
Folkloristics of Educational Spaces: Material Lore in Classrooms with and without Walls

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ABSTRACT

THIS ARTICLE FOCUSES ON THE RELATIONSHIP between people and the spaces that they inhabit on a college campus. A folkloristic approach to the study of space examines the way people shape space through their practices and the way space shapes people's practices. People shape space through the way they organize physical objects in their environment, the way they talk in spaces they inhabit, and the ritualized behaviors they perform in particular spaces. Understanding how people talk about, and interact within, a physical space is especially important as we move toward distance education models of learning. It raises questions about what is gained and what is lost as we move toward classrooms without walls and also suggests the importance of understanding the new practices that people develop to organize and make sense of their real, virtual, and hybrid spaces.

INTRODUCTION

A folkloristic approach to the study of space examines how people organize and shape their space and how people are organized and shaped by the space around them. A university campus is an ideal setting to examine a folklore of space because it is like a mini-city with a range of activities and spaces including classrooms, dormitories, campus centers, faculty offices, athletic facilities, and health centers. People shape their space through the way they organize the things in their environment (material lore), talk about—and within—their environment (verbal lore), and

perform the ritualized activities that occur in these places (ritual/customary lore). As we move toward hybrid models of education where more of the activities surrounding academic work occur online, it is important to recognize how academic practices translate, fail to translate, or are transformed in this new environment.

We are moving toward educational environments in which all or part of the activities surrounding research, teaching, and learning occur online. In these hybrid environments, some people may be physically co-located with each other while others never may have met in the physical world. While the technology in these hybrid environments facilitates collaboration between scholars, it is also forcing academic institutions to redefine the types of activities and products that constitute academic work (Burbules & Bruce, 1995). These environments raise questions about traditional educational practices such as what constitutes a publication, what counts as academic work, and what is the best way to structure a virtual learning space to achieve one's educational objectives.

The goal of a folklore of space is to uncover how the organization of a folk group's physical and virtual environments reveals its worldview. In the physical world, people define space through structural features of enclosed and unenclosed spaces and through the organization of objects within these spaces (Lawrence & Low, 1990). In the virtual world, people define space through various strategies such as categorizing people by their status and location, by the type of technology that is used, and by the activities that occur in these spaces. People also use these strategies in the physical world, but they tend to be less obvious because the cultural values these strategies represent are embodied in physical objects.

APPROACHES TO THE STUDY OF SPACE

The organization of one's environment is not random but, instead, reflects and can be understood only within the context of a group's folk practices and values (Toelken, 1996). Toelken provides a useful example in his description of the weaving practices of the Navajo Indians with whom he worked. Navajo artists purposely place a flaw in the rugs they weave, which Toelken relates to a belief that a design can never be finished. He argues that scholars should examine how the production process reveals the Navajo's worldview rather than focusing on specific design features of the artifact. Similarly, a study of a folklore of space must relate the way a folk group organizes its physical environment to its worldview. This perspective involves understanding the impact that space has on people's practice and how people shape their space through their practices (Latour, 1987).

Two approaches to the study of material lore acknowledge the importance of relating the organization of the environment to a group's culture. One is work on the folklore of architecture (Glassie, 1972, 1983;

Roberts, 1972) and the other is the folklore of artifacts (Babcock, 1992). These approaches work well together because they provide tools for analyzing both large-scale structural features of buildings and smaller scale objects within these buildings. These tools are also important because, in studying material culture, scholars may have access to a group's worldview in a way that is not possible through the written word (Babcock, 1992).

Research on folk architecture (Glassie, 1972, 1983; Roberts, 1972) analyzes structural features of buildings including their shape, size, and layout for repeated motifs and variations of motifs. This research identifies the building methods, the materials, and tools used during construction. Folklorists also look at where a building is placed, the site on which the building is located, and how the building is used (Roberts, 1972). Patterns emerge in the way that homes and other buildings are constructed, which reveals how a community adapts to its environment.

Research on the folklore of artifacts has two foci: (1) historical, where artifacts from the past are studied as a way to learn about the past, and (2) social, where artifacts reveal the value system underlying people's practices, especially people who are often ignored in traditional research (Glassie, 1983). Because people shape and reshape their space in large and small ways, an artifact can take on different functions and meanings in various contexts (Babcock, 1992). Buildings, rooms, and spaces that were used for one purpose are converted to meet new needs and purposes and at the same time another layer is added to the history and meaning of the space (Brand, 1994). The presence or absence of artifacts also serves an important identity function and can reveal the values of a folk group.

In extending this approach to school settings, a folklore of educational space relates both large- and small-scale features of the campus environment to the underlying folk practices and values of students, teachers, administrative staff, and other university personnel. On a large scale, the structural features of enclosed and unenclosed spaces reveal the values that the university tries to encourage, such as collegiality or competition. On a smaller scale, school settings are full of everyday objects that reveal its culture, including books, the arrangement of the classroom, and the presence or absence of technology.

MATERIAL LORE IN SCHOOL ENVIRONMENTS

There is no formal study of the material culture of space in school settings. The approach used here has been to identify how space is discussed in education research literature and to indicate ways that the organization of both large- and small-scale features of the campus reveals academic culture. As Dutton (1995) notes:

Schools in particular are never neutral sites or free spaces above the conflicts of society. Tangled within the infinite relations of society, they unavoidably produce, reproduce, and challenge political, social,

cultural, and economic directions in society. Schools, like any institution, are places of ongoing struggle over meaning, truth claims, the organization of knowledge and interpersonal relations, classroom practices, and so on. (p. 172)

A study of the organization of space in school settings reveals the way that teachers, students, administrators, and other university personnel respond to these societal forces and ongoing struggles over meaning. This section represents both an argument for a folkloristic approach to the study of space in academic settings and an application of a folklore of space to a university setting.

CAMPUS DESIGN

Historically, the layout of the college campus has been marked by a shift toward more buildings as well as an increase in the types of spaces required as schools provide more services (Dober, 1996). Early colleges had fewer building types (and functions) which included housing, a chapel, classrooms, a library, dining facilities, and administrative offices. College campuses today contain a greater variety of building types including athletic and physical recreation buildings, classrooms, faculty offices, visual and performing arts centers, campus centers, libraries, laboratories, support facilities, and housing (Dober, 1996). The physical structure and layout of each of these buildings differ dramatically and are related to the type of activities conducted in each space.

