

From Containing to Dwelling:
An examination of the concept of place in school design

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ABSTRACT

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David Carr, Ph.D., and George Noblit, Ph.D.)

Through careful analysis of North Carolina's Department of Public Instruction's *Development of Educational Specifications* this thesis contrasts Aristotle's concept of place as container with Martin Heidegger's concept of dwelling. The implications of these two concepts of place on education and educational facilities are then explored.

To Matt and Hector

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Introduction

Learning Environment. Educational Facility. Community Education Village. Learning Place. Education Building. School. These are all names for buildings constructed to represent and serve the American institution of education. While these buildings have a clear ancestor, an iconic one-room schoolhouse on the American frontier, their modern identity is beleaguered by the current effort to redefine the physical structures of education.

The variety of names represents a tension in our understanding and construction of spaces for schools. On one hand, there is a desire to understand how a school facility integrates with teaching and learning. On the other, the facility's main concern is to organize and house students over the course of a school day. From yet another view, the acreage dedicated to a school facility can be either the cause for suburban sprawl or the focal point of neighborhood renewal.

This web of interpretations and responsibilities challenges the creation of places of education in modern society because it emphasizes the need for conversation across and within the disciplines of architecture, education, and planning. Roy Strickland and Jean Riesman's work in Hilltop, Washington D.C., represents this type of conversation. This school construction project demonstrates how educational ideals and neighborhood infrastructure can come together in support of education (Strickland & Riesman, 2005). Strickland and Riesman challenged the District of Columbia Public School System to look beyond simply renovating a former vocational high school, to using the opportunity of renovation and

construction to shape a view of education focusing on the relationships that exist between teaching, learning, and community.

Unfortunately, what happened in Hilltop is not the norm for school construction projects. The Hilltop project required an investment and a willingness to adopt “... a new mode of thinking that went beyond the ...[school] building’s footprint”(p. 50). The process was an intensive meeting of disciplines (architecture, education, and planning) and community members working to understand and apply the New American School Design Project’s (NASDP) idea that “... public schools become crossing points in a web of community and institutional connections, strengthening the larger context for learning, and allowing schools to serve as catalysts for urban revitalization and place-making”(p. 50).

Putting aside existing educational specifications, the District of Columbia Public School System parted from the established policy and practice designed to direct school construction. This step allowed the Hilltop project team to introduce and operate from a concept of place unfettered by institutional ideas best described as a container model of place. In a container model, place is static through time. It does not interact with or represent its occupants, but rather, it organizes and holds them until they move on to another destination. In contrast, Hilltop works from a concept of place as a fluid and dynamic environment interacting with those who occupy it. As a result, the Hilltop project creates a place respectful and responsive to the complexity and relationships of architecture, education and planning.¹

This thesis aims to illuminate how institutional concepts of place influence and often limit school design and construction. Using North Carolina’s *The*

¹ The intended audience for this thesis is the journal *Places* that featured the Strickland and Riesman project in Fall 2005. An assumption is made that the readers of the journal are familiar with the exact details of the project.

Development of Educational Specifications (DES) as an example, the following pages will explore how the concept of place behind well-established school construction policies and practices creates a limiting presentation of the function and purpose of a school facility. Discussing the concepts behind well-established professional policies and practices may not be an easy task, but it is a worthwhile endeavor. Unlike many papers focused on school design and construction, this one will not have pictures or diagrams showcasing exemplary projects. Those projects have yet to be created. Instead, it focuses on beginning a conversation of place and its ability to create an interdisciplinary language responsive to the interlocking complexities of architecture, planning, and education.

After defining key terminology, North Carolina's 2002 document, *The Development for Educational Specifications* (DES) will be analyzed as an example of policy based on the concept of place as container. Published by North Carolina's State Board of Education's Department of Public Instruction, DES assists superintendents, district administrators, and boards of education with the organization and development of educational specifications for their districts. It is a guideline for educators on how to describe education as it occurs in their daily practice. According to the guidelines, this description enables architects to design a school facility that will enhance education.

The concept of place as container apparent in DES has roots in the works of Aristotle. Aristotle's writings about place as a motionless container with definitive boundaries between container and what is contained will be used to provide clarity and dimension to the analysis. In addition, examples will be offered to demonstrate how the container model of place relates to ongoing debates in education such as the

role of schooling in creating a common American identity, interdisciplinary education and a school's connection to its surrounding community.

After examining DES, a contrasting view of place will be offered based upon the work of Martin Heidegger. Heidegger's concept of place is offered through his idea of dwelling. Dwelling creates places that exist out of the relation between mortals and how we interact with the elements of our world. These dwelling places are responsive to the things present in them, and, rather than a boundary which confines, they offer boundaries that mark the growth of new opportunities. Heidegger's concept connects to the Hilltop project as well as theories of education put forth by Nel Noddings, John Dewey, and Elizabeth Ellsworth. Raising awareness about concepts of place in school design and construction is only the beginning. From potential policy and process changes to integrating schooling and community, this thesis ends by examining the larger implications of a new concept of place for education.

Understanding Terminology

Before a close examination of place in DES can occur, it is important to conduct an orientation to the phrases and documents under discussion. By its nature school design and construction is an interdisciplinary activity as educators, administrators, architects, planners, and construction personnel join forces to erect school facilities. In order to facilitate the conversation of one complex concept – place – the concepts and terms educational specifications, education, teaching, learning, environment and space must be clarified.

