# Community/ Embodiment

By focusing on boundary spaces and the appealing aspects of existing community spaces I will design an artifact which increases feelings of community at CMU. Beyond collaborative work, I am examining spontaneous interaction and exploration within the CMU student community.

**Objects and Locations Strengthening Community** 

## **Literature Review**

YI-FU TUA Place WILLIAM GAVER STEWART BRANI **Appropriation** Appropriation CHARLES RUSCH Chance Encounters of Objects of Space MALCOLM McCULLOUGH CSCW BATTERBEE, KOSKINEN, FORLIZZI, ET AL GERALDINE FITZPATRICK **Storytelling & Experience** Collaboration Social Interaction Shared Experience **Emergent Interaction** Fish Pong Public Spaces Social Computing le Computing SignalPlay PAUL DOU **Embodied Interaction** HIROSHI ISHI ADAM GREENFIELD **Private Work Spaces JOEP FRENS** Urban Computing **Rich Interaction** 

**Values of Places** 

Conversation & Play Uses & Activities

The project began by reviewing existing projects and areas of inquiry in HCI, interaction design, and architecture as shown in Figure 1. I examined theories that address the role of spaces and objects within communities in several contexts. These theories were then grouped into three main areas for further exploration:

**Spaces and Collaboration** Specific work focused on improving productivity through collaborative work environments.

**Objects and Interaction** 

The ability of situated objects to change social relationships through play and new modes of interpersonal interaction.

**Storytelling and Emergence** The importance of shared experience and storytelling in communities as shared experience. Figure 1 **Ubiquitous Computing** 

Expert interviews led me to William Whyte's approach to urban planning, resulting in finding the work done by Project for Public Spaces using Whyte's observational approach. The Project for Public Spaces has identified four major areas which effect how spaces are used and what makes them appealing.

I framed the types of physical spaces I would be looking at in terms of parts of home related to spaces at CMU. Since I am examining spaces that are used by multiple disciplines and encourage spontaneous interaction I connected this to the function of a front porch and a foyer on a typical home.

Porches are visible to the general public, but function as a space to meet others. Foyers provide a similar function, but bring owners and visitors together in an interior space. At CMU I initially correlated these spaces to vestibules and hallways within buildings.

These correlations are show in Figure 2.



**Invites Use & Lingering** (Comfort & Image) Spaces & Use Homes Family Front Bedroom Dining Living Front Room Porch Yard Room Room Sidewalks CMU Offices Studios Cafés Classrooms allwavs Vestibules **Specific Use Open Space Boundary Spaces** Figure 2

## **Interviews & Observations**

## In order to better understand how students use spaces at CMU I interviewed a cross section of students at varying stages in their CMU experience.

These students also had varying degrees of campus involvement and included CMU students who had spent part of their education at satellite CMU campus locations.

Many common threads emerged about the student experience at CMU, especially the high expectations and workload of the CMU environment. Even those who lived on campus look puzzled when I asked about relaxing on campus.

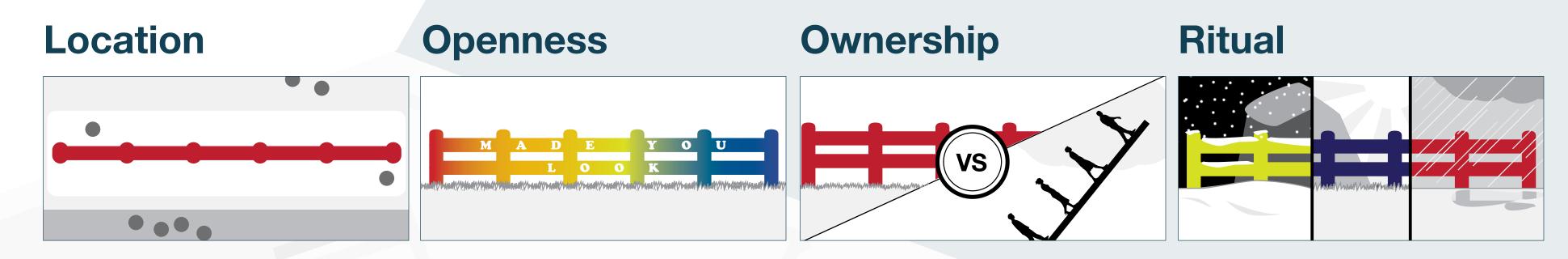
From these interviews I discovered the fence as a common bond shared amongst the students. While many of the graduate students that I interact with are unfamiliar with the fence, every student interviewed had some relationship to the fence. Those who had "taken the fence" expressed feelings of ownership and pride about the activity. Those who had not "taken the fence" expressed a desire to do so as a way of leaving a mark and participating in a part of CMU history.