Members of a university have specific ideas about what it means to be part of an institution of higher learning, and campus planners carry out these ideas through features of design. The campus and various parts of the campus are seen symbolically as instilling a sense of order, encouraging collegiality, providing a place for interactions, and providing a sense of place (Chapman, 1994). Architects and campus planners create these symbolic meanings through "place making" and "place marking" functions of design (Dober, 1996). Place making involves "articulation, classification, and differentiation of building groups and significant structures, landscapes, and circulation elements and then their arrangement and positioning in response to site conditions, climate, programmatic and functional relationships, and desired visual sequence" (Dober, 1996, p. 174). Place marking involves taking the overall design and giving it a sense of character.

Campus designers create a sense of place and community through the use of planned open spaces such as ovals, malls, middle path, walkway, lawns, or commons (Chapman, 1994; Griffith, 1994) and through the use of landmarks (Chambers, 1989). Griffith (1994) associated a number of benefits with the use of open spaces, including their ability to produce a sense of place, to integrate or separate portions of the campus, and to provide emotional relief from being in small or crowded spaces. Simi-

larly, landmarks also create a sense of place on the college campus because they come to represent a person's connection with the institution. Spaces that were not designed as landmarks can also take on special significance and create a sense of place for segments of the campus population.

Campus planners design buildings and arrange physical objects within these buildings to encourage values important within an academic community. Brand (1994) described how the Lewis Thomas Molecular Biology Lab at Princeton was planned to encourage both collegiality and competition (pp. 179-80). The building was the home for a group of microbiologists who valued interacting with each other and with others in their scientific community. The designers built the lab with only three floors, so that people could meet in stairwells, and built corridors wider than is typical to encourage informal interaction. The designers added kitchenettes and blackboards to lounge areas to encourage informal gathering and impromptu work sessions. The department chair also wanted to instill a sense of competition, so designers clustered offices so that people could monitor how far other teams were in completing their projects.

Designers use symmetry in organizing the campus and classrooms to instill a sense of order (Chapman, 1994; Griffith, 1994). Toelken (1996) discussed an emphasis, in mainstream U. S. culture, on straight lines and symmetry and, by extension, on order. On the campus level, the grid patterning of the quadrangle creates a sense of order and community. The use of the quadrangle can be tied to the organization of medieval English colleges that used this design to protect the school from aggressors and to gain greater control over student behavior (Griffith, 1994). American college planners use the quadrangle form because it fosters a sense of place and insulates the campus from outside distractions and noise. On the classroom level, the grid-patterned seating arrangement allows an instructor to regulate student behavior.

On a large scale, the existence of certain buildings carries an implicit message about a folk group's position within society and within an institution. It is not possible to consider all the different building types on a college campus in this article, but an example should help to illustrate this point. Universities began to offer on-campus housing to students due to concerns about the quality of off-campus living accommodations and the fear that living off campus could lead to moral corruption (Dober, 1996). Many universities today still have rules that require students to live on campus for one or more years when they first enter the university. Similarly, the rise of fraternities and sororities can be related to a similar desire to protect students and keep them on or near campus. Students, therefore, are a group that need to be protected from the outside world, and it is the job of the school to provide this protection by providing safe on-campus, or close to campus, living accommodations.

The layout of a college campus can also reveal shifts in societal values and roles for groups over time. For example, women were spatially segregated in university settings in the United States in the seventeenth and eighteenth centuries (Spain, 1992). In the early 1800s, women could not attend universities because of the perception that their place was at home taking care of their families. Later in the century, women could attend college but were confined to women-only schools because of the fear that contact with men's ideas could harm them emotionally. While women now have access to most colleges, this analysis raises questions about the spatial segregation of other groups, such as the poor, from institutions of higher learning.

While educational institutions may attempt to encourage values through campus design, the physical arrangement of the campus can also become a focal point in struggles for recognition among marginalized groups on campus. At issue is the way that designers can include the voice of these groups in campus design (Dutton, 1995; Dutton & Grant, 1991; Dutton & Mann, 1996) and, by extension, the extent to which the university makes decisions to account for differences in people's experiences. A tangible example of how some people's experiences are considered in limited ways in campus design is the approach that universities take in adapting spaces for disabled students and staff on campuses (McGuinness, 1993). McGuinness described three approaches to dealing with accessibility issues: (1) a risk management approach, in which changes are made until the likelihood of a lawsuit is small, (2) a priority management approach, in which priorities are set to make the most used areas of campus accessible, and (3) a comprehensive management approach, in which a "readily achievable" plan and a design response are set up. The decisions about how far to go in accommodating the needs of disabled people on campus reveals who is valued and who is not valued in an institution along with the university's management policy and culture.

Budgeting is another issue that reveals a university's management culture (Leggett, 1985; Marsh & Griffith, 1985; Murphy, 1994; Stewart, 1985). Much of the research in this area tries to define the value of a space by assessing how much and for what purpose a room is used. This line of research also suggests ways to get departments on campus to recognize the value of the space that they inhabit and to pay for that space. The use of classroom space, a topic much discussed in the education research literature, is explored in the next section.

CLASSROOM DESIGN

Environmental planning researchers examine the physical layout of a classroom to determine its effectiveness in allowing students and teachers to function comfortably in the environment (Council of Educational Facility Planners, 1991; Gorham, 1981; Ledford, 1981; Muller, Probasco, &

Schuh, 1985; Owu, 1992; Rath & Ittleson, 1981; Tessmer & Harris, 1992). Typical classroom features that are studied include the visual environment, acoustics, temperature, media use, and room layout (Ledford, 1981). In this section, I examine the way that features of classroom design reveal cultural values in educational settings.

Some pictures of classrooms at the University of Illinois help illustrate my points. In analyzing these pictures, I am making some assumptions about the meaning of selected artifacts in classroom settings. The ideas here represent starting points in analyzing artifacts within the classroom, but the ideal study would look at how these features shape and are shaped for a particular folk group in a particular context.

