The Humanities and Innovation

Michael Shanks, Stanford University
mshanks.com | michaelshanks.org

The Humanities "at large"

do they really matter at all?

the stakes

contemporary matters of common and pressing *human* concern

themes

the challenge of thinking beyond specialized expertise
grounding the present in history
the role of academics and the university

Stanford Humanities Lab

an abecedarium

animating the archive (Archive 3.0)
building bridges to a bigger picture
collaborative cocreation

Stanford d.school

human-centered design
design thinking

Strategic Planning Museums and The Archive Design

Strategic Planning

thinking creatively about the future
what role for the Humanities?

for surely science and technology are not enough

my archaeological standpoint

Rome
- the end of empire

in the northern borders

thrown

in medias res

the juxtaposition of the mundane and the apocalyptic, the trivial everyday and the historical, material entropy and human agency

the forensic challenge -
"at a scene of crime anything could be relevant"
a question therefore of the role of the analyst/author

the (new) relevance of world history

considering long term trends
history and genealogy as a basic for big thinking

but there is more than model and narrative - and it's about
process and *human being*

Stanford Strategy Studio

countering a common experience of strategic thinking
- future orientation and short-term perspectives

instead grounding foresight in historical and human awareness

risk society

a modern experience of risk and threat

risk society

the Napoleonic State

research and knowledge-based

data gathering rooted in surveillance

expert abstract/universal systems of knowledge

statistical calculation, pattern identification, intervention

future orientation - risk assessment

doubt, blame, insecurity

tradition, Fate, God are no longer history's agents

deep ontological insecurities have arisen -
(manufactured) threats to everything

human agency and responsibility (not least for one's
own actions) raise questions of culpability when
things go wrong

for even the dead aren't safe

disciplinary crisis

challenges to the authority of science and to the independence of the academy

questions raised of agency and the motor of history (just what forces are driving change?)

debates about the applicability of universal and global systems of knowledge to local interests and specific contexts

deep and radical reframing of theory and methodology, when we can no longer assume that anything can be assumed

neoliberalism, neo-conservatism and the failure of government

Humanities-based innovation?

focus - human involvement in things - human being

focus - agency, tradition and change

awareness - of this "modern" condition (risk society)

attitude - located and pragmatic
(cf methodological, dogmatic, disciplinary)

Daimler Chrysler and the car of the future

a case study

agency - it's not who you are that governs what you do and use - it's what you do and use that makes you who you are

narrative - a central structuring principle

assemblage - the artifact as dispersed/distributed network

(im)materiality - (the car as media event) - the implication of tangible and intangible qualities

ethnography - constant listening, watching, engaging

foresight - flexible and adaptive, rather than foretelling

thinking freshly with the Humanities

the importance of the cultural imaginary in an elision of the tangible and the intangible

maintaining a rich storehouse - a manifold of qualities of experience - the Archive

these as a basis for storytelling (cf overdramatized narrative)

authoring/making at the heart of human agency

the dispersed/distributed character of human being

Humanities-based innovation

where do we start and how do we do it?

assets - the animated archive
- home of the Muses

pragmatics - *design thinking* - collaborative, experimental, human-centered cocreation

The Humanities and Innovation

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increasing the critical effect/impact of the Humanities

the basis for achieving this greater critical effect
- a convergence -
Design and the Humanities
because we are all (creative) authors

thinking freshly with the Humanities
(in this convergence)

the importance of the cultural imaginary in an elision of the tangible and the intangible

maintaining a rich storehouse - a manifold of qualities of experience - the Archive

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Museums and
The Archive

Archive 3.0

- animating The Archive

The Museum

- home of the Muses - inspiring innovation

sea changes in cultural heritage

stewardship *and* cocreation

architecture

engagement

new media

Web 2.0 technologies

social software and peer to peer authoring

media materialities - mixed realities

ubiquitous media

media

the architecture of experience

we inhabit media

the photography of
Edward Burtynsky

a participatory web site (wiki)

70k interactions over the exhibition

discussions, tagging, annotations, links

wiki as creative collaborative "content management"

?

about the
exhibition

Click on images to view galleries:

Railcuts

Mines and Tailings

Quarries

Urban Mines

Oil Fields and Refineries

Shipbreaking

Here is Piranesi (again)

View of the tombs of L. Piso and of the Cornelii. (From Vedute di Roma about 1740)

Ruined fragments adrift in the landscape.

Posted at Jun 29/2005 04:53 PM:

Hilarie: Hi Ed, I wonder if you've been touched subconsciously by the sublime in 19th-century painting--the grandiosity of JMW Turner's painting of the Fighting Temeraire Towed to its Last Berth, for example, or John Martin's paintings of biblical cataclysms - disaster/catastophe? Your photos seem to have some of the same concerns of color, scale, and subject matter as the 19th-century artworks.

© 2005 Richard Serra / Artists Rights Society (ARS), New York

Richard Serra, *Snake*, Bilbao Guggenheim, 1996

Posted at Aug 07/2005 04:19 PM:

Paul Max Payton: What strikes me about "Shipbreaking" is the contrast of abject poverty against modernism. Here we find dirt poor workers in the midst of reducing enormous (and expensive) ships into metal rubble. The economic disparity is powerful...much like how wealth and poverty appear at polar opposites of the economic spectrum.
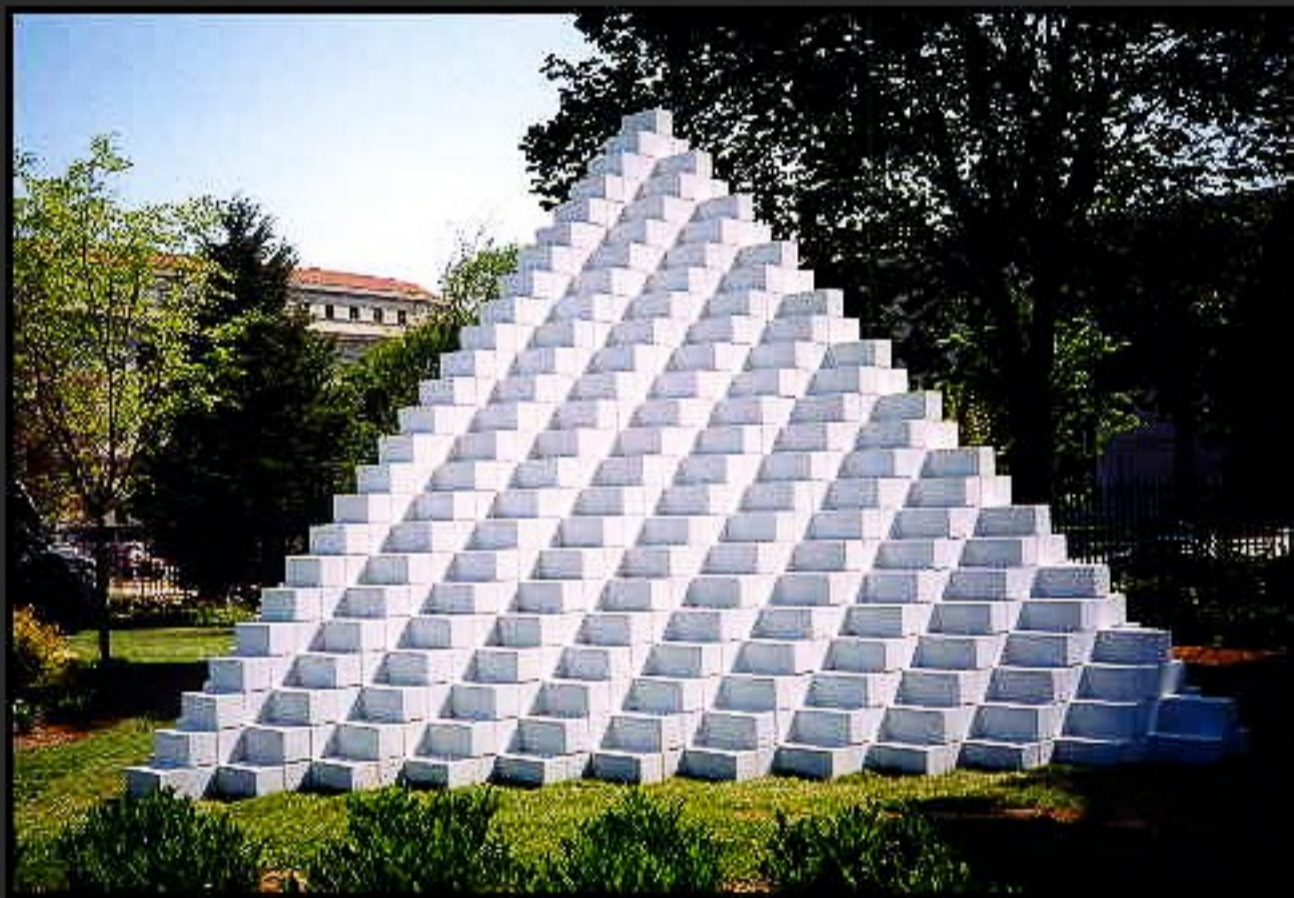
Sol LeWitt, *Four-Sided Pyramid*, 1999

