Rethinking Native Learning Environments

Bob Mohr  
*Mithun architects + designers + planners*

Brodie Bain  
*Mithun architects + designers + planners*

Lynn Paxson  
*Iowa State University, lpaxson@iastate.edu*

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Abstract
This symposium will present three projects and three explorations into creating learning environments for Native communities. The projects range from a high school that drew Native students from many tribal nations across the country, to a tribal (2-year) college that serves primarily one Native nation but is open to students from tribes from around the Pacific Northwest, to one of the oldest tribal universities (4-year) in the country which serves students from multiple Native nations. All three of these institutions have dealt in different ways with the idea of helping their students "walk in two worlds" or function in two possibly competing epistemologies. All three schools also have to contend at some level with the negative legacy of the Indian boarding schools of the past century that have tainted attitudes towards 'western' education. Also all of the examples are institutions that wish to include and acknowledge, if not celebrate, traditional ways of knowing and learning.

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species from the published literature and interviews with curators, keepers, and scientists. They are only successful if they break new ground and provide genuine innovations. They are not permitted to copy tired, old exhibits and their deliverables are carefully evaluated by a jury of experts. The projects have been a valuable pedagogical experience, according to the students themselves. 05-304d

- Lukas, Kristen (Cleveland Metroparks Zoo, OH) and Ross, Kevin (Lincoln Park Zoo, IL). DESIGNING EXHIBITS TO FACILITATE SCIENCE.

Lukas and Ross had the unique opportunity of programming a new multi-million dollar gorilla exhibit at Lincoln Park Zoo in Chicago. Because of their background and the strategic direction of the zoo, the exhibit was programmed to facilitate scientific inquiry including limited experimentation. The physical features and logistical layout of the facilities are reviewed through documents and photographs. As the exhibit has now opened to the public, the post-occupancy performance of the facilities can be evaluated. 05-304e

- Sommer, Robert (University of California at Davis, CA). WHAT HAVE WE LEARNED AT THE ZOO AFTER A QUARTER CENTURY OF IMPROVEMENT?

Unlike many other examples of hard institutional architecture (e.g. prisons, mental hospitals), zoological parks have improved since the publication of the book Tight Spaces in 1974. They changed largely because of developments in landscape architecture and the acceptance of research findings based on field and zoo studies of wildlife. Zoos today are friendlier to scientists attempting to understand the relationship of environment to behavior, and they have been more willing to modify facilities according to what they have learned. It is clear that zoos have learned what works for animals and people, and people are learning more about animal behavior now that the exhibits have successfully simulated nature. 05-304f

Mertyurek, Serkan (Cankaya University, Turkey). CONCEPTION OF URBAN INTERIORS.

Urban open spaces are vital organs of a city and thus, they are expected to fulfill numerous purposes. Undoubtedly, one of its central purposes is to facilitate communication between members of a community who intend to use the particular space. Although, community as the object of open space resembles a plurality, it does not specify a particular size or quantity. It can be gathering of a few persons or it can be a group of people. Even, it can be a crowd who are organized for performing a particular action. This changeability in size and motivation to act brings in a flexible, almost dual meaning to open space. Accordingly, communication is rendered into action in different spheres from almost personal— as in the case of two elderly on opposite edges of a bench in a park- to gigantically public— as big communal events, movements and revolts take place in open spaces. So, as far as open spaces are loaded with different meanings and have to meet various demands and values of the communes that it resides, they have already assigned a difficult task: to reserve rooms to house diversity. Open spaces are critical grounds where diverse groups of a community meet, activate and shelter. So, efficient use of open spaces adds to liveability of places, makes them rich to view and involve. However, this study does not attempt to consider particular open spaces that are planned specifically as open spaces for recreation and public use. Rather, it deals with open spaces between buildings. For the current situation, it is believed that there is inefficiency in use of these open spaces. Since, these areas are distinguished with their recessive but visible identities and imprecise boundaries and ranking in differentiation of urban space network. In attempting to find shared places between building masses which are internalized by their inhabitants and have acquired the quality of outdoor rooms for their users, these open spaces have to be considered as parts and parcels of indoor environments. Thus, the vocabulary regarding the design of these transition areas need to reflect and carry the imprints of the approach and eye that we look at interior spaces. This approach would bring more efficient and intense use of open spaces between buildings. Accordingly, it would increase the chances of communication and interaction of different people in the community. Moreover, by turning these neglected areas into vivid open spaces, the access and utilization opportunities of such facilities and spaces by diverse groups in the community would be increased. (personal space/territoriosity, interior, neighbourhood/community, outdoor environments). 05-197

Mohr, Bob (Mithun architects + designers + planners, WA), Bain, Brodie, (Mithun architects + designers + planners, WA) and Paxson, Lynn (Iowa State University, IA). RETHINKING NATIVE LEARNING ENVIRONMENTS.