To begin, an educational specification, as defined in C. Kenneth Tanner and Jeffrey Lackney's new textbook, *Educational Facilities Planning*, is "a detailed

description of the specific physical characteristics of the school's learning environments – including furniture and color schemes”(p. 397). More importantly, educational specifications are seen as the process for communicating “teaching and learning strategies to ... [architects developing] the concept design sketches”(Tanner & Lackney, 2005, p. 393). DES shares Tanner and Lackney's view about the purpose of educational specifications as is evident in its definition of educational specifications. DES defines educational specifications as,

.... a written means of communication.... [where] educators describe the educational program and identify factors which affect learning and teaching, thus providing a database for the architect to use in creating the building plans and specifications”(DES, 2002, p. 3).

While the exact content of educational specifications varies from state to state and school to school, the purpose of educational specifications, as a communication tool between the disciplines of education and architecture, is consistent.

It is because of educational specification's communicative role that DES is the focus of this examination of place. School districts throughout North Carolina rely on DES when embarking on a school design and construction program. DES instructs educators on the processes and types of information requested by architects. The how-to format of DES, which directs educators on how to categorize, organize, and represent information, provides access to the underlying concept of place as container shaping DES's approach to school facilities. In following DES's guidelines, educators perpetuate the “place as container model” through educational specifications and their subsequent communications with design professionals.

When designing and constructing school facilities the terms education, teaching, learning, and environment are peppered throughout documents and conversations.

However, the definitions of these words are rarely fully articulated. As a result, the richness and complexity of the concepts become lost in vague understandings and generalizations. Since this paper already is attempting to navigate the abstract concept of place, it is important to minimize any additional ambiguity. While entire discourses exist for each term, this paper will utilize the following definitions.

Education. Within the study of education an important distinction is made between schooling and education. DES, however, does not make this same distinction. DES uses the term education as a general label for the experiences occurring within a school facility. Quotes from DES in the following pages will use the term education in this way.

The rest of this paper will make a distinction between schooling and education. When the term schooling is used it will refer to what John Dewey describes in *Experience and Education*. In juxtaposing the traditional and progressive models of education Dewey describes the chief business of traditional schooling as transmitting “bodies of information and of skills that have been worked out in the past”(p. 17) to the new generation. The relationships within a school are organized in such a way as to make “the school a kind of institution sharply marked off from other social institutions”(Dewey, 1938,1975, p. 18).

In balancing the extremes of traditional and progressive models of education, Dewey focuses on the experience of education where a time, a building, or a curriculum does not necessarily limit an educational experience. To once again refer to John Dewey’s works, education is comprised of experiences that promote growth and maturity in an ever-present process. It is this type of experience that “arouses curiosity, strengthens initiative, and sets up desires and purposes that are

sufficiently intense to carry a person over dead places in the future”(Dewey, p. 38). Education will be meant, subsequently, in this way.

Teaching. The term teaching will refer to any management of an educational experience. For this discussion, the person managing the process can be an adult or a child, a teacher or a parent, a friend or a colleague. Teaching is not confined to a school facility or to the transmission of an academic discourse from one generation to the next.

Learning. Learning is a continual dialectic process that goes beyond the acquisition of facts and the passing of exams usually associated with schooling. It involves understanding, reflection, and creativity as every person shapes, often without awareness, both herself and the world around her. Learning is a magnificent and intricate process.

Environment. When discussing place, the term environment is the description for all the elements (place, education, teaching, and learning) working as one to create the setting for experience. Using this term acknowledges that teachers, students, and buildings do not work in isolation.

Finally, while the concept of place will be discussed in detail in the subsequent pages, a brief explanation of space is required. For the purposes of this paper, space is the abstract representation of distances, volumes, and areas. Unlike place, space does not promote a meaning and an experience. It is the organizing concept from which place is derived. Space is the infrastructure, the supporting skeleton that offers an area from which the character and richness of place can begin.

Contained by a Concept

In designing school facilities, architects are challenged with balancing the abstract measurements and organization of space with the creation of a place dedicated, in its most basic form, to schooling, and, in its ideal state, to teaching, learning, and education. DES aims to help educators provide architects with an understanding of the world of schooling that will help them to construct the ideal school facility. The limitation of DES, however, is that it operates from a concept of place as container that is inconsistent with the fluidity and dynamism associated with some definitions of teaching and learning.

In the following pages, this paper will demonstrate how the language and organization of DES originates in a concept of place as container. It begins by a simple look at the language used throughout the document. As DES is examined, connections will be drawn between its content and the types of places that it fosters. In an effort to provide a richer understanding of the place as container concept, this paper will then turn to the work of Aristotle where the concept of place as container was first articulated. Through Aristotle's text, one is given the opportunity to better understand how the concept of place as container affects many layers associated with the creation and role of school facilities in our society. In particular, the key elements of boundary, place in time, and interaction with place will be highlighted with examples related to school facilities.

The evidence of DES's concept of place exists in the language of the document. Throughout DES the school facility is described as the place where activities related to schooling are either "contained" or "housed." For example, in outlining why professional staff should participate in creating educational specifications, DES states, "[the] insight and sensitivity to the program that must be housed and

hopefully enhanced by the facility can best be provided by those who design and implement the program”(p. 4). The larger context provided by DES makes it clear that it defines the word “house” as to contain, keep, or store something.

DES goes on to describe the essential information needed for the educational planning process. This information includes, “... a detailed understanding of the educational program that must be contained and enhanced by the building that is to be designed”(p. 10). Further, the use of “contain” and “house” continues as DES refers to the educational program, capacity of students, and equipment needed to create a school facility that will “enhance the education of students in ... [North Carolina]”(p. i).

Determining exactly what a school facility will contain is addressed in a DES section dedicated to explaining how to organize the “educational activities and user requirements” described in the educational specifications (p. 18). In bold lettering in the center of the first page is this paragraph:

The main task for the educator is to describe in detail the activities that will take place in the school and to describe the desirable conditions under which they should occur. Educators should also describe the type of media and equipment that will be used, as well as the utilities that are needed. The solutions to these needs and conditions should be left to design professionals (p. 18).