Posted at Jul 16/2005 08:11 PM:
Annie: Why do Legos keep showing up?

I had to go to the Lego site, and what did they have but a bunch of science fiction-y toys, robots, specifically. I'd refer anybody who was interested to the musings Erica made about science fiction on the page for Uranium Tailings #12.

Posted at Jul 19/2005 08:06 PM:
ernest solomon: The Carrera quarry photos, especially image #25, as viewed in the museum, had an Escher-like quality.

Cartoon of Moses parting the Red Sea

Posted at Jun 15/2005 09:24 AM:
Annie: I like the suggestion of the tires as an ocean. The Moses thing converts them from mountains (which they appeared to be to me at first) to something more dynamic. But is there a dynamism here? Some of the trampled tires in the center path suggest permanence, wear, exhaustion.

Posted at Jun 29/2005 05:36 AM:
Bill Rathje: Here is what happens when a tire pile catches fire

Los Reales Landfill in Tucson (AZ) in 1989. The photo was made on a Sunday in August at 1:00 p.m. in the afternoon. The bright disk on the right is the sun. Photo credit: Rick Wiley

Posted at Jul 01/2005 06:50 PM:
Dick Watts: Interesting similarities! The painting is by Chester Arnold, a California artist who shares Burtynsky's ability to capture the beauty in the industrial/urban world

© 2005 The Pollock-Krasner Foundation / Artists Rights Society (ARS), New York

Jackson Pollock, *Autumn Rhythm*, 1950

Behind the Locked Door

working with a ~~collection~~

Life Squared

an animated archive in an online world

Art Scene: Galleries come to life with fall shows

By GAY WEAVER

Art galleries and museums have a tendency to hibernate in the late summer, suddenly springing to life with a bevy of new, fresh-looking shows in the fall.

During October the Peninsula is witnessing this annual reawakening with a number of shows scattered from San Jose to San Francisco.

At the moment, there are several major exhibitions which already have opened. One of the most important is "Prints from Cirrus Editions," on display through the month at **Euphrat Gallery**, De Anza College, Cupertino.

All these prints were produced in the Los Angeles studio of master printer Jean Milant, founder of Cirrus Editions.

The contemporary artists represented in the exhibit deal with everything from conceptual to abstract work. The imagery ranges from the humorous and pop in Terry Allen's prints to Chris Burden's chilling allusion to his own crucifixion in a lithograph illustrating the somber side of conceptual art.

The show includes two of the historic first images printed in the Cirrus studios — Allen's "Pinto to Paradise" and Ed Ruscha's "000."

There also are 12 new prints not previously seen in the Bay Area. One of these, Karen Carson's "Holy Virgin Mattress," is noteworthy both for her virtuosity in drawing and her humor.

Other artists included in the 50 print exhibition are Peter Alexander, Greg Card, Judy Chicago, Tony Delap, Joe Goode, Tom Holland, Kenneth Price, David Trowbridge, Doug Edge, Craig Kaufman, Ron Cooper, Guy de Cointet, Raul Guerrero, Charles Christopher Hill and Marvin Harden.

The Euphrat Gallery hours are 10 a.m. to 4 p.m., Monday through Friday; 11 a.m. to 2 p.m. Saturday; and 7 to 9 p.m. Wednesday and Thursday.

A reception will be held from 7 to 9 p.m. Tuesday to view the exhibit.

★ ★ ★

Another important show, "Recent Sculptures" by Carrie Abramovitz, is at **Tresidder Memorial Union**, Stanford University, through the month.

Mrs. Abramovitz is a Palo Alto artist whose work has been seen in major galleries and museums throughout the United States. Her sculpture was twice included in national touring exhibitions organized by the San Francisco Art Institute and is in private collections both in this country and Europe.

She uses many different types of materials for her work. Woods include walnut, redwood and lignum vitae.; in stone, slate from Italy, Pennsylvania and Vermont as well as quartz, alabaster and sandstone. She also works in bronze, lead and ceramics.

★ ★ ★

Galerie Smith Andersen, 200 Homer St., Palo Alto, is featuring an unusual show this month of work by Lynn Hershman related to a conceptual project being carried on in several locations.

Ms. Hershman recently constructed an environment at the Dante Hotel in the North Beach section of San Francisco. The space has two sculptured ladies sleeping in a rumpled bed. Goldfish swim in a bowl on the table, trinkets and lingerie litter the room, compelling recordings emanate from a closet, all contributing to the strange mood which exists at all hours and creates its impact through the real-life environment prevailing around the corridors of a cheap hotel.

Included in the Smith-Andersen exhibit is a book relating to the Dante Hotel Experience.

The exhibition will run concurrently with a show at the William Sawyer Gallery in San Francisco and various environments in New York City at the Hotel Chelsea, the Palza and YWCA.

Ms. Hershman is a nationally known artist whose work is in many public and private collections throughout the country.

★ ★ ★

A group show entitled "Graphics and Pottery — '74," will begin Wednesday at **Gallery House**, 538 Ramona St., Palo Alto.

The graphics include mixed-media drawings, serigraphs, lithographs, color intaglio prints and photography. The artists represented are Joan Chesley, Jane Harrison and Jackie Kansky of Los Altos; Andrea Hendrick, Louise Mohr, Minna Resnick, Renee Winick and Fran Pillsbury of Palo Alto; Joanna Despres of Portola Valley; Bonnie Stone of Saratoga; Mercy Smullen of Cupertino; and Cosette Dudley of Atherton.

