

**X-Square: “we have built
one of Arizona’s
top public art
teams!”**

- by Project Impact

2010-2011 X-Square: Project Proposal.



Statement of Intent

In this X-Square proposal we seek to situate Arizona State University market branding within the context of university statistical data that range from finance to student retention rates.

We are interested in providing the public with accessibility to the university's statistical information as a public service to our community. Our proposal presents the public with novel ways to interface and experience university data through environmental graphics, social engagement, and digital media interaction.

Our proposal is a combination of digital media arts, architectural place-making, and visual arts. These elements are composed to provide the public with accessibility to information that highlights the nodes of dissonance and consonance between the ASU branding messages communicated to its academic community, and university statistical data. Through this exploration we may be able to identify public perceptions, as well as encourage people to interact socially in a public space. We seek to create a place where people feel encouraged to think critically about the changes that Arizona State University currently faces, as well as those that lie ahead for the institution.

We are inspired to do this work to better understand the cultural and financial challenges that American universities face as they compete for resources during these economically challenging times, and how this impacts learning, research, and student life.

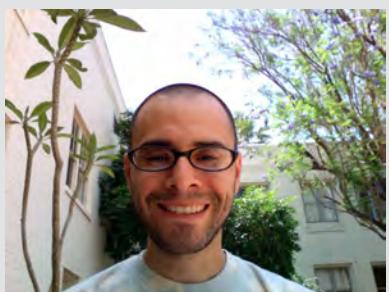


ASU market branding posted on the ASU website, Fall 2010.

Bios: Meet the Team!



Heng Chen - is currently a Media, Arts and Sciences PhD student at Arizona State University. She earned a Bachelor's degree in engineering in Digital Media Arts and Technology from Beijing University of Posts and Telecommunications, Beijing, China, 2009. Before attending Arizona State University, Heng joined the Visualization Group at Peking University where she worked on social networks visualization. Heng is now a group member of the Reflective Living Group at Arts, Media and Engineering where she focuses on information visualization, social networks visualization, and HCI design.



Christopher Martinez - is currently a Media, Arts and Sciences PhD student at Arizona State University. Christopher is a Chicano "tecno" cultural worker who researches and collaborates with indigenous communities to express the folkloric practice of technology. While drawing inspiration from his Northern New Mexican mestizo heritage, he expresses metaphores and stories through his media art. At AME he develops culturally responsive social spaces through interactive digital place-making for community dialogues.



Humberto De La Torre Hogan - is currently expanding his practices as a sculptor at the Herberger Institute of Design and of the Arts. His current work deals with his experiences growing up in the rain forest of Panama. Drawing from stories, myths, and folklore, Humberto's sculptures tell a story of his roots and struggles adjusting to the new culture of America.



Marian Koernig - is an undergraduate student pursuing a double major in Family & Human Development and Accounting. She was born and raised in California but moved to Arizona in 2005 once she got married. She is the mother of one two year little girl who keeps her on my toes. Four years ago she opened her own business that has been operating and thriving every since. A couple of years ago she discovered that she has a knack for design. She designs children's clothing, and adult and children's accessories. I also enjoy interior design.



Samantha Root - is seeking a Bachelor of Fine Arts in Photography with a minor in Women's Studies at Arizona State University. She builds three dimensional worlds that deal with childlike play, suspending disbelief and the ways in which media impacts the way people initiate play.

Meet our Faculty Advisor!

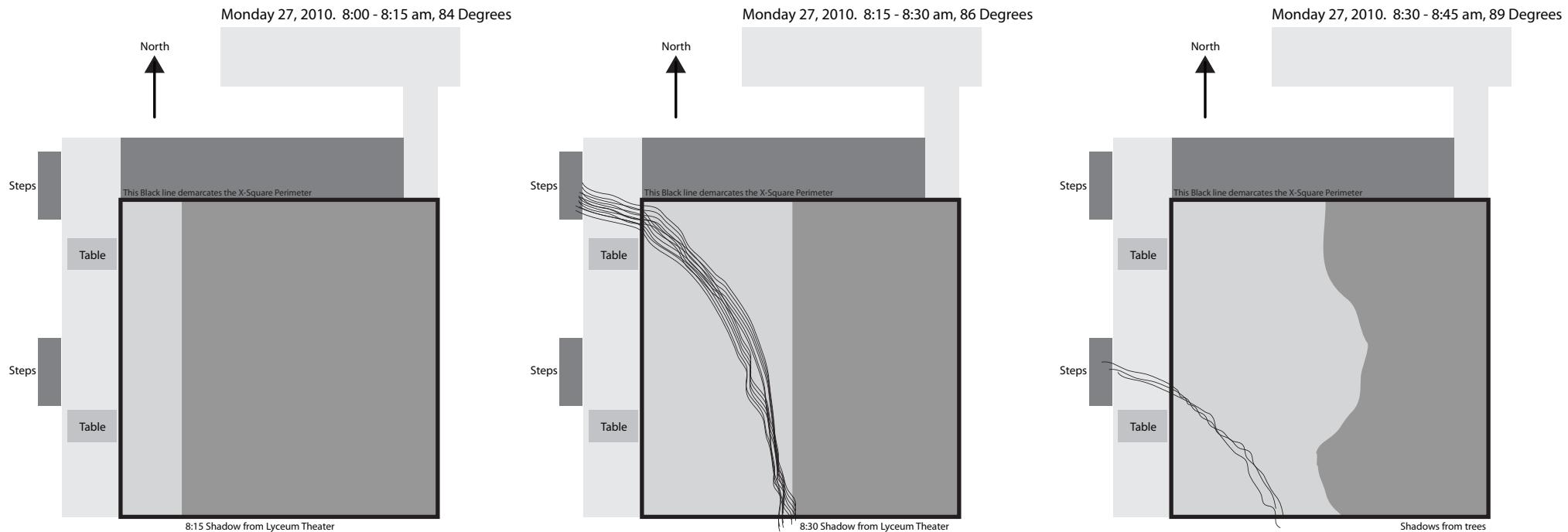


Grisha Coleman is a New York City native and has worked as a composer, performer and choreographer. She holds an M.F.A. in Composition and Integrated Media from the California Institute of the Arts. She joined AME as an assistant professor of Movement, Computation and Digital Media in fall 2008 after completing a research fellowship at the STUDIO for Creative Inquiry at Carnegie Mellon University

X - Square Site Study

The following are maps of the X-Square architectural site. These contain data from site observations we conducted to understand how the site is used by the public. In these images we are showing date, time of day, shade from the sun as a function of time, and a series of curved lines that represent pedestrian traffic density (each curved line represents one pedestrian). Each map represents a 15 minute frame of time.