Room layout is one aspect of classroom organization that includes the type of furniture used, its design, and its positioning (Ledford, 1981). Classrooms can be divided into two types—fixed designs or flexible designs (Blackett & Stanfield, 1994). Classrooms with a fixed design do not allow a room to be changed easily and include the conventional large lecture hall, the tiered classroom, and the camera equipped classroom suite. Classrooms with a flexible design allow a room to be rearranged to meet the needs of a particular class and include the small seminar rooms and other rooms that accommodate about twenty to fifty students.

The amount of flexibility in a classroom and the restrictions that are made on student movement through the environment can be tied to either a teacher's or to a school's perspective about the educational process. In contrast to teacher-centered visions of learning, a constructivist approach suggests that students must be active learners with instruction centered on supporting the construction of knowledge rather than on its transmission (Duffy & Cunningham, 1996). From this perspective, objects in the environment are important tools in helping a child construct knowledge. This may imply a classroom design that is more flexible in allowing students and teachers to rearrange the room as they co-construct this knowledge.

Figure 1 contains an example of a classroom design that is inflexible, with the chairs bolted to the floor. It provides very little flexibility in terms of providing a space for group work or student interaction. Figure 2 is an example of a learning space that is flexible with a movable table and chairs. There are more possibilities for students to work individually, in pairs, or in groups.

Researchers have specific, and often contradictory, ideas about what makes a "good" classroom (Blackett & Stanfield, 1994; Owu, 1992; Vaughan, 1991). According to Owu (1992), the layout of a classroom should direct the student's attention toward the instructor and the presentation area. The room should be flexible enough to accommodate large and small class sizes and changes in technology. There should also be attention to aesthetics including form, line, color, texture, and visual variety. Decisions



Figure 1. An Inflexible Classroom Design with Bolted Desks.



Figure 2. A More Flexible Classroom Design.

about the layout of a classroom provide tangible evidence of beliefs about what the learning experience should be like and about the role of teachers and students in the learning process.

The culture of university settings differs from that of other levels of education, and this is revealed in classroom design. Educators seem to make a distinction between the types of space needed for young children (Dudek, 1996; Gareau & Kennedy, 1991; Greenman, 1988) and spaces for older children and adults. Young children need environments that encourage them to use their imaginations, to play, to interact, and to form relationships with peers and instructors. These environments are supposed to encourage learning through discovery and, at the same time, create a sense of order and security. The need to design learning spaces that promote creativity is typically not an important design criterion once children get older. College classrooms avoid distractions, with many rooms being barren of decoration. This lack of decoration can be attributed to the migratory nature of teaching at the college level. Instructors do not have their own room for more than a semester and often share a room with many people throughout the day.

Figures 3 and 4 reveal differences in beliefs about how graduate and undergraduate education is conducted and provide examples of the emphasis on the teacher in classroom design. Figure 3 shows a teacher in a large lecture hall standing on a platform that looks like a stage. This platform accentuates status differences by physically separating the teacher and the students. This picture also demonstrates an effort by the designer to construct an environment appropriate to a large lecture hall through the use of a large blackboard area that is lit up so students can see what the instructor has written. Figure 4 is a smaller room that contains a three-sided table with a separate space for the teacher. This represents a graduate classroom that is more similar to a conference room than a typical undergraduate classroom. Both pictures show relatively barren classrooms that do not contain distracting material.

Despite the best efforts of designers, people adapt their environment to meet their own needs (Brand, 1994). Figure 5 depicts a class that decided to meet outside on a sunny spring day and provides an example of the way that people adapt campus spaces. Beyond classroom spaces, a great deal of the learning that takes place on a college campus occurs outside of the classroom in the hall, in dorm rooms, in the cafeteria, and in other spaces that people claim as their own.

The values of a folk group are also revealed by the way that its members talk about—and within—their space, as well as the rituals associated with a particular space. Although the focus of this discussion is on material lore, the next section will provide examples of the way that verbal lore and ritual/customary lore relate to particular spaces.

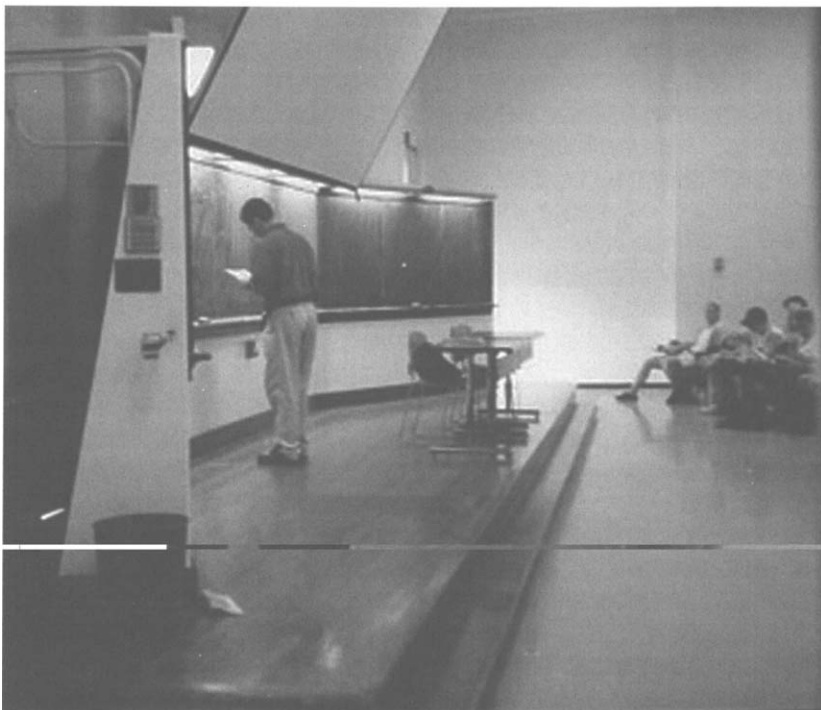


Figure 3. An Instructor on the Stage of a Large Lecture Hall.