Stoneware and raku, both functional pottery and more sculptural pieces, some with feathers and semi-precious stones will be exhibited by the potters. They are Judith Lange and Christina MacPherson of Los Altos; Jeanette Anderson and Nellie Connors of Palo Alto; Karen Truesdell of Menlo Park; and Bob Waterman of Atherton.
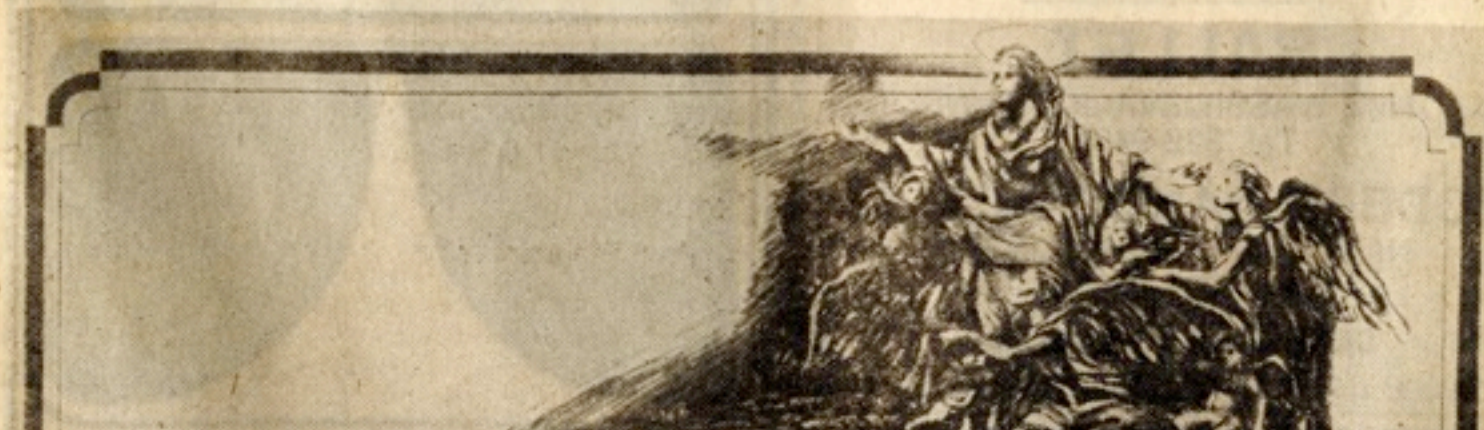
★ ★ ★

Ink drawings and airbrush impressions produced by Phyllis Shuger of Palo Alto are on display through October at the **Bechtel International Center** at Stanford University.

Mrs. Shuger, a graduate of Goucher College, has exhibited widely in both private and public U.S. galleries and is a founding member of Gallery 9.
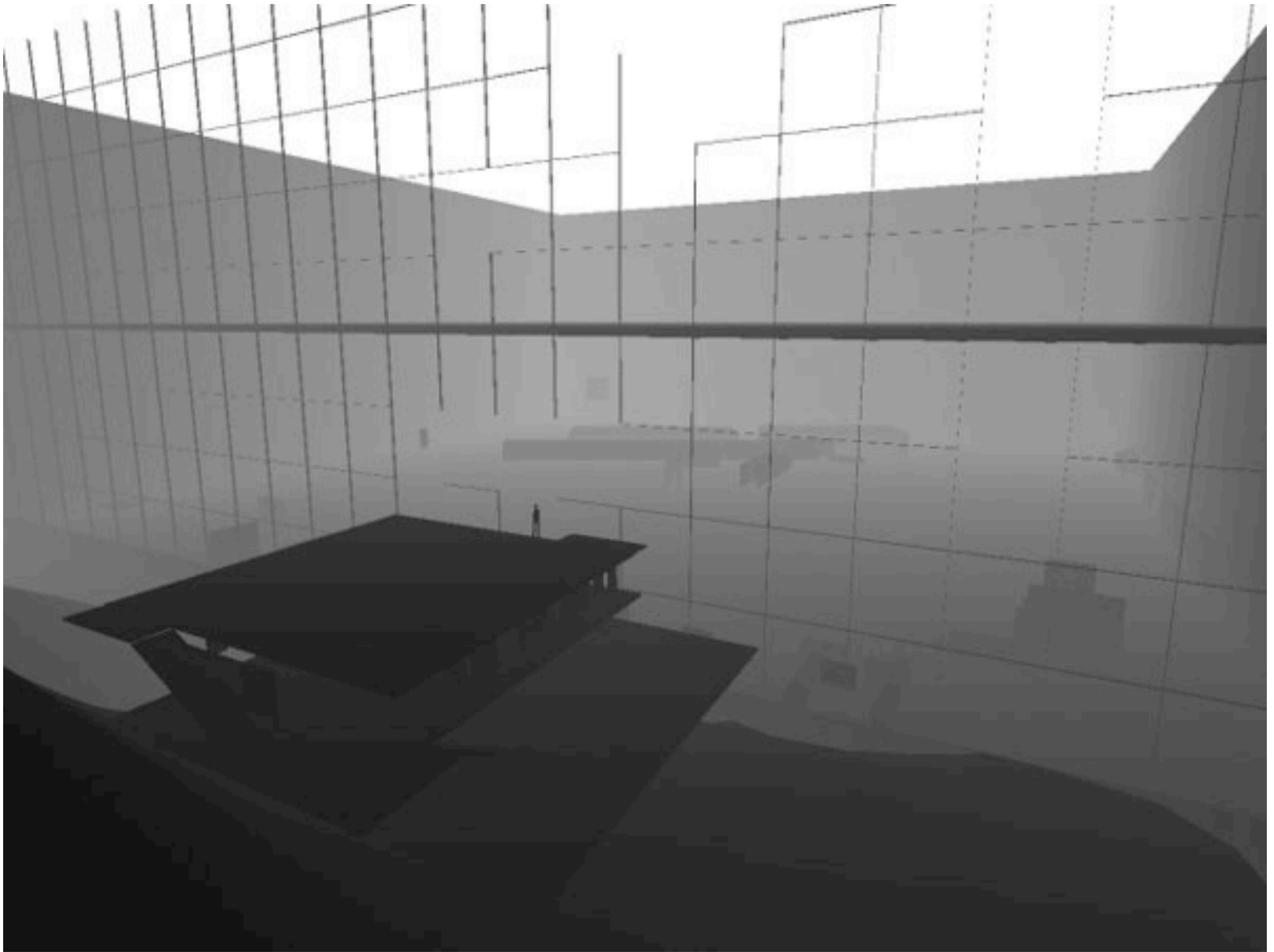
Exhibit theme is "Transition to Phantasmagoria," reflecting succes-