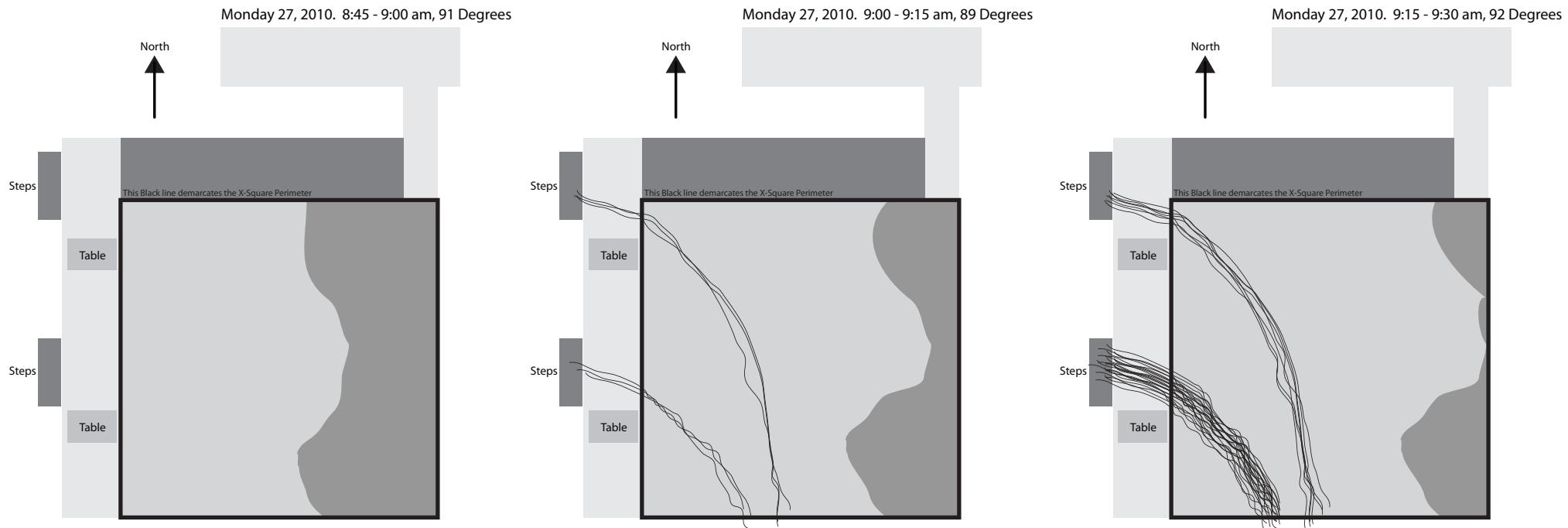
We observed that the space primarily functions as a pedestrian thoroughfare during temperatures that range from the mid 80s to the upper 90s. Further studies are required by our team to determine how people use the space during cooler weather. Our study shows that X-square provides a short-cut pathway that people use to access Neeb Hall and the Design (South) building. We counted less 3 people sitting or studying in the space throughout the course of our observations. Our data also illustrates that there are waves of pedestrian activity that correlate with class scheduling, and that the desnity of pedestrians increases throughout the morning hours. Through our study, we have concluded that X-Square has a large user base. We believe that these pedestrians are the baseline audience for our work.