Moreover, DES is very precise in delineating the task of describing what goes in the container to the educators while the design of the container is left to the architects.

DES directs educators by following this statement with a reminder that the descriptions for the curricular implications of discernible trends in education, educational philosophy, and teaching methodology should be presented briefly and as concisely as possible. In contrast, the specifications assert that information related to student capacity, student groupings and activities, technology and utilities, and

storage space and furniture should be developed as thoroughly as possible for every area within the school (p. 18).

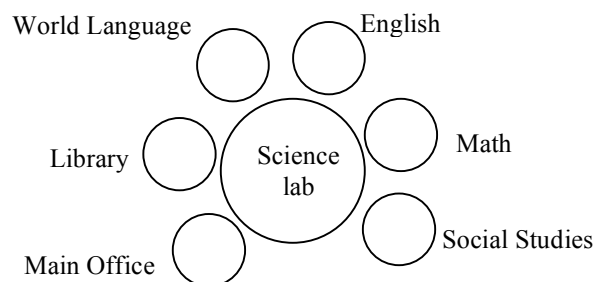
In focusing on the details of the number, shape, and type of things contained in the school facility, DES exemplifies Edward Casey's idea of what results from the concept of place as container. Casey, whose perspective is phenomenological, re-introduces place into Western philosophical discourse with his two works *Getting Back into Place* and *The Fate of Place*. In the latter text, he describes the complex philosophical history of space and place. In his study of place as container, Casey describes how in the model of "... place-as-container concrete issues bearing on boundary and limit, line and surface, point and void, are addressed in scrupulous detail"(1997, p. 69). Detail is the theme of DES as it instructs educators on how to categorize, describe, and organize the information architects require to design and construct a school facility. To emphasize, DES states that the educators are "... providing a database for the architect to use in creating the building plans and specifications"(p. 3).

Architects then use the educator's database to construct a place based on how students are grouped in a school, how they advance through a school, and the way staff is organized in a school (DES, p. 15). By presenting educational activities in this manner, DES directs educators to take snapshots of a schooling experience and break it down to its basic mechanistic structures. How many students are in a classroom? Is a math classroom situated next to a science classroom? Where do 5th graders travel to in the school facility over the course of a day? In creating a database of elements necessary to contain the activities of a modern elementary, middle, or high school, DES insures a unifying level of similarity in the school facility and the school experience of students.

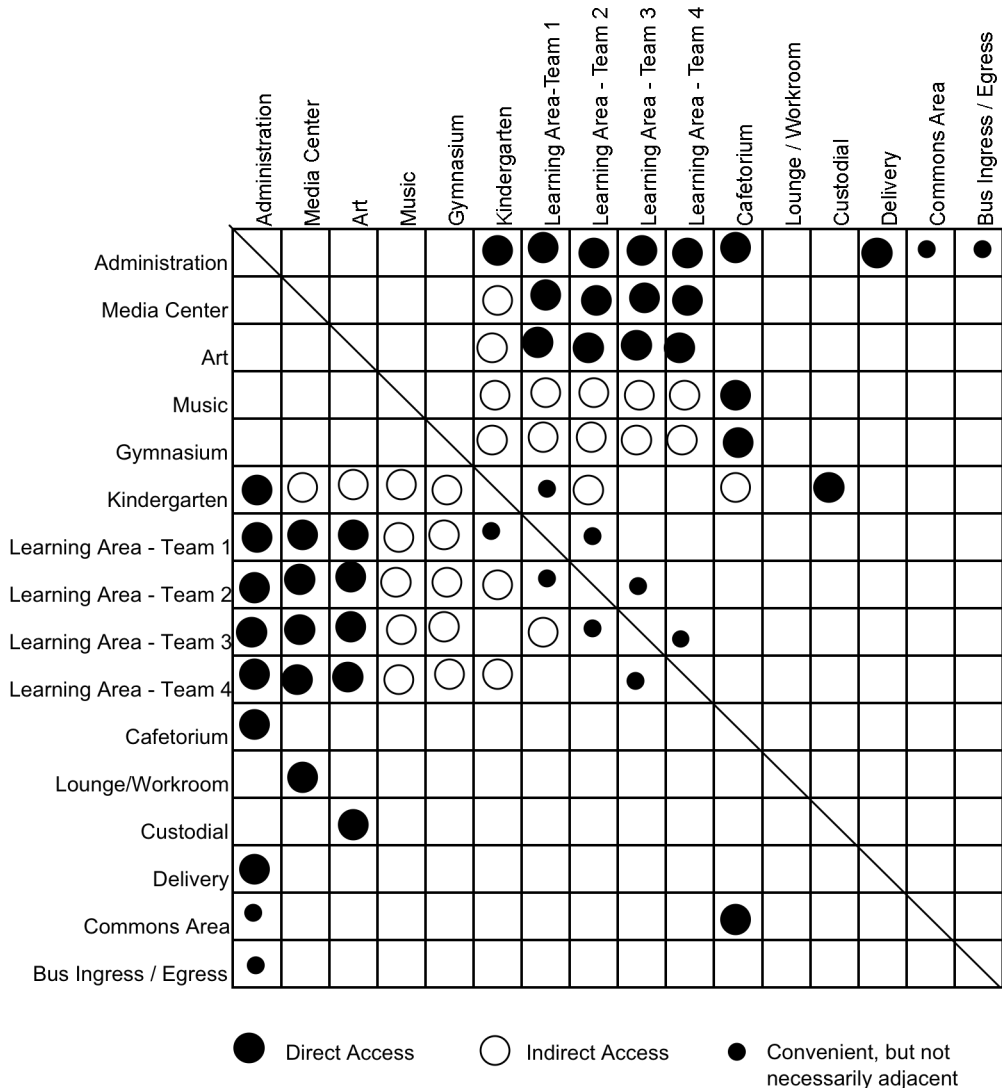
In following DES's process of creating a database of elements, educators lose the opportunity to describe an educational environment reflecting the richness and variety of its inhabitants. This process, with its focus on the organization of schooling, minimizes cultural influence on the final facility. In addition, it prevents educators from sharing unique relationships that may exist between the school and the community.

