they are written, the game as it is played, and the entry in the books). And here is the place to turn to the methodology chapter in order to see the plan for how both of those complementary aspects were to be observed.
Chapter 3

Methodology

Chapter abstract

The ethnographic research design chosen for the study is described, and its justification for this study is offered. Then the community to be studied is introduced. A unit of analysis is identified, and the critical limitations to the study are addressed. Researcher access to the community is detailed.

There follows a discussion regarding researcher identity with relation to this community. Then, the legitimization of subject matter is described and the similarities to and differences from sustainability are considered. This leads to the initial conceptualization of the cultural and systemic processes to be studied.

Methods for data collection and analysis are described as initially planned: a range of what data collection activities could be performed, preliminary materials to be used in the collection process, and a schematic implementation schedule. Alterations to this plan, as those became necessary, are detailed in the analysis chapter.
Introduction

A rationale for investigation of both the cultural and systemic aspects of a community having been developed in the preceding chapter, how to study these aspects is linked to recognized and appropriate research designs. Specifically, the search for a design hinges on the realization that an observer is already a disturbance to the observed; so what kinds of research take disturbances to the participants into account?

Alignment of research design with research question

Creswell (2003) recommends differentiating research questions on the basis of either comparing measurable effects from the manipulation of already distinct variables that characterize a population, or exploring and documenting the complexity of interactions within the context of a smaller sample. In the latter circumstance, there is little opportunity for control and isolation of variables, and perhaps the variables that characterize the sample will become distinct during the study, and perhaps not, but typically they are not definitive as the study begins.

Clearly, this latter circumstance applies to this study. From the preceding chapter, it is apparent that the knowledge claim entering the study and the knowledge claim expected as a result are both what Creswell refers to as socially constructed in origin (p. 8, as opposed to, say, positivistic or critical, with the associated aims that those terms imply). This study is not laid out in order to discover generalizable conditions for future instructional design with regard to how architectural design could be instructed. Nor is the study’s purpose to correct some oppressive condition obtaining either in that community or its
current instructional practices. The idea underlying the study is just to start looking, and report what is found and how that search was done, because up to now the literature on the subject is scant.

It is likely that the study will contribute to the literature of instructional design—indeed, to act as informant is the very intent, albeit somewhat constricted to long range teleological pursuits—but there is a good deal of foundational work to be accomplished in order to achieve that, and the study is one of those necessary first steps. One somebody has to install the wiring and the switch and the luminaire before the next somebody can see what happens in the room when the furniture is moved.

Finally, the research question focuses on an academic community’s legitimization process, and how representation of the process in systemic terms occludes or reveals this process already, and the cultural aspect of the process (LeCompte & Schensul, 1999, p. 29) for which observation and interviewing of community members will be required. Gathering systemic data characterized by documented policy and conformance really ought not to be difficult to do. Therefore, a qualitative framework is indicated for the heavy work of cultural investigation, with an ethnography as the basis for the initial iteration of the research design.

This is not to say that systemic perspectives will, or could, be marginalized over the course of searching for cultural ones. Fetterman (1998, p. 6) puts forward that neither an ideational theory (what an observer would apply to the cultural aspect of community when looking for change in thoughts and ideas, from as participatively emic a position as can be justified) nor a materialistic theory (what an observer would apply to the systemic aspect of community when looking for change in resources and production, from as disinterestedly etic a position as can be rationalized) is sufficient in all cases. Thus, Geertz’s (1973/2000, p. 44) assertion that:

...culture is best seen not as complexes of concrete behavior patterns—customs, usages, traditions, habit clusters—as has, by and large, been the case up to now, but as a set of control mechanisms—plans, recipes, rules, instructions (what computer engineers call “programs”)—for the governing of behavior.
is here appended to suggest that, at least for this study, there just is not an “either or” choice. If the premise is acceptable such that neither field can be present without the other, why would a study not acknowledge both, as its resources permit?

So how would an investigation of a system be interwoven with that of a cultural process? Actually, the two are not so different as once might have been thought. Ackoff (1981) posits that the first step in studying a system is bounding the system to be investigated (as one would do with a culture, when studying a process located in that culture). This follows from two premises: any finite system is really a subsystem of the great and as yet chaotically unpredictable system of humans interacting on earth, so some chunk has to be carved out to suit the limitations of the study; and it is the study of the system that yields the units of the tasks, not the reverse. As such, this is in contrast to the Taylorist (1911/1967) principles of scientific management that preceded systemic studies and drilled straight to analysis of tasks followed by synthesis of a system from an assembly of those tasks. And the recognition of that reversal of methodology is exactly what enables the framing of an analogy between systemic and cultural studies.

For example, Abbott’s (1988) research into systemic aspects of professions is anchored by case studies using several of those professions, including architecture, as the cases. As a result, it is not at all difficult to corroborate Abbott’s work with a more culturally based study such as that of Cuff (1991). Likewise, in this study, wherever culture is indicated, it is reasonable to expect a systemic parallel or cause or effect to reside nearby, and to be discoverable by similar methods to those that revealed the phenomena of cultural interest (and vice versa).

**Opportunistic use of unavoidable disturbance**

An ethnography attempts to answers questions about what the members of a culture are up to: what it is they do, and what meanings those pursuits have for them. Going by just the etymology of the
term ethnography, one might expect the undertaking to be laden with depiction of a culture, to the point that the greatest effort in such a study were that of sifting the enormity of collected data for the most effective representation about cultural practices to be made to, and then interpreted second-hand by, a reader. To Wolcott (1999), as an example, ethnography is a quest for holism that involves an observer in making connections between the phenomena observed and in bringing the reader’s attention to the contexts in which those occur.

In order to facilitate the decisions about how and what phenomena to connect, an ethnographer usually tries to minimize the disturbance from his presence so that what is done in front of him is what would have been done if he had not been there at all. One method for approximating this is participant observation. By watching what community members do and learning their behaviors and the context of performance, and doing so in a prolonged manner, the observer progressively inures individual community members (and over time as much of the entire community as he can) to his intrusive observation.

But, as with individual particles in the analogy of electrical and magnetic fields, the introduction of an observer, and the energy required for observation, into a community cannot help but disturb what is being observed. And the more a participant observer actively pokes around and pries up the finished surface to look behind, the more of a disturbance to the community he makes of himself. The initial result is the observer’s gathering data about the community’s reaction to his intrusion, rather than data about what the community would be like if the observer were not there. Paradoxically, looking too intently at the object in hand, he loses sight of it altogether.

An ethnomethodology, on the other hand, can be structured to derive advantage from such a disturbance and the observed community’s response to it, as in how the disturbance is dealt with in order to return to stability. Indeed, White, Kelly, Randall, and Rouncefield (n.d., p. 5) combine ethnography and ethnomethodology in this very manner:
While an ethnographic stance arguably entails some minimum orientation of viewing the social world from the standpoint of its participants, one approach to this is the ethnomethodological one, in which member's [sic] methods for accomplishing situations in and through the use of local rationalities becomes the topic of enquiry. For ethnomethodologically informed ethnographic enquiry, members and their subjective orientations and experiences are central. Observation focuses on the places and circumstances where meanings and courses of action are constructed, maintained, used and negotiated.

To review, there are two things known so far about the structure desirable for this study:

- Ethnomethodologically, the questions for a observer deal with how behaviors are used: do behaviors tend to be responses to rules, or are rules invoked a posteriori in order to justify behaviors (or is either condition allowed, depending on the context: the shift of focus from systemic to cultural, or vice versa)?
- The trick for the observer to accomplish in order to get to these questions is to maneuver the attention of the observed away from the disturbance of observation and onto the disturbance of interest to the observer.

In this study, the disturbance of interest to the observer was how the community being studied responded to cultural and systemic pressures to incorporate sustainability in the curriculum. Sustainability was the innovative subject matter that, as it turns out, was being promoted both systemically by NAAB and culturally by a committee devoted to raising the community’s consciousness.

Typically, one might suspect, reviewing innovative subject matter for its place in a curriculum would not constitute a disturbance. After all, curriculum changes, and legitimization should be one of those processes that occur in the continual weaving and splicing of a curriculum from its component subject matter. But what emerged during this study was that introducing sustainability was indeed a disturbance, and that will be treated more thoroughly in the analysis and discussion chapters. Let it suffice here to note that the curriculum used by the community in this study had been filled to its limit, and that any innovative subject matter would have caused such a disturbance. Ongoing systemic and cultural demand for sustainability subject matter then swelled that disturbance disproportionately.
But both system and culture can be unpacked a little more. This study is particularly indebted to Gubrium and Holstein (2000) for further framing ethnomethodology in terms of “hows” (“the real-time interactive processes by which reality is built up into accountable structures,” p. 495) as opposed to limiting participant observation to “whats,” with the movement back and forth on the part of the observer characterized as *analytic bracketing* (pp. 499-501). For Gubrium and Holstein (p. 495), the purpose of ethnomethodology is to discover “how it is that individual experience comes to be understood in particular terms such as these [the state of the matters in question for the community].”

The observer must shuttle between analyzing, on one hand, the operation of the process under consideration (the doing, the documented tasks and the observable behaviors, the how), and on the other, any resources or conditions necessary for the operation to be performed and the purposes and then the results (the objectives, the practices, the what and who, the aims and social locations deemed necessary and appropriate to achieving those).

All of these analyses are pre-theoretical, the initial investigations on which future theories might rest. So, the extent for this study’s design is ethnographic in general, and ethnomethodological as an informant of ethnography, in order to give a reader, who could not be an observer, himself, enough information to posit and explain relationships, metaphors, and conclusions.

**Summary**

The exploratory aims of this study and the sort of knowledge claims to be expected from it were explicated. The manner of data collection, regarding a cultural process unfolding beside a systemic one within a community, was compared to the properties of an ethnographic research design, and these were found to be in alignment.

Furthermore, introducing innovative subject matter was treated as an ongoing disturbance to the community. To inform the ethnographic design with ethnomethodology was proposed as a way to take
advantage of the disturbance in observing how the culture observed reacted to the disturbance tried to find its way to stabilization.

Finally, the matter of the study’s extent was broached. This will be dealt with in greater detail in the consideration of critical dimensions of phenomena below.

**This study’s community**

**Introduction**

This study investigates a community made up of an architecture department’s faculty, and how they act as a culture and respond to systemic influences. A brief description of the academic community accessible to this study is offered. A taxonomy of membership in the community is used, and boundaries for the community are imposed based on the taxonomy.

Following that, the unit of analysis for the study is derived from the department’s curriculum committee and other faculty interacting with it on an irregular basis. Critical dimensions of phenomena related to the time frame and manpower resources available for this study are invoked in order to make accomplishment of the study feasible.

**Composition and boundaries**

One way to approach the boundaries of the community is to taxonomize the community membership in terms of physical presence and temporal frequency of encounters with one another, as related to the main office of the department of architecture. Starting with the very closely proximate, there are the undergraduate students: consistently a mass but one that is transient in personnel. The figure
for them hovers around 250 (plus another dozen or so graduate students, who probably will not be addressed again in this study), out of the total 35,000 in all the university’s colleges at this campus.

The range of that 250 includes up to 70 first year students but as few as 40 fifth year students, demonstrating a typical 40 per cent decrease over the time students spend in the program. There are two reviews of student performance, one at the end of second year and another at the end of fourth year, enforcing that attrition. Those students not passing the second year review are not permitted to continue in the major (and, by extension, the department, because there is no other undergraduate program in architecture), while those refused at the end of fourth year are offered what has been labeled a “consolation prize.” That is, they can receive a Bachelor of Science in Architecture, which is not a professional degree; as a consequence of that, settling for it can decelerate progress toward qualifying for the ARE licensing examination. The departmental administration would like to show that degree in a different light, as a planned destination for some architecture related careers, rather than as a solace for failure.

It is not much of an exaggeration to say that the students live in the building housing the main office, because this building is where their studios are also located. It is recent of construction, bearing a Leadership in Energy and Environmental Design (LEED) rating, and the architecture department shares it with the landscape architecture department and all their students, staff, and faculty.

In round numbers again, there are 30 architecture faculty, counting both temporary (fixed-term) and permanent (tenure-line) positions and joint appointments, so maybe 20 on site any given semester, and 10 staff who provide student advising and administration for the program and facilities. Among these facilities there is a machine shop for manufacturing models either conventionally or through digital fabrication, computer laboratories, and a library. The shop is on a floor below grade, the main office and computer laboratories and library are on the ground floor, and the studios and faculty offices are on the floors above.

Institutional participants in the community range from the contiguous, as in the case of the dean
for the college of which the department is a unit, to the peripheral at the institutional level of provost and above. And while one can predict lots of emails and telephone calls between departmental and institutional administrations, the intervals between physical meetings are indefinite. Faculty and student involvement with the college and institution administrations are even more irregular, although architecture faculty do have representation on the faculty senate and thus can interact with peers in other colleges.

Just as there are community members who are physically contiguous but not altogether architectural, there are architecturally oriented community members who are not nearby. For instance, there are faculty from the engineering college who teach some of the architecture courses, but their offices are across campus in the building that the architecture department vacated to move to their new one.

In addition to them, but not on campus, are the professional societies. For the architectural educators in general, the ACSA mounts conferences and publishes the peer reviewed *Journal of Architectural Education* (JAE). And, for those faculty who practice professionally or maintain contacts with those who do, there is the AIA with its conferences, scholarships, Education Honor Awards (http://www.aia.org/ed_honorawards_2007), and the Practice Academy Initiative (http://www.aia.org/ep_practiceacademy) internships.

Rounding out the list of peripherals, of course, are the visiting scholars and lecturers, critics for studios, secondary venues for publication other than JAE, funding sources for research grants, and the far-flung diaspora of program alumni. But, lastly, there is the spatially and temporally tangential (in the sense of both residing in a different state from the department and swooping through only once every six years) but extremely influential and definitely architecturally oriented accrediting agency, NAAB.
Unit of analysis

So, the cast having been introduced, the time has come to make some decisions regarding where and on whom exactly this study should focus. The candidates for scrutiny were: departmental faculty, departmental administration, and the undergraduate program. All of these either directly affect or are constituted in some significant part by the curriculum as an object of interaction.

All the departmental faculty were known to me, some as no more than nodding acquaintances and others from having taken part in a previous study I had conducted in the first year studio. In that study I observed a studio as it was being taught day-to-day during an entire semester and repeatedly interviewed students, instructors, and critics about how they made sense of the critique processes that were occurring over that time. Perhaps when they read the record of that study they realized that I was interested in understanding and presenting the situations that they were all sorting through together and by themselves, and that I was not trying to frame their pedagogical approaches as candidates for instructional systems interventions.

There were also three faculty members who had taught sections of the same course as I had, either before or during the same semesters as when I was an instructor. The feeling that I had, as a result of having been in proximity of most of them for the previous three years, was that they had gotten used to my presence. While a few gave the impression that they just did not care who heard what they had to say, the candor that all displayed in the interviews led me to conclude that overall I had earned some trust with regard to discretion and maintenance of confidentiality. However, I will leave this sort of reconstructive analysis, as Carspecken (1996) terms it, for the coding section in the analysis chapter and for the discussion chapter.

Up to now, this study has dealt with the undergraduate program and the curriculum as if these were interchangeable, but that is not entirely so. Stark and Latucca (1997) refer to a curriculum as a plan or strategy, and the subject matter from one curriculum to the next across institutions is systemically
consistent enough for NAAB to assess it as such. What differentiates programs from curricula and from one another are not these objectives so much as the practices with which programs enculturate students to then perpetuate the community’s cultural practices. Thus, the program is the symbolic interaction of community members with one another using the curriculum as an object to do so, and the process of content legitimization of is one example of that interaction.

Taking legitimization under consideration, what objects in the curriculum do community members notice and make a point of interacting with or intentionally using as the basis for interacting with others? Which of these uses is premeditated and which spontaneous? With respect to innovative content, how are members’ interpretations made, and how have these been made in the past?

Furthermore, just as systems can be parsed into subsystems and combined into supersystems, so may the cultural aspect of the departmental community be pared away to concentrate on the committee that the administration appoints to deal with questions about the curriculum. Their interactions as individuals are not written down as minutes, so much has already been lost, but some of the history of their decisions as a group (or decisions and discussions predating the incumbents) was available through oral history.

The unit of analysis cannot, however, be confined to that committee. Pulling back, one sees the committee’s interactions with the faculty as a whole, and thereby grasps the influences on the committee and the curriculum through special topics classes that individual faculty have attempted. These constitute one example of legitimization contributions that are not the committee’s direct doing.

It needs to be understood that, for ill or for good, that combination of persons around the committee (as a cloud around a nucleus), is simply not well-structured. At this stage, it would be difficult to point or refer to it in a concise and consistent manner, but the closest suggestion made yet has been that of “interested faculty,” keeping in mind that staff and administration are not automatically excluded.
Critical dimensions of phenomena as constraints on the study

LeCompte and Schensul, (1999, pp. 115-118) would term this attempt to define a unit of analysis as imposing an artificial boundary. The obvious question is why to stop there, essentially at the exclusion of students and administration within the community, the peripheral members, and the externally contiguous. Luckily, in the case of the departmental administration, those persons work closely with the faculty, and since there are so few of either group, the cloud could be expanded when necessary to accommodate all.

The case of the students is somewhat more problematic. Certainly, they are stakeholders in the legitimization process, and there are proportionately more of them on hand than for any other group. But they have a continual turnover, so any effects tend to be short-lived, and, as is the nature of students, to them all subject matter is innovative. In a legitimization process, what experiences do they have to compare?

Finally, the peripheral members and the externally contiguous are where one must construct the pale, with them outside. Should their marginalization prove problematic, then a different direction can be taken. But, practicality intrudes to the extent that there is only so much in the way of research activity that can be scheduled in the course of a semester or two, and the amount of data to be accumulated from within the community seems likely to exceed saturation anyway.

Access to the Community

Some access to this community had already been obtained through a previous phenomenological study involving faculty and students in 2005. It was hoped that observer participation in the meantime, through two or three departmental projects preparing for an accreditation visit from NAAB, and via
attendance at numerous faculty meetings, had all along built rapport (LeCompte & Schensul, 1999, pp. 10-11, Fontana & Frey, 2000, p. 655) and demonstrated a polite respect on the part of the researcher.

Introducing this study to the interested faculty was done first as a brief informal statement to the entire faculty at a retreat at the beginning of the fall semester 2008, and then followed up by presentations to individual candidates for participation. That first statement was an opportunity to drum up some awareness and curiosity about the study, while allaying faculty fears that an observer would be in the way of their daily business. Any informed consent paperwork for participants was executed at the individual presentations. Moustakas (1994, p. 107) renders this as an acceptability allowance for participants, introducing them to essential criteria of the study procedures:

…the research participant has experienced the phenomenon, is intensely interested in understanding its nature and meanings, is willing to participate in a lengthy interview and [sic] (perhaps a follow-up interview), grants the investigator the right to tape-record, possibly videotape the interview, and publish the data in a dissertation and other publications.

No faculty in the department seemed suspicious of the researcher’s presence at meetings, and it seemed that all participants made forthright informants with a cooperative attitude toward this study. To that end, it was made clear that the study was not concerned with testing preconceived hypotheses, but was meant to attend to what participants wanted to say, and felt as if they have to do, whether or not an observer were present. It was clarified with potential participants that member checking would be used as a regulation of quality for both data and interpretation.

So much for presenting the study, how did the researcher present himself (Fontana & Frey, p. 655) to potential participants? There were several roles: architectural practitioner with interest in the innovative content, fellow academic interested in architecture education, or even disinterested academic from another college conducting studies of a sort unfamiliar to architectural research methods and foci. Naturally, presentation varied from participant to participant, depending on depth and breadth of prior contact.
Finally, Wolcott (1999, p. 49) lists why artificial behavior on the part of the observed is not always harmful to research. If members are acting as they feel *should* be done, and not how they probably would if the researcher were not present:

- then they’re performing their concept of the ideal, and an observer’s seeing that acted out is as good or better than waiting for it or fishing for it
- then they’re giving an observer something to discuss with other participants
- then, just maybe, it’s a temporary reticence and they cannot maintain the facade indefinitely

**Summary**

An initial description was offered of the community from which participants will volunteer for this study. Specifically, the study’s unit of analysis was centered on the committee of faculty responsible for curriculum review and recommendations for modification of curriculum.

There were two reasons for setting the community boundaries within the department. The first was based on the immediate interactions among faculty with the curriculum as object. That might not represent the entire process of legitimation, but it was likely to be a significant portion, and it was the origin of the process, so that seemed as good as any place to commence the study.

The second reason was that, at the proposal stage, neither the quantity of primary source data, as in how many faculty would volunteer to participate, nor the quality, as in how enthusiastic about the study they would be, could have been estimated. Therefore, remembering that detail is key to ethnographic observation, it was prudent to be parsimonious about community inclusivity at the start, with the provision to expand later if necessary.

Access to community was obtained to a small measure in the recent past (as expanded on later in this chapter) and rapport was attended to in the meantime. As of the proposal stage, it seemed that
indifference, more than hostility, was what needed to be overcome, and how an observer was perceived by potential participants required constant monitoring.

**Researcher identity**

**Introduction**

This section, although a continuation of the researcher’s viewpoint regarding this study’s community, introduces a different tack: the voice of the researcher who will also act as observer. The section commences with a presentation of the researcher’s own perception of interaction within the community. In order to do that, the researcher’s philosophical orientation is laid out for inspection.

Then, an example of the process of legitimization is offered. The subject matter has characteristics similar to those of sustainability, but is not congruent, and those similarities and differences are examined. An interest in the legitimization of this other subject matter contributes as an explanation of the desire to examine the subject matter and processes with this study.

**Relationship to this study’s community**

There is one stakeholder in the legitimization process whose role in the study has not been addressed yet, and that is the intrusive researcher, himself, as an observer with the biases that he bears. So the author, heretofore referred to in the third person, assumes a voice—my voice. And a review of my agenda leads off with Baptiste’s (2001) list of the philosophical, contextual, and research design orientations that need examining.
Philosophically, once I started having second thoughts about the foundationalist concept of an objective reality, I vacillated between postpositivist and postmodernist stances as a result. For instance, social constructivism issues seem to be at the heart of this study, so it is difficult to accept the postpositivist dismissal by Phillips and Burbules (2000, pp. 32-34) that when knowledge claims, such as those from application of social constructivist theories, cannot be supported by testing of conjecture, then they are merely products of socio-political competition.