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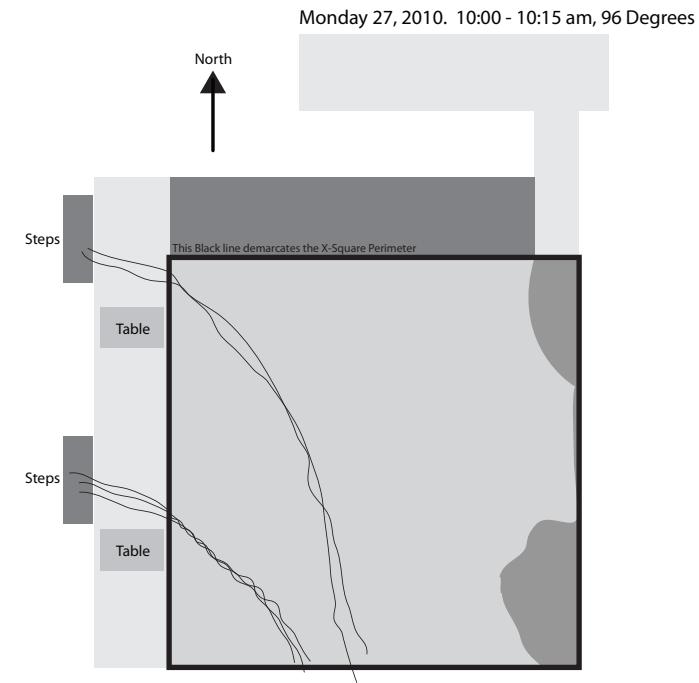
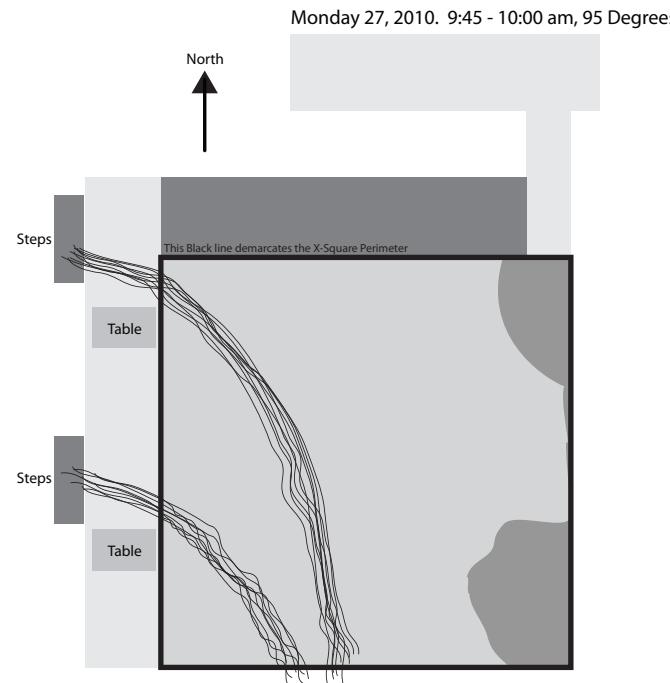
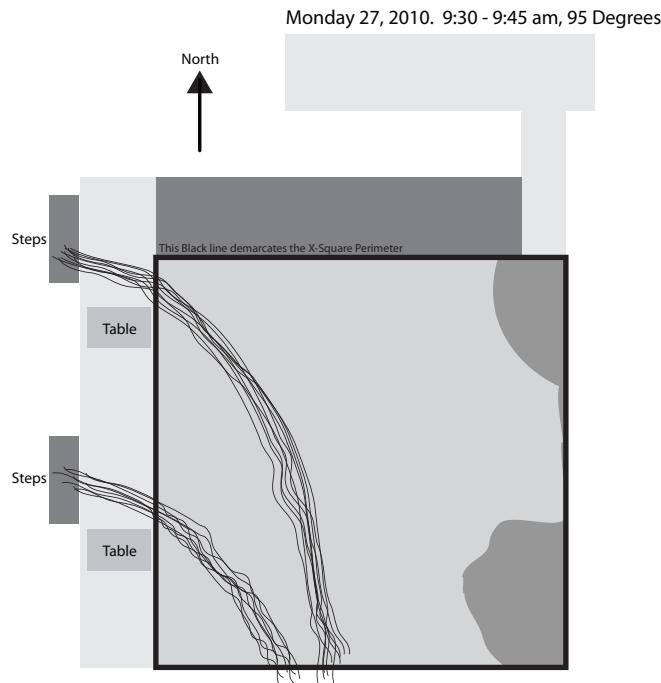
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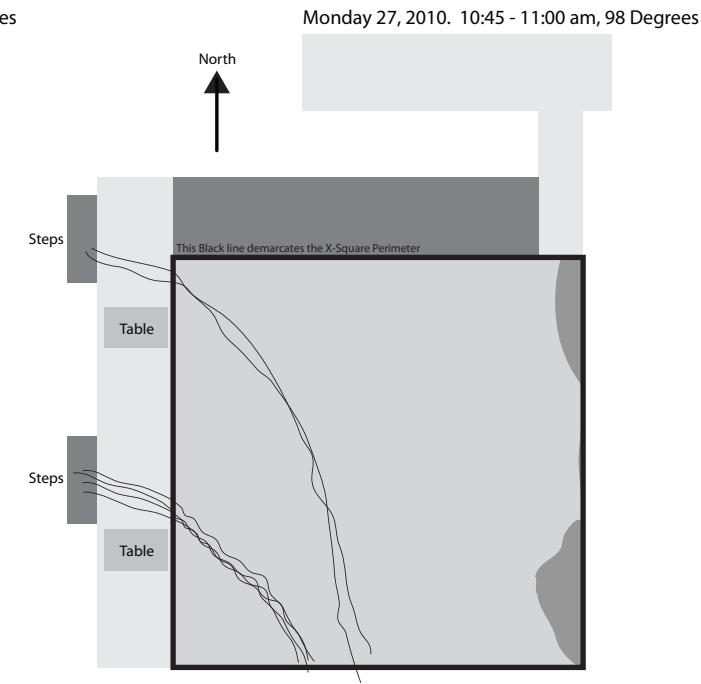
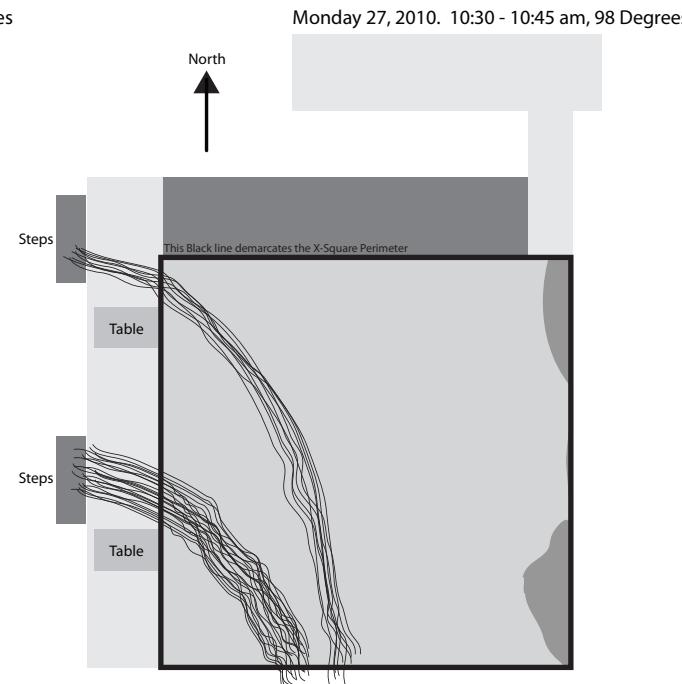
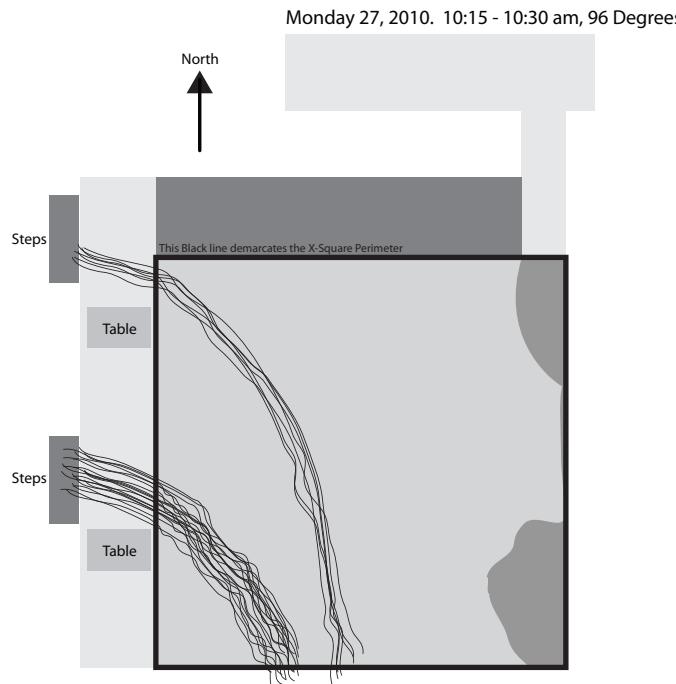
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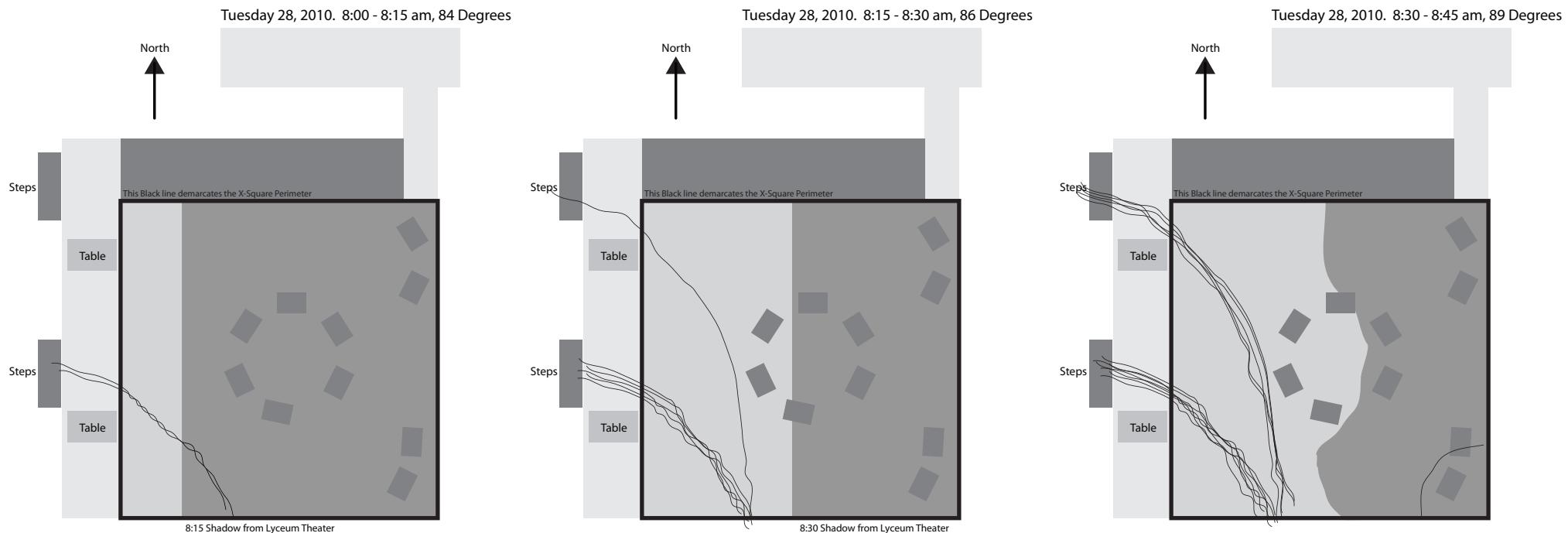
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X - Square Site Study (With Intervention)