Another opportunity lost in DES is the creation of a learning place shaped by the various disciplines involved in schooling. Directed by DES to work in "subcommittees representing their areas of specialty" (p. 18), educators are once again to describe current student experience by either grade level, department or program area. The result is a list of space requirements based on specific disciplines, which then become smaller place containers inside the larger container of the school facility. As a result, teachers are bounded by physical structures designed specifically for their academic subject, and within the school facility potential cross-disciplinary learning opportunities are constrained.

To describe how all the little containers, or sub-places, are arranged, DES instructs educators to draw "... an abstract 'bubble' drawing" (p. 21) where circles represent each place and are clustered together to show connections. The result is often the image of a daisy flower as smaller sub-places are gathered around the edge of the program area's central place. For example, a sub-committee of science teachers might suggest the following bubble drawing.



If bubble drawing doesn't work, DES offers the option to create a matrix. The matrix places the names of all the sub-places, (kindergarten, library, art center, math, administration, etc.) along two sides. At the point where each place intersects with another place on the matrix, a symbol is inserted to explain the relationship between the sub-places. In the example school facility given in DES, the kindergarten and main office are highly related and require direct access to each other's containers while the Learning Area for Team 1 has a weak relationship with music and requires only indirect access (p. 24).



Both the matrix and the bubble drawing reduce complex relationships that exist in education to a question of how school classrooms, or sub-places, fill the larger container that is a school facility. Each sub-place acting as an independent unit within the larger school facility recalls what Dewey refers to as traditional education where the focus is on the “acquisition of isolated skills and techniques by drill ...[and] static aims and materials”(1916, p. 19, 20). In having educators present academic activities within a container model DES limits the opportunity for educators to share experiences that might occur if the boundaries between sub-places were more permeable. For example, curricular projects such as arts integration and team teaching do not easily fit into a matrix or a bubble diagram. Thus, perhaps the concept of place as a container precludes educators from sharing with design professionals instances when the boundary between containers is permeable.

Just as the idea of place as container is present through the levels of DES, it manifests itself in the location and structure of school facilities across the United States. As David Hutchinson states in *A Natural History of Place in Education*, “[our] sense of place both empowers and constrains how we approach, utilize, and value the spaces that surround us”(2004, p. 17). It is the lack of awareness of place in education that will result in a negative “.... experience of place in education”(p. 147).

In order to increase awareness of place in education it is necessary to examine the origin of place as container that is prevalent in DES. In returning to the roots of this concept the depth and complexity of its influence can better be understood.

According to Casey the concept of place as container began in Aristotle’s work *Physics* where he “.... set off a debate that has lasted until the present day”(1997, p. ix). Aristotle approaches his description of place from the views of a physicist

attempting to understand locomotion. To this end, he proposes the idea of place as a static container with definable boundaries that separates the container from the things it contains.

Aristotle begins his examination of place by stating, “Where water now is, there in turn, when the water has gone out as from a vessel, air is present: and at another time another body occupies this same place. The place is thought to be different from all the bodies which come to be in it and replace one another (*l 208^b.2*)” (Aristotle, 1984, p. 355).² Here the idea is that place is separate from the things that occupy it and it “does not pass out of existence when the things in it are annihilated (*l 209^a.1*)”(p. 355).

Much as Aristotle’s concept of place exists beyond its contents, DES begins its introduction highlighting the longevity of a school facility by stating how “programming a new educational facility that may affect thousands of students and may cost in the millions of dollars is both an exciting and an humbling experience”(p. 1). The idea that a school facility will outlast its creators and the people who use it is not unique to DES. Throughout the design and construction industry reference is made to school facilities designed to last for the next 50 or 100 years. From this perspective the place represented by the school facility remains constant as one student leaves his desk only to be replaced by another student the following year.

Aristotle describes the idea of place as separate from its contents by contrasting place with matter. According to Aristotle, matter is the most basic element of a thing. As one commentator explains, “...[it is] more general than the physical stuff

² The citations for Aristotle’s texts note the line numbers of the 1950 translation of Aristotle’s text published in Jonathan Barnes *The Complete Works of Aristotle, vol. I.*

out of which it is made; what is meant by ‘matter’ is whatever it is that takes on a certain determinate form [and] the form of the thing is immaterial and structural”(Shand, 1993, p. 37). It is important to understand Aristotle’s concept of matter in order to appreciate his following statement describing place: “But the matter, as we said before, is neither separable from the thing nor contains it, whereas place has both characteristics (*l 212a.1 – l212a.2*)”(Aristotle, 1984, p. 360). Thus the school facility built from Aristotle’s model of place maintains a separation from the teaching and learning experiences that it contains. Importantly, this separation does not belittle place. As Casey states in his summary of Aristotle’s concept of place,

.... [Place] beyond providing mere position, gives bountiful aegis – active protective support – to what it locates. Defined as a bounding container, place.... takes on a quite dynamic role in the determination of the physical universe.... it has the power to make things be *somewhere* and to hold and guard them once they are there”(1997, p. 71).

In describing further the relationship between place and that which it contains, Aristotle states, “Hence, the place of a thing is the innermost motionless boundary of what contains it (*l212a.20*)”(Aristotle, 1984, p. 361). This quotation highlights two interesting facets of Aristotle’s concept of place. One is the idea that place is motionless and the other is the idea of a boundary between place and what it contains.