"When Did You Last Write Home!" a print by Jane Harrison.
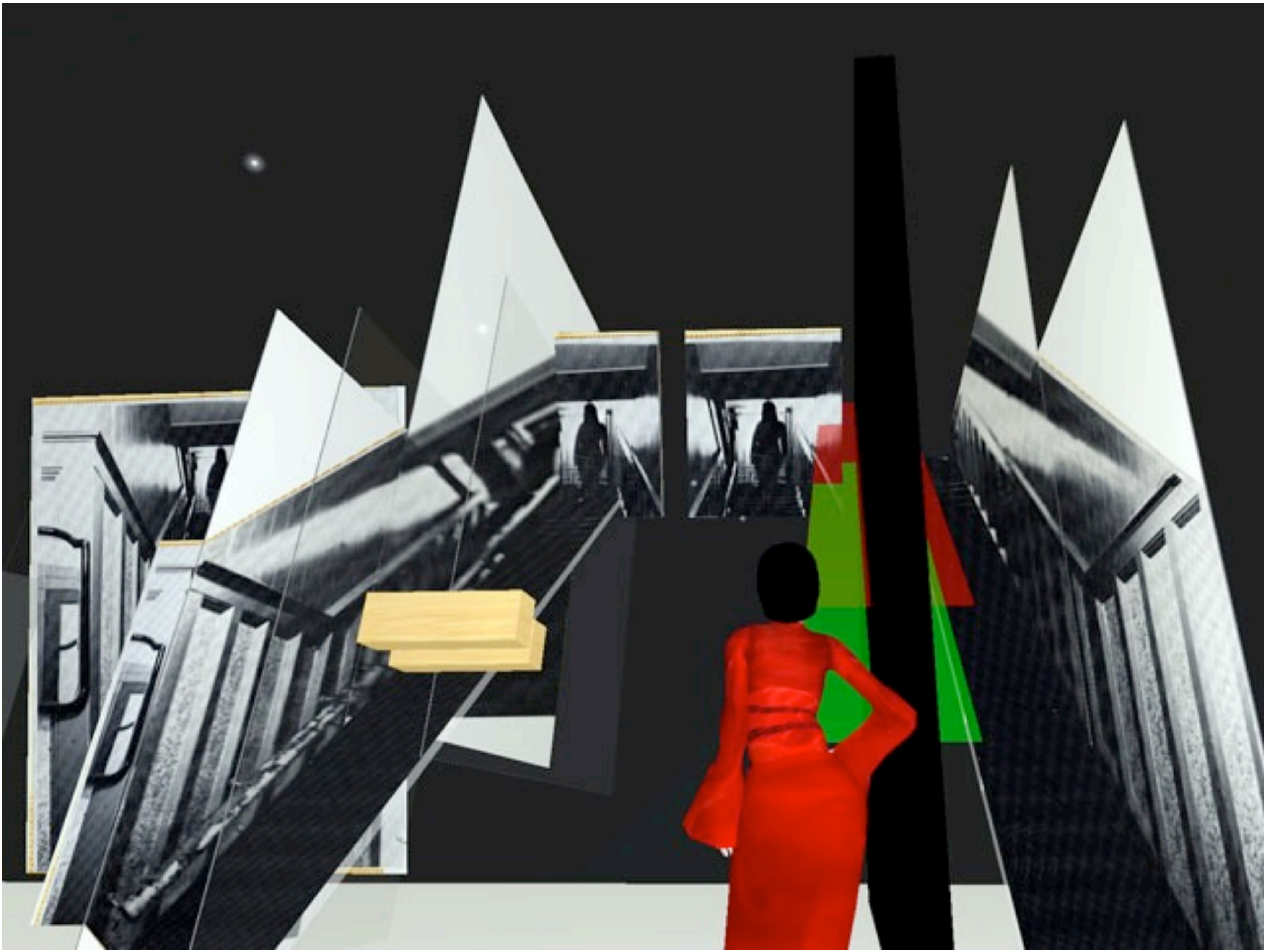
Untitled sculpture by Lynn Hershman.
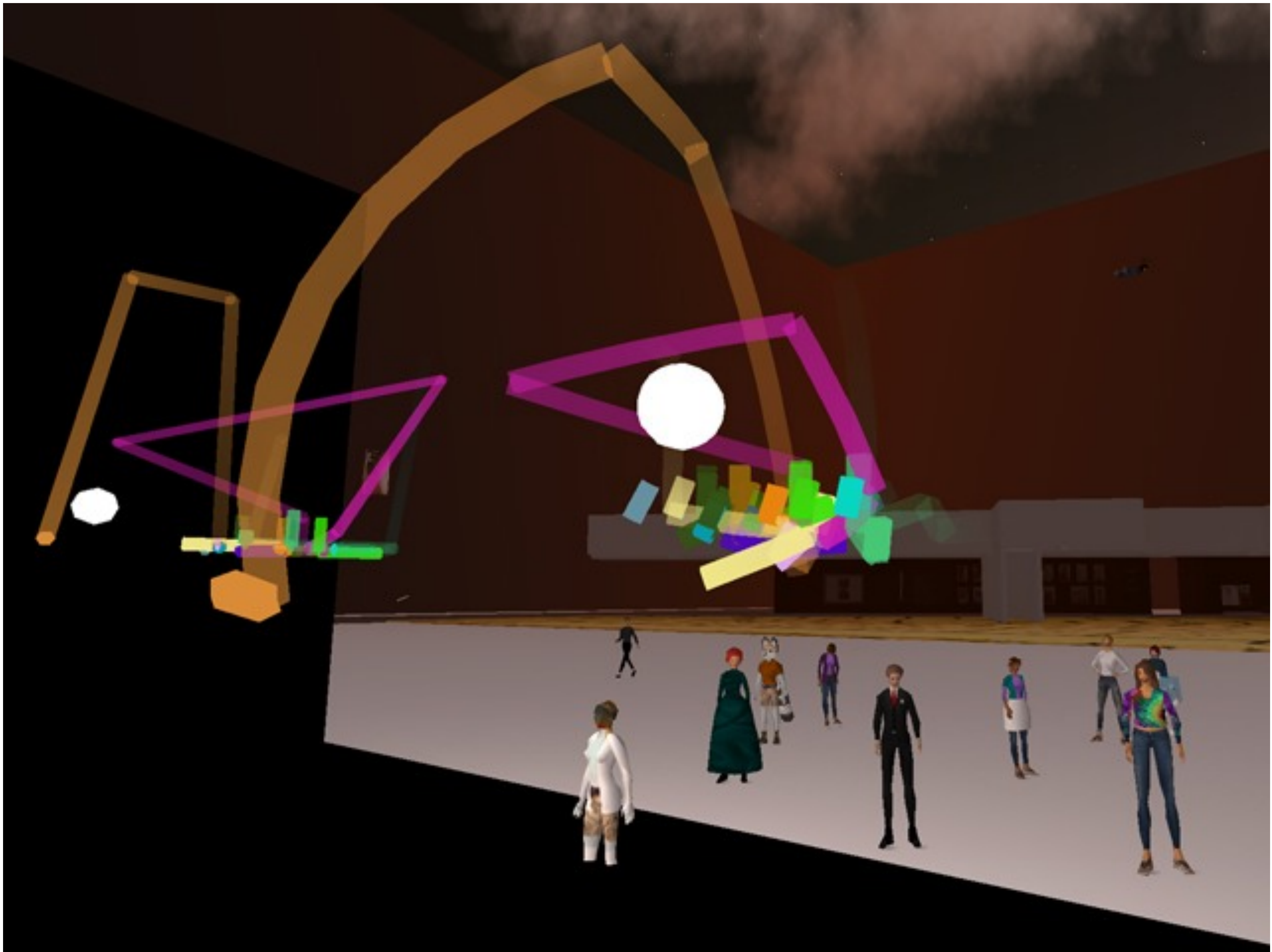
spectrum