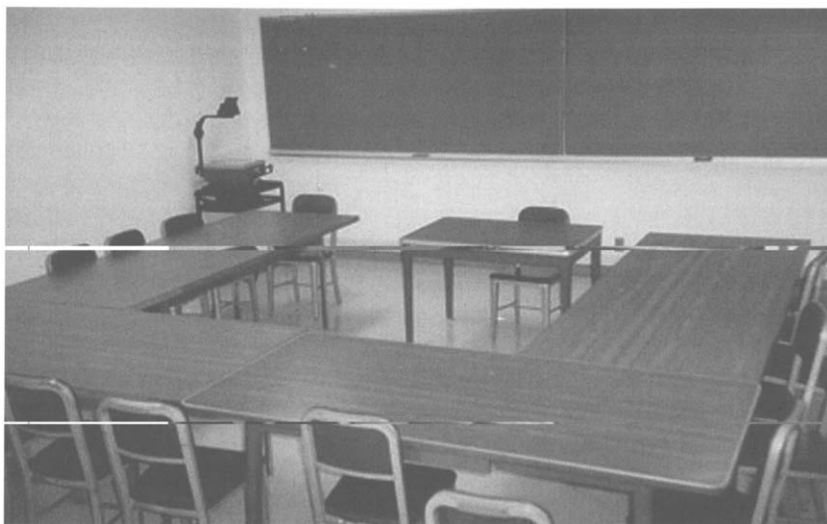


Figure 4. A Small Conference Style Classroom.



Figure 5. An Unplanned Informal Learning Space.

VERBAL LORE AND RITUAL/CUSTOMARY LORE

Folkloristic studies about college campuses tend to focus on the lore of undergraduate students (Baker, 1983; Bronner, 1990) more than other groups on campus. Bronner (1990) provides a classification of the verbal lore on college campuses among undergraduate students. The verbal lore of students includes stories about the academic side of school life, such as tests, exams, grading, cheating, and professors. There are also stories about the social side of campus life, including class competitions, dorm games, practical jokes, singing events, seasonal festivals, sports rituals, and fraternity/sorority traditions. Also, stories about haunted places, and unexplained events are typical on college campuses. Graduation ceremonies are also a source for a great many rituals and stories.

An especially useful feature of Bronner's (1990) work is that he tries to connect the verbal lore that he collected to issues surrounding student life:

Folklore provides a passage from one stage to another from ritual, custom, and object. It defines and describes the subgroupings within the student's world: the "frat rats," "the grinds," the "jocks," the "profs," and all the rest. It is the students' unofficial cultural orientation held through the college experience. It offers parables to ponder, rituals to observe, values to honor. Folklore from the nation's colleges opens a legacy of creative expression reflecting student culture, concerns, and roles within an exclusive institutional setting. Most importantly for many students, folklore helps guide them to identities within a new setting, often large, mysterious, and imposing. Folklore is a place to begin and to belong. (p. 22)

Verbal and customary/ritual lore provides a way for students to define themselves in relationship to other students and to the institution. Through verbal and ritual/customary lore, students learn the unofficial curriculum of how to navigate through the university to earn their degrees.

The lore of professors and graduate students is relatively uncharted, but these groups, too, must become versed in the lore of the university and of their department. Professors learn the official and unofficial rules to gain tenure, and they tell stories about difficult classes, research nightmares, and the long hours of academic work. Graduate student lore reveals the ambiguous position of being a student for many years, the poor pay, and the lack of prestige in the academic community. These tensions of academic life are revealed in the stories and jokes that graduate students ("You just might be a graduate student if," 1998) and faculty members tell ("Why God never received tenure at any university," n.d.). Each field, too, has its unique jokes and stories that are reflective of the topic area and common experiences of members of these groups ("You might be a library media specialist if" <<http://www.col.k12.me.us/bjh/203a/libhum.html>>).

Maintaining control is an issue in any institution and it appears in the verbal and ritual/customary lore in educational settings. The emphasis on maintaining control is an explicit focus in K-12 literature (Henry, 1993; Powell & Solity, 1990). Some practitioners (Wong & Wong, 1991) have elaborate procedures for taking control of a class through setting routines for all activities that occur in the classroom. These procedures include ritualizing the start and end of the day, entering and exiting the classroom, asking for help, turning in work, handling materials in the classroom, and creating activities to occupy children who complete assignments quickly. Teachers guard their own spaces by rigidly controlling access to areas occupied by the staff such as teachers' lounges and administrative offices (Gordon & Labelma, 1996). While university teachers may have less physical control over the movement of students, there are parallels in terms of setting up routines to control the classroom.

Given the amount of control that an institution has over an individual, a frequent topic of the verbal lore in school settings involves stories about people who have overcome institutional control. Mechling (1995), for example, described how students use secret words and gestures to hide their communication from those in authority. Baker (1983) described some of the verbal lore of students at the University of Illinois, which included campus legends and other stories about beating the grading system and getting back at difficult professors.

We are moving toward models of learning where students are no longer required to be physically present with other learners or the teacher. This new learning environment raises questions about what is gained and what

is lost when activities are conducted in virtual, rather than real, spaces. It also raises questions about how the educational process is changing as a result of using technology to deliver instruction.

CONSIDERATIONS OF SPACE IN CLASSROOMS WITHOUT WALLS

Distance education is becoming a realistic option for pursuing an advanced degree. According to the National Center for Education Statistics (1997), one-third of all higher education institutions offered distance education in some form via video, audio, Internet-based technologies, or other computer-based technologies in fall 1995. Another 25 percent of the institutions surveyed planned to offer a distance education course within the next three years. Several models exist that challenge the traditional "residential higher education" model, including: (1) extended traditional universities, (2) for-profit adult-centered universities, (3) distance education/technology-based universities, (4) corporate universities, (5) university/industry strategic alliances, (6) degree/certification competency based universities, and (7) global multinational universities (Hanna, 1998).