To understand how the boundary aspect of the container conception of place influences school design and construction, it is easier to look at the Hilltop project than DES. In the early stages of the project design a District of Columbia Board of Education member made the suggestion to “.... ring the ... [school] site with a wrought-iron fence to help carve a safe zone out of the area’s problematic streets”(p. 52). Indeed, the idea of creating well-defined boundaries around a school facility is

an accepted practice by school design and construction professionals often viewed as an appropriate safety measure. In a second example, Olga Nieuwenhuys, a professor at Amsterdam Research School on Global Issues and Development Studies at the University of Amsterdam, writes that “.... in urbanized areas of the Western world the notion of childhood is both historically and culturally predicated on spatial separation”(pp. 99, 100). The fence lines, protective land boundaries and general isolation of school facilities are all examples of Aristotle’s idea that “[both] the shape and the space are boundaries the form is the boundary of the thing, the place is the boundary of the body which contains it (*l 211b.112-211b.114*)”(Aristotle, 1984, p. 360). The fence serves as the boundary of the body containing the things, which in this case are the people and items of schooling.

Significantly, the Hilltop project team from above, rejected the idea of a wrought iron fence and instead acknowledged the “.... biggest challenge ...[which] would not be to expand the bounds of the site beyond Phelps [High School], but to enlarge what could be imagined there”(Strickland and Riesman, 2005, p. 52). In removing the boundary represented by the fence, Strickland and Riesman shifted from an idea of schooling to an idea of education. This shift is revealed in their concern for

.... addressing such issues as coordinating curriculum across the site’s schools; providing ‘wrap-around’ social services for students, families and neighbors; mixing educational, recreational, residential, community and commercial uses across the site; and tying Hilltop to the rest of Washington with improved transit links (p. 53).

As a result, the project design locates an elementary school close to the residential area where the children live. It also provides public spaces next to mixed-use activities as well as a variety of employment and commercial spaces. The place

represented by Hilltop helps both students and neighborhood residents “.... plan and build the project as part of a community capacity-building effort”(p. 54).

In reading Strickland and Riesman’s description of Hilltop the vibrancy and fluidity of the community and learning opportunities resonates throughout the text. In contrast, when describing place as container, Aristotle states, “[place] is rather what is motionless: so it is rather the whole river that is place, because as a whole it is motionless (*l 212a17 – 212a18*)”(Aristotle, 1984, p. 361). Casey goes so far as to describe Aristotle’s concept of place as “.... the static ‘in’ where what counts is being strictly surrounded on all sides, just being *in* something, with no openness and no clearing before or after”(1997, p. 280). DES describes its version of this static, sealed off container in the appendix with its focus on directing educators on the optimal capacity of students in a classroom, the number of acres needed for an elementary, a middle, or a high school facility and the number and types of “.... classrooms designed for specific purposes”(pp. 31, 32, 33) in each building type.

These potential facts and figures create a picture of a solid, institutional building sitting isolated from homes, businesses and community life. In this image the place of teaching and learning will always be within the container that remains unchanged as a parade of students fill its classrooms and move through its boundaries to the next place.

This unchanging aspect of a school facility supports the historical view of schools as the place where a socially diverse society was shaped into the vision of a democratic American public. As a place that remains apart from its inhabitants, the school facility can maintain a common denominator for training future citizens. It offers a unifying American experience that remains the same whether a student is from New York or recently emigrated from Latin America. The school facility

remains unchanged despite the variety of people passing through its hallways and classrooms.

As David Tyack, professor emeritus at Stanford University, illustrates in his work, *Seeking Common Ground*, the debate over a school's role in the process of defining a common educational experience resounds in Americans' philosophical discourse on education (2003, p. 14). In particular, the debate is central in discussions surrounding multicultural education and the question of creating a common identity (Feinberg, 1998). In the place as container model, school facilities align with the idea of a common identity and experience for all American citizens. In fact, the current move toward prototype designs of school facilities – where exact school facility plans are built multiple times throughout a district – exemplifies an effort to create a common place for all students. Once inside a prototype school building it is difficult to know which neighborhood a school is located in or the cultural aspects of its inhabitants. Each school facility provides the same American place of schooling.

In reviewing Aristotle's writings on place, his ideas about the permanence of place and its boundaries resonant most with DES and some interpretations of school facility design. As a concept that permeates institutional policy and guidelines, his idea of place continues to influence school design and construction today. However, as projects such as Hilltop demonstrate, there are moments when designers, planners, and educators are able to contest the idea of a school facility as a container for schooling activities. In these rare instances a school construction project has the potential to work with a community as it redefines the purposes of schooling and school facilities so that it will better integrate with teaching, learning and the larger goals of education.

The Potential of Dwelling

The type of school facility that typically results from following DES and similar documents is the school facility currently situated in towns, cities, and suburbs across the United States. This model of school continues despite attempts by both educators and school design and construction professionals to create facilities responsive to the more progressive theories and ideas of education. Industry magazines and conferences promote ideas of school facilities as community centers, as sites of partnerships between school districts and parks departments, and as dynamic, technology rich learning environments. A disconnect continues, however, between these ideas and the majority of schools built across the United States. This stems from the current organization around a concept of place as container.

To demonstrate how a different concept of place could begin a shift in the design and construction of school facilities, this section offers an interpretation of Martin Heidegger's concept of place. Heidegger's ideas about place are more fluid than Aristotle's and are derived from his effort to understand how humans exist in the world. Before drawing connections between Heidegger's concept of place and school design and construction, this paper will provide a brief orientation to Heidegger and his concept of dwelling.