From the postmodernist take, whence does the material for conjecture arise except as one from among many in a (socio-politically) biased framing of any exploratory research design and execution? Usher (1991, p. 39) uses the example of four different texts produced from the same data: realist (conventional, as of a “world knowable through adequate method and theory,” but actually specifically contextual), critical (examination of determining structures and underlying motives), deconstructive (search for other interpretations), and reflexive (researcher is included as a participant in study).

With regard to curriculum, I would normally favor critical or reconstructionist tendencies (as previously defined in the literature review chapter) hence my interest in the topics of accessibility and sustainability. So that leaves me somewhere along the continuum between the two “posts,” not altogether critical but neither entirely averse to conjecture testing, thus having to assume a pragmatism about continually dealing with that dichotomy.

How does that gibe with the craft tradition in this community that might indicate perennialist or experientially progressivist preferences? In critiquing Weber’s subjectivist model of culture, Allan (1998) sets this as another problem toward which I see no other recourse than to continually address it throughout the study. On one hand, Allan (p. 42) presents Weber’s construct of verstehen (understanding of both logical intention and emotional context) as necessary for cultural analysis, requiring empathy and therefore a participatory role, on the part of the observer with respect to the observed. On the other hand, Allan relates (p. 53) that, for Geertz, “thick” exhaustively detailed description of the layers of meaning represented by behaviors has to substitute for an empathy that is unattainable because the observer is
always at least one remove from the observed, if for no other reason than by consciously conducting an
observation.

That leads to Baptiste’s (2001) concern with a researcher’s contextual orientation. No matter
what the perception of a given community member, the researcher is not disinterested, and his values will
influence both the conduct of the data collection and analysis of its results. So it must be made apparent
to the reader that the researcher allows for himself as a source of data, albeit as a “peripheral-member
researcher” (Agrosino & Mays de Pérez, 2000, p. 677, cite Adler & Adler 1987 for this description),
without privileges for active intrusion. That is, the researcher is among those “who believe that they can
develop a desirable insider’s perspective without participating in those activities constituting the core of
group membership.”

There are several reasons. To begin with, the head of the department in this study was gracious
enough to provide me with an undergraduate studio to teach (also allowing access to meetings of the
entire departmental faculty) as well as an ex officio appointment to the department’s curriculum
committee, this last arrangement being made specifically in light of the study. In addition to that, the
department’s sustainability committee welcomed me as an observer and participant at its meetings, as did
the strategic planning committee (although that committee did not meet very long before deciding in a
hiatus during some ongoing administrative reforms). Finally, and beyond the committees, there were
faculty who participated in this study who also had participated in a previous study that I had conducted,
and so provided a tacit endorsement through their return participation that my research was of some
interest pedagogically.

The curriculum in place at the department in this study was already familiar to me when I first
looked it over: studios and the courses that supported studios. The matrix prepared for NAAB was
already full of where students could spend their credit hours, and I did not expect there to be a course
with sustainability in its title, although I had noticed a significant amount of leafy vegetation being
rendered in the course work on display. My own take on sustainability as I will define it later in this
chapter is that the energy conservation aspects of building and maintaining a structure should not be
minimized nor the longevity of the assemblies of materials left to chance. But I was also in for an
awakening regarding how sustainability could be applied so widely to this curriculum even unto the
perpetuation of certain coursework and philosophies.

Anecdotal tracing of accessibility legitimization as simulacrum for sustainability

My identity is that of a practicing architect. I finished an architectural undergraduate program in
1983, a graduate program in 1985, received my license in 1989, and have maintained it ever since.
Although I discontinued my professional activities in 2003, I intend to resume them as part of my
research. In the meantime, I was able to take a fixed term instructor position for the department in this
study.

Anyway, the story that leads to this study’s investigation doesn’t really start with sustainability at
all. The seeds were planted, in fact, as I followed the development and curricular use of another not
altogether unrelated set of concepts by the various architectural communities to which I have been a
party. It was an intriguing process, but ultimately a most disappointing outcome was enabled.

The first several of these communities were a Texas graduate school of architecture’s main
metropolitan campus, a small three-person architectural office in the urban northeast United States, and
then a much larger office in the same geographical region, but more rural in surrounding. The era
spanned was roughly from 1983 to 1997, so around fourteen or fifteen years. And the concepts were
those having to do with “handicap” or “universal” or “barrier free” or “accessible” designs, as those were
variously categorized over that time. To employ an operational construct rather than elusive terminology,
one would describe facilities designed to adhere to these concepts as usable equally well by either
disabled persons or “able bodied” others, the dominant concern being accommodation of impairment to
sensation or mobility (e.g., blindness, deafness, reliance on canes or wheelchairs).
My experience with accessibility was mostly in watching it coalesce in the profession in the 1980s. There was no great concern with accessibility among my undergraduate professors, although I picked up the desire to incorporate it in designs from a brief 1980-1982 dalliance I had with an art school before I attended an undergraduate architecture program in earnest. But when I subsequently left graduate school in 1985 as a master of architecture, accessibility seemed to be much more influential with regard to student designs than it was before or when I returned as an instructor in 2006 (during my doctoral degree).

Granted, some of this might have to do with the context of the graduate program I completed in 1985 and that was located at a university with strong disability awareness. The recently constructed buildings there were clearly designed with accessibility in mind, and the older ones had been renovated to that extent. I do not know if it was due to having a person in a wheelchair as a classmate in the program, but accessibility was at least discussed and respected in our designs and coursework.

Then, when I had moved along to my internship, the practice I was working for brought in many projects involving renovations for accessible facilities at nearby public schools. At that time, it was possible to contact someone in that state’s capital by telephone in order to get interpretations of the state guidelines and to hammer out solutions that the authors of those guidelines could not have foreseen.

However, the strategies for these accommodations were being removed from the individual designer’s hand and elaborated, explicated, and codified during this era (American National Standards Institute, 1961, although not really in general use until the 1980 edition; Architectural Barriers Act of 1968, Uniform Federal Accessibility Standards, 1984; Architectural and Transportation Barriers Compliance Board, 1990), such that a minimum set of expectations could be generalized and uniformly required of designers over a nationwide range. The effort was, no doubt, long overdue, but the dissatisfying outcome for designers and design educators was that this codification led to the location of primary responsibility for the associated concepts outside the academy.
This is not to say that NAAB eliminated accessibility from its Student Performance Criteria. Rather, accessibility became one of over 30 such criteria during this time; as one of many, its marginalization or neglect would not be of paramount concern, other than at the individual faculty level, perhaps. Furthermore, once its legitimization terminated in legislation and codification, while it might not have disappeared from primary and secondary subject matter altogether, it did assume a status similar to detailing. And detailing is a contentious object in the interaction between profession and academy, as discussed in the first chapter.

The point is that accessibility ceased to be reconstructionist, and dwindled to perennialist or even essentialist, tacked onto traditional subject matter when considered at all. As Dutton (1991, p. 67) says of such content, it tends to “reproduce dominant ideologies and so serve the hegemonic status quo.” And this is what I saw when I started teaching a studio in 2006 (although I was teaching an architectural studio for engineering students, my office was located in the same building with the faculty of the architecture department, and I could see the work being presented), that what could have been the continued development of accessible form had instead been constrained as legislation enforced standards. As I will relate later, in the discussion chapter, the iconography of accessibility had been allowed to become conflated with the design for accessibility. In that sense, NAAB’s effect on the curriculum in this study’s culture was not in proportion to the increasing intensity and specification of its directives.

Summary

My relationship with this study’s community, and my philosophical orientation to research in general and curriculum in particular were discussed. Areas where my personal values might intrude, and how to deal with that intrusion, were indicated.
An example of my interest in reconstructionist content was anecdotally recounted as its path to legitimation disappointingly led away from the academy. How that path parallels the one for this study’s content was suggested for consideration.

Sustainability, data collection, and analysis of that data

Introduction

A working definition of the content of sustainability as it will be used for this study is described briefly. It is presented both as reconstructionist in nature and as a disturbance to the community’s curriculum.

Ethnographic methods of data collection are operationalized, aligning with the design explained previously. How ethnomethodology will inform those methods then follows. Lastly, there is an accounting and description of analysis techniques that were applied to the data collected.

Sustainability as vehicle for this study

It is no revelation that any time a person performs some physical motion, whether it is the voluntary touching of toes or the involuntary heartbeat, energy is expended. How much energy depends in part on how well planned the action is. Often, by employing some forethought, one can reduce the expenditure required, performing in an orderly manner what might otherwise entail an extravagance of witless thrashing.

Moreover, people are not floating in space as isolated individual entities. They participate in a variety of relationships ranging in scale from the nourishment of internal bacteria to global affairs of state
and sending trash into orbit. Some of the interactions defining such relationships involve direct and observable energy expenditures, measurable as physical motion. Other interactions are embodied in artifact exchange and represent energy expenditures only in an indirect manner, as the motion needed to produce such artifacts from more primary material. For examples of the latter, consider the things people buy, use, and then throw away: the objects, themselves, are representations of the energy required for producers to manufacture them and transport them to consumers, and for those consumers to maintain or to turn over to others as trade or, eventually, waste.

Lastly, even when an artifact’s owner comes to perceive it as disposable waste, the energy expended in production of the artifact might not have been exhausted completely. That is, at least some portion of the artifact might be reused as is or recycled as material needed to commence another manufacturing process.

Utilizing this residue of what has already been captured in the otherwise disposable artifact reduces the energy needed to locate, acquire, and refine the same amount of raw material all over again in order to produce another version of the artifact or even another object altogether. Thus, it takes far less energy to make a bottle from recycled glass than it does to make it from entirely new glass because the latter method would involve the finding and processing of raw sand and limestone that has already been accomplished and embodied in the former (Energy Information Administration, n.d.) Just as planning can reduce redundancy of expenditure for individuals, in the form of purposeful economy of motion in lieu of witless thrashing, it can also reduce what in economic terms would be labeled a recurring cost.

Is there a threshold, then, within any set of relationships, when the energy expended in pursuit of an activity (or represented by an entirely newly manufactured artifact) can be replaced by the energy available from reusable, or similarly renewable, resources? Of course, thermodynamics being what it is, there is no ideal return of all inputs. But, if reduction of expenditure were pursued, the duration of the processes would approach one of a more indefinite nature, instead of relying on the measurably inexorable depletion of resources.
The search for that threshold, and its constituents related to sources of supply, manufacturing processes, development of new products, marketing, distribution, durability, renewability, and stewardship of the environment all belong to an ontology of sustainability. But it is the stasis, or pattern of indefinitely prolonged maintenance and replication of any given set of relationships and artifacts, while avoiding detriment to the overall supply of materials and energy entering and leaving such a set, that is the common thread of sustainability—indeed, the sine qua non.

**How does the pervasiveness of sustainability contrast with that of accessibility?**

There is not a difference of kind, but rather one of degree, that is seen when comparing sustainability and accessibility. Both of these will matter to almost everyone over the course of a lifetime, but the effects of sustainability are likely to be felt more pervasively throughout the entire population (not limited to humans) of the world and soon, both economically and for wellbeing.

Probably it would have been easier to map the systemic legitimization path for accessibility in architecture because the decision trees for it have already been constricted and defined more than is likely for sustainability. But, at some point, each disturbed the curriculum of its time and then became important to building design. For accessibility, that point was likely associated with the civil rights concern of the 1960s, while for sustainability it was connected with fossil fuel availability and climate change that have been of growing concern more recently. Accessibility dictated ramps and Braille signage and thoughtfulness about expanding beyond the range of the able-bodied in order to be inclusive of human beings in general, introducing new and different accommodations of volumes that had to be resolved. The range of sustainability is still being gauged, but can extend past the built form being executed for a project as far as whence the materials of construction originate and what will be done with the building after the current tenants move on and newcomers perform their renovations.
Accessibility’s arc of legitimization was not completed, however, in this culture, in that there is no course devoted to accessible design. And that can be attributed to the surrender of its negotiation of meaning by the academy to codification. Once the application of accessibility moved beyond an architectural design culture’s ability to interpret through its norms, the subject matter of accessibility became systemic and rule bound.

On the other hand, as a direct relationship, it is not at all clear at this point whether or not cultural legitimization is a respecter of potential scope and influence beyond the community. That is, if sustainability became codified, would its arc be truncated the way that accessibility’s was, even though it is more pervasive than accessibility in its scope throughout all the design, construction, maintenance, and reuse processes of architectural design education?

Examples of problematic terms

Just as was the case with accessibility, so, too, is it with sustainability and its sibling synonyms. The first of these, sustainable development, was presented as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs,” in a report of the World Commission on Environment and Development (1987), chaired by Gro Harlen Bruntland, then prime minister of Norway. However, both Wines (2000) and Bosselmann (2001) posit that, in order to operationalize sustainability, it is necessary to de-emphasize the anthropocentrism (and the accompanying economic constriction) that has driven human-environmental reciprocity to date.

Next, it is noted here that the terms green and sustainable are used interchangeably in casual conversation, but not all green processes lead inevitably to sustainable outcomes. For example, reduction of a carbon footprint through sequestration is green when compared to the previously greater amount of carbon released, but not very green at all if the lesser aggregate tonnage set free is still harmful. The measure of harmfulness could provide clues as to what hue, saturation, tint, or shade of green can be
justified by argument, but it is the negotiation of the observers in disagreement that bounds a range for how green a process is on the continuum of possible interpretations.

And there are more: ecological, conservationist, energy-efficient. In fact, there is no lack of evidence for the naming and negotiation stage of legitimization thriving externally to the academic community:

- Environmental Protection Agency Energy Star program started in 1992, first building label in 1999
- Washington state legislation for public buildings 2005
- Charlottesville, Virginia planning for residential construction 2007
- Minnesota state legislation requiring compliance of state funded buildings with Architecture 2030 energy-efficiency targets 2008

Sustainability, as the latest umbrella for all of these, is thus remarkably systemic in nature as it spans across disciplines, and varied in culture, having many aliases and associations. It seems to be at that point now where accessibility was when it:

- maintained a lot of different names
- was on the verge of national legislation and codification
- had a specific NAAB Student Performance Criteria named for it
So, for the community in this study, what has happened thus far on sustainability’s path to legitimization, what will happen next, and how is that process occurring and being interpreted within the community? Consulting participants for their reflections should provide the community’s range of views regarding the essential nature of the events of interest (van Manen, 1997, pp. 121-124), uncovering interpretations that contribute to participants’ legitimization of sustainability curriculum and the construction and unfolding of that process. Toward that end, the researcher will be “experiencing, enquiring, and examining” as in performing observation, interviewing, and archival investigation, but expanded to a range beyond what is available to the casual observer (Wolcott, 1999, pp. 46-61).

What did I think that the data I got would reveal?

My initial suspicion was that, if objectives, assessments, and instructional models are different from those addressed within the current instructional systems design canon (as put forth in the first chapter, when describing studios), then why should it not be expected that legitimization practices differ, as well? Really, how much is known about such processes under any circumstances?

I further conjectured, on the basis of the participating community’s orientation toward design and change, that this community is not representative of the normal distribution that Rogers (1962) posited in terms of innovators, early adopters, and so on. If anything, this community should be pronouncedly skewed toward innovators and early adopters and away from laggards. What could not be predicted is the interaction among aggressively innovative individual agendas in competition, but if those were to align, then documentation of the resultant acceleration might lead to amending dissemination theories as they have been accepted.

For example, there is an exemplary effort being led by only a couple of active faculty with regard to the international Solar Decathlon competition. It stands to reason that nobody on this faculty would want to be seen as a laggard when it comes to either architectural development in general or the
technological advances incorporated in a solar powered home in particular. But it is still difficult for the active persons to get commitments of time from other faculty or supportive releasing of students to work on this project.

I expected that there would be less evidence of systemic change in the form of records and documentation than there will be actual instructional and curricular introduction done on an individual basis. This is entirely anecdotal and empirical, but I recollect that while there has been a noticeable surge in the publicizing of instruction having to do with sustainability, the source of this promotion was external, as in the annual Architecture 2030 webcasts. Architecture 2030 even provided text for a paragraph about sustainable practices, as a suggested inclusion to course syllabi (the faculty response to a request by the head of the department in this study to make such an inclusion was underwhelming).

In very simple terms, then, my plan for running the study was this:

- Interview the interested faculty about the magnitude and intensity of sustainability (what have they seen previously, what trends do they see now, what do they expect to see), and ask to what or whom they attribute any change.

- Sift through the paper evidence of internal departmental changes (syllabi, special courses) and external university or professional directives and publicity (Architecture 2030).

- Observe general faculty meetings and particular ad hoc committees and content presentation within courses, parsing these for conversations related to sustainability and its introduction or promotion.

- Look for evidence of correspondence and corroboration among those sources, and construct my version of a narrative explicating the legitimization process.

- Present the narrative to participants for their review and feedback, to tweak it or savage it as necessary, but ultimately to establish either its trustworthiness or lack thereof as assessed by them.
What ethnographic methods were used?

**Participant observation**

Right off the bat, this study is stretching Creswell’s (2003, p. 14) criteria for participant observation; considering the community’s proposers of temporary curriculum special topics in combination with the members of the formal curriculum committee as the unit of analysis might not be homing in exactly on an intact cultural group lending itself to prolonged observation in a single natural setting. In response to that, the researcher refers to Tedlock (2000, pp. 465-466) and how participant observation has changed from production of a monograph about observing others to now include the ethnographer’s participatory memoirs, hence observation of participation. For this study, the researcher reckons to be continually making judgments about who belongs to the unit of analysis and where legitimization conversations are taking place with regard to sustainability, recording those decisions as faithfully as any other data.

This compensation for the initial allowance of laxity toward a unit of analysis is that it is in keeping with a sociological perspective of observation, as but one data collection activity among others and subject to support from those others at that. This is distinct from, and probably would be frowned upon in, the anthropological view of observation as the standard against which other data are checked (Angrosino & Mays de Pérez, 2000, p.676, citing Pelto & Pelto, 1978). But it is entirely in keeping with the researcher’s intent to let observation inform and be informed by other data collection methods, such as interview questions and member checking of preliminary data interpretation of data.
Inquiry operationalized

There is explicit inquiry and inquiry of an indirect nature. And both of these can have premeditated and spontaneous components. Furthermore, the same questions, when asked in differing contexts, will elicit a variety of responses from the same participant. Rossman and Rallis (2003, p. 189, citing Spradley, 1979) categorize these common usages of questions in an ethnography as being descriptive, structural, or contrast.

For example, it was not known at the proposal stage where in particular to search for evidence of either disruption to the curriculum caused by introducing sustainability, or reactions to that. Participant responses to descriptive questions helped the researcher in recognizing terms and elements of the discourse to be encountered in the community. Once these conventions were known, structural questions were meant to identify what sorts of culturally typical interactions, known as typifications (Berger and Luckmann, 1967, p. 31; cf. Garfinkel’s, 1967, p. 37 citation of Schutz’s “world known in common and taken for granted” as internalized typifications) there were to observe. And some of these emerged and were cataloged throughout the study’s run. Contrast questions got the researcher elaboration of those basic discourse units, as in participants’ stories related to the disruption and reaction, being what was sought.

If interviews are a “means of contemporary storytelling” (Fontana & Frey, p. 647, citing Gubrium & Holstein, 1998), how does one entice a study participant to tell a story, or, better yet, enough stories? The researcher had some success with structured (as opposed to dialogic) individual interviews (Fontana & Frey, 2000), used in a previous study involving this community, and would have pursued a similar tack by dividing inquiries among three interviews as suggested by Rossman and Rallis (2003, p. 98, citing Seidman, 1998) and Lincoln and Guba (1985, pp. 235-236). The first would have relied heavily on description questions, and could have occurred anytime during the study as participants were taken on board, seeking an individual recounting of participant background: what that member’s role in the
community was perceived to be, and how that person defined the curriculum and sustainability. Stark and Latucca (1997, p. 149, pp. 164-167) offer some navigation of the curriculum questioning as: role in society (service, production, artistic), discourse (symbols used, closed or open to the casual observer), inquiry methods (related to curriculum philosophy, these are syntactical methods for determining and answering questions in the classroom), and values in the profession and academy.

As it happened, there was no opportunity for a second interview with individual participants, so that had to be combined with the first. As such, the units of discourse structure wrestled into consciousness had to be related to the innovative content, so the questions were often more structural. What preparations were in order to face this situation? How did each participant perceive the stakes involved? Stark and Latucca (1997, pp. 113-140) again helped with the framing of questions by describing how faculty tend to design courses and choose content.

It was not clear at the completion of the interviews as to how much conflict and contradiction was generated, or to what intensity. That left the particulars of a follow-up interview, this time conducted with a group of participants, devoted to contrast questions about the community’s constructed meaning of, and response to, sustainability and associated curricular disruption, somewhat open. On one hand, a dialogic group meeting wherein review, reflection, and member checking of data as a community could be discussed was thought to be in order. On the other hand, it looked for some time as if that were not be possible, mostly due to logistical arrangement of a meeting. An accounting of the conditions and occurrences during the compromise situation is made in the discussion chapter.

It was expected that for each interview there would be a lead-off question to establish the topic domain: individual member description of community and sustainability, preparation of course and curriculum, or reflection on disruption and legitimization. Carspecken (1996, pp. 154-164) recommends following up with questions that steer toward a “covert category” which he explains as a category that if named overtly “could lead the interview too much.” He continues by advising that it would be nonleading to frame questions about concrete events.
He also dwells on the level of inference conveyed when paraphrasing a participant’s response. By “active listening” he means an interviewer request for clarification of a participant’s already foregrounded but not quite explicit feelings. At the other extreme there is the “high-inference paraphrase” saved for the conclusion of an interview in order to verify participant beliefs about which the interviewer is speculating.

Finally, the interview protocols were approved by the applicable Institutional Review Board at the researcher’s institution (see Appendix B for the items used at interviews). When acceptable to participants, interviews maintained the fidelity level (Lincoln & Guba, 1985, p. 240) of audio recording accompanied by observer field notes.

Archived records and other artifacts as evidence

Secondary in nature, these are the records left behind by community members in the form of meeting minutes, directives, memoranda, and so on. While lacking the vitality and information for the senses that personal engagement provides, these are not only the clues to what went on before the study started and in places the researcher could not always be, but often provide an administrative slant that would otherwise be missing, or evidence of both theory-in-action and its conflict with espoused theory (what was actually done versus what was expected or approved, Argyris & Schön, 1974).