The following are maps of the X-Square architectural site. These contain data from site observations we conducted to understand how the site is used by the public. In these images we are showing date, time of day, shade from the sun as a function of time, a series of curved lines that represent pedestrian traffic density (each curved line represents one pedestrian), and an arrangement of boxes that indicate seating areas. Each map represents a 15 minute frame of time.

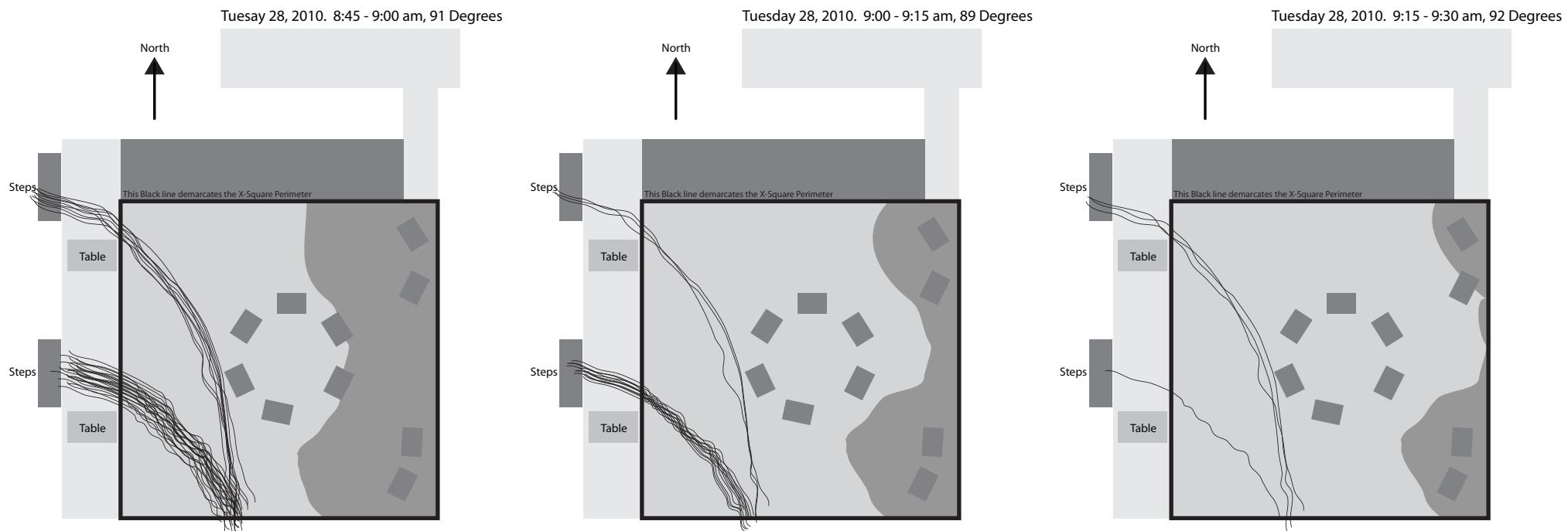
In this study, we placed 10 milk heavy-duty milk crates in the spaces as seating areas. We also had one person demonstrating this function throughout our observations. The objects were placed so that they would not obstruct the pedestrian pathways that we observed in our previous study. Our findings indicate that the presence of these objects does not deter pedestrians from continuing to use the space. We also observed that with the exception of one person, people did not use the seating that we provided. We concluded from this study that seating was not the way we wanted to encourage community gathering. But that we wanted to appeal to the large number of pedestrians that use X-Square.