After laying out an understanding of Heidegger's concept, this paper will examine the connections between Heidegger's concept of dwelling and selected educational theories. The aim of this section of the paper is to highlight the possibilities that open up to architects, planners, and educators when they begin to think of school design and construction from a concept of place that does not promote the idea of school facility as container.

The concept of place necessary for a new definition of school facilities begins with the phenomenological premise that humans make sense of the world through their bodies. In Casey's philosophical history, he attributes this premise to Merleau-Ponty who believed that the human body is "... never without a place or that place is never without (its own actual or virtual) body" (1997, p. 235). In summarizing Merleau-Ponty's theory of place, Casey states, "*The body itself is place-productive*, [his emphasis] bringing forth places from its expressive and orientational movements, its literally kinetic dynamism" (p. 236). If one accepts the body as place-productive, then the image of a school facility as a container, separate and motionless, begins to crumble. Place does not exist for humans to move into but rather humans create place by moving through the space of the world.

In addition to Merleau-Ponty's work on place, Casey introduces Martin Heidegger whose "way back to place is a middle way, a *via media* between body and mind, both of which are set aside in order to concentrate on what happens *between* them" (1997, pp. 243, 244). Heidegger was a German thinker who lived from 1889-1976. According to Edward Krell, editor of the 1977 and 1993 publication of *Martin Heidegger Basic Writings*, Heidegger addresses a "diversity of issues" (p. 35) in his attempt to understand the question of Being. In his 1951 lecture *Building Dwelling Thinking*, Heidegger approached the question of Being through an exploration of how mortals exist on earth. In this lecture, Heidegger presents the concept of dwelling, which, according to Casey, is "... the most suggestive and sustained treatment of place in this century" (1997, p. 284).

Heidegger defines dwelling as, "[the] way in which you are and I am, the manner in which we humans are on the earth, is *buan*, dwelling To be a human being means to be on the earth as a mortal. It means to dwell" (Heidegger, 1993, p. 348).

To dwell is to interact in the world in a manner that protects and preserves what Heidegger terms the fourfold. The fourfold is the earth, the sky, divinities and mortals. In a poetic stretch of text in *Building Dwelling Thinking*, Heidegger describes how when thinking of one of these elements, the remaining three automatically come to mind. Thus an underlying connectedness of the four elements is revealed as is the subsequent naming of them as the fourfold (pp. 351, 352, 353).

The act of dwelling is so basic to human nature that Heidegger states, “We do not dwell because we have built, but we build and have built because we dwell, that is, because we are dwellers”(p. 350). As a result, humans do not create structures as a means to contain the fourfold, but rather, as a place where the fourfold gathers. The resulting picture is one where humans exist alongside and in harmony with the world with places created to help us achieve our essence as mortals. For, as Heidegger says in conclusion, “[the] proper dwelling plight lies in this, that mortals ever search anew for the essence of dwelling, that they must *ever learn to dwell . . .* but how else can mortals answer this summons than by trying on *their* part, on their own, to bring dwelling to the fullness of its essence”(p. 363)?

Before continuing with this discussion of Heidegger’s concept of dwelling and how it can influence school facilities, it is important to note Miquel de Beistegui’s thoughts on how Heidegger’s work should be applied to architecture. A professor of Philosophy at the University of Warwick, Beistegui comments that, “[to] claim that Heidegger’s is a ‘philosophy of architecture’ would amount, to say the least, to a vast exaggeration”(2003, p. 140). Heidegger, just as Aristotle did before him, came to his concept of place in his attempt to understand how humans exist in the world. For him, not every building is a dwelling place. According to Heidegger places of work such as the highway for the truck driver or the power station for the engineer

“.... house man. He inhabits them and yet does not dwell in them”(p. 348). In contrast, Heidegger offers the description of a farmhouse in the Black Forest.

Here the self-sufficiency of the power to let earth and sky, divinities and mortals enter in *simple oneness* into things ordered the house. It placed the farm on the wind-sheltered mountain slope It gave it the wide overhanging shingle roof whose proper slope bears up under the burden of snow, and shields the chambers against the storms of the long winter nights it made room in its chamber for the hallowed places of childbed and the ‘tree of the dead’ and in this way it designed for the different generations under one roof the character of their journey through time.

From Heidegger then, in considering school facilities one must decide if they are places humans inhabit or a place humans dwell.

The Hilltop project presents school facilities as a place to dwell. In expanding the place of schooling to incorporate the larger neighborhood, Hilltop becomes a place of education as described earlier that is designed to support experiences providing growth and maturity. Hilltop enables, as Beistegui describes, “.... dwelling in the Heideggerian sense ...[which] presupposes the openness to – and the experience of – that which throws us beyond familiarity of things”(2003, p. 139). By removing the concept of place as container, the school facility at Hilltop has the potential to become a dwelling place for community members in that, much as Heidegger’s example of the Black Forest farm, the building is shaped by the “character of their journey through time”(p. 362).

It is this alignment of the journey of the educational experience with the place of education that makes Heidegger’s concept of dwelling a better organizing concept, then that by Aristotle, for policies and discussions about school design and construction. The concept of dwelling enables the school facility to be a place of teaching and learning rather than a place for containing children while they learn.

By working from Heidegger's concept of dwelling the conversation currently guided by DES would become secondary to a richer and more complex discussion of education focusing on the journey and experience of learning.

To illustrate further how Heidegger's concept of dwelling would influence the communication between educators and design and construction professionals, one can study the work on caring in education by Nel Noddings, a leader in the philosophy of education field. In *Starting at Home*, Noddings discusses school facilities as an intermediary place between home and the larger world. She presents them as a place providing hope, nurturing talent and encouraging the ability to see things as other than how they are (2002, pp. 150, 151). Noddings' interpretation of the place created by such school facilities echoes Casey's reading of Heidegger where he remarks on how dwelling is "... being 'alongside' the world as if ...[one] were at home there"(p. 246). Casey goes on to note how such dwelling, or residing contains, " echoes of taking care and cherishing"(p. 246).