That is, because their presence is typically the result of systemic rules, these records tend to reflect the systemic aspects of the legitimization and curriculum modification processes. However, there can also be multiple interacting interpretations of cultural norms through material artifacts (Hodder, 2000, p. 705). Some of these records of obvious importance are:

- curriculum committee activity reported in faculty meeting minutes (there are no curriculum committee meeting minutes)
• course descriptions and syllabi (these are not in the main office because they are destroyed after a NAAB visit in order to make room for accumulation until the next visit, so the researcher gambled that individual faculty would have some retention of their work for which these records no longer existed)

• requests by faculty for special topics courses of a temporary duration (e.g., in spring 2008 there were 5 special topics courses with 2 explicit sustainability mentions and 1 green, not including other mentions in regular course descriptions; this data was obtained from the institutional course descriptions online)

• departmental APRs and the NAAB criteria each addresses (these have both grown in elaboration over the years)

*Triangulation and trustworthiness*

While this study does not aim for context-free generalization (Lincoln & Guba, 1985, pp. 110-128), a naturalistic inquiry can still corroborate data collection and interpretation within the community, itself. For example, member checking (pp. 314-316) was already mentioned under the heading of inquiry (above), and could really be applied to any aspect of data collection and analysis, the trick being to segregate potentially contentious statements made in confidentiality from those who would be offended and likely to trace the source.

Moreover, the researcher maintained an audit trail (pp. 319-331) in the event that the dissertation committee should care to review his records of the study’s execution. While that committee cannot be entirely disinterested in the undertaking of either the study or the audit, the researcher feels it prudent to keep the documentation in order.
How was ethnographic data collection intended to be informed by ethnomethodology?

Framing introduction of innovative content with regard to the curriculum has all along been a ploy based on Garfinkel’s (1967, 2002) characterization of ethnomethodology: disorientation of a culture, typically purposeful but in this case opportune, in order to observe first which processes are disrupted and then the reaction to the disruption as reassembly of a cultural schema in order to accommodate the contextual transformation. What might be found? Garfinkel thinks that the following organizational practices should become evident: **typifications** as mutually reinforcing roles and activities shared among participants and taken for granted in the world, a **documentary method of interpretation** (creating a pattern whether one exists or not, another hermeneutic circle both on the part of the observer and the participant), and **indexicality** (participant sense making of experiences in order to align with the already accepted sense made of the context in which the experiences are had)

Returning to ethnography as a search for what a culture does and an ethnomethodology for how individual experience is interpreted in the context of that, Gubrium & Holstein (2000, pp. 499-501) discuss a leaping back and forth via analytic bracketing between the “whats” of **discourse-in-practice** as cultural resources and products, and the “hows” of **discursive practice** as individual productions connecting the two. That is, there appear to be both microscopic and macroscopic aspects to analytic bracketing, and continual shifting between the two is as necessary to gaining insight regarding the culture as shifting between system and culture is to gaining insight regarding the community.

**Calendar for administration of study**

Data collection began in early September 2008 and was concluded by February 2009. Because most faculty do not frequent the department offices in the summer, it was obvious that little besides extant data analysis could have occurred before September. For instance, the curriculum committee did
not schedule any meetings before the fall semester commenced (at the very end of August), and the first meeting did not actually take place until September 24 that year.

Thus, fall was the first opportunity to present to any individuals or groups who might be interested. As far as observation, faculty and curriculum committee meetings were crucial for the researcher’s attendance, but did not seem to be regularly scheduled.

**Intended Analyses of Observation and Interview Data**

*Reconstructive analysis*

Carspecken (1996, p. 45) refers to a “primary record” as the immediate capture of the confrontation with data. There is little discrimination in what might or might not be of interest, because there simply is not enough time to grab it all and make evaluations, too. The result is that somewhere along the line, the researcher is obliged to start sorting and explicating the trove.

This initial construal of data involves meaning reconstructions “produced by putting words on meanings that might be read from the timing, tone, gestures, and postures of each act” (p. 98). Although low-level coding will be dealt with below in more detail, it should not be confused with meaning reconstruction which is an addition to the primary record made by the researcher to set down the range of possible meanings as a meaning field for each act. This exercise can also serve as material for peer debriefing of the researcher (contributing to trustworthiness and credibility) in order to highlight researcher biases or indicate researcher tendencies to ignore parts of the action blindly.
**Horizon analysis**

Carspecken (1996, pp. 103-120) talks about the hermeneutic interpretation of an act or discourse, the actor, and the state of affairs when and where the actor performs the action. He frames this as claims on the part of the researcher, and the claims can have foreground (explicit or emphasized) and background (tacit) components:

- the act is understood by the actor and observer (intelligibility as normative-evaluative claim)
- the act is acceptable within the context it is performed (appropriateness as a normative-evaluative claim)
- the actor has a subjective state (feelings and intentions as a subjective claim)
- the actor has an identity (perception of characteristics as a subjective claim)
- the state of affairs is observable or referable (context as an objective claim)

Carspecken’s characterization of the hermeneutic inference (p. 98) necessary to make interpretations for reconstructive analysis and horizon analysis is similar to that of Blumer (1969, pp. 6-7). Both indicate that the researcher must put himself in the place of participant in order to make the necessary inference intersubjectively.

When the subjective identity claim coalesces into what Gregg (1998) calls a phenotypic level of personality, it becomes an orchestrated performance of self-representation. This can be further analyzed as a role (Carspecken, 1996, pp. 136-139), lending a unity and recognizable if not quite predictable tendency as far as kinds of actions that are appropriate and likely subjective states.

**Coding**

This must be the workhorse of qualitative data analysis, moving inductively from low-level to high-level abstraction (Carspecken, 1996, pp. 146-153) in order to discover the weave of theme (van
Manen, 1997, p. 87). For Ryan & Bernard (2000), one sequence involves establishing a corpus of texts relevant to the research question from the mass of free-flowing texts collected as data, then carving those relevant texts into thematic units (p. 780 citing Krippendorff, 1980), and finally taxonomizing the themes (p. 780, citing Spradley, 1979).

Strauss and Corbin (1998, pp. 223-229) outline an analogous route, first fracturing and recombining interview data in an open coding for labeling of concepts and their properties and dimensions. Then, by horizontalization (Moustakas, 1994, p. 121), those open codes are winnowed according to the closeness of their relationship with the research question, and finally categorizing through axial coding of categories with their subcategories (Strauss & Corbin, 1998, pp. 229-236). Should strong central categories appear, then those might indicate bases for substantive localized theories, but theory grounding is not currently the aim of this study.

**Summary**

Content to be monitored during the study was introduced. The path to legitimization of this content was conjectured.

Ethnographic methods of data collection to be used in this study were inventoried. These include participant observation, inquiry operationalized through interviews, and document examination. Then an ethnomethodological slant to data collection was posited.

A schematic schedule for implementation of data collection and analysis was roughed out. Analysis techniques for preparing the primary record for coding, and then for performing the coding itself, were reviewed.
Chapter summary

First, an ethnographic research design was justified for this study. Then the community to be studied was introduced not only in detail but also comprehensively over the range of peripheral and contiguous members. A unit of analysis was derived from that, and both the critical limitations to the study and researcher access to the community were addressed.

The researcher’s philosophical orientation in general and relation to the study’s community in particular were inspected. There followed an explanation of the researcher’s interest in the sort of content being used for this study.

Intended methods for data collection and analysis were listed, and their connection to the research design was demonstrated. Methods for establishing and maintaining trustworthiness and credibility for both collection and analysis were indicated.
Chapter 4

Analysis of Collected Data

Chapter Abstract

If the first three chapters represent “What are you seeking?” then the analysis is summed up by “What did you find?” with “What do you think it means?” to follow. As an approach to that, the work of Gubrium and Holstein (2000) was helpful in disentangling the cultural from the systemic, although their description of the separation was neither clean nor entirely clear, and my application of it followed suit.

What Gubrium and Holstein did was to parallel the ethnomethodological search for discursive practice with the Foucauldian documentation of discourses-in-practice. Translating that parallel to this study, I elicited a range of how faculty in this department constructed acceptability or desirability, if not always meaning, for subject matter through the process of legitimization (discursive practice: the observable and reportable accounting of a process). I sifted through the extant data in the department office for evidence of what had been accomplished previously regarding the subject matter (discourse-in-practice: the result from a pattern applied to a process). And I watched in committee meetings for both how participants debated their intents and schemes (discursive practice: framed in everyday talk and interaction patterns) for modifying the curriculum. Then I saw what (discourse-in-practice: allowable patterns of action) groups of faculty actually did in order to initiate a discussion among themselves as a whole department about the possible modifications (discursive practice: patterns of interaction, such as dialog). By all these means I intended to hunt down legitimization, whether it had to do with sustainability or not.
The sequence used in this chapter for detailing data collection activities begins with a confirmation of the community’s status as a culture. There follows an overview of the interviews I conducted with participants. Then I review the extant data to which I was allowed access, and conclude with the conditions of observation during regular meetings of small faculty groups. There’s a reason for arranging the data collection narrative in this manner: the interviews furnish mostly cultural data, the extant data speaks to systemic matters, and the meetings provided an arena where both culture and system were visibly in play.

Establishing the culture

Introduction

In this section the argument is made for considering the architecture department to be a culture, based on the evidence from data collection. The researcher’s competence to make that decision based on experience is raised as a factor contributing to overall trustworthiness.

Then the foundation for this culture’s conceptualization of curriculum is demonstrated via the precepts applying to each year of the BArch program. Finally, a significant curriculum change dating back to the initial use of the precepts is reviewed.

Qualifying the investigator

At this point, I need to revisit some definitions I provided in the earlier literature review chapter. Using the example and non-example approach to presenting a concept, cultures have pervasive rules, but these rules are malleable in the face of differing contexts. Behaviors might point to agreements that
members of a culture honor, but are not congruent with them. The presence of affect must be recognized as neither fallacy nor aberration and correspondingly respected. Cultures are not represented by tasks that are rigidly associated with one shared meaning; that notion is in keeping with a system. Perpetuation of the culture relies on messy reproduction and not on static continuity.

My competence to posit claims about the community as a culture is an ethos-based assertion that I have been doing what Lincoln & Guba (1985, pp. 256-259) refer to as “building and maintaining trust,” and trying to establish as emic a presence as possible. Much was already immediately observable and well known to me from having spent time with this community in one capacity or another over the four years preceding this study. Angrosino and Pérez (2000, p. 678-689) call mine a “situational identity” that is “based on ‘membership’ rather than on ‘observation.’” And, besides all that, I had learned to look for the nature of those particular agreements anyway from my previous experience as a student in other architecture departments.

**Argument for designation of this community as culture**

So can this faculty be treated as a culture? To some extent, answering this should be an exercise in triviality. According to Chambers (2002, p. 852), for example, I must ask if these people agree to conceptualize studio pedagogy as a dialog. For them, does the studio constitute the most important component of an architectural design education? Are these understandings and shared meanings robust and durable enough that newcomers can acquire the patterns of action and interaction that are acceptable to incumbent members?

Yes, of course, but when it came to issues of curriculum, subject matter, and instructional design, that question of agreements and sharing did not have nearly as straightforward a response. Instead, there was a tradition that involved a set of precepts for the general character year-by-year of each studio in the five years of the BArch degree. Certainly, there were no systemically explicit processes for determining
what subject matter belonged to which course, what topics were to be arranged as content within a course, or to what level of sophistication.

Table 4-1: Comparison of traditional precepts and current course description text

<table>
<thead>
<tr>
<th></th>
<th>1990 Precept</th>
<th>2007 NAAB APR</th>
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</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td>articulation of ideas through visual means</td>
<td>develop skills of design and communication</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td>introduction to the complexity of the architectural whole</td>
<td>introduce the students to the complexity of the architectural whole</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td>the building thoroughly considered</td>
<td>synergy between building design, structure, site, and context</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td>the building in/and the city</td>
<td>physical conditions and needs of urban societies</td>
</tr>
<tr>
<td><strong>Fifth Year</strong></td>
<td>the thorough building as expression of idea</td>
<td>linking of theory and building in a meaningful manner</td>
</tr>
</tbody>
</table>

As an organizing discourse-in-practice, the passing along or revival of these precepts had occurred among the faculty for almost twenty years, and still underlay the course descriptions for studios presented to NAAB during the most recent accreditation visit. Thus, the discursive practice of using these from day to day during that time was sufficient to support the department’s processes of constructing and maintaining a curriculum. And what emerged from this continuity and use was at least one overarching implicit agreement about the precepts that characterized this culture’s curricular conceptualizations and operationalizations, to whit: the extent of the precepts’ scope and application when locating subject matter in the curriculum was always negotiable.

**Bracketing systemic encounters**

The continuity approached some systemic aspects, too, such as the labels for the precepts, that could be pointed to and named. Yet, given the fuzzy nature of these precepts as memes, courses that could be said to conform to them could also be renamed or nicknamed or renumbered, not being entirely
consistent over time or universal at any one time for any single course. Thus, on one hand, I could easily initiate a conversation that involved these precepts because participants would have an understanding and application of them, because there was room for each of them to make individual attributions to them. One personal communication with a professor (who declined to be interviewed) centered on how he could look through a pile of unidentified drawings and models and then sort them by the year of coursework that had been completed by the students who had crafted those artifacts.

On the other hand, it was difficult to explicate these precepts further, probably because additional explicitness simply was not necessary for the curriculum to function in a manner satisfactory to the culture. So, to continue with the story related through personal communication, when I asked the instructor how he had the confidence to make his sorting assertion, he could not easily provide any detail. His confidence was based on his having internalized so many empirical observations that he did not have to expend much in the way of cognitive resources in order to recall a similarity with what he was sorting at the time. But there was no attempt at inductive generalization that could be used to formulate a demonstrable systemic rule for sorting.

Returning to the curriculum, their longevity does not mean that the ill-defined yet serviceable function represented by the precepts has been unchallenged during their term of use. Indeed, the durability and robustness of the agreements associated with curriculum has been progressively compromised over time from both within and without the department. Keeping in mind that the precepts refer to studios, the reader is advised that there was a shortening of the structured class meeting hours spent in studio from 4 hours per day/5 days a week to 4 hours per day/3 days per week in 1992. This moved course content related to history, theory, and visual communication skills out of studios and into other existing courses or their own new ones. Participants remembered that this change was based on the faculty not having enough time to conduct their own research.

Finally, there is a bookkeeping note to be made here. As a result of this justification, the terms “culture,” “community,” “department,” and “faculty” are used interchangeably from here on, unless some
compelling differentiation needs to be made. “Members” includes every faculty member of the
culture/community/department (as opposed to staff and administration who are not also faculty) on
campus during the study, all of whom were gracious enough to consent to participate in the study to the
extent of being observed and allowing notes to be taken about those observations. The actual reference to
“participants” typically is reserved to those faculty members who participated in the activities being
described at the time, as with interviews.

Summary

The community made up of the faculty of the architecture department was shown to qualify as a
culture, and the use of terminology was loosened to include the various designations of community,
faculty, department, and so on. In addition, the qualifications of the researcher to make that assertion
were posited.

One of this culture’s most important organizational principles for curriculum conceptualization
was presented as its precepts year-by-year for the undergraduate program. It was suggested that the ill-
defined nature of these precepts have aided in their longevity and usefulness to the culture over time.

Interview data

Introduction

The range of faculty participating in interviews is detailed. The physical context (spatially and
temporally), affordances, and constraints of the interview procedures are provided.
The limitations of what data participants could be expected to volunteer are considered. And events of likely ethnomethodological interest are recounted. A discussion of the culture and its transformative state is foreshadowed and will be continued in the discussion chapter.

Who participated and how much?

Had I been checking off the items on the list presented by Fontana and Frey (2000, pp. 654-656) to prepare for such an “unstructured” interview, I would have scored perfectly: access, understanding the language, presenting oneself, locating informants, gaining trust, establishing rapport, and collecting empirical materials. Faculty members recruited for this study met the criteria suggested by Moustakas (1994, as referred to in the methodology chapter), and I interviewed as many as were available: some potential participants were on sabbatical and could not be reached, while others declined the invitations to participate outright or ignored them. Lincoln and Guba (1985, p. 265, citing Patton) mention the desirability of maximum variation sampling, and the sixteen participants I interviewed covered at least two nonassignable variables: academic service and gender. Except for two with emeritus status, all were currently active as faculty, and their academic rank ranged from first term assistant professors to full professors with years of experience in architectural design education. Both females and males participated.

Almost all interviews maintained the fidelity level (Lincoln & Guba, 1985, p. 240) of audio recording accompanied by observer field notes, and there were fifteen interviews that were transcribed from recordings, not including one that relied on written notes alone. I was able to member check my preliminary findings with a group of faculty including several interviewees, but not through repeated face-to-face interviews with individual participants. While this was disappointing, it was consistent across the participants; that is, they were generous enough to help with my research as far as one interview was concerned, but their time was, after all, limited.
In general, each interview took about an hour, and when that duration emerged as the norm, I was inclined to keep a watch handy so participants did not become anxious regarding the passage of minutes. Every so often, I would encounter someone who was content to let the recorder run as long as I pleased to ask questions. I took advantage of that rarity, letting the interview topics run the gamut over “varied, altered, or not used at all” as Moustakas (1994, p. 114) writes, because I was never sure when a relevant story would occur to those participants.

Parsimony of faculty availability also applied to departmental meetings of the faculty as a group. My data collection coincided with a singular run of events that either preempted regularly scheduled faculty meetings or led to the cancellation of them, and this was so from the end of the interviews until the submittal of this study to my committee. Please note that these singular events relate directly to participants’ conceptualization of the curriculum, and so will appear as part of this analysis chapter, while an accounting of the member check for which I used a faculty meeting appears in the discussion chapter following.

The warning by Fontana and Frey (2000) against “going native” while establishing rapport, as in losing my “distance and objectivity” by actually joining the culture, was not a concern. That is, despite the faculty’s having become used to my presence, there remained a systemic barrier to any permanence on my part due to my relatively low academic status as an instructor and graduate student. And with regard to culture, I had surrendered any pretense of objectivity long ago, so there was not going to be any intensification or abatement on that front either.

Physical context of the interviews

For the most part, an interview took place in the office of the participant, and the offices were all in the same building on campus, itself a recently constructed landmark of sustainability by virtue of its elevated LEED rating. And all the dimensions of the offices were the same at something like 10’-6” high.
by 9'-4” feet wide by 15'-4” long. And all the finishes of the offices were the same: sealed concrete floor, dark grey 4” vinyl base, gypsum board walls painted off-white with a matte finish, and an exposed perforated acoustical deck painted white and bearing on steel beams painted hunter green, the effect of the beams being similar to that of a crown molding around the perimeter of the room. There was little acoustical privacy between offices, so it is likely that the ductwork hidden inside gypsum board bulkheads was not overly insulated.

A door veneered with light wood hung in a hollow metal frame having a clear glazed transom. This frame was painted to match the dark grey base. The door opened from a corridor along which all the faculty offices were ranged. Opposite the door, on the exterior wall of the room, a four feet high strip of aluminum framed windows ran across the full width, with the stool at three feet above the floor and a full width rolling screen housing at the head. Each strip of windows had one operable awning type of sash, two feet by two feet, that could not be swung open more than six inches out of the room.

Participants had not personalized their offices to any great extent. There were usually piles of papers here and there, and the furnishings provided by the department: a work-table, a desk chair, a telephone, a metal three drawer horizontal file cabinet with a dark grey metallic finish, and a set of adjustable particle board shelves. These last were typically crammed with texts and knickknacks from the floor to their full height of 8 feet.

Finally, one could count on seeing a poster or two. But no single office distinguished itself from another, anymore than might one dorm room from its neighbor, except that the posters in the offices were probably framed more often than those in a dorm. On the whole, there was a sense of anonymity and impermanence among the office furnishings installed by occupants, and I read that as the ability to pack and move on at short notice, from one slot to the next.

There were exceptions to those particular conditions of interview location. Three interviews took place in the office I share with two other instructors, and it is furnished exactly the same as those previously described, except that we have two more tables and one more chair. One took place in the
wide alcove made by the corridor outside an office, the finishes being roughly the same as in the offices, themselves. And two interviews were conducted in restaurants during the busy lunch hour of a weekday.

One of these was a restaurant downtown, across the street from campus, and a well-known informal fixture of the locale for decades. The other was a café in the recently constructed business school headquarters, near the department. In both cases, privacy was at a premium, and there were plenty of distracting background noises as well as an interruption or two from wait staff and passers by who leaned in to conduct their exchanges with the participants.

**Learning the not-quite-rules of engagement**

Gubrium and Holstein’s (2000) distinguish between discursive practice as the real-time structuring of a reference to a concept or object under scrutiny and discourse-in-practice as recognition of the boundaries from within which that structure’s components may be drawn and assembled. Or, to use their convention, discursive practice is the “how” versus the “what” of discourse-in-practice. Both describe an individual’s understanding of an experience, but stop short of phenomenological explanation because they are not concerned with sense-making, or, by extension, the “why.” Instead, they focus on patterns of interaction and action, and the acceptability of those with respect to the individual’s cultural membership. So an individual asks, “How do I go about complying with the necessary patterns of speech and deed that qualify my cultural membership, and what do I need or am I allowed in order to accomplish that compliance?”

I was reminded of participants’ discourse-in-practice when it came into conflict with that used for instructional systems or adult education, my major and minor fields of study. It is difficult to pin down the discourse-in-practice related to studios, even though studios are the major component of the curriculum. As much of a moving target as behaviors can be due to accommodating affect and context, studios are those behaviors writ large.
Unlike lecture and laboratory courses, a studio’s content cannot be framed as a contract, whereby legitimacy can be imparted to its constituent subject matter, because what would actually occur cannot be specified with confidence. For example, referring to content did not generally connote in the discursive practice of this culture a scheduled and sequenced delivery during studio instruction or even a guarantee of that content’s appearance at all, as it might to an instructional designer.

This was because the systemic model of specifying objectives at the beginning of a course and then expecting those to apply consistently not only to all students in the course, but also to remain consistent, in and of themselves as objectives, until the end of the course simply does not apply to studios. The discourse-in-practice has no provision for conceptualizing that conventional of a systemic objective, and the discursive practice rejects attempts to predict an objective before its emergence in the studio for an individual student or to permanently fix an objective’s structure once it has emerged. Difficulties for this culture’s conceptualization and maintenance of curriculum resulting from collision with the conventional systemic model will be apparent in the discussions that follow regarding various accreditations and faculty committee endeavors.

However, even more than that, the pattern for architectural design education that instructional designers would have to first dis-embed from its sedimented location in the culture and then treat with utmost respect is that the test for any subject matter’s worthiness of consideration in this culture is how and what the subject matter contributes to a studio. So, if architectural history and architectural theory inform the designer’s intent and inquiry, then skills must aid the presentation and conveyance of those aims in studio.