_L2_
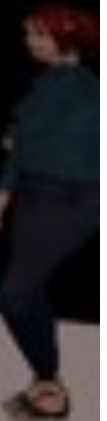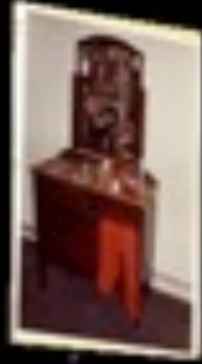Seifert Surface

Music control   Movie control

These are the
remains of
The Dante Hotel

Archive 3.0

archive | architecture | archaeology

new prosthetic architectures for the production and sharing of archival resources

remix
rich engagement
cocreative/participatory regeneration
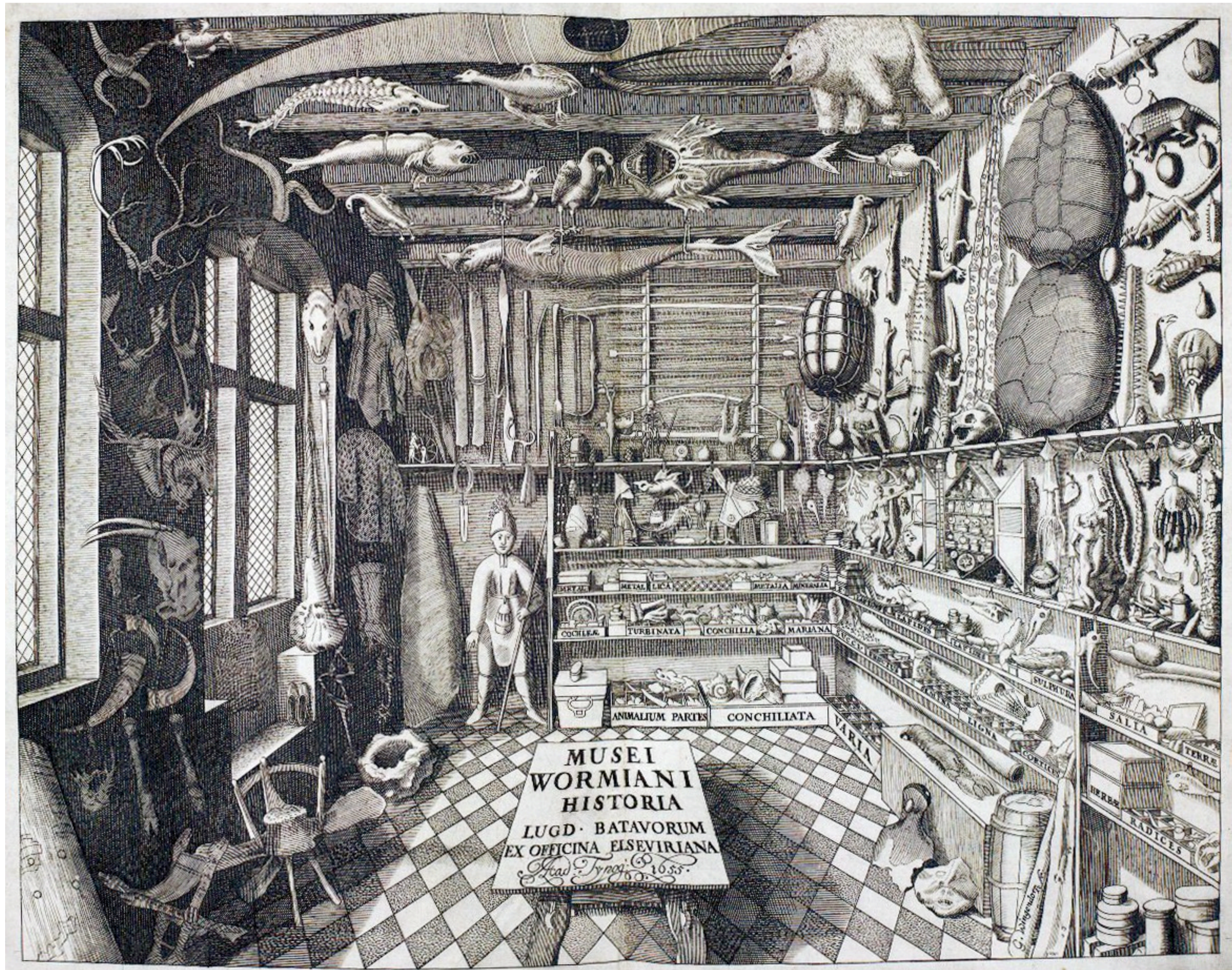
project and performance based learning

research networks and hybrid alliances

agile management

design and output based

traumwerk - collections are the stuff of dreams

MUSEI
WORMIANI
HISTORIA
LUGD· BATAVORUM
EX OFFICINA ELSEVIRIANA
Acad Typog 1655.

mixed realities

what has gone, what remains, what we hope for

memory and archive

ichnography and archaeology

the museum

creative design space

The Humanities and Innovation

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Design
and The Humanities

increasing the critical effect/impact of the Humanities

the basis for achieving this greater critical effect

- a convergence -

Design and the Humanities

because we are all (creative) authors

design thinking

the process/pragmatics of this convergence

archaeology

design studies - design history

(rather than material culture studies)