Viewed from this concept of dwelling, school facilities provide a protective and cultivating place. The facility is a partner in creating the environment of caring. It provides the everyday tools and positive interactions with the world that will aid students as they move forward to become active members in the larger community. From this viewpoint, places of education may support learners who continually aim to achieve the essence of dwelling.

The movement from school to larger community is a common one in educational philosophy. Dewey viewed schools as transition areas where children learn to become citizens (Dewey, 1916, 1997). According to Noddings, school is a midpoint as students move from a healthy home to "... wander forth and, as Heidegger put it, dwell in the world"(2002, p. 150). Heidegger's concept of place aids in this view

because unlike Aristotle's container model of place with motionless boundaries, the former proposes an active movement through place where "[a] boundary is not that at which something stops but, the boundary is that from which something begins its essential unfolding" (p. 356). The Hilltop project applies this aspect of place in its effort to remove the fence line from around the school facility and situate various buildings along the edge. These buildings, despite their traditional view as part of the 'real world' become part of the expanded place of education, which in turn becomes a place of dwelling.

In order for modern structures to achieve Heidegger's concept of dwelling, Bestigui highlights a need,

.... to reopen a space, between gathering and dissemination, between earth and world, at once bringing them together and holding them apart. Only in this between, in this inter-stitial space, can we properly *dwell* . Only thus will architecture give space to space itself and construct a ...[place] for human existence. (2003, p. 167).

As a modern structure, school facilities share this need. By shifting the concept of place underlying DES, educators can begin to articulate the elements of a learning and teaching place that are essential to achieving Heidegger's concept of dwelling.

In *Places of Learning*, Elizabeth Ellsworth, a professor at The New School in New York City, provides examples of structures "...[designed] for a relationality that is perpetually in the making and laden with the potential to reconfigure established boundaries and meanings we have already given to inside and outside, self and other, personal and social" (2005, p. 46). Relationality, according to Ellsworth, is about connecting one's inner thoughts, memories and ways of knowing with the constructed ideas, history, and culture of a larger society. It is

at the moment when one establishes relationality that learning can occur.

Ellsworth's descriptions of these moments of learning echo Beistigui's description that Heidegger's concept of dwelling presupposes an openness to experiences. Both scholars build upon the importance of experience to achieve the goal of either learning or dwelling.

Ellsworth, in *Place of Learning*, focuses on places where architecture becomes pedagogical and pedagogy becomes architectural (p. 38). These places, which include the U.S. Holocaust Museum, the Brooklyn Children's Museum's exhibit *Art Inside Out*, and Maya Lin's Vietnam Veterans Memorial, address the learning self as "... a mind/brain/body in motion and in transition toward unforeseeable understandings and uses of self, others and the world"(p. 36).

Unlike in DES, Ellsworth and the various architects and designers make no attempt to take a snapshot of learning and build a container for it. Instead they work from a shared concept of place and its role in creating an environment for learning. The structures do not teach, but they work with the narrative and address of pedagogy to invite and support "... unintentional, involuntary experiences of the learning self"(p. 26).

As an example of how the environment works with narrative and the experience of learning, Ellsworth offers the museum exhibit *Bravehearts: Men in Skirts* from London's Victoria and Albert Museum (pp. 143-149). The exhibit explored how different groups and individuals have promoted the skirt as a dress option for men. Designed with a conscious lack of closure, the exhibit used wall text and a window shopping atmosphere to invite visitors "... to be intrigued and/or provoked enough to question how and why things got this way and to consider whether a trend toward skirts for men in the future really does exist"(p. 145).

A case study of The U.S. Holocaust Museum serves as another example of how structures work as a scene of address for pedagogical narrative (Ellsworth, 2005, pp. 99-116). The museum's architecture directs visitors through the museum space controlling when and how they encounter the elements of the exhibit. Through careful construction of a place filled with artifacts in a sequential montage of elements, "... the visitor 'learns' a relationship to Holocaust history and memory – a relationship into which meanings can later be articulated" (pp. 102, 103). The relationship is conveyed in general to the visitor through juxtaposition of views of the artifacts of the Holocaust with breathtaking vistas of the Washington monument. In another instance, the museum's exhibit about the Ringelbaum Milk Can, which served as a Warsaw ghetto's time capsule of their community's life, prevents visitors from reading all the information gathered from the milk can by having text disappear around a structural pole. Through this careful display of text, the visitor is reminded of his inability to fully understand or re-capture all that was lost in the destruction of a neighborhood place(pp. 110-113).

In Ellsworth's examples it is through the built environment that internal thoughts and feelings are put in relation with external others, habits, cultures and ideas creating a pivot place at which learning occurs. Ellsworth refers to such a place as

.... [a] flexible, responsive holding environment
...[which] meets the self-in-transition with curiosity and
playfulness, and is open to itself being changed in
turn – as a result of having been in relation with a
learning self in the making(p. 33).

From the concept of dwelling, the place of education begins to reflect the complexity of learning and teaching that is at the heart of what Dewey describes as educative experiences. Learning is not contained by a building or a period in life but

is something as continuous and fluid as our experiences and relations to what is around us.

In reading Ellsworth's text, one immediately recognizes the ageless aspect of a learner. She does not limit learning to children enrolled in K-12 institutions, but discusses it as a process that happens during all phases of life and in a variety of public places. Learning in this way ties back to the definition of education by Dewey presented earlier in this paper. Again, this definition emphasizes experiences that promote positive growth meant to support a person as he moves through life.