Now, at first glance, there is a permanence or a timelessness associated with history and theory that the inevitability of obsolescence precludes from skills. But this is at best an ill-defined and often permeable distinction. For example, the technology available to expression certainly can influence the formulation of the concept to be expressed. But for the purposes of this study, the distinction is indexical (Garfinkel, 1967, pp. 4-7; Gubrium & Holstein, 2000, p. 491) with respect to context. It satisfies to the
extent that its fuzzy and ungeneralizable nature, must be grudged a little in order to prevent the study from digressing via further attempts at exhaustively running those concepts to ground (cf. the precepts that label each year of the program). This is the sort of limitation to substantive interests, as critical dimensions of the phenomena to be studied, that must be tagged when they are encountered and then dealt with pragmatically, however and whenever in the study that encounter occurs. I did not know the wall was out there when I started driving around in the fog of research design, but that does not mean I will not hit it while conducting the research.

And that very expedient led to more interview rules such as, “When a participants uses a particular term, it means this and not that, although maybe not this or that to another participant, especially when the term is ‘under construction’ within the culture.” For every interview this was certainly the case with the concepts of “legitimization” and “sustainability,” albeit for different reasons, and these will be addressed in more detail throughout the discussion chapter following. At this point, however, they will serve as examples, “legitimization” having no meaning as of yet, and “sustainability” having many meanings that were undergoing the process of being settled. From these examples, the corollary to this rule was derived, along the lines of, “Participants will not raise a certain topic in detail, if explicitly at all, during the interview,” if:

- It has already been weighed in the balance and found wanting with regard to studio (so focused direct questioning about it is necessary). Feldman (1995, p. 16, citing Rosaldo, 1989, p. 129) says that, “…storytellers no more need repeat what ‘everybody’ already knows…than a group of avid sports fans need to bore each other by reciting the basic rules of the game.” Culturally, that’s not an effective means of perpetuation, as someone who had just recently joined the faculty would need to raise the topic at a meeting or in conversation in order to find out how it had been decided.

- It does not yet have a place in the docket for review of its worthiness (as was the case with legitimization). Concepts on the horizon were not often introduced or volunteered by the interviewee
and needed to be provoked in order to elicit responses. Feldman (p. 20) advises the researcher looking for embedded institutional realities to think of what sort of behavior would be unacceptable with relation to a context and then to examine what, about such a behavior, seems unacceptable. Or, as Garfinkel (1967, p. 37) says, “Procedurally it is my preference to start with familiar scenes and ask what can be done to make trouble.” In this case, I had to think of what would violate a process of legitimization and then ask myself if that were so.

However, once more resorting to Feldman (pp. 10-11), I posit that in ethnomethodology these rules are not really hard and fast. Instead, they rely on context for interpretation. The results of decisions based on these not-quite-rules (such as the year-by-year studio precepts, to which Carspecken, 1996, p. 80, refers as “norms”) mark cultural nuances that in turn can characterize the discourses-in-practice and color the discursive practices that differentiate one architecture department from another. Therein is also further justification for framing the study around sustainability, in that the subject matter’s relationship with studio is one of those currently being decided, and its effects on this department and its curriculum are yet to be discerned. In other words, the indexicality of terminology associated with sustainability could be a marker for its location on the path of legitimization. The systemic outcome will be an explicit definition of sustainability based on the cultural outcome of a typification of sustainability as a meaningful source and boundary of practice sanctioned within the discourse of the culture. Sustainability, as a concept, is on the table, if not taken for granted as part of what the curriculum is or how the curriculum is structured; the process of legitimization, far from being taken for granted even though it is taking place, is not even on the table.

Events of ethnomethodological opportunity

Not much change, especially with respect to sustainability as subject matter, seems to have occurred in the curriculum between 1992 and 2004 (when there was a jump in the number of syllabus
acknowledgements of sustainability and its synonyms, as shown later in Figure 4-1). One faculty member said this about the current curriculum (Interview with A, November, 2008; the bookkeeping convention to be followed from this point on is to maintain a consistent alias for an interviewed person, thus A always refers to an interview with this person, and B will always refer to the interview with that person, and so on, and the masculine pronoun will always be used, whether the interviewee is male or female):

I know that we had the same AE sequence back then [in 1992]; we had two extra art history courses that we don’t have now; we had the materials and methods course, although I think it was called something else; and we had the introductory theory courses, and we had [a writing intensive course]; I mean, it was almost the same curriculum.

Then in 2005 there was an enforced disturbance to the first year studios that Garfinkel (1967) would probably qualify as an ethnomethodological opportunity. In any case, it is worth noting this culture’s reaction here and returning to it in some detail with the discussion chapter.

This disturbance had been approaching since 2002, and finally appeared in 2005, but it only lasted two years after that. The dean, at that time, of the college wherein this architecture department is located had wanted to create an interdisciplinary studio (known to this culture as “the Core”) for all the freshman students in the college’s design departments, and this studio was to be taught by a team of faculty drawn from all those departments, including architecture. Participants reported that this creation was discouraged by a faculty committee at the proposal stage, begrudgingly complied with during its implementation, and allowed to dissolve rapidly after that dean had moved on to another university. As this study was being conducted there was an ongoing effort among the architectural faculty to return to the traditional course numbering that was displaced during the Core’s brief life span.

It is not altogether clear whether the additional disturbance from the NAAB accreditation visit coinciding with the Core’s implementation was an aggravating or mitigating circumstance for heightening faculty attendance to curriculum modification. The case for this ambiguity is one of those to be argued in the discussion chapter, but suffice it to note here that, with respect to mitigation, the chores required for NAAB could be considered an extension of the 1992 relocation of content from the studio,
although for a different reason. NAAB visitors prefer direct avenues to the evidence they seek, so if a
course is devoted to the subject matter being taught (that being a hallmark of legitimization, as well) then
the path to the evidence and the character of the evidence, itself, should be unhindered by association
with other incidental subject matter. It is convenient for ticking off items on a list if the items are part of
a course title, but that clear of a route is unlikely to be the case for a studio.

Furthermore, when I was observing the efforts of the faculty in their committees dealing with
sustainability and curriculum change, I could not help but wonder what would have happened if they had
relied entirely on the year-by-year labeling precepts. This was no longer necessary because, before this
study commenced, there had been a not entirely satisfactory visit from NAAB resulting in a probationary
accreditation. Preparation for that visit had included the production of a systemically explicit matrix for
locating NAAB’s student performance criteria within each course offered by the department. But, for the
subsequent NAAB visit, this matrix was broken down into the department’s interpretation of learning
objectives associated with each course. This breakdown was included as part of a course description, and
the descriptions were collected as a component of the APR.

So one could posit that, without the requirement to comply with NAAB, there would not have
been a need to construct the matrix, or at least no need to break the matrix down into component
objectives. However, this construction, decomposition, and sorting effort that is made to satisfy NAAB’s
systemic demands could also benefit this culture in at least two ways: one that deals with future external
systemic mandates, and another internal to its patterns of curriculum modification.

First of all, preparation for the NAAB visit in 2008 impelled faculty to discuss, create, and assign
learning objectives to each course. This unfamiliar and systemic task had been previously obviated due to
the satisficing of the precepts. But now it gave faculty practice and grounding in what to expect from and
how to respond to the next ethnomethodological event for which objectives would be expected. And
there is such an event in sight. This potential cultural disturbance involves institutional accreditation for
the university of which the department is a unit, and there is an institution wide directive for academic units to produce program and course objectives (see Appendix C for an example).

Secondly, I turn to an admittedly broad reading of Mezirow (1998) regarding an individual’s confrontation with a disorienting dilemma and the transformation of perspective that follows. I suggest here that this culture has encountered what would be considered a tranformatively disorienting dilemma, on which it has begun to collectively reflect in a critical manner while repairing its cultural patterns. The consistency of Mezirow’s definition of discursive group with the definition used here for culture supports its applicability (Critical Reflections of Assumptions and Discourse heading):

Critical reflection may occur outside or within a discursive group. Discourse is understood as that special function of dialogue devoted to presenting and assessing the validity of reasons by critically examining the widest possible range of evidence and arguments in the context of attempting to find understanding and agreement on the justification of beliefs. CRA [critical reflections of assumptions] may be a product of discourse, but it may also be the way an individual learner gains insight in dealing with a disorienting dilemma.

What is this dilemma? First the systemic effect is considered: all the credit hours allotted for the BArch have been accounted for already, with none left over for introducing subject matter into the curriculum without replacement or addition of credit hours. This is so much the case that even minors are difficult for students to construct, another source of friction with NAAB. The cultural cause is that the aforementioned precepts have always been sorters of subject-matter-by-year, but not gatekeepers, so over time as new courses were added, the curriculum was allowed to fill. And courses were added to relocate content from studio, whether to make it easier for NAAB visitors to check their boxes or in response to the growing number of NAAB’s student performance criteria or for faculty to have time to conduct their research, but not as many other courses were eliminated to compensate. And there is no process, cultural or systemic, for locating new subject matter because it was just never really a problem before.

So now that the conflict is framed, the real dilemma emerges because the currently popular remedy to hand involves parsing courses as learning objectives and then establishing priorities among those in order to see where sustainability might fit and, in turn, what it might displace. But there are two
drawbacks: one is temporary in that for the time being there is no vision with which to align objectives, because the school in which the department is located is undergoing reorganization; and the other is somewhat more intractable because objectives as they are currently defined and encouraged systemically at this university are not applicable to studios anyway.

When I started analyzing all the data, the initial conclusion at which I arrived (but now feel is erroneous) was that no cultural process for curriculum modification existed to support legitimization, especially after I spent hours tracking the special courses that just hung around semester after semester. As in these special courses, sustainability subject matter started to appear in the syllabi for studios, but never seemed to advance to the legitimization status of its own course.

Then it finally hit me that the legitimization path in this culture is through the studio and for exactly the reason that there is no structure of objectives in studio to prevent entrance of additional subject matter. This will be supported in the discussion section, but for now it must be allowed me that another possible function of studio was revealed for examination.

Furthermore, because this elasticity of studio does not apply over the entire curriculum, the advantage from first confronting the dilemma and then critically reflecting as a culture on the concept of curriculum could transform the cultural perspective used to regard that curriculum. I think what I was watching in this study was the cultural building of a platform on which a discourse-in-practice of curriculum modification typifications and patterns could be supported, and with which the discursive practice of curriculum modification could more easily take place.

Summary

Data collection involved in the interviewing of study participants was laid out for scrutiny. The range of participants, the context of the interviews, and the fidelity of the recording were all detailed.
A preliminary conclusion was attempted regarding a transformation in the face of a dilemma, and that will be taken up in the discussion chapter. Another possible function of the studio was suggested in the same manner.

**Extant data**

**Introduction**

The researcher recounts the variety of extant data made available to him. Justification for the search terms used and how the researcher performed the data collection from those sources is offered.

Then the data are presented in a graphic form in order to support assertions about the legitimization of sustainability as a subject matter. Finally, speculation is offered regarding other sources and their silence on the matter.

**What sorts of records were available?**

Lincoln and Guba (1985, pp. 276-279) make the case for extant data of the sort kept in departmental records as being systemic, in that its purpose is “attesting to an event or providing an accounting,” that is, acting as evidence that an explicit requirement was imposed at some level of bureaucracy then answered. The authors go on to say that these records are “contextually relevant and grounded in the contexts they represent,” and their richness results from “the fact that they appear in the natural language of that setting.” So there is the likelihood of a cultural revelation in these records, as well.

First, these are the categories of available records:
• course proposals and curriculum proposals submitted to the curriculum affairs committee of the faculty senate body at this university
• course syllabi
• course descriptions in the annual university-wide course catalog
• semester files that showed courses being offered each semester (as a check for those courses for which syllabi were not submitted or kept) and proposals for independent study courses
• APRs prepared for previous NAAB visits

As may be inferred, the extant data on this list were prepared almost exclusively by faculty. So, through mining of these files and conducting the interviews, I actually retrieved as much data from the sources directly responsible for the past and present states of curriculum and instruction in the department as there reasonably was to be had, both regarding those activities and within the calendar limits I was operating. Sadly enough, I did not see what Lincoln and Guba call “documents” in the sense of personally defined or motivated observations.

How did the records address legitimization?

These records are not in the form of electronic files, so I was obliged to pore over them as hard copy, one at a time. My search began with the oldest records in the office from 1996 (coincidentally, one year after the establishment of a center for sustainability in this university’s college of engineering), and concluded with the spring term of 2008, that being the latest complete academic year. In keeping with my conceptualization of the legitimization process, I determined to use a set of search terms that was as inclusive over the indexical range for “sustainability” as I could corroborate with terms from interview data. That meant considering “green,” “ecological,” “preservation,” and “reclamation” to be satisficing synonyms. As reflected in Figure 4-1, the milestones I determined are these:

• 2000 (spring semester) first mention of “sustainable” in a syllabus
• 2003 (fall semester) "sustainable" first appears in a course title (one that had been previously offered under a more generic heading)

• 2007 (spring semester) most references so far in course titles to sustainability subject matter

Figure 4-1: Sustainability references by semester and year

It is difficult to trace the increasing legitimization associated with special courses becoming permanent courses, because this department has been known to offer the same special courses for many semesters with no foreseeable change in status. This is further complicated by the confusing state of course numbering associated with the short-lived appearance of the Core interdisciplinary program,
requiring abandonment of some previous numbers. The subsequent return to pre-Core conditions requires a waiting period by this university before previously used numbers may be reassigned to their corresponding revived courses.

Oddly, the increasing legitimization trend visible in Figure 4-1 does not reflect the number of articles with a sustainability theme published in the major outlet for peer reviewed research conducted by this culture and many others like it. With the exception of a special issue in 1984 that was presciently devoted to sustainability subject matter, *The Journal of Architectural Education* has presented only nine articles on similar topics in the last twenty-four years, with an average gap of over four years between each spate of one or two.

**Summary**

Extant data sources were listed and the search through each was condensed for presentation here. Types of data available from each source were noted.

Then the data were presented in a graphic form in order to track the legitimization of sustainability as a subject matter. The early stages of legitimization were shown to be evident.

**Observation data**

**Introduction**

Types of meetings that were available to the researcher are distinguished, one from another as to their purposes. An explanation of the researcher’s role at each type of meeting is offered.
Likewise, the types of data available to this study from each meeting are listed. Faculty meetings are shown to be limited in this respect when compared to committee meetings.

What sorts of meetings were there?

Having touched on the present and past of curriculum modification, I now turn to the future of subject matter undergoing legitimization. To address that, I observed a variety of faculty meetings that dealt with curriculum, my intent being to listen for and record the patterns of discursive practice and boundaries of discourse-in-practice that others demonstrated. These committees ranged from an ad hoc committee that organized itself around environmentally conscious architecture in order to deal with the subject matter of sustainability, and that quickly attained the status of a regular departmental committee, all in the summer before this study commenced, to the departmental committees charged with addressing a long list of items including NAAB concerns, and the regularly scheduled but irregularly occurring meetings of the entire faculty.

In fact, faculty meetings did not take place very often at all during the study at all (besides a retreat at the beginning of the fall semester, there were meetings in September and November and another in February), and when they did the items of interest to this study tended to be presentations by the small committees. There were other items of business, to be sure, but here’s how one participant distilled the faculty meetings (Interview with B, October, 2009):

You’ve probably experienced in the last year that there’s been a lot of telling. And so, we’ll get the telling out of the way at the beginning of the meeting. But the telling goes on for an hour, and so after an hour nobody’s going to perk up anymore, right? We’re just, you’re just listening, and then you say, “Fine, whatever,” and then you move on…decisions which are made in the department are oftentimes made outside of these meetings, even though everybody’s in the meetings, because you can’t make a decision in a meeting with thirty people. That’s quite challenging to do in any group.

In addition, there were three special meetings for purposes related to the school’s reorganization, but these rapidly zeroed in on an issue different from the curriculum or legitimization, although with the
potential to have great impact on them: the search for a new department head to replace the person who would be stepping down within the next year. That the faculty displayed a unanimous resolution to impel the dean’s office to sanction this search, in the face of the reorganization and apparently unfunded, evidenced a concern on their parts regarding the continued autonomy of the department and its programs. However, the purposes of these special meetings extended beyond the scope of this study (involving the landscape architecture faculty and their concerns, as well) and are touched on in the discussion section only briefly and when they can be linked directly to the study. To reiterate then, I will deal with meetings of the entire architecture faculty mostly in the context of when those hosted the presentations made by the smaller committees, as in the preparation of, and reaction to, those presentations.

One of these departmental committees met once a week for only four weeks at the beginning of the fall semester and then stopped, so it can be dealt with quickly here. It was designated as a strategic planning committee and grew to see itself as possibly a duplication or even a conflict with a task force that had been assigned through the office of the dean. That task force was to address strategic planning for the impending reorganization of the school of which the department is a unit.

The committee meetings that I observed as a researcher, and attended as an ex officio member, all struggled with the ambiguity and inadequacy associated with the precepts, and with the resulting impediments to curricular modification For the record, there were four series of departmental meetings to which I was admitted, of which three were small committees, with the fourth being the meetings of the entire faculty:

- the strategic planning committee (that one that was discontinued)
- the environmentally conscious architects committee (whom I shall refer to as the sustainability committee from here on, only because it is easier and more compact to do so)
- the curriculum committee
In this section I will deal with the structure of the sustainability committee first and then with that of the curriculum committee.

One difficulty I found with taking notes for the study was that it hindered my ability to participate even in a limited capacity during committee meetings. This was especially true with the sustainability committee where my role was almost one of lurker on the periphery. However, the committee members were gracious enough to include me on all the mailings and requested input for activities and comments (I have to admit that they sometimes looked startled on the occasions when I actually had something to say).

What this all means in the end is that I had two sources of data from the sustainability committee: meeting notes that I took, and records of emails. There were four architecture faculty members who attended regularly, besides another instructor who showed up when he could and me. They began by meeting every other week at the start of the fall semester and then changed to a weekly meeting after the first three sessions, these being at lunchtime and in the corridor alcove of the faculty offices section in the building where the interviews took place.

For the curriculum committee, I had a different role that led to a research resource above and beyond those for the sustainability committee: a regular member check about my perceptions of the meetings. Because no one had kept minutes for this committee in the past, there was no record in the departmental office of what they had achieved or argued about in their meetings. The head of this committee saw me taking notes for the study during the first meeting and asked if I would keep and distribute meeting minutes. Having agreed to this, I was able to collect feedback at each weekly meeting as the minutes of the previous one were emended for approval.

The drawback for the committee members was that my meeting minutes were overly detailed for their purposes, and during meetings I would be asked to exclude items when, for example, a debate intensified (otherwise, members seemed comfortable with my presence). There was also a disadvantage to me that was slightly different from that of the sustainability committee meetings, but still involved my
inability to do several tasks simultaneously. As themes for me to focus on were precipitated during the run of the study, I could not set those aside or bracket others out while on the fly of taking minutes and capturing all the ongoing business for others to use as typical meeting references.

Summary

Membership and purposes were listed for committees that were observed during the study. This included the duties of the researcher who served as either active and passive observer, depending on the committee.

Meetings of the entire faculty were also recounted. These meetings’ infrequent nature and generally unilateral dissemination of information were contrasted with the activities of the committees.

Coding

Introduction

Multiple analyses are shown to be appropriate for this study. Data is rendered via a context dependent narrative analysis as well as abstracted through a categorical analysis.

Narrative analysis and categorical coding is performed for both meeting observations and interview data. Coding procedures and results for both techniques are illustrated.
The continuum anchored by categorical and holistic coding techniques

Rossman and Rallis (2003, pp. 273-275) divide qualitative analysis techniques between holistic ones and categorical ones. Holistic techniques represent an analysis of the data in the original context of collection, while categorical assignments isolate contexts heretofore unexplicated.

Thus, an exclusively holistic approach to analysis would emphasize a reconstruction of the context wherein an interview or observation took place, and then remain focussed on the participants and their individual sense-making interpretations. Such an analysis would be appropriate for a phenomenologically oriented study. On the other hand, an entirely categorical approach might be adequate in the sense of abstracting a cultural process from the data provided by individual members of a culture alone or interacting in groups. It would inform versions of ethnography for which researchers seek the cachet of clinical disinterest (or, contrarily, those for which the results are intended to be applied in the service of some agent).

Where either of these falls short by itself is in the failure to pursue an ethnomethodological mission of discovering how a cultural process changes both to suit individual interactions day-to-day and for the culture as a whole over time. So where is the analysis for this study located on the continuum between those two extremes? The reader is reminded that this sort of interplay was foreshadowed in the literature review chapter in Douglas’ (1999) descriptive theory of structure as an individual constraint due to social location within a community (grid), and incorporation as the unity among community members (group).

Luckily for me, coding is an analytic technique that serves both holistic and categorical ends. Meaningful categories and pools of meaning (Coffey and Atkinson, p. 31, citing Marton, 1986) can both be determined from the dual nature of quotations and notes. That is, data have two contexts and these circle each other hermeneutically. There is the holistic context that directs the data’s intended meaning, say in response to an interviewer (e.g., accounting or an exchange at a meeting as discursive practice or
familiar cultural forms within the interpretive limitations allowed by the discourse-in-practice). And there is the categorical context determined by the data (e.g., an interpretation on the part of the interviewer related to the participant’s intent).

**Narrative coding as holistic technique**

According to Feldman (1995, p. 8), “The ethnomethodologist’s primary focus is on how the norms of a society are developed, maintained, and changed rather than on what those norms are,” her use of norm (p. 20) as “implicated in the ongoing creation of meaning rather than constructs that determine behavior,” coinciding with that of Carspecken (1996). That makes narrative analysis a good fit for ethnomethodological purposes because it connects data to an originating context, grounding the narratives constructed from and presented by that data. So the narrative, per se, is not the focus, but a way to find and gain access to the cultural norms for making narratives, a sort of reverse engineering or perhaps the path to the root when the accomplished blossom is presented.