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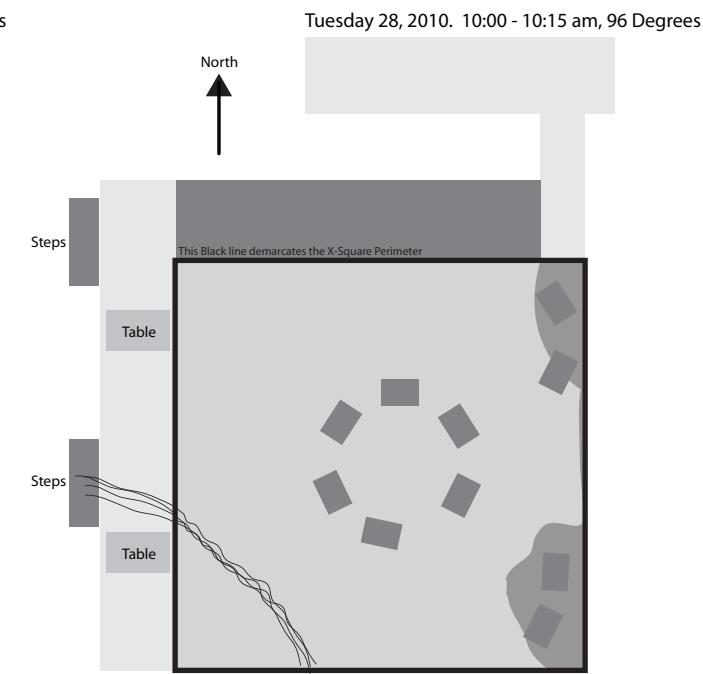
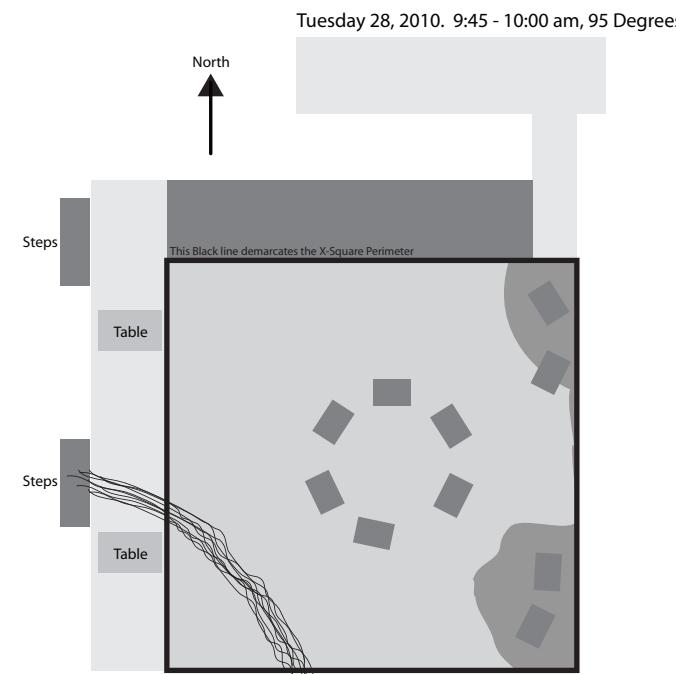
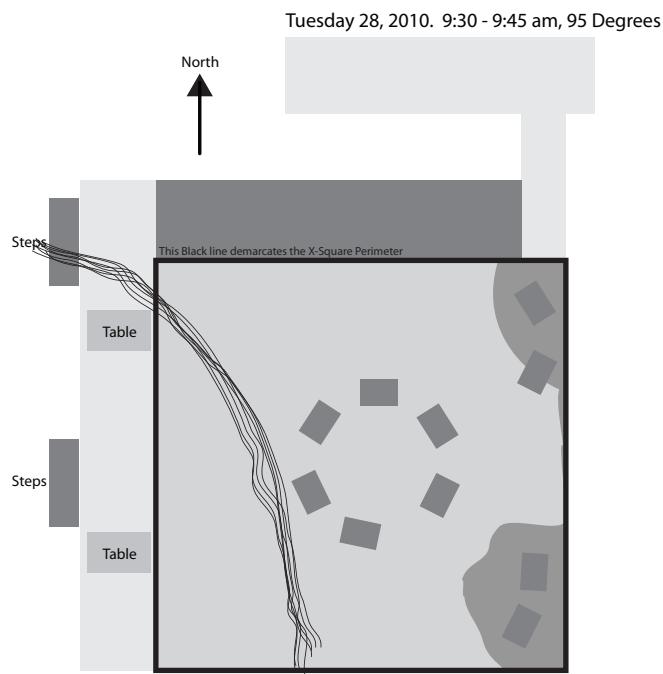
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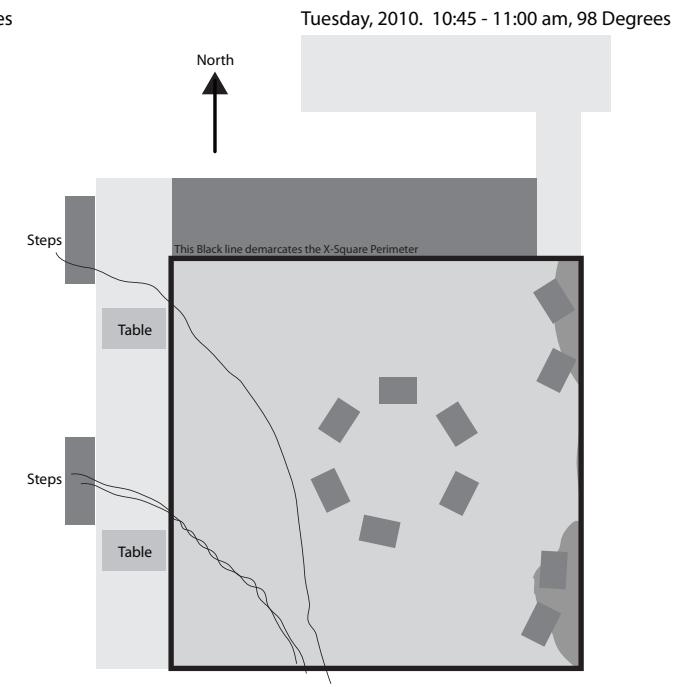
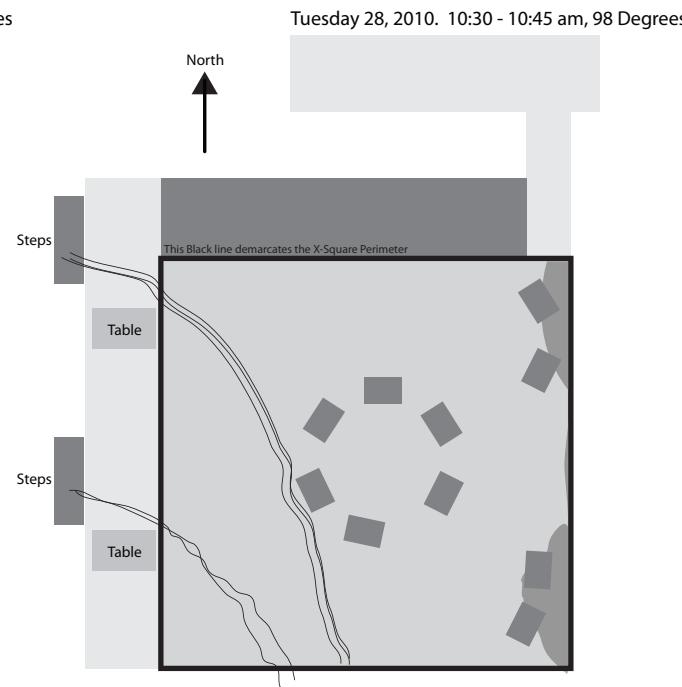
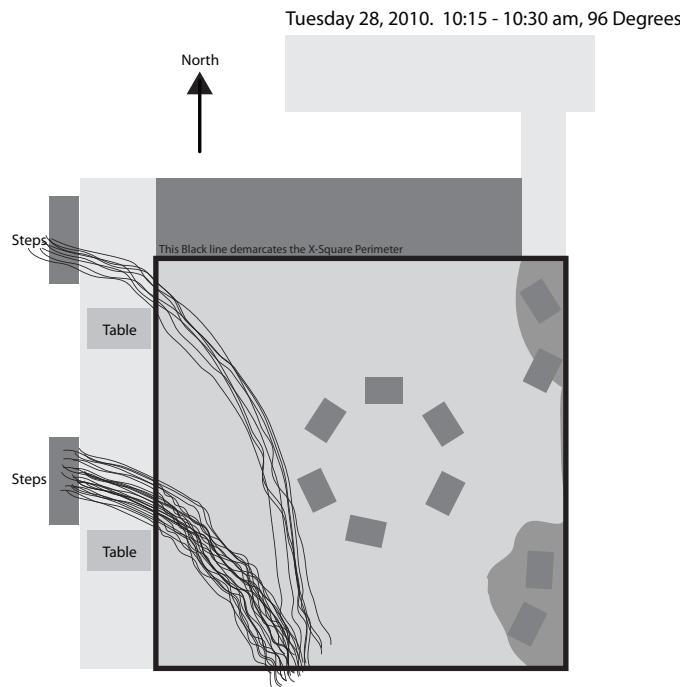
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Our Project Proposal