The Fence

## **Synthesis & Design Implications**



Part of the fence's appeal is its central location. Visible from most buildings on campus, it sits at the intersection of many of the major pedestrian paths. While this does not mean that all students participate in the ritual of painting the fence, most students do notice it and look at it to see who has "taken the fence" and what their message is.

While the fence serves diverse groups, each group appropriates the fence and uses it as they see fit. There are rules that govern how the fence is painted, but they do not limit what gets painted. This openness adds to the appeal of the fence, both for participants

The fence is actually owned by the students, unlike most spaces on campus which are controlled by the University which the administration grants students access and rights. By owning the fence, students enforce the rules and own the fence — to the point

The history of the fence as a meeting place began with its location, but is now as much a function of tradition as location. The rituals that have been created around "taking the fence" are only enforced by students, but are taken very seriously.

The fence emerged as providing much of what I was seeking to understand. I began focusing on why the fence worked as a rallying point for students and what this would mean for any object or space meant to foster interaction within the student community.

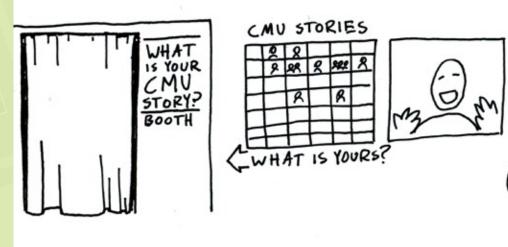
that students actually take offense at the school and for passers-by. administration interacting with the fence in any way

that infringes on the openness. The student Pedestrians are drawn to look at the fence simply to satisfy their curiosity about what has been painted on ownership allows appropriation as part of interacting with the fence. it. For those who take the fence, the openness means that they can advertise or simply make their mark as a part of CMU tradition.

In all kinds of weather, students will camp out for the opportunity to paint the fence between midnight and dawn. There are no police: it is only a reverence for the tradition and ritual that keeps the fence as it has been for so long.

What can be learned from the Fence and applied in a manner that allows a greater number of participants and addresses the changing nature of CMU?

## **Early Concepts**



### **CMU Story Booth**

Student record their experiences at CMU by entering the booth. Visitors and other members of the campus community can see the campus diversity in the snapshot view and gain an understanding about life at CMU by watching individual stories. **Openness**, Ritual



#### **A New View on Campus**

A viewfinder or screen placed near the fence allows students to place digital markers over top of physical locations on campus. By adding another layer of information parts of campus, it opens the possibility for greater participation from a larger number of students in a new way.

Location, Ritual

#### **CMU Crystal Ball**

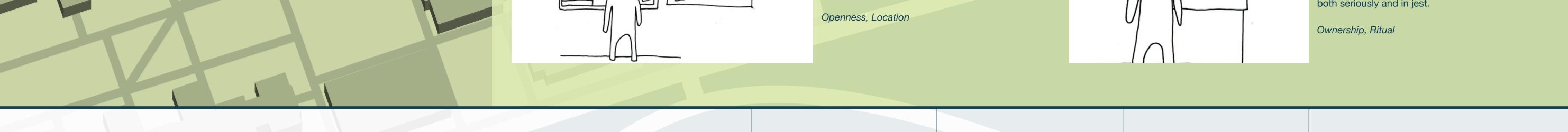
A student-contolled database of information about CMU. By requiring questions to be asked at the crystal ball, the act itself would become a ritual for students to participate in –





#### **Distributed Billboards**

Normal billboards are uploaded to a network of distributed displays. Information is no longer limited to single departments, but is instead available to the entire campus.



**Kyle** 

| meline | Jan 2009<br>Concept Validation<br>Design Probes | Feb 2009<br>Prototyping | Mar / Apr 2009<br>Testing & Refinement          | <section-header></section-header> |
|--------|---|-------------------------|---|-----------------------------------|
| AVice  | MDes IxD Candidate 2008                         |                         | Advisor: Jodi Forlizzi                          |                                   |
|        | Thesis Project<br>December 12, 2008             |                         | Carnegie Mellon University,<br>School of Design |                                   |