Discussing space issues in distance education settings is difficult because one cannot rely on structural features of buildings or rooms as defining features. One of the challenges in exploring virtual spaces is to recognize the language and concepts people use to define their spaces. An approach that is helpful in understanding the social context surrounding technology use is social informatics. A social informatics approach "examines social aspects of computerization—including the roles of information technology in social and organizational change and the ways that the social organization of information technologies are influenced by social forces and social practices" (Social Informatics Homepage, 1998). This line of research is useful in identifying the strategies that people employ to define their physical and virtual spaces. The themes identified in this section are embedded in the material, verbal, and ritual/customary lore of virtual environments.

Classification is one way that people define their virtual spaces (Star, 1996), and this is achieved in a distance education setting through classifying others by their status and their geographic location relative to the university. People are classified as on-campus versus off-campus faculty, students, and technical or administrative staff. Each of these groups represents a distinct culture and subculture within the larger department and university. For example, both on-campus and off-campus students may share some similar experiences because they share the same status as students, but they differ in terms of how the work of being a student is accomplished. The unique experiences and values of these groups and subgroups play out in the stories that they tell and the rituals and customs that they share.

The type of technology that is used and the forms of communication afforded by various delivery methods also serve to define space. Technology affordances are the physical properties of an environment that support activities and interaction (Gaver, 1991, 1992, 1996; Gibson, 1966). Gaver (1996) provides a useful example in comparing the affordances of a card catalog to those of a computer database. The two types of technology can be compared in terms of the resources they provide to support certain activities such as accessing information. In electronic environments, people compare technologies in terms of the types of communication resources that they afford. Face-to-face communication has a number of affordances, including nonverbal cues, verbal cues, and the physical objects present in a setting. Remote communication technologies offer affordances that are different from face-to-face settings such as the ability to communicate asynchronously. From this perspective, space is defined by the delivery method that is used and the affordances that are available, so people talk about having an e-mail discussion or meeting in a chat room.

Finally, people define space in virtual environments by the practice of doing research, teaching, and learning in academic settings. People define their space in relationship to the things that they do given their role in the institution. Students go online to attend class, turn in assignments, do their homework, and talk to colleagues. Professors go online to teach class, grade assignments, and mentor students. The activities are conducted differently in online environments as compared to physical classrooms, so it is important to notice the extent to which educational practices are transformed in virtual environments (Bruce, 1997).

I have had the opportunity to think about how the absence of space affects learning through my involvement in a project (LEEP Project Homepage, 1998) at the University of Illinois that studies a long distance electronic education program (LEEP3 Homepage, 1998) in the Graduate School of Library and Information Science. The LEEP program uses short on-campus visits once a semester, and delivery of course content through Internet technologies including Web Boards, Real Audio, the World Wide Web, and Internet Relay Chat (IRC). Some of the examples used in the next section stem from interviews and observations from this project.

MATERIAL LORE IN VIRTUAL ENVIRONMENTS

The practices surrounding educational settings are inextricably linked to the infrastructural support provided by all sectors of the university (Besser, 1996). Infrastructure includes access to physical objects in the environment such as computers, computer programs, and library materials. It includes access to the social resources of the university such as a professional library staff, faculty, and other students. Infrastructure also relates to a person's access to opportunities such as jobs, assistantships,

and networking or mentoring opportunities. Providing these resources to distance education students requires the university to grapple with decisions that affect both on-campus and off-campus students. For example, in providing access to class materials and resources, a university must deal with issues such as the financial cost of subscribing to a database across a network, copyright issues, developing and maintaining library collections, and security issues. Because the infrastructure of a university is geared toward on-campus students, distance education students often need to be resourceful to get access to the materials that they need.

The lack of a shared physical space and artifacts leads to problems of defining traditional educational practices such as attending class and class participation. Students can disappear in a distance education setting because, if they do not post a message, the teacher has no contact with them. In the physical environment, even if students are quiet, the teacher has some contact with them because they are physically present during class. Similarly, instructors can disappear in a distance education environment if they do not post regular messages. Students and teachers need to develop new skills to maintain a virtual presence and to demonstrate participation.

The lack of a shared physical space also leads to problems in presenting material because of the lack of shared face-to-face and auditory cues. One instructor in the LEEP program described it as a problem of emphasis: "You can't just use voice inflection or you can't just put it in bold letters like you would in the classroom. . . . In the classroom, I can say if you don't come away with anything else today remember this Somehow saying that in the LEEP format doesn't have the same kind of impact. You really just have to kind of hit it over and over again." This relates to the different affordances available in an online, versus a live, classroom setting.

A great deal of learning in physical environments occurs informally through unplanned conversations, which can be hard to achieve in virtual settings. One of the problems with using technologies such as a Web board is that the exchanges tend to be formal and there seem to be fewer opportunities for informal conversation. Unlike face-to-face conversations, there can be a permanent record of what is said in virtual environments through archives. The existence of an archive may discourage a student from expressing an idea because a record exists of a person's mistakes. The existence of a permanent record of one's interaction also creates a more formal environment because the teacher has a permanent record of the number and the quality of posts made by a student.

VERBAL LORE IN VIRTUAL ENVIRONMENTS

Some have argued that the use of computers is fundamentally changing the stories that people tell and the way these stories are expressed (Jennings, 1990; Murray, 1997). The stories and jokes that people tell are

communicated in electronic form so they differ from an oral performance. A story or joke reflects both the values of a folk group and the computer context in which it is told. For example, you could throw a virtual spitball at someone in an Internet Relay Chat (IRC) environment. This relates to student culture because throwing a spitball is something that one might do in a school setting. It also relates to computer culture because part of what makes this joke funny is that someone typed the command to make the description of the spitball appear on people's computer screens.

Some of the jokes and stories of the LEEP students involve the trade-offs inherent to participating in a virtual class. One of the LEEP students provided the following example:

Everyone always makes jokes about sitting in front of their computer naked. I'm not really here, this is actually someone else. We do jokes about who we really say we are. In IRC there's this command where you can whisper to other people. Once in awhile people will do it incorrectly and they say something that you probably wouldn't actually say. People joke about that.