We are interested in providing the public with accessibility to the university's statistical information as a public service to our community. Our proposal presents the public with novel ways to interface and experience university data through environmental graphics, social engagement, and digital media interaction. As a part of our design, we encourage the community to engage in civic participation by providing them with opportunities to leave comments about their thoughts regarding ASU's image and operations. To encourage community, our mediated system will also parse and present these comments interactive data in order to represent public perception.

We believe that by physically situating this information within the Arizona State University campus, we can create a place where people can gather to explore and discuss the cultural, academic, and financial meaning of Arizona State University's brand identity.

In this proposal we explore the presentation of Arizona State University statistical data juxtaposed with the verbage and graphic standards of its current market branding campaign. We do this through a design that echoes, the construction of ASU messages to the community, the construction of solar arrays, and ASU's wayfinding system. By using these components, we provide the ASU community with a powerful vehicle through which it can analyze the implications of the learning paradigm we now know as "A New American University."

Concept Research

This collage is composed of examples of ASU's market branding campaign.

We collected these images as a site study to identify literary and aesthetic themes that are used in this marketing campaign. We have applied these ideas to our design.

top tier of U.S. universities

U.S. News & World Report

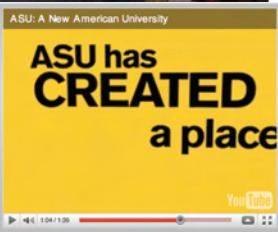


1 in 3 freshmen graduated in the top 10% of their class



ASU is “one of the most radical redesigns in higher learning.”

—Newsweek, August 2008



ASU’s celebrated **scientists, scholars and artists** pursue an overriding goal: to find and share knowledge that addresses the major challenges we face.

“At ASU, I definitely feel that I’m a part of something big. Here, if I want to do something, I can do it.”

—Tanner Woodford, ASU class of 2009

“With a degree from this outstanding institution, you have everything you need to get started.”

—Barack Obama, President of the United States of America, ASU Commencement 2009

one of the top 100 universities in the world



ASU: A New American University

ASU
is changing
that

ASU is committed to excellence, access, and impact. We measure ourselves by those we include, not by those we exclude.

fail

ASU: A New American University. Designed to meet the greatest challenges of our time. Visit us online at ASU.edu.

break the mold

transform yourself

fail again



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2010 X-Square: Project Proposal.

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Concept Research

The solar panels in this photograph have recently been installed at Arizona State University as part of its efforts to respond to the challenges associated to sustainability. We recognize the functionality of this university project, and we believe that this initiative is created to compliment Arizona State University's brand identity. Our theory is that these solar panels contain semiotic values that interface with the market branding illustrated in the previous page.

One of the challenges of X-Square is to design work that is sustainable. We are seeking to echo the aesthetics, and messages of ASU branding in our work, as well as present an architectural abstraction of these solar arrays. We seek to compose X-Square so that it interfaces with ASU's identity. This is to complicate and extend ASU's marketing campaign in way that can lead to dialogues and social connectivity based on critical thought about "A New American University."

Solar arrays will be used in our project to power digital media kiosks that allow the public to interface with university data.