And if some narrative is assembled on a shifting platform of dynamic norms, then how does one go about the deconstruction of that narrative in order to discover those norms and investigate their contributions to an ethnomethodological understanding of the narrator’s community? Riessman (1993, p. 19, citing Burke, 1945) invokes a concept of “dramatism,” and Bridger and Maines (1998, p. 321, citing Ricoeur, 1984) take the similar tack of “emplotment” where “…events are placed in significant relationships to one another and lifted above the level of mere succession …they take on meaning to the extent that they contribute to the development of the plot.” Thus, when a tale unfolds, perhaps in multiple versions by various individuals and groups in the course of being interviewed and observed at meetings, the researcher must tag the plot elements, sometimes again and again. Doing so involves the separation of events, sequence, characters (identified as systemic or cultural agents), and the motives imputed to them (disruptive or acceptable) in order to shed light on their relationship to the cultural process being studied.
Holistic codes derived through narrative analysis

Within the sustainability committee, there was an organizing principle that appeared systemic, and very much in keeping with Rogers’ (1962) diffusion of innovation patterns, yet laid out as an orderly dissemination rather than as diffusion. These committee members were innovators acting within a larger community of innovators and, having identified their beliefs, they were prepared to act on those (that preparation and fulfillment representing the difference between conceptualization and belief, according to Bain, 1868, p. 372).

What was difficult to parse was when the committee, or even its individual members were responding to what they saw as the architecture profession’s (and therefore its accrediting agency’s) embrace of sustainable practices, and when they were satisfying their ethical imperative as a shared vision in order to confront an inevitably global crisis. In the first case, they were preparing both the students and the department to succeed at a defined assessment. In the latter, they were acting on their beliefs as to what responsibilities architects should be prepared to shoulder as ethical consequences of their expertise.

Much of the remainder of this committee’s activities were more overtly systemic in intent:

- increasing the universal awareness of others with regard to the committee, presenting the appearance of an established presence both within the department and in its institutional relationships (Partnering, grants) and web site connections beyond departmental boundaries, planning for a symposium with recognized speakers as a way of generating interest and dialog at the institutional level
- anticipation of faculty diffidence with regard to incorporating sustainability in their courses (warranted by some of the committee’s recollection of the previous subject matter introduction process for digital production), distribution throughout the department of suggestions for how
sustainability pervasiveness in the curriculum could occur, identifying possible areas of relevance to sustainability in each course, and provision for faculty training.

As a result, one can envision an axis of origin and direction being applied to this open coding, with the origin being either systemically considerate (as with institutional publicity) or culturally considerate (as with faculty hesitancy), and the direction of intent being systemic for both. (Please note that the plot elements for these narratives, as well as those for the curriculum committee meetings and the individual interviews will be attended to more closely in the discussion chapter.) This is not to say that if the consideration or intent is discussed as being systemic that it is entirely systemic and without cultural aspects. Instead, what this coding represents is that, if a consideration or intent can be defined as a rule, then it is predominantly systemic, and if it needs the more permeable boundaries of a norm then it is predominantly cultural.

That noted, the curriculum committee was dealing with the dissonance from a cultural consideration and intent competing for precedence with those of a systemic nature. The narrative was one of frustration at dealing with the tile puzzle represented by the curriculum as having too many tiles to allow a solution. Here the systemic and cultural aspects of the situation were not reflective, but distorting.

One systemic consideration centered on dealing with a NAAB concern before it became a problem, as in specifying the location in the curriculum of the NAAB student performance criterion for comprehensive design, being the ability to coordinate all the structure, functions, and behaviors for a building (this was also the case with sustainable design, but comprehensive design was the focus chosen in this committee). Culturally, this had never been an obstacle before; if another course were needed, then add one. However, another systemic consideration intervened, in that the university would not allow the program more credit hours to allot to another course.

Stepping down in legitimization from the level of devoted course to an appearance in course content, the subject matter of comprehensive design now searched for a home in an existing course. How
was the committee to know which courses had enough room and compatible subject matter that would make them likely recipients of comprehensive design?

From the viewpoint of an instructional designer, this step of retrieving the learning objectives and modules and course planning for review would be deemed systemically trivial. After all, had there not been an assignment of objectives to each course in preparation for the last NAAB visit?

In fact, the objectives that were actually presented to NAAB were sufficient for NAAB’s purposes but otherwise ill defined and representative of an often grudging acquiescence on the part of the faculty to departmental nagging. For a culture in which a learning objective-resistant course such as studio is the most significant portion of the curriculum and for which objectives have little importance or even meaning for other courses anyway, the process of curriculum modification reached a rapid termination for lack of these objectives and needed to find another direction.

Again, this is not an advertisement for the writing of learning objectives. What maybe should have been evident from the faculty’s dissatisfaction with the systemic task of writing objectives is that the search for another direction regarding curriculum modification needed to start then or before, but my intent here is to describe and not to prescribe. Therefore, my description of the curriculum committee’s narrative is one of a succession of disconnects, where neither systemic nor cultural considerations can be aligned with either systemic or cultural intents.

Coding for this narrative requires an alternative to alignment, as in confrontation or evasion. The latter of these two is likely, even given the impending institutional accreditation conditions that also require objectives. There are just some larger narratives in play that involve the university’s acceptance of architecture as different from the hard sciences and social sciences. As one of the participants told me in a personal conversation following an interview, the promotion and tenure committee members from outside the department accept that they are not familiar with what constitutes evidence of worthiness in architecture, and defer to the explanations and decisions made there. Another participant was confident that, just as objectives had been prepared for NAAB, they could be prepared for other accreditations.
Turning now to the interviews, these were so short that narratives were not easy to come by without piecing together bits from several individuals, and I feel that categorical coding provided much more insight regarding this data. That noted, there were some items of narrative interest, with the Solar Decathlon being raised frequently.

Whatever the initial consideration was for entering the United States Department of Energy’s Solar Decathlon international competition, the cultural soreness of talking about that event was still too great to reach that far back. Apparently, the cultural intent of recognition for this community was not realized in proportion to the investment of its faculty and student resources. And the systemic intent of university funding for this effort and similar future efforts was not forthcoming either. So there was a general malaise and distaste among the faculty for not only the disappointment of individual due they felt their colleagues deserved, but furthermore of not realizing the publicity opportunity for the department as a whole after having done the praiseworthy job of entering, preparing, and placing well in the competition. This directly affected the momentum of curriculum modification related to this project and others like it being considered worthy of studio.

The other narrative item is really also the lack of a reaction. I deal with this further in the discussion chapter, but it just struck me so profoundly, that I think it bears repeating briefly because I was certain that this would be the source of some holistic codes and I was disappointed. First, the design pedagogy in studio with which I am familiar is reactive: the student presents and the critic responds. Secondly, the participants were all familiar with that pedagogy. Imagine my surprise when I got quick nods of assent every time I presented the legitimization model. Furthermore, I was able to elicit only two curriculum modification examples out of sixteen interviews,

- In one case there was an elimination of an art history course as well as some other changes to accommodate a semester abroad requirement for all students, and the introduction of a building technology studio (no one else referred to this particular rearrangement).
• In the other there was an offering of special courses for digital production techniques, done as teaching overloads for the instructors and probably a credit overload or elective for the students. Unfortunately, coding the lack of a response is more open to interpretation than I care to allow.

**Categorical coding**

Categorical coding without some technique for continually reducing the data is basically the counterproductive open coding of everything. So the first question in categorical coding is how to distinguish between what to keep and what to eliminate, in a manner that can be justified later. As Baptiste (2001) allows, I was open coding all the way through collection by setting aside text snippets and making diagrams, fracturing and recombining data (Strauss & Corbin, 1998, pp. 223-229) as I completed each collection session.

Then, when data collection had essentially ended, I compiled what Coffey and Atkinson (1996, pp. 31-32, citing Miles & Huberman, 1994) call a “start list,” ironically in this case, from the recombined data in the snippets. This was tedious, but not as difficult as if the interviews had been entirely unstructured or if the committees had adopted broader agendas. As it was, the struggles of the curriculum committee in attempting modifications and the legitimization dissemination being planned by the sustainability committee were directly related to one another and to the questions in the interviews.

At this point, I had some concerns that the ongoing data reduction, while tenable, had been too rigorous. So I determined to be more inclusive in the horizontalization (Moustakas, 1994) with regard to necessary and sufficient representations of the legitimization process. This was not rewarded with a great expansion, and I attribute that to the categories being mostly analyst-constructed (Rossman & Rallis, 2003, p. 283) and without the benefit of indigenous input that I had hoped to receive as reactions to my presentation of the legitimization process.
Categorical codes used

I will keep this list short because it will be combined with another in order to produce the axial codes with which I will close this chapter. And, of course, they will all be on ample display in the discussion chapter. In any event, there were two inclusions that I had not anticipated when I commenced the study:

- departmental identity vis-à-vis other departments of architecture
- faculty training needed for those not yet expert in sustainability (which was also a holistic code derived from narratives)

And the rest should be no surprise:

- sustainability’s location in a legitimization path
- systemic influence on the curriculum
- cultural influence on the curriculum
- the role of studio in the stasis of the curriculum

Maintaining the attractively parsimonious scheme of system and culture as being mutually reflective, it is reasonable to conclude with the permutations of, on the one hand, influence or consideration of one of those aspects versus intended events on the other hand. This leads to four additional axial codes regarding legitimization and curriculum modification that should be used to qualify each of the previous codes where applicable (e.g., “cultural in origin, cultural in intent” is not applicable to “systemic influence on the curriculum,” obviously, so there are limits):

- systemic in origin, systemic in intent
- systemic in origin, cultural in intent
- cultural in origin, cultural in intent
- cultural in origin, systemic in intent
Keeping in mind that parsimony, while attractive, can also be dangerously seductive, this expedient acts in the manner of the precepts used in this culture: a sorter and not a stringent gatekeeper. It does not limit the richness of themes or extent of the themes to be elaborated in the discussion chapter.

**Corroboration of data gathered from various sources**

Did candidates for categorical codes support candidates for narrative codes? Although there was an overlap as expected, the two sets of codes were more complementary than coincidental, and there are reasons why:

- Categorical codes were associated primarily (although not exclusively) with the interviews, and interviews retained enough structure to guide me in searching for particular emphases, mostly those I had initiated.

- Narrative codes were more a product of the meetings and the ways that members (some interview participants and some not) interacted with each other when addressing immediate departmental issues, a context much less influenced by me as a researcher than the context of the interviews was. Thus, the interviews elicited responses or started conversations that began, at least, with a target of my choosing, while, regarding the meetings, narrative codes emerged without any activation on my part.

I hesitate to label the categorical interview codes as being somehow less emic in origin than those of the narratives, but I certainly intended the interviews to contribute directly to a presentation for etic audiences. The meetings, on the other hand, unfolded without any such underlying motive.

**Summary**

The study was located on a continuum anchored by narrative analysis and categorical coding. The application of each technique was described in the context of meeting observation and interview.
Results obtained from each source of data were abridged for exhibit here. Contributions to the discussion chapter were indicated.

Chapter summary

The argument for a culture obtaining in this department was made. Data sources, types, and collection procedures were explicated. And the coding procedures used for analyses were presented along with a digest of the results.

Several points were raised that will be dealt with in more detail throughout the discussion chapter. These included:

- a possible scenario for the culture as undergoing a perspective transformation in the face of a disorienting dilemma
- an unanticipated contribution of studio to legitimization
- efforts in the committees to address accreditation concerns
- reconstructive analyses and member checking
- ethnomethodological events such as the short lived Core and the impending reorganization
Chapter 5

Discussion

Chapter abstract

In this chapter I discuss my interpretation of the data related to the analysis results reported in the previous chapter. That includes how the culture in this study dealt with legitimization and sustainability, and how legitimization played out for other subject matter. The latter provides examples of a studio property alluded to in the analysis chapter.

Following that I develop the cultural and systemic themes of legitimization. These themes have to do with the culture’s defense of and resort to the precepts that were previously discussed, and two approaches to legitimization that are culturally and systemically allowable but that can conflict when practiced concurrently. Related to these themes, implications for the culture and system relationship are assayed briefly.

My attempt at a member check and the allowance for other interpretations of this data lead into the last section. At this point the case for the culture undergoing a perspective transformation in the face of a disorienting dilemma is reviewed as the conclusion.

As the final point in this abstract, I offer a bookkeeping note: whenever the term “objective” is used without any other qualification in this chapter, it refers to a learning objective. It is no more than an instructional systems orientation.
Interpretations

Epigraph

This is the best part of the trip, this is the trip, the best part – I really like…(Morrison, 1969).

Introduction

This section begins with how the interviews and observations went. The reconstructive analysis is intended to support the trustworthiness of the interpretations that follow.

The legitimization and sustainability concepts that were gathered from participants are arrayed. This is no more than an open coding, but serves to demonstrate the stage of legitimization at which sustainability resides in this culture.

Studio, as a curriculum filter, is then treated via the example of accessibility. That subject matter was chosen for comparison to sustainability here because that relationship has been retained throughout the previous chapters.

Reconstructive analysis

I transition here from the previous chapter on analysis with, oddly, an analysis (that is, an interpretative one, as well). It belongs in this chapter, and not the previous one, because this interpretation is one of the first I had the opportunity to make and it is crucial to the trustworthiness of all the other interpretations I have to offer.

While constructing the primary “thick” record (Carspecken, 1996, p. 45), I employed little discrimination in what might or might not be of interest to the study, because there simply was not
enough time to both grab it all and make evaluations of it, too. As a result I was obliged to perform a reconstructive analysis later (pp. 93-139), “produced by putting words on meanings that might be read from the timing, tone, gestures, and postures of each act” and proposing the range of possible meanings as a “meaning field” (p. 98) for each act (cf. Coffey & Atkinson, 1996, p. 31 “pool of meaning” as the context to which a quotation belongs, as opposed to that from which it was taken). I want to establish that this culture’s members enabled me to estimate the width and depth of those fields and pools (and, from an ethnomethodological perspective, to sense when those meanings were violated).

Riessman (1993, p. 21, citing Halliday, 1973) relates three interdependencies of language: ideational function, textual behavior, interpersonal contextual structure. Ideational context has been dealt with in this study as the relationship between discourse-in-practice and discursive practice, and textual behavior of how something was said is presented in the quotations that are used. But it is the interpersonal contextual structure, “the roles of speaker and listener” that starts the discussion of this study.

First, I did not get the impression that any participant was ill at ease, during either the interviews or observations. A community of members who regularly conduct research probably was not disconcerted to any extent by me as doing so in its midst and as a colleague. That noted, there actually was a difference between how those participants on the tenure track began an interview, and how tenured participants did. At the start of an interview, those pursuing tenure weighed their responses with an air of careful gravity, as if on the witness stand. Whether that was due to anxiety about confidentiality or to a desire for maximizing accuracy, it always transitioned rapidly to a relaxed conversational manner.

In addition, there was an intellectual curiosity at interviews that was common across all participants. Frequently, I was asked about the purpose of the study, the research methods being used, or to describe instructional systems in general. Again, once participants had checked those mental boxes, and then accepted that I would protect confidentiality in a responsible manner, there was more concern
regarding the mechanics of the study (e.g., how much time was actually going to be involved for participation) than for any construal of possibly related threats.

How do I know that those boxes were checked? Two interview participants did request that I turn off the digital recorder at intervals, but each then proceeded to tell me the stories that they felt were necessary to answer my questions. For months after their interviews, some volunteered data “off the record” that were of interest to the study, but which, alas, cannot be repeated either. I took those actions to be tokens of trust.

This mutual trust was also the case with my observations of meetings. In fact, once curriculum committee members read the minutes that I was writing in far too great detail for that purpose alone, it became a running joke at meetings for someone to turn to me and ask, “Did you get that down?” Of course, what committee members saw as being omitted from the minutes was extraneous chatter to the effect that this or that requirement or person was nuts or stupid, and that editing might have helped to dissipate any residual discomfort about spontaneity on their parts.

Legitimization

A tactic to which I will resort throughout this chapter is to frame concepts in terms of presentation and reaction, the dialectic that Schön (1992) operationalizes as “seeing-moving-seeing,” except that he describes it in a reflective sense. In this culture, it is also used as a reactive method of pedagogy, especially in studio, and I find that it serves to explain the claims to appropriateness of certain behaviors (“normative-evaluative” claims, according to Carspecken, 1996, p. 104). So if a student presenting a design to a critic does not present strong enough evidence of a narrative or purposeful organization to the design, then the critic will react by imposing a narrative of his or her own in order to make sense of the design and to offer feedback based on that interpretation. Having not seen sufficiently
from point of view provided by the student, the critic moves the point of view to one that allows a
different vista.

I suspect that this was the case with the interviews: participants framed their own conceptions of
the study in order to make sense of the questions I was asking, providing their own vistas in lieu of the
etic instructional systems metaphors that I offered. Some thought the study to be focussed on
sustainability, others that I was seeking the model for an ideal curriculum modification process. (Support
for my suspicion is provided in the member check section at the end of this chapter.)

Indeed, a legitimization process seemed of so little controversy to participants that they accepted
the definition I offered without apparent second thoughts. An alternative interpretation is that
legitimization was of so little interest that it was dismissed out of hand, but that would have been difficult
to distinguish from the other. Anyway, it seemed that when I was talking about legitimization I was
stating either the obvious or the trivial (or maybe the distasteful). Thus, overall curriculum content and
modification either for its own sake in general, or as it actually existed and was practiced in this culture
when necessary, just was not provocative enough of a chore for participants to notice, simply not worth
one’s time to debate. Any day-to-day contact with such a process lay permanently under the cultural
radar.

What conditions allowed such a cultural laxity toward processes for legitimization of subject
matter and for curriculum modification? Returning to Wenger (1999) and the characteristics of a
community of practice, there are two of these characteristics that clearly do not apply to the manufacture
and maintenance of norms in this culture for legitimization and curriculum modification as group
activities: engagement and shared repertoire.

Regarding engagement with the curriculum, there currently is no easy way to analyze what
content is associated with which courses. That is, the limits of such an analysis are quickly reached once
the course’s responsibility to generate evidence for certain NAAB criteria is known and the year level of
students taking the course is assigned.
In the first case, this involves the distribution of externally imposed systemic requirements throughout the curriculum in order to produce the matrix that guides visitors from NAAB to particular courses (see Appendix A) as the primary sources of evidence. And, of course, what constitutes acceptable evidence is also defined externally to the culture.

In the second case, that of year level, I refer the reader to what I have labeled as the precepts in the analysis chapter as summarized in Table 4-1, and which I recapitulate here as:

- first year introduction to design in general
- second year focus on architectural design of a building
- third year relationships among a building, its systems, and its site
- fourth year building design in a dense, urban context
- fifth year investigation and design conducted independently by a student

I will be returning to these precepts and their use in more depth as this chapter progresses. But for here I think it sufficient to note that these are the categories by which courses are sorted. Unfortunately, there is no appreciable elaboration, beyond sorting by year-level, to be gained from data sources other than face-to-face interviews with instructors. Even perusing the syllabi (as was done during the extant data portion of my analysis for this study, for which see the analysis chapter preceding) for the courses in this culture’s curriculum is not helpful.

Individually, there is certainly engagement of faculty with the courses they teach. Again, this is a reputable program and it could not be so otherwise. But once the year-level sorting is done and the NAAB criteria are assigned, further engagement in the curriculum as a cultural or group activity is negligible. The result from this is what I watched in the curriculum committee meetings while committee members searched for the pretense of a norm without benefit of a reference point (what content might belong in each course) or direction (how to determine where new subject matter should be located).
Even so, the reader might ask if the curriculum committee were not engaged with the curriculum as a group, albeit one struggling for orientation. Instead, I think that this committee’s attempts at engagement are something of a novelty. And I am led this way because the interview responses skirted descriptions of a process involving engagement. Furthermore, there is an explanation for this manner of response: sorting by the precepts was mistaken by the culture for a comprehensive process of curriculum modification.

That is, in the manner of a synecdoche, the portion was perceived as the whole. Sorting was seen as modification, and room for accretion of more credits was a given, without the need for a norm enabling comparison of courses and subject matter for retention or discarding. The difference now is that there are persistent (as opposed to temporary, as intended systemically) special course overloads for instructors and students that tax the limits of the resources available, and proposed NAAB requirements are threatening to encroach on those even further. Now a norm might be needed to address such conditions.

Perpetuating special courses is the result of weighing the ease of cultural default at making complex norms on one hand against acceding to systemic procedures for legitimization on the other. If systemic legitimization of subject matter (as with NAAB introduced requirements) means providing permanent courses and there are no resources to be devoted in a permanent fashion (curriculum location, teaching assignments), then the satisficing work-around is to maintain special courses in their limbo, rather than expending cultural resources in manufacturing norms or upsetting existing norms in other contexts. This is not, then, an arbitrary direction taken to favor a lazy status quo, but rather an allocation of priorities for attention: the core, NAAB visits, reorganization, all of those are distractors from the cultivation of norms and possible alignment with systemically institutional policies. It is not at all a case of “if it ain’t broke, don’t fix it.” Instead, it is one of maintaining that less problematic stasis while more pressing problems are dealt with first.
From the condition of engagement, one can derive that there has been little shared repertoire in this culture when conducting legitimization or curriculum modification. And one explanation for that is it is easier to default to even a skeletal suggestion of systemic rules and weak norms that still allow the culture to function than it is to devote attention and resources to making complex norms. As I remarked in the literature review chapter, the cultural aspect of the joint enterprise in this department is to provide students access to a collocation of architectural scholars, but not to plan the itineraries for students and then punch their tickets.

We don’t talk about content of the curriculum anywhere. We don’t have any evidence of it, and it’s been very challenging because there’s, I think, little accountability to people’s actions to get the basic information you need, such as, “What exactly do you teach in that class?” People won’t self-report… nobody has the time allotted to them to go and ask everyone what the content is and then put it together; you just simply don’t have that (Interview with B, October 2008).

It must be noted here that my interpretation of these conditions is not intended to establish a cause and effect relationship between them and any preceding or ensuing ones. But there are correspondences that can be scrutinized. One of these is that, hand in hand with this laxity of process is the lack of a departmental identity relating to curriculum. Such an identity would justify the decisions made in the curriculum modification process (and enabling subject matter legitimization to progress), and, in turn, be reproduced from the resulting curriculum’s attraction to faculty who desire to be associated with that identity.

NAAB requirements grow, and as new innovations happen, in an industry and in a profession, that there’s going to be less and less room in the curriculum to include them, unless we give something up; and the question is, “What do you give up?” and what you keep has everything to do with what faculty you have (Interview with C, October, 2008).