This symposium will present three projects and three explorations into creating learning environments for Native communities. The projects range from a high school that drew Native students from many tribal nations across the country, to a tribal (2-year) college that serves primarily one Native nation but is open to students from tribes from around the Pacific Northwest, to one of the oldest tribal universities (4-year) in the country which serves students from multiple Native nations. All three of these institutions have dealt in different ways with the idea of helping their students "walk in two worlds" or function in two possibly competing epistemologies. All three schools also have to contend at
some level with the negative legacy of the Indian boarding schools of the past century (Archuleta et al 2000, PBS 1992) that have tainted attitudes towards 'western' education. Also all of the examples are institutions that wish to include and acknowledge, if not celebrate, traditional ways of knowing and learning (Cajete 1994, 2000, Cleary et al 1998, Reyhner 1992, and Swentzell 1997). Describing one of the issues these institutions face as learning to "walk in two worlds" is a simplification, in fact it is many worlds and many paths. There is neither a single mainstream, anglo, white or 'American' culture and there is certainly no single 'Native' culture either. Perhaps DuBois' work may be more useful. In the early 1900s, W.E.B. DuBois posited that the problem of the 20th century would be the problem of the color line. This concept has arguably held true, and contemporary cultural critics have explored the thickness of that color line, building on DuBois' concept of "double-consciousness" - the notion that a culture (African Americans in DuBois' case) can be simultaneously within two unique cultures and fully a part of neither. Brodie Bain and Bob Mohr, in their work at Northwest Indian College, have explored the notion of contemporary Native identity and how it can be manifested in physical spaces for learning. Northwest Indian College (NWIC) is a two-year tribal college, chartered by the Lummi Tribe of Washington State and located just south of the Canadian border near Bellingham, WA. NWIC was founded in the late 1970s and provides education to Native tribes from around the Pacific Northwest. The Northwest Indian College project explores DuBois' notion of double-consciousness as it could apply to contemporary Native cultural identity. The new Campus Master Plan mines historic cultural and environmental data and embraces the College’s unique dual mission as a manifestation of the struggle toward defining a contemporary Native identity. Lynn Paxson will present work at NWIC hinge on an exploration of this dual focus, relating it to W.E.B. DuBois' notion of "double-consciousness" as it could apply to contemporary Native cultural identity. It is an investigation into how a campus can be informed by such an abstract notion while making spaces that serve the specific, unique pedagogical needs of the Lummi people and the Northwest Native students they host at their College. 05-078b

- Paxson, Lynn (Iowa State University, IA). CULTURAL BRIDGING: DESIGN PROJECTS SPANNING TWO CULTURES, TWO SCHOOLS. This presentation will discuss two cooperative explorations and interventions into multi-cultural landscapes as service learning or community design projects. One is a figurative and literal bridging of more than two cultures, two views, and two places, through the design of a (foot)bridge across the Pecos River. The bridge would literally span two sides of a residential high school campus. The campus housed NAPS, a college preparatory school for 'gifted' Native American students from around the country. NAPS struggled with how to help students span at least two cultures, two ways of being in the world: "indigenous/native" as well as 'western/mainstream". This was an effort to reinforce American Indian students' tribal heritage, increasing their ability to succeed in the face of assimilative mainstream college environments while continuing to honor traditional knowledge(s) and practices. The other project, part of the Haskell University campus, considers the expression and support of American Indian identity in a facility that is both 'museum' and 'cultural center' requiring a rethinking of both these programmatic types. Haskell, one of the oldest and most recognized tribal universities in the country was originally founded in 1884 as one of the government boarding schools for American Indian children. This project also explored the relationship and privileging of interior over exterior space and issues of temporary versus permanent. Both projects explored how spaces can afford and
accommodate active or experiential and cooperative learning practices. 05-078c

Moore, Robin (North Carolina State University, NC). BUILDING THE KNOWLEDGE BASE IN CHILDREN’S ENVIRONMENTS: DOCTORAL RESEARCH AT NORTH CAROLINA STATE UNIVERSITY.