The idea of learning and education as a continuous life activity relates well with moving the concept of place from that of container to that of a dwelling place. As a dwelling place, school facilities can welcome all generations of learning and begin to move learning from a peripheral societal activity to a central experience that is a part of everyone's life beyond what is currently accepted as school age. In addition, it creates a place that can accomplish Dewey's idea of school as a transition point from childhood to being a responsible citizen who positively takes part in the world around him. To accomplish such a goal the boundaries between school facility and the surrounding neighborhood can move from a protected environment for its youngest students to an environment that completely blends with the corporations, public institutions and several other aspects of modern life. A school facility built from the concept of dwelling would also enable its users to create a sense of ownership and community through their interaction with place.

Granted, this final re-conceptualization of the place of school facilities implies changes beyond the institution of education. As with the fluidity of Heidegger's concept of dwelling, this type of change in school facilities requires permeable

boundaries between schooling and the larger society. Creating this larger change of mindset is not a task that can be accomplished with a simple change in terminology or policy. However, by beginning this conversation about the concept of place architects, planners, and educators can introduce the seeds of change not only for school design and construction, but also perhaps for the larger experience of education.

Implications

Changing the concept of place associated with schooling from a model of container to a model of dwelling is the first step in beginning to re-imagine the facilities dedicated to education. Without making this shift of perspective on the elements and purpose of place, educators, planners, and design and construction professionals will continue to build new versions of an old building type. Simply by changing the concept of place, however, a new building solution is not guaranteed. Projects such as Hilltop are merely the unconscious beginnings of how school facilities born from this new concept of place can alter an entire community's approach to education.

In closing, this thesis proposes four overarching implications that emerge when transitioning from the concept of place as container to a concept of dwelling. First one must ask how policy documents such as DES and the educational specifications generated by school districts across the country will need to change. As the format currently exists, educational specifications would no longer suffice as the primary means of communication between education and design and construction professionals. Rather than focusing on creating a database of snapshots of schooling, educators can describe in detail the experiences of teaching and learning.

From these rich descriptions, design and construction professionals can look to create facilities in support of a fluid and dynamic environment with permeable boundaries and perhaps many places of education. The spatial information currently driving the content of DES is necessary to manipulate space into a school facility, but perhaps it can best come in a summary form. Then design and construction professionals can supplement this summary with the many references and standards that are key resources for their profession.

A second implication relates to the language of school design and construction. As educators and design professionals work together to develop the concept of a school facility as a dwelling place, a new common language must be developed that bridges the disciplines. Coming from a central and common concept that is sympathetic to both architecture and education, this language will enable both professions to convey and connect ideas without sacrificing the complexity and beauty of the environment. In particular, by redefining the concept of place, educators will have to grapple with the differences between schooling and education, and they will need to understand how these variances influence the place of teaching and learning.

Thirdly, as a result of this new awareness, the field of education will experience an increased awareness of the power of place and the possibilities to utilize and value its presence. From a new concept of place, educators may no longer be constrained by the traditional shape and structure of schooling. Rather than speaking to design and construction professionals about numbers of desks and outlets, teachers can discuss how to create caring places that shelter and protect while encouraging a conversation and connection with the larger society. Place becomes a tool and a partner in creating learning experiences.

Finally, the fluidity and connection presented in Heidegger's concept of dwelling can raise questions not only about the building structure of a school facility, but also about who it serves and how it integrates within the cities, towns and suburbs in which it is located. Perhaps a school facility is no longer something an individual passes through on her way to participation in the real world. Imagine instead a place where she can always return and regain the sense of shelter put forth by Noddings before wandering forth again into the world. Or, imagine a place one can always visit to discuss and reflect upon world events or the latest book he has read. This place may be a network of buildings constructed from a sense of dwelling in the world that protects and preserves the world as one travels on her unique educational journey.

Together these consequences draw a larger focus on the challenge and opportunities present in creating a place for education. As the structural manifestation of over 200 years of schooling, the school facility carries a deep and valued place in the architectural landscape of the United States. The challenge for the next generation of school facilities will be to preserve this heritage while connecting with what educators have learned about the experience of teaching, learning, and education. By developing a new concept of the place or places of education the tensions between schooling and education will be brought into relief. Therein lies the opportunity.

Conclusion

In an attempt to understand the disconnect between educational theory and the majority of school facilities built across the United States, this paper used North Carolina's *Development of Educational Specifications* (DES) to explore the concept of

place currently present in school design and construction policy. Upon close inspection, the document revealed a concept of place as container similar to the theory put forth in Aristotle's *Physics*. This view of place as a static container with motionless boundaries influences how educators communicate with design and construction professionals. In limiting this conversation, the dynamic and rich environment of an educational experience is frozen into measurable units easily encased in institutional architecture. As a result, educational environments such as Strickland and Riesman's Hilltop project become the exception to the rule rather than representative of the majority of education design and construction projects.

To help break the model of place as a container, Martin Heidegger's concept of dwelling has been explored in relation to John Dewey, Nel Noddings and Elizabeth Ellsworth's work in educational theory. In this exploration, a synergy is revealed between a built environment and an educational experience that suggests how this new concept of place is better suited for creating school facilities.

In closing a brief review of the implications of redefining the concept of place is offered. In changing the concept of place exemplified in DES the purpose and design of educational specifications would need to be altered to better represent the complexity of education. In altering educational specifications, the process and language currently used in school design and construction would change as the focus of a school facility shifts. This shift in focus also would be reflected in educational research and theory as educators realize the potential offered by opportunity to construct places from a concept of dwelling. Given the essential nature of dwelling described by Heidegger, this new concept of a place of education would influence how education and school facilities interact with the larger society.

As a result, through a discussion of the concept of place, educators, planners,

designers, and construction professionals create the opportunity to begin a different conversation about school facilities and the role of these places in education.

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