On the one hand, it is nice to be part of the LEEP experience because you can do things that you cannot do in a live classroom setting, but the virtual environment has trade-offs such as the difficulty of discerning if people are who they claim to be. This example is also interesting because it touches on an affordance of the technology that is heavily used. In IRC, when someone whispers, they type a private message that goes only to a selected person rather than to everyone in the chat room. It is possible to make a mistake so that instead of whispering to one person a message is sent to everyone in the chat room. Mistakes become fodder for jokes, and the ease with which they can happen may also cause participants to have more tolerance for mistakes than they would in face-to-face settings.

Many hero tales crop up in virtual environments; these are important to explore because they reveal characteristics that people in this culture value. In the LEEP environment, there is a hero tale about a novice who masters the difficult technology and who either receives recognition for his or her effort or who goes on to become a technical master herself or himself. This story came up repeatedly and differed slightly depending on whether the instructor or the student was the hero. In one version, a teacher who was apprehensive about teaching in the distance education environment taught a class that seemed difficult to translate to a virtual environment and went on to win a prestigious teaching award at the university. In another version of the story, a student who had some difficulties learning the technology at the beginning of the program went on to become the technical guru at the student's workplace. Certain elements of each of these stories may not be literally true, but these hero tales highlight a desire to overcome the difficulties in learning and using technology to become masters of the technology.

One type of computer story has what Tenner (1996) calls revenge effects: “[T]he tendency of the world around us to get even, to twist our cleverness against us” (p. 6). Tenner is specifically interested in the way that technology is supposed to help us but in reality produces a number of unintended consequences. One example of an unintended revenge effect is the increase in repetitive stress injuries that are associated with prolonged use of computers in the workplace. Tenner suggests the existence of a folklore of computer revenge effects. For example, one unintended consequence of a move toward the use of virtual resources for on-campus classes seems to be an increase in the amount of printing that is done in the computer lab. Because students find it difficult to read academic papers online, they print these papers in the lab rather than buying a packet at the beginning of the semester that contains all of the readings.

Another type of story that relates to computer use is the way that technology takes over people’s lives and the ways that people resist the virtual life. Teachers and students tell stories about how they are always in class in distance education settings, and they feel the need to constantly check the messages for a course. At the same time, academics tell stories about how they resist the virtual life through various strategies such as not checking e-mail on weekends.

Interestingly, the experiences of the distance education students at the University of Illinois also highlight the importance of gathering together in a shared physical space. As part of the LEEP program, students are required to attend a two-week on-campus session where they take a class and learn the technology that they will use in their classes. Through this experience, the students meet their fellow classmates and form friendships that often continue in the virtual environment. Many of the stories and jokes the LEEP students tell refer back to the time when they were physically on campus.

RITUAL/CUSTOMARY LORE IN VIRTUAL ENVIRONMENTS

In the absence of physical spaces, people create new virtual rituals and customs to take the place of some traditions that are tied to particular places. These new virtual rituals may bear some similarity to their physical counterparts, but they also assume their own character, taking advantage of the affordances of the virtual environment. A good example is the graduation ceremony that took place in May 1998 at the University of Illinois for both on-campus and LEEP students (Being there, 1998; 1998 LEEP Graduation Ceremony, 1998). A live version of the graduation ceremony took place with all of the typical rituals such as graduation speeches, traditional dress in cap and gown, the distribution of diplomas, etc. In conjunction with the live graduation, a virtual graduation took place that had elements of the live graduation but also contained its own rhythm and activities.

In the virtual ceremony, LEEP students and their families were able to gather in a chat room and hear the events occurring at the live graduation ceremony. Unlike people attending the live ceremony, participants attending the virtual graduation were able to "talk" to fellow graduates and their families throughout the ceremony by typing messages back and forth. They were also free from other rituals such as dressing up in a cap and gown and listening intently to graduation speeches because they were not a captive audience.

In an important event like a graduation, it is relevant to think about the quality of the experience if all of the rituals cannot be translated to the virtual environment. Many activities surrounding the graduation experience are not captured by the one moment when students hear their name being read as they walk across the stage to receive a diploma. Some of these things include: getting yourself and your family dressed up for the graduation ceremony; driving to the graduation ceremony and passing by the statue of the Alma Mater, knowing that somehow this statue represents your accomplishments; knowing that somewhere your family is sitting in the stands anxiously waiting to see you and capture a picture as you walk across the stage; and the energy of the crowd. These moments make the graduation day memorable and add to the aesthetic of the event but do not carry over to the virtual ceremony.

The move toward distance education has affected the rhythm and flow of academic life. Professors may need to change their work practices to be effective in virtual environments. It can be difficult to make adjustments to a course schedule or to assignments because it can take much time to prepare course material suitable for this environment. Some instructors find it difficult to do things spontaneously in virtual settings because it requires significant time and thought to find an explanation that will make sense, given the communication affordances of the technology. Similarly, students in this environment are much more accountable for doing their work, so the roles and obligations of being a student are different from those of on-campus students (Burge, 1996; Linn, 1996). In many cases, there is no real way for the teacher to check if the students are keeping up with their work or if they are doing the work themselves.

CONCLUSION

Much of the literature on space tends to ignore the connection between membership in a community and the spaces that people inhabit. Space is treated as being either neutral and is ignored or as something that must be controlled in order to influence the behavior of people within a setting. This disconnect between membership in a community and the space that a group inhabits is precisely what a folkloristic approach tries to bridge. Space cannot be considered outside the context of the value structure and practices of a folk group. Because there is no literature on the

folklore of space on college campuses, this article has focused on how space is discussed within education research literature and has pointed to places where a connection can be made between space and the value structure and practices of members of the academic community.

Scholars must examine both real and virtual spaces because college settings today are hybrid learning environments in which part or all of academic work takes place online. Even when traditional teaching models are used, activities are no longer confined to only one space, because of the increased use of electronic tools such as e-mail. By ignoring computer lore and computer contexts, folklorists may miss important aspects of culture and the ways that work gets done in academic environments.

Both real and distance education environments are being affected by the lack of boundaries created by the increased use of computers in education. At the same time that a distance education student is listening to a lecture delivered by a teacher, she or he may be preparing dinner for the family. Similar problems exist in identifying boundaries between work and school settings. Resources that are available at work become resources for school and vice versa. Because schoolwork can be done both at home and at work, blended work spaces must be negotiated. The problem of negotiating boundaries is also true of more traditional educational environments, especially as more academic work is conducted via the computer.