Concept Research

The information kiosk in this photograph is a component of the wayfinding system at ASU. This pedestal is used by the university to display site-specific information and regional maps of its campuses. This kiosk is created to communicate the ASU brand by providing context and navigation tools that promote positive visitor experiences at its campuses.

For our proposal we believe that it is sensible to co-opt this pedestal for the purposes of function, sustainability, and to incorporate its semiotic value into the visual argument of our design. This design is ADA compliant, and can be easily adapted to display our media.

For the proposes of sustainability we are interensted in partnering with the Environmental Graphic Design Group at ASU Facilities Management to co-invest in these pedestals to serve the ASU community beyond the life of our proposed project. We are also interested in donating these kiosks to the university so that their use could be extended beyond the life of our project.

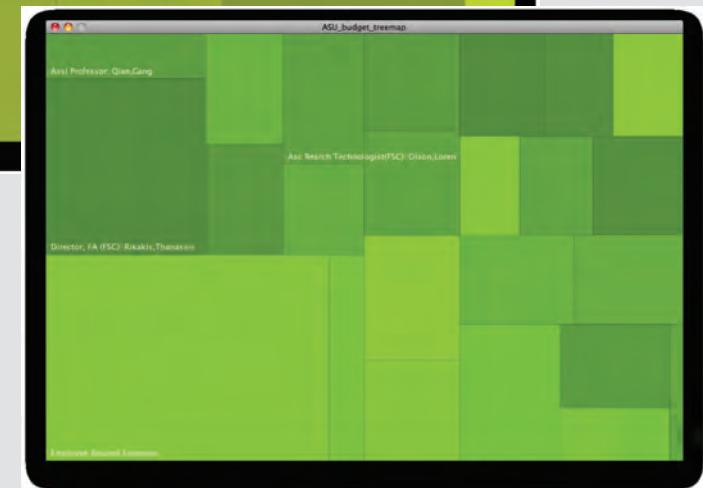
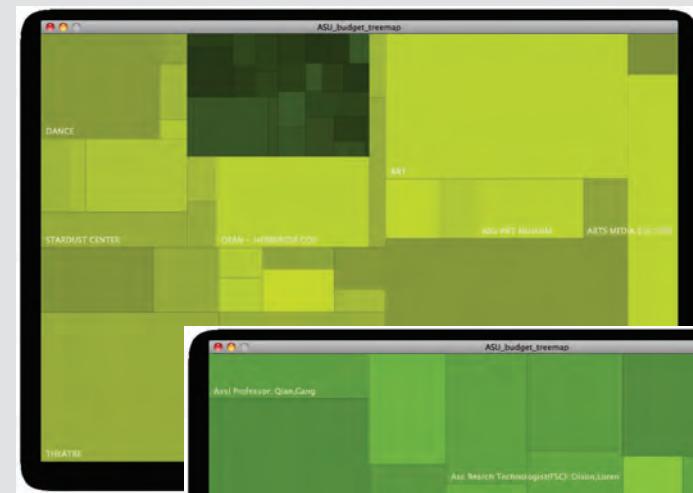
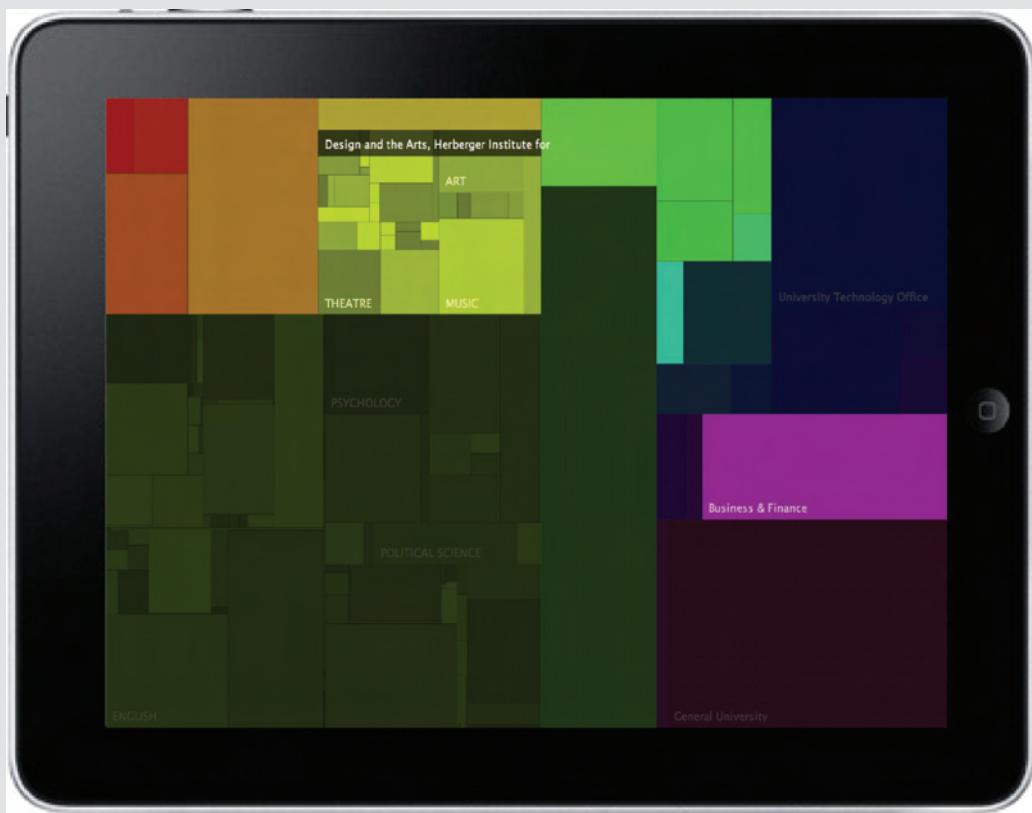


Software Design

We have prototyped both audible and visual displays that allow visitors to use computer touch screen gestures in order to navigate information. Our interactive system will allow users to access information while situated as a series of relationships between various types of data. The mapping of data is inspired by classical information design strategies . Our software will use both graphics and sound to convey information to the user.

Our final software will be developed to run on Apple iPads that are mounted and secured to the information kiosks presented in our concept research. The following page will demonstrate a mockup of this.

The images below show a prototype of our software that presents the university operating budget based upon state funds. The sizes of the boxes in these images represent the amount of money allocated to specific university programs. Hand gestures will enable a user to "drill-down" into the data in order to explore and navigate information and relationships at higher and lower levels of university operation.