Five years ago, the interdisciplinary Ph.D. in Design Program was launched at NC State University, College of Design. To be accepted into the program, students must hold a degree in one of the design disciplines. From the beginning, the program has attracted a number of students interested in children’s environments. Four doctoral investigations are underway in various stages of completion and one is already complete. A further study (Van Der Wiele) was completed during the course of dissertation field reconnaissance. Another member of the group (Cosco) is an off campus Ph.D. student at another university. Together, the dissertations have been or are being supervised by three different Ph.D. program faculty members. A range of topics, in a variety of contexts, in four different countries, using multiple methods will be presented as detailed below. The purpose of the symposium is to present the investigations as a group, highlighting the differences and similarities in terms of topic, context, methodology, and application of results to policy and other change mechanisms. Each investigator will make a short presentation allowing sufficient time for a general discussion. 05-105a

- Chatterjee, Sudeshna (North Carolina State University, NC). CHILDREN’S FRIENDSHIP WITH PLACE: A FRAMEWORK FOR EVALUATING ENVIRONMENTAL CHILD FRIENDLINESS IN DELHI, INDIA.

The Child Friendly City initiative sees the city as a complex governmental organization with institutional, legal, budgetary and planning powers to develop strategies for transforming “the living environments of children at the family, neighborhood and the city levels” (Riggio 2002, 45). Creation of physical settings to improve living environments is part of the vision, but not the focus. From an E&B perspective, though, a child-friendly city can only be made from numerous, interlocking child-friendly places that children themselves explore, engage with, where they develop emotional and affective relationships. The field research, to be conducted in Delhi, India, will explore the conceptual possibilities of place friendship as a valid form of place relationship that is different from the place attachment construct. From the literature on developmental friendship, environment-behavior, environmental psychology and children’s geography, a framework is proposed for envisioning child friendly places based on six essential conditions of friendship: mutual affection and personal regard; shared interests and activities; commitment; loyalty; self-disclosure and mutual understanding; and horizontality (Doll 1996). The functional and phenomenological possibilities of places chosen by children to be their friends will be investigated. 05-105b

- Cosco, Nilda (North Carolina State University, NC/Heriot-Watt University, United Kingdom). MOTIVATION TO MOVE: INVESTIGATING PRESCHOOLERS’ PHYSICAL ACTIVITY AT CHILDCARE CENTERS.

Children are intrinsically motivated to be active and learn about the world by physically interacting with it. Paradoxically, despite this natural drive, the health of even the youngest US children is becoming impacted by sedentary lifestyles (Ogden et al., 2002). According to the National Survey of America’s Families, in 1999, almost three-quarters (73%) of children under five with employed parents are in a childcare arrangement other than care by a parent (Capizzano et al., 2000). Childcare centers have now become the most crucial environment outside the home for young children. As being outdoors is a predictor of physical activity (Baranowski, et.al., 1993; Saltis, 1993), childcare centers should provide opportunities for daily contact with nature. Although this appears obvious, there is a lack of research literature to guide policy makers, licensing agencies, and teacher training. The goal of this cross sectional, multi-method study is to investigate the association between different types of play setting designs and physical activity of 3-5 year old children. Preliminary results will be showing how children use childcare outdoor play areas, and describe the potential of designed spaces for supporting child physical activity. 05-105c

- Pasalar, Celen (North Carolina State University, NC). THE EFFECTS OF SPATIAL LAYOUTS ON STUDENTS’ INTERACTIONS IN MIDDLE SCHOOLS: MULTIPLE CASE ANALYSIS.

This research indicates how small schools are spatially organized and how spatial relationships influence students’ behavior. Four school buildings representative of “academic house” and “finger plan” type school buildings were selected and analyzed as spatial organizations; as social organizations; and as a set of interactive interfaces for social and educational activities. “Space syntax” analysis provided information on the spatial layout attributes. The integrated and segregated areas of each school building were characterized by syntactic variables. Behavioral mapping identified students’ activity and movement patterns with respect to the syntactic attributes of spatial layouts. Both findings from the analysis of students'