archaeologists don't discover the past - they work on what remains

archaeology - a mode of cultural production
(creative) authorship

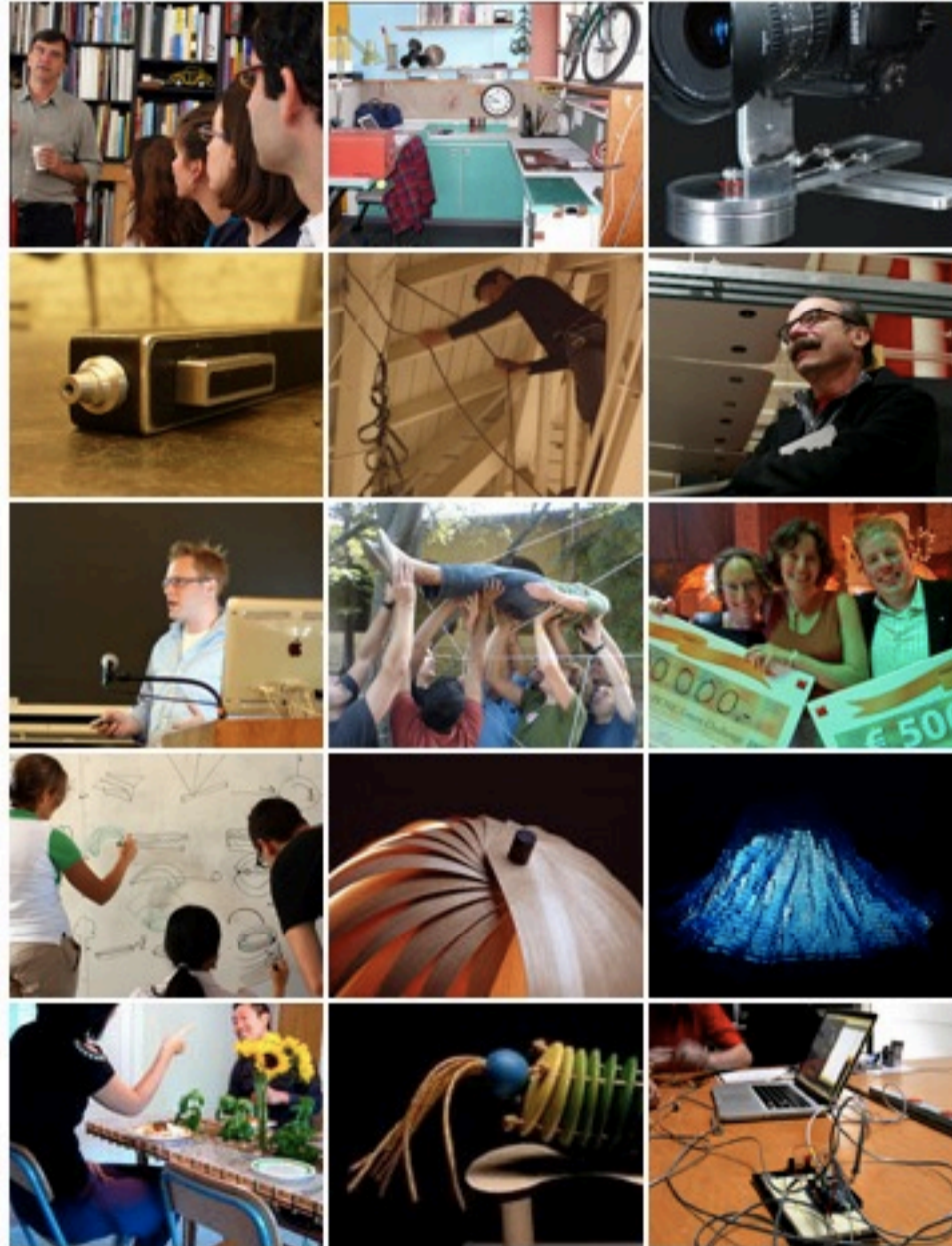# Stanford d.school

human centered design

01 Our Vision

"We are creating the next generation of designers and thought-leaders who will design solutions to the complex challenges facing industry, society, and our planet."

The Stanford Design Program is at the forefront of defining the direction of the field which is in the midst of a profound shift.

We are developing new transdisciplinary methodologies to address issues such as energy, widespread behavior change, and complex business challenges.

Our graduates are being equipped with skills and mindsets that enable them to assume highly leveraged roles and lead strategic initiatives.

read more

d.

Big Picture   Projects   People   Participate   About Us

TOUR OUR NEW HOME!

Take a tour of our new digs, **Building 550,** with the team that designed it.

Big Picture

We use design thinking to drive multidisciplinary innovation

MORE →

Projects

We bring people together to tackle difficult, messy projects

MORE →

People

We take a human approach to design, business & engineering

MORE →

Participate

Work with us, spread the word, and invest in the d.school

MORE →

About Us

What's new, and how to get in touch with us

MORE →

d.MANIFESTO ↝   All you need to know On a napkin.

d.NEWS ↝   f 🐦 📶 ✳

design

design awareness
design skills
design thinking
design research

human-centered design

anthropometrics
ergonomics
human factors
(behavioral psychology and cognitive science)

human-centered design needs the Humanities

a field of creative authorship (innovation)

focused on anthropometrics and behavior

in need of a broader conception of human being and the world of things

design thinking

a process - modus operandi - a menu of methods
a pragmatics
(know-how applied to particular situations/objectives)

in creative productive authorship

simultaneously research, pedagogy, practice

"Framing the right problem is the only way to create the right solution."

WHAT is the Define mode

The Define mode of the design process is all about bringing clarity and focus to the design space. It is your chance, and responsibility, as a design thinker to define the challenge you are taking on, based on what you have learned about your user and about the context. After becoming an instant-expert on the subject and gaining invaluable empathy for the person you are designing for, this stage is about making sense of the widespread information you have gathered.

The goal of the Define mode is to craft a meaningful and actionable problem statement – this is what we call a point-of-view. This should be a guiding statement that focuses on insights and needs of a particular user, or composite character. Insights don't often just jump in your lap; rather they emerge from a process of synthesizing information to discover connections and patterns. In a word, the Define mode is sensemaking.

WHY define

The Define mode is critical to the design process because it results in your point-of-view (POV): the explicit expression of the problem you are striving to address. More importantly, your POV defines the RIGHT challenge to address, based on your new understanding of people and the problem space. It may seem counterintuitive but crafting a more narrowly focused problem statement tends to yield both greater quantity and higher quality solutions when you are generating ideas.

The Define mode is also an endeavor to synthesize your scattered findings into powerful insights. It is this synthesis of your empathy work that gives you the advantage that no one else has: discoveries that you can leverage to tackle the design challenge; that is, INSIGHT.
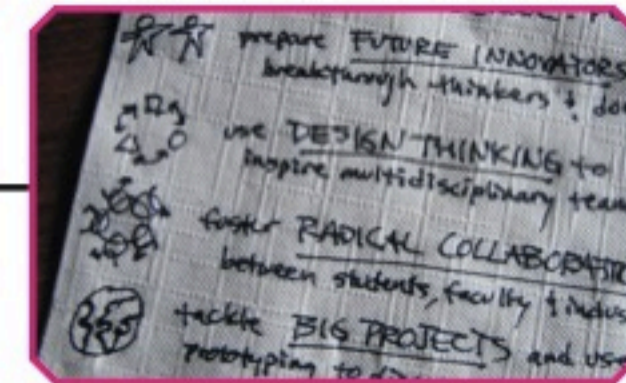
Articulate the meaningful challenge

HOW to define

Consider what stood out to you when talking and observing people. What patterns emerge when you look at the set? If you noticed something interesting ask yourself (and your team) why that might be. In asking why someone had a certain behavior or feeling you are making connections from that person to the larger context. Develop an understanding of the type of person you are designing for – your USER. Synthesize and select a limited set of NEEDS that you think are important to fulfill; you may in fact express a just one single salient need to address. Work to express INSIGHTS you developed through the synthesis of information your have gathered through empathy and research work. Then articulate a point-of-view by combining these three elements – user, need, and insight – as an actionable problem statement that will drive the rest of your design work.

A good point-of-view is one that:
- Provides focus and frames the problem
- Inspires your team
- Informs criteria for evaluating competing ideas
- Empowers your team to make decisions independently in parallel
- Captures the hearts and minds of people you meet
- Saves you from the impossible task of developing concepts that are all things to all people
(i.e. your problem statement should be discrete, not broad.)

Transition: Define >> Ideate

In the Define mode you determine the specific meaningful challenge to take on, and in the Ideate mode you focus on generating solutions to address that challenge. A well-scoped and -articulated point-of-view will lead you into ideation in a very natural way. In fact, it is a great litmus test of your point-of-view to see if brainstorming topics fall out your POV.

A great transition step to take is to create a list of "How-Might-We . . .?" brainstorming topics that flow from your problem statement. These brainstorming topics typically are subsets of the entire problem, focusing on different aspects of the challenge. Then when you move into ideation you can select different topics, and try out a few to find the sweet spot of where the group can really churn out a large quantity of compelling ideas.