Instead, what has developed in this department with regard to individual faculty and curricular structure can be approximated with Douglas’ (1999) grid and group dimensions. Consider two perpendicular axes: one axis represents incorporation of an individual into a culture, and it is anchored by weak or loose incorporation at one end versus strong well defined incorporation at the other; the other
axis stands for a cultural structure, in this case curriculum, and it is anchored by weak or suggestive structure at one end and complex explicit structure at the other. Thus there are four quadrants:

- individuals strongly incorporated in a complex structure tend toward a hierarchical group
- individuals strongly incorporated into a weak structure tend toward an egalitarian group
- individuals weakly incorporated into a complex structure tend toward isolation
- individuals weakly incorporated into a weak structure tend toward competition

When the cultural default to sorting was adequate to function as curriculum modification, the perception in the cultural was that a complex structure existed. But it appears that individuals were never strongly incorporated into the culture, or at least have not been recently. That left isolation of the individual, and that is what interview data supported.

A lot of departments in architecture specialize or they have a very distinct attitude towards one part of architecture or another, and [this university] is more driven by individual faculty members and work, rather than specific dogmas and manifests that are departmental…the problem of [this university] in architecture is pretty much the celebration, if you will, of the individual…they often say there is very little planning in the curriculum because it is very strong on the individual (Interview with D, October, 2008).

Our program is really very much about, “What do you know? What do you want to contribute?” there’s no overarching direction, like, “I’m going to give you five hundred dollars to go to this conference to learn more about it and then integrate it into your studio,” that tends not to be the way we work here (Interview with E, November, 2008).

However, what had been isolation has drifted into competition for subject matter because the credit hours are not available to afford isolation any longer. This became apparent when what had been perceived as a complex structure of curriculum modification was revealed as a weak one, relying on the sorting precepts and assuming indefinite accretion of credit hours. I will return to this when I discuss the inadvertent competition of the curriculum committee and the sustainability committee.

To reiterate, the problematic result of this laxity of process is an overburdened curriculum to which special courses of indefinite endurance have been joined without removal. How does this affect legitimization of innovative subject matter? The longevity of these not-so-special courses stultifies the
advance of legitimization for their subject matter and strains the resources of available faculty time for instruction (similar in some respects to the 1992 situation before content was removed from the studios in order to reduce the contact hours spent there) and student credit hours for being instructed.

We discussed that today [in the sustainability meeting], the credits: do we add credits? I’m sure we don’t. The other question was what are the electives? We had this discussion today: is an elective an elective when it is a forced elective? I’m actually not sure that we should have an elective there. I think it, it must be requirement, so, that’s for sure a problem (Interview with F, November, 2008).

Obstacles [to legitimization of sustainability] might mean if you swap in a module of a topic, that means something else has to go, and how do you negotiate that?…I mean, curriculum always falls into this habit of any closet, you add and add and add and add, and no one ever empties out a closet. So we keep piling I stuff that’s important to a curriculum, and it’s really tough to edit it out or take stuff away. That’s a roadblock (Interview with G, November, 2008).

The obstacles [to legitimization of sustainability] are how tight our curriculum is, and how tight our teaching resources are…we have 162 credits; we wish we had 262 credits. So, if we want to put more sustainable design strategies or content in there we have to revamp some of the content of existing classes probably, or substitute some (Interview with A, November, 2008).

We have a problem [with the curriculum]: it’s that, you know you play those games where you move the little square around, you have one empty square, you try to rearrange the tiles? Well, we don’t have an empty square, but we’re still trying to move the tiles around (Interview with E, October 2008)

**Sustainability**

My characterization of sustainability as being at the stage of legitimization wherein its names and boundaries are being negotiated was more accurate than I had supposed. I did not expect the breadth of the range of definitional inclusivity across participants. This could be a hindrance to sustainability’s legitimization if it remains too broadly defined while other even better-defined subject matter cannot be located (as is the case with comprehensive design, and that story will also be related in this chapter).

The interview data presented in this section supports my argument that this subject matter is at the primary state of legitimization where its definition is being contested, and possibly headed for
division and sorting (although not necessarily by year-level at this time). But if subject matter is not brought along to the sorting stage, as when its meaning is retained indefinitely to be contested by individuals and not resolved by the faculty as a whole, then does its presence in special courses qualify as hard or soft curriculum (Behar, 1994)? Does that subject matter in limbo then contribute to explicit or implicit curriculum (Eisner, 2002)? The answer to that is to propose another phenomenon, that of probabilistic subject matter orbiting the explicit curriculum and having similar cognitive, psycho-motor, and affective dimensions to it, but for which neither a position in the explicit curriculum nor direction toward legitimization can be predicted.

Were the reader to review the taxonomy of curricula provided in the literature review chapter, it would prove a difficult exercise afterward to pin down what sort of curriculum this department offers. And this is because the culture within the department has allowed the default pretense of the precepts to be perceived as comprehensive curriculum modification norms. The result of this default to sorting rather than assessing and evaluating is somewhat indiscreet admittance of subject matter to the orbiting phase around the explicit curriculum on the basis of individual faculty interests. This is not unusual in and of itself, of course, in academia; the unusual trait to this default norm is that it has allowed continual accretion with no resolution. Systemically, that curricular structure is on track for a breakdown when the nucleus of the explicit curriculum and the orbital shells are filled and additional innovative subject matter is desired or required.

I have grouped participant responses to the interview prompt about defining sustainability in order to show its orbital location in this department’s curriculum. While there is some overlapping between categories (some participants argued both sides of a contested aspect), my intent is to demonstrate the range of definitions in the contested stage of legitimization at which sustainability is currently hovering.

Starting with the two areas of designer understanding and design performance, it is possible to separate individual approaches within each of these. Under the heading of designer understanding,
interview responses about defining sustainability indicated an influence on students’ affective tendencies when learning to design. Design performance is more systemically straightforward: the design product as built form can be measured along dimensions that are posited to represent sustainability.

Turning first to the nurturing of affect in students as novice designers, there was a caveat in the responses that spoke to the cyclical popularity of sustainability. That is, there seemed to me during the interviews that these responses carried implied warnings against wholesale emotional investment in subject matter that was now at a peak, but that had been seen previously to ebb and flow. Note that these responses specifically refer to the indeterminate nature of sustainability’s naming and terminology:

I remember building houses out of tires when I was in school…professors were building houses out of tires, and the word “sustainable,” I don’t even think it was ever out there, but sort of environmentally conscious (Interview with H, November, 2008).

It’s an old story and it repeats itself in cycles… twenty-five years ago, at that time it was not called sustainability; it was called solar architecture or passive solar…that’s what sustainability means: minimizing and recycling, if you will, or reuse (Interview with D, October, 2008).

I lived through the first sort of heyday of solar design and solar architecture, so that was kind of late 70s, mid-to-late 70s. I do think that there’s part of the kind of sustainability or green architecture movement that’s been happening over the last roughly ten years that sort of has repeated some of the things that were done in the late 70s, with passive solar energy use (Interview with H, October, 2008).

Opposite to these were the responses from participants who certainly recognized the cycles of popularity regarding sustainability that had occurred in the past. But these participants were convinced of the worthiness of this subject matter enough to try again at finding it some permanent location in architectural design education:

Sustainability’s also the quality of the building; if it’s just an ugly, indifferent building, no matter how many sustainable features it had, nobody’s going to keep it around. It’s not sustainable because it’s ugly and indifferent. So there has to be a coordination between the social end of it, the aesthetic end of it, the psychological end of it, and the environmental technology end. These all have to go together, just like nature does. Nature makes beautiful flowers for a very specific reason: they work in the system, and the attraction of one species to another, all these things, and you can see how nature works. So, basically, architecture has to work the same way; you can’t have a sustainable practice without the element of art and social concern and adaptability and change and
all of these things. So these are the things I think that students have to know (Interview with J, November, 2008).

Another version of this view involved a recognition of sustainability as being fundamental either to a particular culture (such as this department), or to society at large as when one participant said, “Sustainability is a moral, cultural value,” (Interview with C, October, 2008). There is a semblance of solidity and definitiveness to the stance, but it is not linked to a way for tracing where the norms to support such a value have their origins or how those norms are assembled and reproduced.

How did responses related to performance of a design differ from those that were affectively based? Performance based responses, while not exactly prescriptive, were more specific about what sustainability’s list of ingredients. Participants giving these responses felt it necessary (if not entirely sufficient) to include something specific in a design process or to be able to measure some property of the actual built form, either during its construction or in use, in order to tag the performance as sustainable. The first of these focuses on use of indigenous materials and consideration of site specific climates:

Looking at simple things like the context, the orientation, the landscape, the topography, and then materials, spatial organization, I think all of those things have to work together in a meaningful way to make a building truly sustainable (Interview with K, October, 2008).

One component is a balanced environment, and perhaps that’s the main component. So I focus very much in my course on reading the environment, and relating the design to the environment; that’s actually my main focus in this chapter of sustainability in my course (Interview with F, November, 2008).

It’s an architecture that uses nature as its source of energy, rather than a machine. How about that? (Interview with L, October, 2008).

As I expected, several participants attached energy conservation to their responses. The expenditure of fossil fuels as a limited resource was a pervasive and pronounced issue in global society at the time of this study, but was applied here to means and methods of construction and performance of the constructed form:
Long before sustainability I was interested in energy conservation and integrated design, and basically that’s the definition of sustainability today. Sustainability, in my mind, is architecture that does not unnecessarily deplete our natural resources. I can’t guarantee you that it doesn’t take any of it, but you should take all the unnecessary components out of it, and perhaps put something back in an alternative form (such as solar or green roofs or something) where we are offering some replacement value (Interview with M, October, 2008).

I’ve always seen sustainability as related very closely to the word “efficiency,” so I don’t think that it’s too much different than “form follows function,” and it’s certainly not unique from the idea that…we talk about carbon footprints now, but in our era we were talking about consumption of energy, whether it was kilowatt-hours or BTU-hours or whatever it was, you were concerned about how many of these your building was consuming. So, in a way, I don’t see that there’s a great deal of difference (Interview with N, November, 2008).

I think it has to do with conservation of resources and thinking of life cycles of buildings and energy use, so it’s life cycles. I mean, my major interest in it has to do with materials and adaptation-reuse of buildings (Interview with A, November, 2008).

In an overall sense it means that you are not consuming more resources than you can renew. The translation from the German would be the ecological accounting of things, but it’s also your presence in the world. So part of that is your mindfulness about what goes on around you, and your awareness of the connections of both yourself to the environment and your impact on the environment (Interview with B, October, 2008).

What we consider architecture-with-a-capital-A is something that always goes beyond the most basic of engineered solutions because it has to titillate our minds, and that process of titillation always has to deal with excess, there’s something there that is beyond the minimum (if you define excess as that). So, given the topic of sustainability, it’s a bit of a contradiction in terms, it’s a bit of an oxymoron, if you will, in that really the best we can hope for is minimal, and to minimize the impact. Doing nothing is the best that one could do, so to do anything one can only hope to minimize the impact (Interview with E, October, 2008).

Some definitions of sustainability crossed over between affective and performance. Examples of this involve ambiguity in the poetical sense of being unable to distinguish the designer from the design:

My definition would be an understanding and then an ability to understand and react, work within the existing environment context and adapt to change for the future (Interview with O, October, 2008).

I do prefer the term “resilient” to “sustainable”…as a piano player, the sustain pedal would continue the same note; and I understand from the position of an urban environment we’d like to sustain a fact that we have world cities, right? For me, resilient feeds into the systems theory and complexity relationship better because it allows for adaptation and that flux and change that is absolutely part of that dynamic (Interview with G, November, 2008).
Another participant was careful to touch all the bases in an attempt at being comprehensive without committing too strongly to any one aspect:

Part of the working definition that I have is what I would say is sort of the conventional definition bandied about in the literature and the schools and, and in the profession these days, which involves, really looking at the environment broadly, the environmental impacts of building construction and operation and maintenance. So things like energy consumption are obviously a big part, environmental impacts indoor and outdoors. So things like environmental pollution and indoor air quality, as well as any discernable impacts on the local environment from the construction of a particular building…the impacts of selection of building materials in construction processes, so things like locally made materials versus materials imported from great distances, recycling content of materials or recycled content, and recycling building waste, designing so as to maximize the use of things like daylighting, natural ventilation…trying to minimize energy consumption; looking at life-cycle cost of the building I think is really important, what strategies or choices of equipment or systems save money in the long run, even though they may have initial higher first cost (Interview with I, November, 2008).

Finally, there was a response that spoke directly to the state of contested meaning. Clearly this participant did not believe that the issue of sustainability’s definition was anywhere near being settled:

It’s an empty word because it means anything and everything. It’s a buzzword (Interview with H, November, 2008).

To summarize from this list, the sum of the interview responses would make an indiscriminately inclusive and permeable definition shepherding a variegated collection of sometimes overlapping components as its interior. A question that arises in the face of this is one of how the culture chooses what to present as evidence of sustainability to an accrediting agency, without having the boundaries in its discourse from which the norm may be applied contextually? Or, to put it another way, if the discourse allows so much to be considered as sustainability, then what is not allowable? Can this norm be upset ethnomethodoligically, whether by this study or otherwise, if no end is recognized as being up? To put this another way, if legitimization is a process that advances in a social context (symbolic interactionism as Blumer, 1969, phrased it) where in this culture is that social context provided, if indeed it is provided at all?
Comparison of legitimization paths for other subject matter

Keeping in mind that sustainability was one of several possible subject matter choices to serve as this study’s vehicle, it is appropriate here to touch on similar concerns and intents for the legitimization of two other topics, digital production and accessibility, and the varying degrees of legitimization success with which those met. The idea is to elaborate the ways that legitimization can be realized or stunted in this culture and how the norms for doing that are applied.

Digital production followed a legitimization path from special course to integration into studio that was concurrent with NAAB Student Performance Criterion 3 Graphics Skills: “Ability to use appropriate representational media, including freehand drawing and computer technology, to convey essential formal elements at each stage of the programming and design process,” (NAAB, 2004). As one participant said, when comparing the current acceptance of digital production with the potential for that of sustainability:

As you can see know…years later, it’s pervasive in the department and it happened because it was successful; I mean, people started accepting this as, as a student could work using computers …what I’m saying is the best way to do it is one group of people develops it, or one person, [the sustainability committee] develops a curriculum, [sustainability committee members] members implement it by taking the risk, if you will, of implementing it, and by doing good work in their own courses or in special courses that we offer externally to the curriculum, students taking it, using it, the knowledge, right? And then it becomes implemented in other courses, and it becomes pervasive, and it happens because students…[trails off, implying students impel or support the change] (Interview with D, October, 2008)

But digital production is a technology that enables design representations, not informing them directly. As such, it is on a par with lead holders or technical pens, albeit grossly more sophisticated and expensive with regard to initial purchase, associated peripherals, continual maintenance, revision, and so on. What I mean by that is to say there are more differences of kind between digital production and sustainability than there are between accessibility and sustainability.

Sure, technological affordances of representation affect a design and so have an enabling or disabling sway, but not to the extent that they comprise the substance and an aim of the design, as
sustainability or sustainability can. However, digital production was introduced and maintained as a special course. Accessibility was not.

Evidence of studio adoption as a cultural test more rigorous than the precepts

On the other hand, accessibility, although awarded its own NAAB Student Performance Criterion (as was sustainable design), turns out to be something of an anomaly in this culture. It is an example of subject matter that was directly imported into studio in order to satisfy NAAB, bypassing the special course avenue altogether. But it failed to progress in legitimization beyond that point.

From an instructional designer’s standpoint, my experience with accessibility’s status in this culture is embodied in an incident from the summer of 2007, during the preparation for the 2008 NAAB visit. The conditions for this story are as follows:

- there was a provisional approval given to the program during the 2005 NAAB visit
- the term of approval was for three years instead of the usual six, with the provision being that the conditions of concern to NAAB in 2005 would be addressed in time for another NAAB visit in 2008 to determine that sufficient corrections had been made (and that nothing else had worsened in the meantime) to warrant a full accreditation term of six years at that time
- evidence of accessibility’s incorporation in the coursework and students’ awareness of the importance of accessibility and their ability to include it in their design were concerns for NAAB in 2005

In the summer of 2007 there was a chance that the NAAB visit could be obviated if a convincing enough presentation of the department’s progress in addressing deficiencies were made by the department to NAAB in the meantime. So for several weeks that summer, a half dozen or so faculty and I were assembling evidence for this presentation, poring over the archives of drawings and models that had been accumulated (in part, for NAAB’s benefit; I had weighed the inclusion of these archives as extant
data for this study, but decided against it, based on this recollection). When it came time to glean the accessibility evidence, what we found was that students often had conflated iconography with design representation: the presence of pictograms showing a wheelchair and its turning radius on a plan indicated that the box for accessibility had been checked.

If I were to posit attitude toward accessibility as being descriptive of a culture and therefore a basis for an architectural theory regarding cultural expression through built form, then I would turn to Murphy and Alexander (2005, p. 48) for this evaluation of how the culture in this study addressed students’ naïve awareness and understanding of this subject matter:

When introducing potentially conflicting ideas, educators must remember that their students may well hold alternative viewpoints that they are not willing to abandon easily. There are several factors that teachers should consider when attempting to replace students’ naïve or inaccurate theories with more viable alternatives. Teachers must take care that the alternative theory is intelligible, plausible, and compelling. [emphasis in the original] First, educators must ask whether the theory they are offering will be comprehensible and intelligible to their students. Students are unlikely to accept a new theory they cannot understand. The theory must also be presented in language that is age-appropriate. Second, students should have ample opportunities to apply the new information in realistic situations. If they cannot apply the new theory, they are unlikely to accept it. The alternative theory should seem plausible or reasonable to the students based on their life experiences. Finally, in order for the new theory to be convincing or compelling, it needs to be sufficiently detailed and illustrated. Simply mentioning a theory and assuming it will be understood and accepted is pedagogically unwise.

An emphasis on contribution to every design was a legitimization measure by which instruction for accessibility was found deficient to promote student enthusiasm:

I think that people keep saying that, “Well, it’s not that one studio addresses sustainable design, it’s that every studio deals with sustainable design,” you do not design something unless you’re thinking about relationships of things … so that’s difficult though, because not all the faculty have expertise to be able to direct students that way. And it’s also difficult because that’s the model that we use to say, “It’s not that one course addresses accessibility, it’s that every course, every studio has to have accessible designs.” That’s fundamental: you don’t design anything in the world unless it’s accessible; so why would you say one course or this course or there, that other place, but every single design has to be accessible. Makes sense, but then we have tons of designs that aren’t accessible. I don’t know why that is. I guess ‘cause they’re [students] too busy talking about the design concepts and strategies and stuff and then it comes down to the wire and a student hasn’t progressed far enough, and the next thing you know…[trails off, but the implication is that the student ignored accessibility or paid it some minimally
iconographic lip service because it was too late to do anything else] (Interview with A, November, 2008)

So here is some evidence of an implicit measure being applied: criteria for indifference, if not rejection. What then are the cultural tests that accessibility failed? I propose that these are based on seductiveness, urgency, and design ownership, and I take them in order:

I think picking green or picking sustainability is an interesting choice because it certainly is sexier than accessibility but it’s therefore also more loaded. So people who are into sustainability tend to be a bit evangelical about it, and therefore will do more to make sure that it builds in. So they’ll teach more overload classes and they’ll work harder to get it in there than they would if it was simply something unpopular that was added in or not popular or neutral popular like accessibility; nobody dislikes accessibility, but nobody is really the universal design advocate (Interview with B, October, 2008).

With regard to urgency, if accessibility is related to the dignity of the individual (as one NAAB visitor noted in his address to the faculty before concluding the latest review in 2008), and sustainability is linked to the survival of humans as a species, clearly sustainability is more urgent:

We know that the building of human shelter uses more than half of the world’s resources, energy and natural resources, manufactured, everything; more than half of the world’s supply of everything is used in habitat; therefore we are part of the problem, our profession is part of the problem. What in your area of expertise are you doing to change this? (Interview with J, November, 2008).

Thirdly, there is the question of design ownership as the right to dispute definition and negotiate meaning. When this was obviated for accessibility by the ADAAG legislation, that meant there were accessibility rules and not norms. This decreased the interest for accessibility in the studio and in this culture, reducing it to the mentioning previously referred to in Murphy and Alexander (2005).

Accessibility is not as broad a term in some ways; when you think of accessibility it generally has to do with some sort of barriers in the environment, whether they be physical or some other perceived barrier…sustainability, the ability to sustain, can be applied to anything (Interview with O, October, 2008).

Accessibility, I would argue, is pretty clear in terms of the agenda of accessibility; I mean, that’s a lot clearer than sustainability (Interview with H, November, 2008).

Accessibility is really important, people kind of forget about it in design phase; whereas for a practicing architect, it’s now pretty straightforward that that’s because code requires it in every building (Interview with B, October, 2008).
Summary

The results of reconstructive analysis that started this section were crucial to this study and led off this section as well as the entire chapter in order to establish the tenor of the research participant relationship. This was shown to be a relaxed and informal one and those qualities were reflected in the responses received.

This was followed by the legitimization and sustainability concepts that were gathered from participants. And then the property of a studio as a default filter for curriculum because:

- permanent laboratory and lecture classes are not well defined and locations for new subject matter cannot be predicted for them
- special courses are really just indefinite extensions of the permanent curriculum, having similar undefined scope and indefinite longevity
- studios resist objectives, of the implicit kind that permanent and special courses probably actually have but do not disclose and the explicit kind that instructional systems would use to apply to all students in a course and consistently throughout a course’s duration

This property was demonstrated with the successful example of digital production and the unsuccessful example of accessibility.
Introduction

Themes derived from the analysis and relating to cultural and systemic processes of legitimization and curricular modification are presented. How the processes unfolded and came into conflict is described as an illustration of these themes.

Implications for the study and for the culture as a result of the researcher’s choice of these themes are given due attention. The researcher questions if a systemic interpretation can be made of the cultural processes as they now occur.

Crystallization

“What are we known for? Poetics and craft? Or meeting NAAB criteria?” (Curriculum committee meeting, October, 2008).

Returning here to the axial coding developed in the previous chapter, I posit two concurrent narratives regarding legitimization to be in play. One involves the cultural urge to generally enable the legitimization of subject matter, whatever subject matter that might happen to be at any given time. This urge is goaded systemically by NAAB with respect to specific subject matter now, and is in the hands of the curriculum committee. There is another cultural urge to impel the legitimization of particular subject matter, represented by the sustainability committee, and it is fueled primarily as an ethical issue within the culture as well as secondarily by the recognition that NAAB will soon be emphasizing this subject matter with more rigor (NAAB, 2008).
These urges are both being played out in a continuum that is anchored on one end by the resort to existing curricular precepts as platforms for subject matter accretion or assimilation. On the other end there is the likelihood of a wholesale curricular accommodation and cultural perspective transformation if the precepts prove untenable or inadequate for the cultural and systemic processes of legitimization and curriculum modification to continue.