The lack of boundaries is also an area that researchers might examine for conflicts between various groups and subgroups in the university. People classify each other as on-campus or off-campus students or instructors. The needs and expectations of each group are different, and the infrastructure needed to support each group can vary tremendously. While some aspects of being a teacher or a student may be similar for both on-campus and off-campus groups, the actual practice of teaching and learning may be different. In addition, the existence of on-campus and off-campus groups inevitably raises questions about whether there is equality in terms of the experience and access to resources provided by the university. Categories of location are also potential sources of conflict as on-campus and off-campus groups seek to structure the institution in ways that suit their own needs.

New environments require new interdisciplinary ways of studying space that include elements of both folklore research and social informatics. The study of material culture provides important insights into the way that physical structures reveal the culture of a folk group. The study of social informatics provides insights into the way that people organize both their real and virtual spaces and how this reveals culture. The structural features of the physical world remind us of the importance of looking at how traditional practices translate or fail to translate to the virtual environment. The strategies used to define space in the virtual world remind

us of the importance of uncovering the cultural values that are embodied within artifacts. Examining the practices that translate, or fail to translate, to virtual environments and the new practices that develop both in the physical and virtual world, in response to hybrid models of academic work, will reveal those cultural values.

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REFERENCES

- Babcock, B. (1992). Artifact. In R. Bauman (Ed.), *Folklore, cultural performances, and popular entertainments: A communications-centered handbook* (pp. 204-216). New York: Oxford University Press.
- Baker, R. L. (1983). The folklore of students. In R. M. Dorson (Ed.), *Handbook of American folklore* (pp. 106-114). Bloomington: University of Indiana Press.
- Being there: Far-away graduates experience ceremony in real time via Real Audio. (1998). Urbana-Champaign, IL: Retrieved October 30, 1998 from the World Wide Web: <http://alexia.lis.uiuc.edu/gslis/news/commence.html>
- Besser, H. (1996). Issues and challenges for the distance independent environment. *Journal of the American Society for Information Science*, 47(11), 817-820.
- Blackett, A., & Stanfield, B. (1994). A planner's guide to tomorrow's classrooms. *Planning for Higher Education*, 22, 25-31.
- Brand, S. (1994). *How buildings learn: What happens after they're built*. New York: Penguin Books.
- Bronner, S. J. (1990). *Piled higher and deeper: The folklore of campus life*. Little Rock, AR: August House Publishers, Inc.
- Bruce, B. C. (1997). Literacy technologies: What stance should we take? *Journal of Literacy Research*, 29(2), 289-309.
- Burbules, N. C., & Bruce, B. C. (1995). This is not a paper. *Educational Researcher*, 24(8), 12-18.
- Burge, E. J. (1996). Inside-out thinking about distance education teaching: Making sense of reflective practice. *Journal of the American Society for Information Science*, 47(11), 843-848.
- Chambers, S. L. (1989). Establishing a historic preservation framework within campus management and planning. *Planning for Higher Education*, 18(4), 3-18.
- Chapman, M. P. (1994). Social change and American campus design. *Planning for Higher Education*, 22(3), 1-12.
- Council of Educational Facility Planners, International. (1991). College and university planning. In *The guide for planning educational facilities* (P1-P9). Columbus, OH: Council of Educational Facility Planners, International.
- Dober, R. P. (1996). *Campus architecture: Building in the groves of academe*. New York: McGraw Hill.
- Dudek, M. (1996). *Kindergarten architecture: Space for the imagination*. London: E & FN Spon.
- Duffy, T. M., & Cunningham, D. J. (1996). Constructivism: Implications for the design and delivery of instruction. In D. H. Jonassen (Ed.), *Handbook of research for educational communications and technology: A project of the Association for Educational Communication and Technology* (pp. 170-198). New York: Macmillan Library Reference.