"Testing is an opportunity to learn about your solution __and__ your user."

WHAT is the Test mode

The Test mode is when you solicit feedback, about the prototypes you have created, from your users and have another opportunity to gain empathy for the people you are designing for. Testing is another opportunity to understand your user, but unlike your initial empathy mode, you have now likely done more framing of the problem and created prototypes to test. Both these things tend to focus the interaction with users, but don't reduce your "testing" work to asking whether or not people like your solution. Instead, continue to ask "Why?", and focus on what you can learn about the person and the problem as well as your potential solutions.

Ideally you can test within a real context of the user's life. For a physical object, ask people to take it with them and use it within their normal routines. For an experience, try to create a scenario in a location that would capture the real situation. If testing a prototype in situ is not possible, frame a more realistic situation by having users take on a role or task when approaching your prototype. A rule of thumb: always prototype as if you know you're right, but test as if you know you're wrong—testing is the chance to refine your solutions and make them better.

WHY test

To refine prototypes and solutions. Testing informs the next iterations of prototypes. Sometimes this means going back to the drawing board.

To learn more about your user. Testing is another opportunity to build empathy through observation and engagement—it often yields unexpected insights.

To refine your POV. Sometimes testing reveals that not only did you not get the solution right, but also that you failed to frame the problem correctly.

The key to user testing is listening.

HOW to test

Show don't tell. Put your prototype in the user's hands - or your user within an experience. And don't explain everything (yet). Let your tester interpret the prototype. Watch how they use (and misuse!) what you have given them, and how they handle and interact with it; then listen to what they say about it, and the questions they have.

Create Experiences. Create your prototypes and test them in a way that feels like an experience that your user is reacting to, rather than an explanation that your user is evaluating.

Ask users to compare. Bringing multiple prototypes to the field to test gives users a basis for comparison, and comparisons often reveal latent needs.

Iteration and making the process your own

Iteration is a fundamental of good design. Iterate both by cycling through the process multiple times, and also by iterating within a step—for example by creating multiple prototypes or trying variations of a brainstorming topics with multiple groups. Generally as you take multiple cycles through the design process your scope narrows and you move from working on the broad concept to the nuanced details, but the process still supports this development.

For simplicity, the process is articulated here as a linear progression, but design challenges can be taken on by using the design modes in various orders; furthermore there are an unlimited number of design frameworks with which to work. The process presented here is one suggestion of a framework; ultimately you will make the process your own and adapt it to your style and your work. Hone your own process that works for you. Most importantly, as you continue to practice innovation you take on a designerly mindset that permeates the way you work, regardless of what process you use.

WHY storytelling over other forms of communication?

It seems stories are hard wired into our psyche. People have been passing information along via storytelling for as long as humans have had a rich language to draw from. Stories are great at connecting with ideas at a
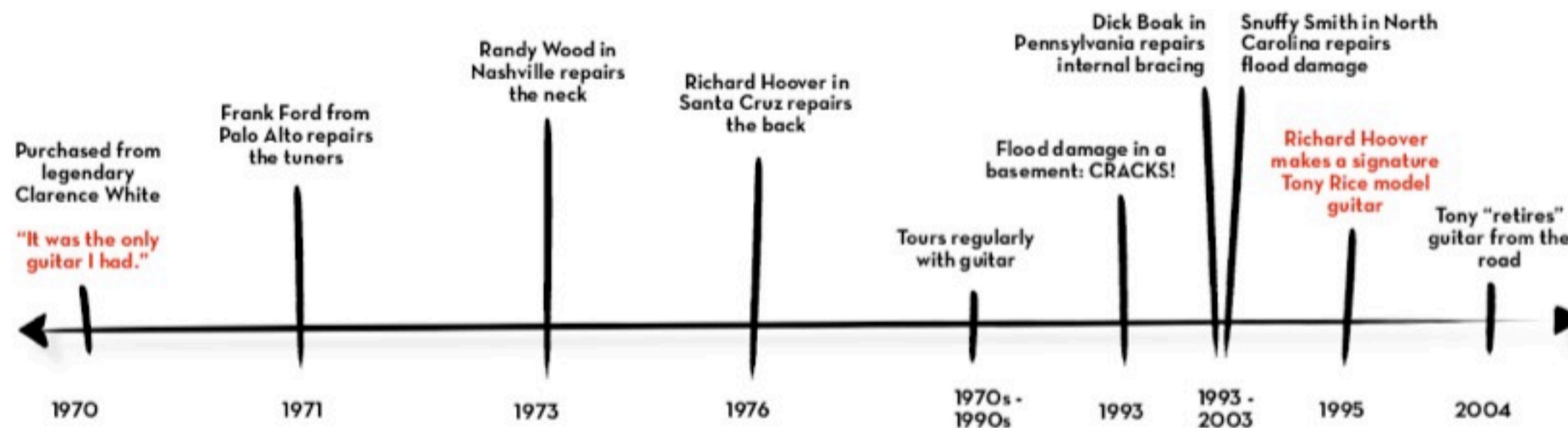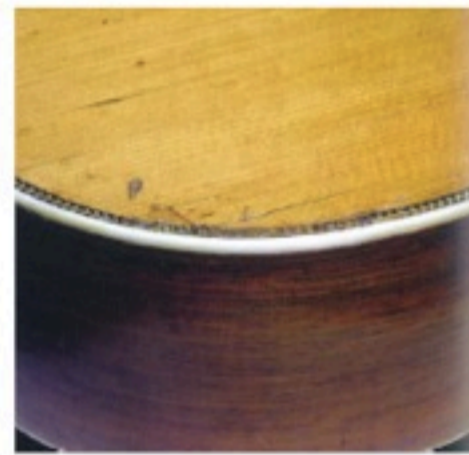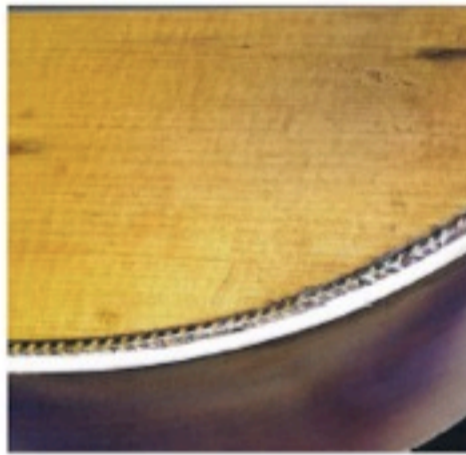
WHY engage with extreme users

Designers engage with users (people) to understand their needs and gain insights about their lives. We also draw inspiration from their work-arounds and frameworks. When you speak with and observe extreme

METHOD

JOURNEY MAP

Purchased from legendary Clarence White

"It was the only guitar I had."

Frank Ford from Palo Alto repairs the tuners

Randy Wood in Nashville repairs the neck

Richard Hoover in Santa Cruz repairs the back

Tours regularly with guitar

Flood damage in a basement: CRACKS!