Finally, there is the further complication stemming from a fractured cultural identity that has been fostered by the emphasis on diversity of individual expertise as a way of recruiting and retaining faculty. This generalist identity cannot be located by the faculty here with respect to overarching organizational schema for departmental cultures at other institutions, casting this department adrift from its peers, at least in their discourse. There was a continual reprise at committee meetings and faculty meetings that the program at, say, Yale is known for this, and Cornell’s does that.

The lack of definition associated with the generalist identity of this culture resonates within the institution, too, as a systemic inability for this culture to choose, align, and assign objectives from an overarching vision level down to that of a course. How the manufacture and application of such objectives would be useful to this culture (e.g., curriculum modification, determining what students should already know as outcomes from completed courses), and to what degree, cannot be predicted and thus the desirability of such a manufacture is being contested.

By comparison, the architectural engineering undergraduate program at this institution is accredited by a different agency, the Accreditation Board for Engineering and Technology (ABET), and ABET’s guidelines for accreditation are clearly constructed from instructional systems sources. These guidelines affect course and curriculum structure from learning objectives to program objectives. Likewise, the college of science embraces the concept of learning objectives, even to the point of including that on its web site as a resource for new faculty. It can be seen that, in this respect, the architecture department is quite distinct from other departments on campus.
The precepts that distinguish year-by-year of the BArch program anchored their own theme:

- as an implicit hedge against the avoidable chore of curriculum reorganization in the face of the faculty’s inability to reach consensus (being beholden to no identity), because the elasticity of the precepts has been sufficient to catch all up to now
- as a refuge when confronted with the unavoidable chore of school reorganization, such that one representation of maintaining cultural autonomy is to maintain the precepts
- with the default often being NAAB as the actual basis of organization and gate keeping for subject matter

Or, as one participant said:

There are many charts and tables and things that they try to produce around NAAB, for example, but I always fail to see where the content of the courses was coming out. And it was rather, “Oh, yes, we fulfill this, this, and this, and this,” but fulfilling a checklist is not the same thing as having a sort of bigger vision of where things would slot and at which time. That said, I mean the program is clear: first-year you do this, and second-year you do this sort of thing, and third-year you do the building all considered, fourth-year you do urban design, and fifth-year you do thesis. That structure is clear. Y’know, how do you start to plug in new ideas into that, like sustainability? (Interview with B, October, 2008).

In this culture, legitimization events are related to content headed for the studio or supporting the studio. “If you take [some subject matter] outside of the studio, then it diminishes the importance in student eyes,” (Curriculum committee meeting, October, 2008). The historical sequencing of these events is that in 1992 studio contact hours were reduced and content was redistributed, as a cultural intent, mostly into laboratory and lecture support for studios. But there was never a systemic trail contrived for innovative subject matter to follow for its legitimization stages (or for obsolete systemic matter to be identified for removal as de-legitimization). The results remain resistant to systemic concerns of object assignment, as related in the accessibility section anecdote that occurred during the preparation to solicit a NAAB reprieve.
It is problematic, when deriving a theme from this narrative, to nominate actors. The department heads and faculty have come and gone in proportion to the department as a whole sufficient to accelerate the reification of the precepts (there being no competition for agency from actual remaining persons). Thus, specific attribution was difficult to elicit from participants and to deduce otherwise. Some motives of the elusive actors are more stable: the 1992 content migration benefited promotion and tenure as systemic considerations.

Focussed legitimization: the curriculum committee

Eventually, there came to be no room in the curriculum in which to locate a new course. This compounded the lack of any method, cultural or systemic, for determining where such a location existed or could be found or could be made. “This won’t be the last time we try to solve this problem of how to accommodate emerging interests. We are going to make some tough decisions, and something’s going to go away in order to make room.” (Curriculum committee meeting, December, 2008). And then at the next meeting, the dilemma was made explicit, “What if we don’t have the room for what we want? There’s no clarity of elaboration and hierarchy to reveal that.” (Curriculum committee meeting, December, 2008).

If the required curriculum has achieved a stasis and from it depend the special courses of indefinite life span, then is that a sustainable condition? Similarly, if NAAB systemically directs the culture to add required content related to subject matter (such as the proposed requirement to incorporate IDP in the undergraduate curriculum in NAAB, 2008), and a scramble ensues in order to locate that new content in the existing amount of credit hours, then that condition is sustainable only until the next requirement, or the next one after that, until some tipping point is reached. Credit hours are a resource and can neither be produced from the air nor added ad infinitum to a program slated by systemic constraints and student workloads for a fixed amount of semesters. And it is further unlikely that a fixed
number of instructors can teach incrementally more courses for any considerable period, especially as
overloads.

The curriculum committee was homing in on the advancement of legitimization for certain
NAAB priority subject matter. As it happens, they were trying to shoehorn comprehensive design into the
curriculum, but sustainability was also in their charge.

Just for the record, comprehensive design was a concern during the NAAB visit, and NAAB
student performance criteria in use at the time (and currently under review for revision) refer to
comprehensive design as:

Ability to produce a comprehensive architectural project based on a building program
and site that includes development of programmed spaces demonstrating an
understanding of structural and environmental systems, building envelope systems, life
safety provisions, wall sections and building assemblies and the principles of
sustainability

and to sustainability as:

Understanding of the principles of sustainability in making architecture and urban design
decisions that conserve natural and built resources, including culturally important
buildings and sites, and in the creation of healthful buildings and communities (NAAB, 2004)

But sustainability was not problematic to this culture as an area cited NAAB to be deficient. Rather it
was a cultural concern that coincided with a NAAB criterion.

In any event, the curriculum committee’s method to approach this was to construct an argument
for displacement of subject matter by reducing the sequence of courses provided to architecture students
by the AE department (in effect, a de-legitimization) and to focus on course creation to assume those
freed credits or to refocus upper-level studios. The latter option was intended to broaden the range of
subject matter to which these studios applied, so that comprehensive design and sustainability and other
specialty studios could result.
Disseminated legitimization: solar decathlon and the sustainability committee

The tale of the Solar Decathlon figured in a number of interviews, but just for a little bit at any one session, and that in itself was intriguing:

I think the Solar D[ecathlon] is a great sort of story. I think the Solar Decathlon house and the foibles and the problems with it…because it was a nightmare. If you talk to some people, it was an absolute nightmare. But yet [the university has] got it sitting out on the lawn and we’re getting national press, and it’s being touted, and it’s certainly going to score a lot of people a lot of points. But yet you talk to the people that actually did it, who were involved in it – oh my god! – the funny thing is none of ’em want to do it again, Talk to the students that were involved in it. They’ll tell you horror stories, and, “Oh, it was a thrilling, but it was also one of the worst experiences of my life.” And the battles between the designers and the engineers, and the engineers and the designers, and the reality of having to get this thing built by people who don’t know how to build…in other words, there’s, like, three case studies you could do (Interview with H, November, 2008).

So, in essence, the Solar Decathlon is an international competition for which students design a small and predominantly solar powered house, transport the materials for it to Washington, D.C. where they construct it and open it for judging as well as to the public, and then dismantle and remove it. At this university, it was reconstructed on campus after the competition was over, where it remains on display.

However, it seems that in memory yet green the competition and its aftermath were sore spots for the faculty who were directly involved and for their colleagues who commiserated in empathy. How can that be, given the excellent showing that the university’s entry made?

The design and iterative constructions of the Solar Decathlon house represent an attempt at sustainability legitimization writ large and celebrated throughout the institution. But the effort provided by this culture was systemically erased at the departmental level for lack of institutional support (that would have taken the form of funding, credits for students, impact on promotion and tenure dossiers) and culturally weakened by conflicts with other departments over the sharing of responsibility and apportionment of credit.
There happen to be two stages to this narrative. In the first, content in the form of the competition was streamlined into studio, but then ignored by the institution and usurped by another department:

My biggest lost opportunity is Solar D[ecathlon]. That, to me, is a remarkable program that in terms of student benefit should be embraced by our program and propagated and enabled way more than it is. And as it is, students don’t even get credit for the work they’re doing. That’s entirely a volunteer effort, which is sort of absurd. We don’t have good funding for it and the university’s not supporting that. These students are driven by desire to do a project…which is highly educational, which really doesn’t fit neatly into our check boxes, so we’re not getting credit or time for them to do it. They’ve lost opportunity, just another example of how inflexible our curricular situation is (Interview with E, October, 2008).

First of all, [professor] just was at the point where in Solar Decathlon engineering’s taking pretty much all of the credit for that project, for the house, and not giving reference to the other people involved in it, like architecture and landscape architecture. It’s just an engineering project. And then they went to some conference or seminar on campus or some meeting where they were talking about our university and sustainability in the curriculum and architecture wasn’t mentioned at all, and AE was pretty much the forerunner there, or engineering in general was the forerunner…and [two professors] were like, “Y’know, we feel like a bunch of us do address sustainability in many different ways, but we have no face in the university to present that. We really don’t have a cohesive sustainable agenda in the department.” That’s when [spring 2008] everyone started talking about, “Hey, well, we should, and we do a lot of things that are good, and we don’t put that out there. We just plug along, doing our good things, and then everyone feels like we don’t have these different agendas.” So a lot of people agreed that…all these people are working on sustainable design or all aspects of it, and we really don’t package ourselves and let people know that. And we were like, “We should!” (Interview with A, November, 2008).

Then, in the second stage, there was a reaction to the first stage, and it is represented by the formation of the sustainability committee in order to publicize projects both in the department and collaboratively across departments. Since its auto-poietic inception, this committee has been trying to raise the consciousness of faculty as to where sustainability might fit in the course year levels:

As a means to facilitate the Department’s efforts in sustainable architecture, the [sustainability committee] was established in 2008. Its primary objective is to define and continually enhance the sustainable curriculum in the undergraduate programs. In addition, it studies models of sustainable pedagogy in other institutions and acts as a point of contact with other institutes and centers inside and outside the university (Departmental web site, 2008).
During this study, the sustainability committee was also assembling a strategy for dissemination of sustainable subject matter throughout the existing curriculum, and issued its *Proposal for Integrating Environmentally Conscious Design Teaching in the Undergraduate Curriculum* to the entire architecture departmental faculty in December 2008. This proposal included its own vision statement and, with respect to the precepts, a list of suggested topics to be addressed year-by-year as well as methods for implementation, stopping short of assigning specific course numbers.

The sustainability committee was not so much advancing the legitimization of its subject matter as it was broadening that legitimization. The committee was also promoting a new course, in this case as part of the AE sequence, and some other special topics and short courses for which, however, no place in the curriculum was planned to be made. So was the committee’s curriculum planning sustainable in that respect, or the assumption of additional resources without actually having them in hand or a way to procure them?

**Conflicting innovations in a culture populated by innovators**

This participant condensed the entire state of affairs neatly:

There’s no room in the curriculum, especially with the [semester overseas] program, and the complications that that inserts into the curriculum. So we’ve had discussions about the two ways to solve this: the first one is adding classes, but then you have to give something up; the second one is a line that departments try and say, “Oh, but we integrate sustainability within all of our classes.” And, frankly, if you’re going to do that, then all of the faculty must be trained (Interview with C, October, 2008).

This was the difference in approaches:

- the curriculum committee was looking for a way to get a comprehensive design course into the curriculum and making room for it by removing a course offered by the AE department
the sustainability committee was looking for ways to get all courses to include sustainability, and the conclusion they came to was that an additional course to be offered by the AE department was needed.

And so the respective lines were drawn by the curriculum committee and the sustainability committee, each committee seemingly ignorant of the other’s intent. How this could have been, I am not sure. There was a professor who served on both committees, but I did not get the impression that any such conflict was evident to this person; so I kept quiet, too. That is, I thought I must be missing something elementary, but I was not sure what it might be.

Within the curriculum committee, the AE sequence was headed for a pruning. “We don’t get kudos from NAAB for having all the structural and mechanical engineering classes,” (Curriculum committee meeting, October, 2008). The conclusion to be drawn from this statement was summarized at a later meeting with this item, “Look into relocating content from [AE course, thereby freeing up 3 credits],” (Curriculum committee meeting, October, 2008).

Meanwhile the sustainability committee was in favor of augmenting the AE sequence. “There used to be three courses in environmental systems, now there are two. [An AE professor] used to teach more than calculations,” (Sustainability committee meeting, October, 2008). “When I first came here there were four [AE courses for architecture students]…there is probably not room in those two courses [that remain],” was the response from the AE professor when asked about incorporating additional sustainability subject matter (Sustainability committee meeting, November, 2008). At the same meeting, the first suggestion for another AE course emerged, “If we could add a third course [about sustainability and environmentally conscious architecture] and introduce it in second year…do we add credits?”

The inevitable dissonance materialized at the faculty meeting in November when the curriculum committee made its presentation for curricular reform in order to locate the subject matter of comprehensive design (for the neglect of which the department had been chastised by NAAB). At the
meeting, conversation about this presentation rapidly converged on the item involving discontinuation of an AE course. The extent of the overlap of that course’s content with other courses not being known but having been assumed, it was a revelation that no overlap existed at all. The issue became one of the inadequacy of merely two AE course in the face of NAAB requirements, much less the elimination of one.

Ironically, there is an item in the curriculum committee meeting minutes from October, 2008 with regard to the then impending presentation and to the effect that, “Faculty will turn down what doesn’t meet NAAB, restricts research, and maybe what doesn’t meet university policy. But if it’s framed to promote the best aspects of a program, who would object?”

**Implications**

It was noted time and again during curriculum committee meetings that attempts to use the studio as the evidence generator for NAAB-sought-content were not as successful (as far as being convincing to NAAB; cf. the accessibility anecdote in this chapter) as using another form of course (lecture, laboratory), especially one specifically dedicated to the subject matter under NAAB’s scrutiny. In an empirical sense, this lends credence to the assertion that studios are objective resistant by their definition. But studios are also the very heart of an architectural program. So that leaves supporting courses to be parsed as objectives in order to designate legitimization access and paths in the permanent curriculum (which in this culture must provide a benefit to the studio or the systemic general education requirements of the institution in order to be deemed appropriate). If legitimization requires objectives for its operationalization, does that not also imply de-legitimization as space maker (which was not necessary before in this department and for which there is no precedent process other than informal attrition and institutional fading of memory).
Can objectives be assigned to some courses, while no objectives are assigned to others (as in studios)? Does the use of objectives imply that quantitative assessments must be employed? Would formulation and arrangement of objectives have a beneficial effect on curricular agility? I was surprised at the interest in objectives (especially since there was such faculty reluctance in response to the request for those in course descriptions when preparing for the 2008 NAAB):

There have been various models out there: one is to have these courses that introduce students to the various facets of the design process…I think our model may be slightly different, where the synthesis or the integration happens in the context of a studio, itself, which is fine with me. But then if that happened in the context of the studio, the content of that studio or the studio sequence should be very clearly defined, OK? I don’t think we have that, right? Although there is a growing awareness that that is needed (Interview with K, October, 2008).

There would be a large chart somewhere that has every class that we regularly offer through the four years listed, and each of those classes would have an associated “here’s what the student’s going to learn from it” so that every faculty member can go to that chart, and when a student says, “Well, I, I don’t really know that thing,” then you can go back to the chart and you can say, “Well, let’s see, I think they actually did learn that in second-year.” Because part of the problem is we don’t know what has been taught in other classes, and there are no standards for what’s being taught, except for informal consistencies, like if I’m assigned to teach class X then I might go talk to somebody who’s taught class X in past years, and say, “What did you teach in this class?” And then I’ll do something else with it. That has been my experience to the point where I hear stories about, “Well, just, y’know, sort of teach something,” and so that kind of collaboration about what an overall vision for content is isn’t really there (Interview with B, October, 2008).

This was presaged in a curriculum committee meeting by an exchange about the assignment of NAAB criteria in the APR matrix, to the effect that “Content should be clearly stated for each studio,” and “It shouldn’t be the instructor’s privilege to deny the criteria,” (September, 2008).

**Without an identity, no vision; without a vision, no objectives**

I have never seen what good most vision statements are. Can a line be drawn, as Huba and Freed (2000, p. 108) suggest, systemically connecting this department’s specific objectives with outcomes and so on directly through tactics and strategies to goals? Or, rather, can only one such line be drawn from
each objective so designated? It seems that the fuzzy nature of most vision statements would allow them to be lifted from one field and pasted onto another of an entirely different nature without much editing. What distinguishes one from another is what distinguishes one of anything from another: the necessity and sufficiency provided by its cultural and systemic identity. As one faculty member said at a strategic planning committee meeting (September, 2008), “Courses need to be sold more as what we do, not just what I do [emphasis in the original]”

What are the important topics that must be mastered in order for a graduate of some program to be considered educated? How are these topics seen to be related and what is the sequence of presentation and what level or expanse of mastery or competency is expected as prior knowledge when entering a course or, at some point, a profession? What are the methods for seeking and assaying and sorting and reviewing candidate subject matter in order to plan a curriculum? Was I to conclude that not being able to produce these answers meant that curriculum change for this culture happens haphazardly unless impelled by some external agent such as NAAB?

The systemic identity of this department (as in the face it presents to other departments of architecture) and, therefore its vision, is structured explicitly only insofar as the sum of:

- the year-by-year precepts
- the NAAB matrix
- whatever else is sexy, urgent, and negotiable, and therefore palatable to be fed to the studio and given a name

Yet, despite that perception on my part, the program and its faculty are well known and respected. And I recognize that, too. Did I miss something? Or was I watching from the crest of a wave about to break? This uneasiness on my part was what led me to consider turning to Mezirow (1978) and the theory of perspective transformation. As I alluded to in the previous chapter, one avenue this culture could be on involves a rendezvous with such a transformation related to curriculum structure.
When Mezirow laid out this theory, he was talking about learners on the far side of a dilemma, the ones who already got through the encounter and could make a comparison between what they used to take for granted and what had been revealed (Cranton, 1998). Some innovators in this culture have made that hurdle and are headed for the perspective-taking part that ensues. This is based on the personal communication with four faculty (some of whom participated in this study) with regard to a symposium they are planning in order to address instructional issues in architectural education. Among these issues will be objectives and how those represent commodification of learning. Whether discursive practice in the culture will be affected as a validation of the critical reflection (Mezirow, 1997, p. 60) remains to be seen. And, of course, what action with regard to the curriculum that will translate into is anybody’s guess.

Aside from that speculation, I have already questioned what role objectives have in this culture. In one sense they could serve as subject matter sorters of greater detail than the precepts, and that could be advantageous as when trying to find slots in the curriculum for new subject matter and tallying what is already there.

But, as I have also noted previously, objectives as they are currently defined, are associated with quantification and measurement. They are expected to be consistent over time and universal in application to all students in a class. In this sense, introducing objectives to all courses, including studios, would have another transformative effect altogether, but neither confined to this culture nor beneficial to the instruction of design.

That is, the question becomes one of, “Can design be taught with objectives?” and the answer is no. This is not due to some mystical quality in the arcane ether of design, but rather because design is emergent and somewhat individual and mutable with regard to the path that leads to expertise. Therefore, the problem of framing design instruction with objectives does not lie in the pedagogy, but in the objective, and the implication is that a different approach is required to resolve the two, whether that is a dynamic sort of objective, or the recognition that no objectives could apply, is not clear at this time.
Summary

Themes derived from the analysis were presented and related to cultural and systemic processes of legitimization and curricular modification. An example of how the processes occurred was parsed, at times using the words of the participants, themselves.

Implications for the culture were conjectured. And the researcher posed the question as to whether or not sufficient data were available to make a systemic interpretation of the cultural processes.

Allowance for alternative interpretations

Introduction

A member check is made as a presentation of the study analyses to the culture. Their interpretations are also addressed. In addition, the notion of how other members of the instructional systems community would treat this sort of study is entertained.

Finally, a conclusion is offered with respect to the culture’s perspective transformation. At this point, the disorienting dilemma is considered to have been encountered.

The member check

The reason I chose to concentrate on the act of member checking in the discussion chapter is because the member check, itself, went too unpredictably to warrant exiling its anecdotal quality to the analysis chapter. In one sense, I was disappointed because I was hoping to stir up a hornet’s nest of discussion, and that did not happen. But there is something to be said both for the agreement that I got regarding my description of the legitimization process, and for the rest of the events surrounding that.
However, the inescapable downside of how the member check unfolded is that I was counting on it to steer me toward confounds. I felt that it would be a source of interpretation alternatives. After all, I could view the results through my researcher lens, which is not well aligned with the instructional systems take on objectives. And I could take a more orthodox instructional systems vantage as I had been trained. But I needed some direction in order to chase down alternatives to those. And that did not happen.

What did happen was that I had bothered the department head for months about my inclusion on a faculty meeting agenda, and the faculty meetings were being postponed in the meantime or preempted by other meetings regarding the ongoing reorganization of the school. Faculty meetings simply did not occur regularly during this study. Finally, the opportunity arose just as I was writing up the last draft of this study for circulation to my committee, and I seized it, all consideration for conditions of presentation be damned; there was one shot left and I was going to take it. I knew I would not be allowed much time because other items had lain unexamined for weeks and those were more pressing than my study, among them an impending department head search and reports from various committees.

Now, the scheduled room was not the one typically used for faculty meetings, so I made sure to scout what kind of affordances there were for representing any responses to the study, either through drawing or writing. A pristine white board, maybe three feet by three feet was enclosed in an unlocked wall cabinet at one corner of the room, along with pens and an eraser.

I was not about to manufacture an electronic slide show to present, because I have rarely had luck with setting up those things in strange rooms and I did not anticipate having minutes to waste in fussing with one at this point, especially with an audience waiting. Instead, I printed up a one-page handout to aid those faculty who had not participated in interviews to follow along with my talk.

It came down to a ten-minute overall time allotment, as I had requested, knowing that I would be fortunate to get even that. And that interval was to include both my presentation and any audience comments. In order to leave one last impression, I had chosen a patter to develop what I thought a
guaranteed incendiary topic, sure to spark a response and some hot debate that would bring home the importance of my research.

Even at this stage of my career, I cannot say that the idea of addressing a roomful of architecture professors was appealing to me, due to the memory of juries I had endured as a student. So I was extremely nervous and spoke even more rapidly while reviewing the handout than I might have needed. But, that also gave me the chance to emphasize the controversial topic, being the framing of studios as conventional learning objectives, not once but twice for good measure.