Download proof of concept at:

<http://www.lovelyhengheng.com/projects/xsquare.html>

2010 X-Square: Project Proposal.

Comprehensive Data List

The following is a list of data that we propose for our digital information design.

1. Archive of ASU Enrollment Data (Enrollment History: Headcount / FTE / SCH by Campus, 1970 to present)

- 1) Fall Full-Time Equivalent Students
- 2) Fall Headcount Enrollment
- 3) Fall Student Credit Hours

2. Common Data Set (data provided for the higher education community and publishers, 2001-2010)

- 1) Enrollment and Persistence
- 2) First-time, First-year (Freshman) Admission
- 3) Transfer Admission
- 4) Academic Offerings and Policies
- 5) Student Life
- 6) Annual Expenses
- 7) Financial Aid
- 8) Instructional Faculty and Class Size
- 9) Degrees Conferred

3. Enrollment Summary (information about student enrollment by college and department, 2004-2009)

- 1) Number of Students by Student Level
- 2) Number of Part-Time and Full-Time Students
- 3) Number of Students by Ethnicity and Gender
- 4) Number of Resident and Non-Resident Students
- 5) Number of New Undergraduate Students by Academic Level at Entry (freshman, transfer, etc.)
- 6) Student Credit Hours and Full-Time Equivalents
- 7) Adjusted Student Credit Hours and Full-Time Equivalents (see "Student Credit Hours (SCH)" comments.)
- 8) Distribution of Student Load by College (i.e., Student enrollment in colleges)

4. Fact Book (the official fact book of Arizona State University, 2004-2009)

- 1) Enrollment
Arizona Public Higher Education Enrollment
Fall Enrollment Trends
Spring Enrollment Trends
Fall Headcount Enrollment
Fall Full-time Eqivalent Students
Fall Student Credit Hour Trends
Academic Year Student Credit Hours
Summer Sessions Student Credit Hours
Undergraduates by Gender
Graduate Students by Gender
International Student Enrollment
Enrollment by Student Level
College Enrollment by Race/Ethnicity
Enrollment by Race/Ethnicity

Comprehensive Data List

The following is a list of data that we propose for our digital information design.

2) Student Characteristics

- Undergraduate/Graduate Admissions
- Undergraduate Student Demographics
- Graduate Student Demographics
- First-time Freshman Profile
- New Transfer Student Profile
- Home States of Undergraduates
- Home Counties of Arizona Undergraduates
- International Students by Country
- Summer Student Profile
- Degrees Awarded
- Degrees Awarded by Race/Ethnicity
- Undergraduate Accountability Measures

3) Employees

- All Employees
- Employees by Race/Ethnicity
- Employees by Gender
- Full-time Employees
- Part-time Employees
- Faculty
- Faculty Characteristics

4) Resources/Sponsored Projects

- General Fund Appropriations for Higher Education
- State Operating Budget
- Current Operating Fund Expenditures
- Current Operating Fund Revenues
- Tuition and Fees
- Average Costs for Full-time Undergraduate Students
- Student Financial Aid
- Library Expenditures
- Library Circulations
- Library Collections
- Sponsored Projects Awards
- Awards by Purpose
- Awards by College
- Awards by Sponsor

5) Reference

- Undergraduate Admissions Requirements
- Baccalaureate Degree Majors
- Master's Degree Majors
- Doctoral Degree Majors
- Arizona Universities' Peer Institutions

Comprehensive Data List

The following is a list of data that we propose for our digital information design.

5. Quick Facts (a summary page of ASU FAQs for the semester, including enrollment, degrees awarded, persistence and graduation rates, undergraduate costs and more, Fall 2004-Spring 2010)

6. Ten-Year Review of Students, Faculty, and Staff (a historical review of ASU students, faculty, and staff by ethnicity and gender, 1995-2009)

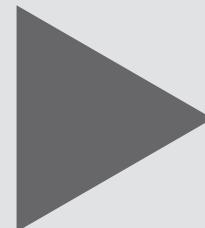
- 1) Total Enrollment
- 2) Undergraduate Enrollment
- 3) Graduate Enrollment
- 4) Resident Undergraduate Enrollment
- 5) Nonresident Undergraduate Enrollment
- 6) New Resident First-time Freshmen
- 7) New Resident Transfers
- 8) Baccalaureate Degrees
- 9) Graduate Degrees
- 10) Persistence Rates
- 11) Graduation Rates
- 12) Employees
- 13) Administrators
- 14) Faculty
- 15) Professionals
- 16) Other Staff
- 17) Tenured/Tenure-track Faculty
- 18) Tenured Faculty
- 19) Faculty Rank
- 20) Glossary

2009 - 2010 State Budget Operating Budget Book by State Program

2009 - 2010 Local Operating Budget Book

Kiosk Design

We propose the adaptive reuse of this pedestal in our design for the purposes of function, sustainability, and semiotic value. In this design, we use a custom removable faceplate that can be secured to the pedestal. This faceplate is a framing device that allows for the mounting and display of solar arrays and an iPad. Its face is laminated with clear tinted vinyl in order to protect the electronic components from rain and sun damage.



Floor Design

In addition to the installation of digitally mediated kiosks, our design includes the information they communicate within the context of an environmental floor graphic composed of the verbage used by ASU in its market branding. The following are a few top-view designs that we are considering. The boxes depicted in the graphics below represent the placement of the kiosks.



Kiosk Installation Concept



Pedestal base is secured underneath floor lamenent.

2010 X-Square: Project Proposal.

Our Design Mock-up

This photo mock-up illustrates how all of the elements come together in our design.



2010 X-Square: Project Proposal.

Our Design Mock-up (Zoomed View)

This photo mock-up illustrates how all of the elements come together in our design.



2010 X-Square: Project Proposal.

Our Design Mock-up (Detail View)

This photo mock-up illustrates how all of the elements come together in our design.



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Project Budget: Preliminary Estimate

16 GB iPad = \$499.00 each, qty. 10

aluminum pedestal = \$600.00 each, qty. 10

solar panel charging systems = \$80 each, qty. 10

floor graphics printing and lament = \$12.00 per sq. ft., 32' x 32'

iPads = \$5,000

pedestal = \$6,000

solar = \$800

floor graphics 32' x 32" = \$12,000

Preliminary Estimate

\$23,800