- Dutton, T. A. (1995). Cultural studies and critical pedagogy: Cultural pedagogy and architecture. In T. A. Dutton & L. H. Mann (Eds.), *Reconstructing architecture: Critical discourses and social practices* (pp. 158-203). Minneapolis: University of Minnesota Press.
- Dutton, T. A., & Mann, L. H. (1996). Modernism, postmodernism, and architecture's social project. In T. A. Dutton & L. H. Mann (Eds.), *Reconstructing architecture: Critical discourses and social practices* (pp. 1-26). Minneapolis: University of Minnesota Press.
- Dutton, T. A., & Grant, B. C. (1991). Campus design and critical pedagogy. *Academe*, 77(4), 37-43.
- Gareau, M., & Kennedy, C. (1991). Structure time and space to promote pursuit of learning in the primary grades. *Young Children*, 46(4), 46-51.
- Gaver, W. (1996). Situating action II: Affordances for interaction: The social is material for design. *Ecological Psychology*, 8(2), 111-129.
- Gaver, W. (1992). The affordances of media spaces for collaboration. In J. Turner & R. Kraut (Eds.), *Sharing perspectives* (Proceedings of the conference on computer supported cooperative work, CCSW '92, Oct. 31 to Nov. 4, Toronto, Canada) (pp. 17-24). New York: ACM Press.
- Gaver, W. (1991). Technology affordances. In *Proceedings of CHI, 1991* (New Orleans, Louisiana, April 28 - May 2, 1991) (pp. 79-84). New York: ACM Press.
- Gibson, J. J. (1966). *The senses considered as perceptual systems*. Boston, MA: Houghton Mifflin.
- Glassie, H. (1983). Folkloristic study of the American artifact: Objects and objectives. In R. M. Dorson (Ed.), *Handbook of American folklore* (pp. 376-383). Bloomington: Indiana University Press.
- Glassie, H. (1972). Folk art. In R. Dorson (Ed.), *Folklore and folklife: An introduction* (pp. 253-280). Chicago, IL: University of Chicago Press.
- Gordon, T., & Lahelma, E. (1996). "School is like an ant's nest": Spatial and embodiment in schools. *Gender and Education*, 8(3), 301-310.
- Gorham, R. (1981). Space utilization: What factors determine its impact on learning. In P. J. Sleeman & D. M. Rockwell (Eds.), *Designing learning environments* (pp. 69-74). New York: Longman.
- Greenman, J. (1988). *Caring spaces, learning places: Children's environments that work*. Redmond, WA: Exchange Press.
- Griffith, J. C. (1994). Open space preservation: An imperative for quality campus environments. *Journal of Higher Education*, 65(6), 645-669.
- Hanna, D. E. (1998). Higher education in an era of digital competition: Emerging organizational models. *Journal of Asynchronous Learning Networks*, 2(1). Retrieved October 30, 1998 from the World Wide Web: http://www.aln.org/alnweb/journal/vol2_issue1/hanna.htm.
- Henry, M. E. (1993). *School cultures: Universes of meaning in private schools*. Norwood, NJ: Ablex.
- Jennings, K. (1990). *The devouring fungus: Tales of the computer age*. New York: W. W. Norton.
- Latour, B. (1987). *Science in action: How to follow scientists and engineers through society*. Philadelphia, PA: Open University Press.
- Lawrence, D. L., & Low, S. M. (1990). The built environment and spatial form. *Annual Review of Anthropology*, 19, 453-505.
- Ledford, B. R. (1981). Interior design: Impact on learning achievement. In P. J. Sleeman & D. M. Rockwell (Eds.), *Designing learning environments* (pp. 160-173). New York: Longman.
- LEEP3 Homepage. (1998). Retrieved October 30, 1998 from the World Wide Web: <http://leep.lis.uiuc.edu/>
- LEEP Project Homepage. (1998). Retrieved October 30, 1998 from the World Wide Web: <http://alexia.lis.uiuc.edu/~ruhleder/LEEP/overview.html>
- Leggett, S. (1985). Tactics for allocating educational space. *CEFP Journal*, 23(5), 4-8.
- Linn, M. C. (1996). Cognition and distance learning. *Journal of the American Society for Information Science*, 47(11), 826-842.
- Marsh, D. C., & Griffith, W. J. (1985). Management of the space resource—space cost budgeting. *CEFP Journal*, 23(5), 9-11.
- McGuinness, K. (1993). Redesigning your campus for disabled students. *Planning for Higher Education*, 22, 23-27.

- Mechling, J. (1995). Children's folklore in residential institutions: Summer camps, boarding schools, hospitals, and custodial facilities. In B. Sutton-Smith, J. Mechling, T. W. Johnson, & F. R. McMahon (Eds.), *Children's folklore: A source book* (pp. 272-291). New York: Garland Publishing, Inc.
- Muller, K.; Probasco, J.; & Schuh, M. P. (1985). Space planning guidelines for institutions of higher education. *CEFP Journal*, 23(5), 15-17.
- Murphy, M. (1994). Managing the use of space. In D. Warner & G. Kelly (Eds.), *Managing educational property: A handbook for schools, colleges, and universities* (pp. 40-57). Buckingham, England: Open University Press.
- Murray, J. H. (1997). *Hamlet on the holodeck: The future of narrative in cyberspace*. Cambridge, MA: MIT Press.
- National Center for Education Statistics. (1997). *Statistical analysis report: Distance education in higher education institutions* (NCES 98-062). Retrieved October 30, 1998 from the World Wide Web: <http://nces.ed.gov/pubs98/distance/index.html>.
- 1998 LEEP Graduation Ceremony. (1998). Retrieved October 30, 1998 from the World Wide Web: <http://leep.lis.uiuc.edu/graduation/gradpictures.html>.
- Owu, M. (1992). Classrooms for the 21st century. *Planning for Higher Education*, 20, 12-20.
- Powell, M., & Solity, J. (1990). *Teachers in control: Cracking the code*. New York: Routledge.
- Rath, G. J., & Ittleson, J. (1981). Human factors design for educational facilities. In P. J. Sleeman & D. M. Rockwell (Eds.), *Designing learning environments* (pp. 142-159). New York: Longman.
- Roberts, W. (1972). Folk architecture. In R. M. Dorson (Ed), *Folklore and folklife: An introduction* (pp. 281-294). Chicago, IL: University of Chicago Press.
- Social Informatics Homepage*. (1998). Retrieved October 30, 1998 from the World Wide Web: <http://www.slis.indiana.edu/SI/>.
- Spain, D. (1992). *Gendered spaces*. Chapel Hill: University of North Carolina Press.
- Star, S. L. (1996). *To classify is human* (keynote address, ACM Hypertext '96 Conference, University of Maryland, Bethesda). Retrieved October 30, 1998 from the World Wide Web: http://alexia.lis.uiuc.edu/gslis/people/faculty/fac_papers/star/hypertext96.html.
- Stewart, G. K. (1985). Some old questions revisited. *CEFP Journal*, 23(5), 12-14.
- Tenner, E. (1996). *Why things bite back: Technology and the revenge of unintended consequences*. New York: Vintage Books.
- Tessmer, M., & Harris, D. (1992). *Analysing the instructional setting: Environmental analysis*. London: Kogan Page
- Toelken, B. (1996). *The dynamics of folklore*. Logan: Utah State University Press.
- Vaughan, T. W. (1991). Good teaching rooms: A campus resource. *Academe*, 77(4), 11-15.
- Watson, N. (1995). What kind of workstations for the laboratories? *Planning for Higher Education*, 24, 24-40.
- Wong, H. K., & Wong, R. T. (1991). *The first days of school*. Sunnysvale, CA: Harry K. Wong Publications.
- Why God never received tenure at any university*. (n.d.). Retrieved October 30, 1998 from the World Wide Web: <http://www.fatdays.com/jokes/school/god.html>
- You just might be a graduate student if*. (1998). Retrieved October 30, 1998 from the World Wide Web: <http://www.english.nwu.edu/grad/egso/gradlies.html>.
- You might be a library media specialist if*. (n.d.). Retrieved October 30, 1998 from the World Wide Web: <http://www.col.k12.me.us/bjh/203a/libhum.html>.