And I encountered a round of blank faces for my trouble: a semblance of agreement that I had characterized the legitimization process fairly, a little confusion among those who had not been interviewed, but certainly no promise of argument. What happened? What had I omitted?

What did happen was that some of the audience felt that I had misrepresented the study as being primarily about sustainability. Others wondered if I were trying to create a better legitimization process in order to improve curriculum modification. One questioned my sample size, as perhaps not being sufficient to represent significance. Either I was not explaining the study adequately, or the description of a cultural process did not constitute research that this culture, there in the room with me, recognized.

It was at this point, as I was diagramming and writing on the white board my observations and what the audience was telling me, that I realized the board’s surface could not be erased thoroughly, and was taking on the appearance of a palimpsest (someone in the audience noted this, as well). To be fair, the atmosphere in the room was one of genial accommodation and did not get ugly, as some crits have been known to do, but clarity was not going to emerge from the expedient of sketching on the white board.

A reserve strategy occurred to me then, that, in hindsight, I really wish had not. But I was on the panicky verge of that old familiar flop sweat that crits used to educe, and this particular straw seemed attractively within my reach. I had thought this item to be of more interest to sociologists than to this
culture, but complimentary all the same. And it has to do with the normal distribution of innovators, early adopters, early and late majorities, and laggards posited by Rogers (1962).

What I wanted to get across was how I was describing this culture as being so disproportionately populated with innovators that their distribution must be unmistakably skewed. Unfortunately, I used Rogers’ terminology that indicated the presence of “laggards” as well as innovators, albeit much fewer laggards in this culture than in a random sample of people. I hoped to demonstrate that the effect of having that skewness was to propagate different foci simultaneously for advancing legitimization: breadth of diffusion for sustainability across the curriculum (remaining stable in one phase of legitimization) versus advancing of sustainability toward the conclusion of the legitimization arc (having a required course with devoted title in the curriculum and course catalog).

But the damage was done. I had implied the presence of laggards in the culture, and then spent precious time trying to retreat from that unfortunate misstatement. In the competing contexts of interpretation (Rossman & Rallis, p. 288 citing Kvale, 1996) I had misused the participants’ understanding, and any commonsense understanding or theoretical understanding was irretrievable. There was nothing left at the end except to take the supportive member check regarding my description of legitimization in general and curriculum modification in particular and walk away.

So what happened with the controversy over objectives that I was trying to provoke? A private conversation that I had with a participant shortly after this meeting supported the view that objectives simply were not a concern. In this case, “We’ll just wing it [by paying lip service to creating objectives].” A previous private conversation with another participant indicated that there was a general understanding among academic units at the university that application of assessments was unique and varied from field to field, so even if architecture’s were seen as strange, that would be accepted rather than challenged. To his mind there was no likely problem in the offing.
Instructional systems interpretations and implications

This is the only chapter with an epigraph; I chose that one because the study really has been a trip, and, yes, I do like this chapter best. And, oh my goodness, yes, it was all hellishly confusing at times.

The tone throughout these chapters has been increasingly one of my personal agency, starting with my interest in what this culture was doing while what looked to the casual, or even systemically oriented, observer to be a straightforward legitimization of subject matter was occurring, how I reckoned to find out what the origins and boundaries and applications of that process were for the members of this culture, then what data I did gather and how I analyzed it. At last, I had checked all the boxes that legitimize this study and was free to tell the particular story in some detail, leaving the reader with all I had done in order to inform his or her inferences regarding this culture.

As I stated before, there remains a gnawing doubt on my part. What I wanted to get at were the day-to-day aspects of dealing with subject matter legitimization, and I am still not sure if I did or not. Was what I saw really an exceptionally singular run of ethnomethodological disturbances, as I referred to those earlier when describing how difficult it was to make a presentation at a faculty meeting? Or, was the scurrying and patching from event to event just the reactionary process for coping that this culture had embraced? Would I have seen anything different twenty years ago, before the precepts were formulated?

How would other instructional designers have gone about this study and what would they have interpreted from their data? I present Table 5-1 as the framing necessary to answer that.

The systemic attributes of objectives, assessments, and outcomes would have been an interview target, for sure. But I had watched how these were gingerly addressed by this culture both in preparation for a NAAB visit and as the aftermath being warily circumnavigated in a curriculum committee and a subject matter committee. “There is a difference in the way courses are taught by AE as opposed to
architecture because content remains constant in AE even when instructors change,” (Sustainability committee meeting, October, 2008). And I am not convinced that the current state of models for the design of instruction makes them adequate to benefit the instruction of design. That is a resounding implication from this study.

Table 5-1: Comparison of instructional systems and culture in this study

<table>
<thead>
<tr>
<th></th>
<th>instructional systems</th>
<th>architectural design culture studied (empirical observation)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>orientation to subject matter legitimization</strong></td>
<td>theory based and rule compliant</td>
<td>craft based (Clark &amp; Estes, 2001a, 2001b) and norm respectful</td>
</tr>
<tr>
<td><strong>aptness for inclusion of subject matter for a course</strong></td>
<td>contingent on instructional assessment and measure of student prior knowledge upon entering the course (Smith &amp; Ragan, 1999)</td>
<td>independent of departmental systemic identity, but directly related to cultural perceptions of subject matter seductiveness, urgency, and ownership</td>
</tr>
<tr>
<td><strong>location of subject matter in a program hierarchy</strong></td>
<td>alignment with defined systemic vision (Huba &amp; Freed, 2000)</td>
<td>sorting of subject matter related to precepts</td>
</tr>
<tr>
<td><strong>objectives related to subject matter</strong></td>
<td>consistent for duration of course and universal across all students in course (Dick, Carey, &amp; Carey, 2001)</td>
<td>emergent, negotiable, and renegotiable over time and may vary among individual students, so more akin to problem-based learning (Hmelo-Silver, 2004) except that goals are as ill-defined as the problems</td>
</tr>
<tr>
<td><strong>assessment measures related to subject matter</strong></td>
<td>intended for normative or criterion referenced grading, consistent once chosen (Nitko, 2001)</td>
<td>individual could be assessed with regard to design product, design process, presentation of either or both of those, the instructor’s perception of progress having been made by the student over the semester, or any combination as applied uniquely to each student</td>
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**Conclusion**

As the conclusion to this study, I present a recapitulation of the research questions, and I review to what degree the study found responses to those. Before that, however, I feel it necessary to touch briefly on the expectations for an ethnography and whether or not the study met those. At the beginning
of the data collection I expected phenomenological patterns of individual sense-making about legitimization would emerge first. After that I should have been able to watch for them forming patterns in the day-to-day activities, or as they were being sifted from the interviews.

But that was not the case. Phenomenologically, this culture presented a barrier or a void with regard to legitimization. I suspect the void more than I do the barrier. After all, there was no apparent anxiety on any participant’s behalf about the interviews or observations. And it would have been unlikely for there to have been an agreement among the participants to link arms in order to stonewall me. There just really was not any reason for the members of this culture to reflect on legitimization as an experience. Instead, there were the precepts, and if unfamiliar subject matter could be associated with a precept, then the issue of its location was resolved.

This is supported by the offhanded acceptance by all participants of a legitimization process as I presented it. For a while I was confused by this because I had never seen any architecture professor at any time have no dispute with a concept as it was posited. One example of this tendency was an incident that a participant (in both this study and the previous one that I described earlier) related, wherein he was reminiscing about being the student presenter in a critique. He had rejected the project provided by his studio instructor at the time, instead providing evidence of an investigation to support all his maverick design decisions and to vindicate his initiative. When he had completed his presentation of the heretical direction he took for the project, one critic launched into a harangue about a seemingly peripheral omission, probably because that critic was caught flat-footed. The instructor, in relating this, described the critic’s comments as an inspired stroke, because, whatever a student presents, the critic has to approach the design from an antagonistic direction. “If the student says, ‘Black,’ then the critic says, ‘White,’” (personal communication, April, 2005).

Does that mean that anything whatsoever could have entered the curriculum, that legitimization did not occur? No, but from an ethnographic standpoint, it means that, legitimization had been sedimented below the consciousness of this culture so far that day-to-day sense-making was difficult to
pin down. As far as providing insights goes, I was able to uproot that one; it is the most substantive I have. And that leads me to the first guiding questions to be raised again here:

- How does subject matter-based curriculum modification happen currently?
- What are the practices that lead to legitimization, and whose prevail?

The short answer in this culture is accretion, and the consequences of that practice are verging on this culture’s awareness as something that will have to be managed. It is a habit that cannot be maintained indefinitely, or at least to the current degree of laxity. The credit hours in the permanent curriculum are spoken for, and the secondary location for faculty teaching and research through special courses have lingered as overloads.

But that does not imply an entirely indiscriminate treatment of subject matter by the culture, only a less than focussed or purposeful one. Setting aside the components of curriculum due entirely to systemic dictates from sources external to the culture, there do seem to be criteria for subject matter to wax in legitimization and enter the curriculum even when the systemic avenues are clogged. The vehicle is the studio and if subject matter should be found seductive in an architectural sense, negotiable as to its meaning and thus allowing diverse interpretations, and available for the academy to be its primary owner (neither predominantly professional of aspect nor legislated), then the norms allow it to be introduced via a studio.

As guiding questions, those first ones led directly to the overarching research inquiry: what is the process that an academic community devoted to architectural design education follows when modifying its curriculum to introduce subject matter into its undergraduate program, and why is this process privileged over others? As I have presented my conclusions about the first part of this question, I now move to the second part and resort to its guiding questions:

- Why does curriculum modification happen at all?
- What and who influence the choice of subject matter chosen for introduction?
These questions get at the very heart of the legitimization (and de-legitimization) process: some subject matter is systemically impelled, such as accessibility, while others receive systemic and cultural backing both. While I noted previously in this section that studio provided access to other than systemically dictated subject matter, I cannot point to any examples of subject matter evaluation or accretion that depended solely on the culture. That is, even when impelled by cultural consideration, subject matter always had a systemically significant kernel.

On one hand, I suspect that this lack of wholly cultural impetus is a property of the underlying pedagogical norm of being reactive. So, in the same manner that critics react to student presentations, this culture reacts to professional trends and institutional pressures, rather than instigating its own. On the other hand, before I started this study, I had not expected at all to find that effect of the norm, given the traditional allocation and separation of educational responsibilities between the academy and the profession. The conclusion I offer to resolve this apparent dissonance is that the enculturation components of the curriculum truly are fixed, to the extent that legitimization and curriculum modification can occur only in those other components having a relationship with culturally etic affairs.

Lastly, there are legitimization and curriculum modification questions that were raised during the study rather than answered. I predict that these will have to be addressed by this culture in the near future:

- How will curriculum modification, itself, be modified in order to maintain relevance of the curriculum to the profession and as overseen by NAAB?

- What are the consequences of introducing objectives, especially to studio, as sorters having detail not currently available from the precepts alone?

Some study participants craved additional curricular organization. And the unintentional conflict between the curriculum committee and the sustainability committee exemplified the consequences of dealing with an unknown composition.
There are dangers in acceding to the use of objectives as the vehicle of curriculum organization, and those have to do with their assessment association and with their misapplication as if all manner of courses could be translated into objectives. With the first of these, it is the thin end of the wedge to introduce objectives to courses, and by that I mean that a systemic intention to use them for assessments will be enabled. The result of imposing standards of success and failure on a craft-based tradition is to focus students on the well-defined aspects and discourage the ill-defined, the latter being intrinsic to the inventiveness and unpredictably emergent properties of designing and learning to design.

Secondly, there is the issue of some courses having objectives, and some not. Studios are objective-resistant, and it is this property that has made them the default subject matter filters they currently serve as in this culture. The dearth of studios as content delivery vehicles in the literature of instructional systems leads me to believe that they are under-researched and should not yet (nor probably ever) be saddled with the same intent of being deconstructed into objectives that laboratories and lectures have endured.

This is exactly why dealing with an explanatory theory of perspective transformation is important to this culture and in the context of subject matter legitimization and curriculum modification: it gives them something to react to rather than waiting for another crisis to coalesce. I have to wonder if being so reactive means that surviving from one ethnomethodological event to the next constitutes the cultural norm rather than a reaction to the upsetting of a norm. In any event, these processes that have been taken for granted so long and sedimented so deeply and firmly probably are on the edge of abandonment or reconstruction because the curriculum is full to bursting and amorphous of composition, allowing neither addition nor rearrangement.

That constitutes a disorienting dilemma which must be confronted, and that concept for an individual is what initiates a perspective transformation in that individual. The transformation that Mezirow (1978) theorizes is of such a pervasive and comprehensive extent that it requires grounding in a new discourse because what had been the boundaries for conceptualization as set by the discursive
practice, and sanctioned as the discourse-in-practice, cease to be adequate to explain that which has been confronted. But, whether or not Mezirow’s theory is actually discovered to apply here in a more general sense than to just individuals, what it can do is to frame the existing conditions in order to elicit an initial reaction, and for this culture, that motivation to react might be of the utmost gravity at this time.

From a systemic vantage, perspective transformation can be framed as the response to discovering that what had been thought of as orderly is instead entropic. There is an examination of the conditions that rules had previously defined and the construction of new rules to address the change. Within a culture, this revision could apply to the values that orient the joint enterprise defining the culture, the practices that make up its shared repertoire, and the behaviors that indicate members’ engagement with the environment (analogous to the psychological, convictional, and behavioral transformations in an individual). In either case, the dilemma is that a description or process or explanation that had been accepted uncritically and without examination before the discovery is no longer adequate to perform its function and a critical scrutiny must be brought to bear in the recovery and redefinition of function.

The discovery can be cumulative over time or catastrophic. But, given the isolated or even competitive nature of the individuals involved and the series of disruptions that has been faced, the former seems more likely in this culture, while the latter might apply better to the more complex and stable structure of the systems influencing the culture. Resolution as to which of these would control in such a conflict between the two does not have an analogous process in transformative theories of learning (in that those theories typically apply to the individual, cf. Merriam, 2004).
Summary

Alternatives to my interpretations were made by members of the culture, themselves, even as they were agreeing with the models of legitimization and curricular modification that I was presenting to them. And I had made sure that the models were labeled to reflect the culture to which I was presenting.

Likewise, sources were considered for alternative interpretations by an instructional systems community. The effect here was that instructional systems models as they exist might not be suitable for a study of this nature and of this culture or its kind.

Finally, conclusions were drawn, both with respect to how the study answered the research questions and with respect to a perspective transformation. This was related to the curricular modification difficulties as a disorienting dilemma and extrapolated from an individual to the scale of the overall culture.

Chapter summary

The researcher’s interpretation of the analyses was reported, including how the culture in this study dealt with legitimization and sustainability. An example was provided regarding the curriculum filter properties of a studio.

Cultural and systemic aspects of legitimization themes came next. Two approaches to legitimization and their conflicting results were detailed. Implications of this study for the culture and system relationship were suggested. Allowance was made for alternative interpretations, but instructional systems perspectives were questioned. Lastly, conclusions were made based on the findings and the case for the culture undergoing a perspective transformation in the face of a disorienting dilemma was reviewed.
References


Appendix A

Excerpts from Coursework Matrices

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- Fundamental Design Skills
- Collaborative Skills
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- Non-Western Traditions
- National and Regional Traditions
- Use of Precedents
- Human Behavior
- Human Diversity
- Accessibility
- Sustainable Design
- Program Preparation
- Site Conditions
- Structural Systems
- Environmental Systems
- Life Safety
- Building Envelope Systems
- Building Service Systems
- Building Systems Integration
- Building Materials and Assemblies
- Construction Cost Control
- Technical Documentation
- Client Role in Architecture
- Comprehensive Design
- Architect's Administrative Roles
- Architectural Practice
- Professional Development
- Leadership
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Appendix B

Interview Protocol

Format of interview (to be reviewed with participants before commencing)

Instructions

There will be a maximum of one individual interview for each participant, and one group interview. Participants will have signed informed consent forms before commencing any interview. All individual interviews will be private, taking place between the principal investigator and a participant only. If the participant agrees beforehand, interviews will be audio-recorded. The principal investigator will explain the questions to be covered to the participant before commencing any interview, elaborating from the text in the informed consent form to the effect that the participant may decline to answer any or all questions and that the participant may conclude the interview at any time.

Anticipated duration of any one interview is one hour (or two hours maximum total throughout the study for any one participant’s two interviews: one individual and one group). Prompts listed after the questions might or might not be used depending upon the length and detail of the initial response and conversation.
Interview 1

Date____________________  Participant Code____________________

1) What factors influenced your decision to teach in this department?

Prompts: anticipated social or economic status as a professional, process of elimination regarding other offers, relative or friend who is an architect

2) Is this program’s course subject matter and sequence what you expected when you decided to teach in this department?

Prompts: preparation for professional practice (as participants conceptualize that) or other goals, extraneous studies or tradition constraints in the curriculum (e.g. why should students learn to draft by hand), cross-discipline studies allowed or encouraged, comparison to programs at other schools (perhaps where participants have friends), unexpected disappointments or pleasant discoveries in subject matter

3) Was sustainability in the curriculum when you started teaching here?

Prompts: description of program and course components, primary and secondary subject matter, sustainability referred to in different terms, what courses was it consistently taught in
4) What should students expect as benefits from an undergraduate architecture program?

Prompts: primary/secondary/remainder subject matter, ordeal or rite of passage, suggestions for alternative methods of assessment and evaluation, description of distribution of education between profession and academy

5) Does the current curriculum provide that?

Prompts: what influences should be considered, what new content should be introduced (sustainability), how will that happen, what will get displaced

6) How did curriculum change occur in the past that you know of?

Prompts: early adopters, steps, first appearances, diffusion, obsolescence of previous content, introduction of sustainability into your coursework or syllabus
Interview 2 (probably as a group)

Date ____________________  Participant Codes ____________________

1) I’m going to discuss a legitimization process that I saw. Tell me if you agree.

Prompts: attributing effects to oneself and others, overall success or otherwise.

2) Did everything you might expect to happen in this process actually occur?

Prompts: omission of legitimization topics previously thought to be important, discovery of topics previously unconsidered or dismissed.

3) How would you change the legitimization process to better accommodate curriculum modification?

Prompts: addressing individual agendas, attribution of success or failure (effort, ability, external).

4) How has this study influenced your perception of the curriculum change process and why?

Prompts: how the legitimization process contributes to professional practice or other goals.
Appendix C

Institutional Accreditation Directive

This is an example of one institution’s directive to create and implement learning objectives, as it was retrieved February 9, 2009 from http://assess.psu.edu/files/DegreeProgramAssessment_R2_2-08.pdf

Program Assessment for Degree Majors:
Steps, Procedures, and Deliverables

Step I. Identify Program Goals* Target Deadline: March 15, 2008
- Develop 3-5 learning goals for students who complete the degree program
- Include skills and experiences, not just information or knowledge
- General Education and other requirements should be included as they pertain to the major

Step II. Syllabus Review Target Deadline: March 15, 2008
- Review the syllabi for required and elective courses to identify several that appear to map strongly to the program goals. *(Note: At the outset, only a few courses are needed; eventually, more can be brought into the assessment process.)*
- Identify 2-3 learning objectives for each course that link to or fit with the program goals

Step III. Delineate Approaches to Measuring Outcomes Target Deadline: May 1, 2008
- Identify class activities or assignments for the above-selected courses that will provide a measure of achievement of the linked course objectives and program goals
- Identify an approach (rubric, etc.) for conducting the evaluation and interpreting the results
- Expand on the assessment plan with student surveys (senior survey or exit interviews, etc.) or other tools for establishing accomplishment of key objectives

Step IV. Close the loop by making improvements Target Deadline: June 1, 2008
- Incorporate results of above measurements and evaluation process into plans for changing courses or revising the curriculum
- Make sure the evidence of the role of assessment is obvious in Senate course change proposals, faculty meeting minutes, or other departmental records and documents

Step V. Communicate Assessment Plans Target Deadline: June 1, 2008
- List program goals in the program description in the Undergraduate Bulletin
- Link from program home page to objectives and outcomes measures
Appendix D

Faculty Meeting Presentation

Legitimization of Subject Matter in an Undergraduate Architectural Design Program
February 12, 2009

- positing and supporting the claim that architecture department faculty may be considered a culture in anthropologically or sociologically (agreements, perpetuation), data about legitimization process then collected from: interviews, extant records, observation of ongoing meetings, and now member check
- encountering opportunistic circumstances disturbing to curriculum (CORE, NAAB, school reorganization) and seeing/asking how system/culture responded to those
- analyzing systemically observable (tasks, goals, curriculum) and culturally responsive aspects (beliefs, values) of legitimization process (awareness, naming, definition, introduction to syllabi, special courses, course title in catalog) regarding subject matter of sustainability
- anticipating unique diffusion of innovations process due to skewness of distribution toward innovators in this culture, as when the sustainability committee and curriculum committee approached curriculum modification in different ways

<table>
<thead>
<tr>
<th>Concept</th>
<th>Process</th>
<th>Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>sustainability</td>
<td>systemic evidence indicates that it currently occupies entire range of legitimization, except stalled at permanent addition of devoted course to curriculum</td>
<td>legitimization process was acceptable to participants and they were willing to consider legitimization as reflected in curriculum modification process</td>
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<tr>
<td>curriculum</td>
<td>the cultural test for placement in the curriculum seems to be where new subject matter applies in terms of the five subject-matter-by-year precepts; these are sorters, not gatekeepers</td>
<td>in schema theory terms: tends to be accretive or assimilative, but approaches accommodative confrontation with program capacity for credit hours</td>
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<tr>
<td>curriculum modification</td>
<td>undergoing a legitimation of its own; might be analogous to individual andragogical perspective transformation resulting from disorienting dilemmas</td>
<td>extending the analogy with perspective transformation, is this cultural reaction critical/reflective? e.g., principled, robust to assessment and commodification pressures, resistive to framing studio as objectives, constructive of alternatives</td>
</tr>
</tbody>
</table>
Appendix E

Abbreviations Used in This Dissertation

ABET.........................Accreditation Board for Engineering and Technology

ACSA..........................Association of Collegiate Schools of Architecture, https://www.acsa-arch.org


APR...............................Architecture Program Report, prepared by departments for NAAB visits

ARE...............................Architect Registration Examination, http://www.ncarb.org/are/index.html

BArch.............................Bachelor of Architecture

IDP...............................Intership Development Program, http://www.ncarb.org/idp


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Publications and Conference Presentations

In M. Chorost, C. DiGiano, & S. Goldman (Eds.), Learning about learning technology design. Hillsdale, NJ: Erlbaum.
Montreal: Association for the Advancement of Computing in Education.