Dick Boak in Pennsylvania repairs internal bracing

Snuffy Smith in North Carolina repairs flood damage

Richard Hoover makes a signature Tony Rice model guitar

Tony "retires" guitar from the road

1970   1971   1973   1976   1970s - 1990s   1993   1993 - 2003   1995   2004

WHY use a journey map

To gain empathy for a person or understand of one's process through an experience, consider the details of

"show don't tell"

a process example

Project 1 - Notebook

Project 2 - Notebook
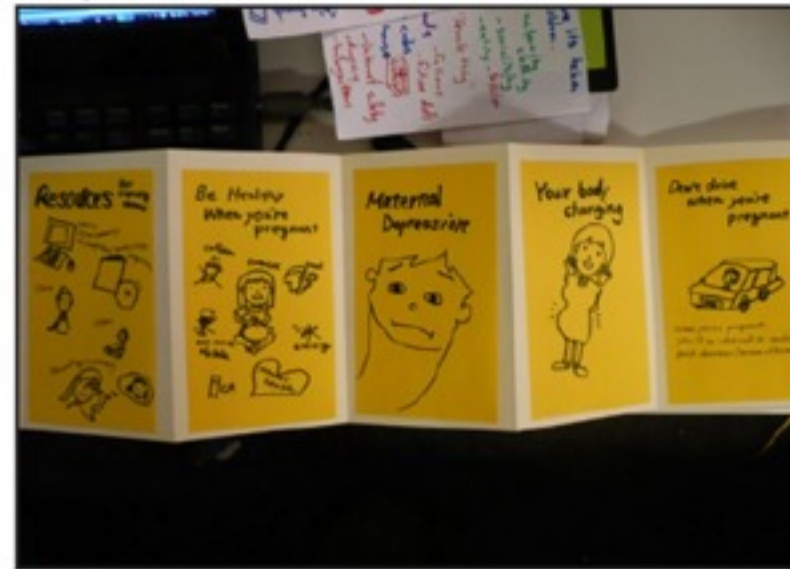
Prototype

Prototype Demo

Project 3 - Notebook

Project 3 - Notebook

Project 3 - Notebook

Project 3 - Notebook

TRANSFORMATIVE DESIGN

RES

the things as assemblage - process - gathering

the "T" scenario

mobilizing collaborative authoring/design

The REVS Program at Stanford

CARS (Center for Automotive Research at Stanford)
VAIL (Volkswagen Automotive Research Laboratory)
Stanford Libraries
Stanford Humanities and Sciences
Stanford d.school

Chris Gerdes, Clifford Nass, Michael Shanks

museum

a mixed reality collection and associated research program
informing design

AUSTIN
1964 Cooper S

the artifact

as a gathering of human experience

the automobile

in an archaeology of the contemporary past
an icon of recent human experience

total social fact

science and technology studies

understanding path dependencies and interconnections

crowd sourcing an artifact

communities of tacit knowledge and experience

the future of automobility

automobility

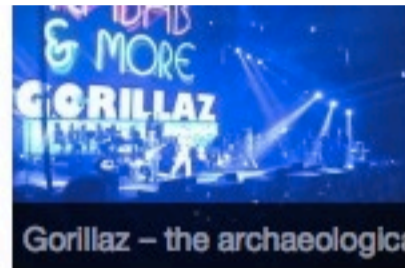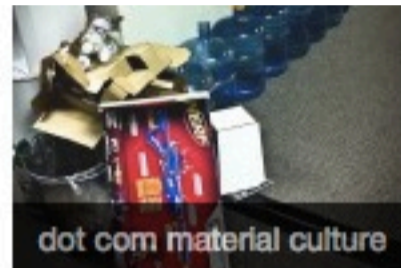understanding the human experiences

as well as the technological challenges

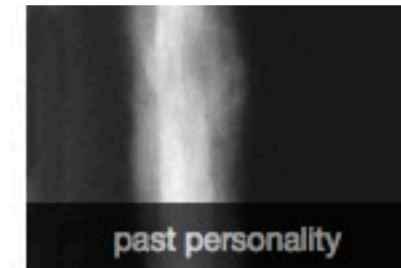# follow the story at mshanks.com

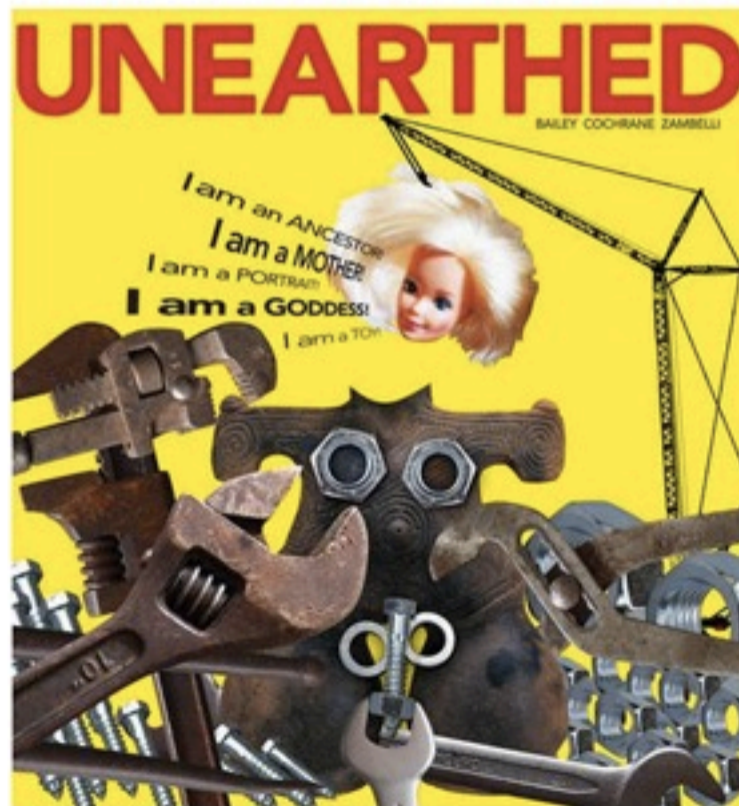things – beyond objects | Gorillaz – the archaeologica | dot com material culture | Steampunk in Oakland | past personality | Science is Cultu

DESIGN MATTERS

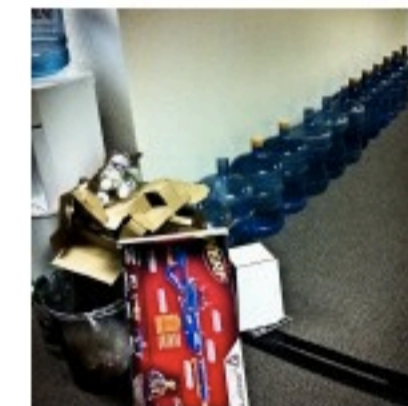### things – beyond objects

Two new books add depth to my long-running ruminations on the character of things.

Nonobject, by Branko Lukic and Barry Katz, was published this week by MIT Press [Link]

It's a rather beautiful book about Branko's design work. Barry (and Bill Moggridge in his foreword) provide fascinating commentary.

PREVIOUSLY

dot com material culture
Oct 31, 2010 | Read | Discuss
Start-up company Box dot Net – preparing for its move to new offices. I usually prefer the ter

Steampunk in Oakland
Oct 31, 2010 | Read | Discuss
Jack London Square, Oakland. Waterfront/docklands development. Steam punk bar furniture in The Chop

Automotive futures – featured on iTunes
Sep 13, 2010 | Read | Discuss
Leading Matters – Download free content from Stanford on iTunes. The iTunes Facebook