

archibots : intelligent and adaptable built environments

a workshop on architectural robotics at
ubicomp 2009



An introduction

www.archibots.org

Design

Engineering

Computer Science

Architecture

Material Science



Archibots around the world





Why are we here (with *Goofy*)?

08:30 – Welcome / Goals, Agenda, **Overview of Papers**

09:00 – Archibot futures / fast-paced moderated discussion

10:00 – coffee break

11:00 – Tasked brainstorming “What if ...” small groups

12:30 – Aedas hosted lunch

01:30 – Reporting from Each Group

02:00 – Video sketching

03:30 – coffee break

04:00 – Video viewing; Next steps (focus and workshop) / close 05:30

A horizontal banner at the bottom of the slide. It features a solid green square on the left side. To its right is a dark, textured background with a grid-like pattern of light blue and white lines, resembling a wireframe or a network. The text "Workshop Schedule" is written in a bold, white, sans-serif font across the center of the banner.

Workshop Schedule

to launch a viable community in Architectural Robotics.

to identify opportunities and challenges in research and education in robotics technologies embedded in the built environment.



workshop objectives:

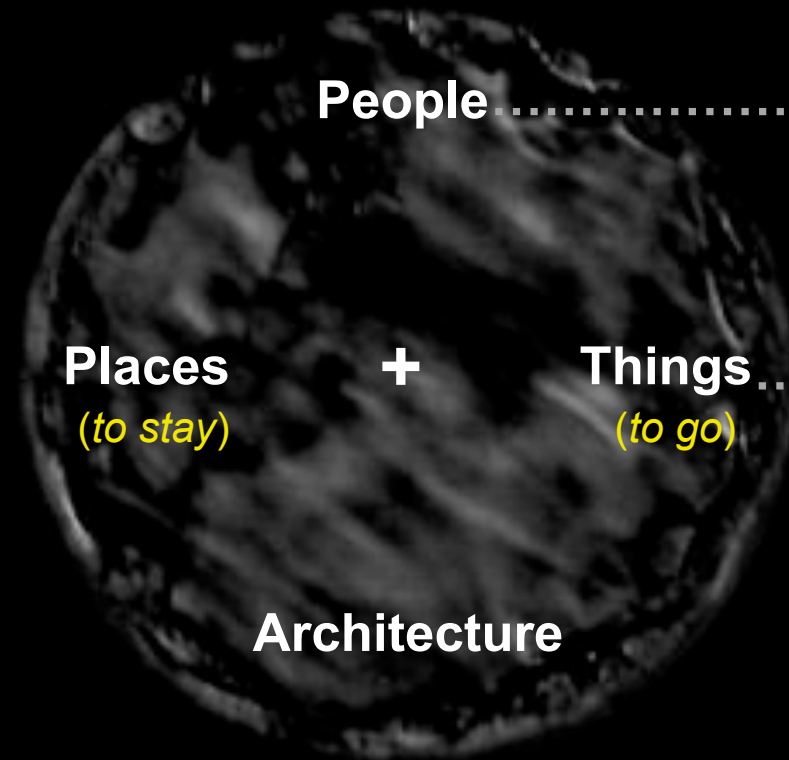
A network-culture (an over-abundance of information)

Spaceship Earth off-course.

Sweeping demographic changes (migration; aging; labor)



motivations:



People..... (Living Things)

Places
(to stay)

+

Things.....(Machines)
(to go)

Architecture



motivations

...a *conflation* of people, things and places.

This article is part of *Harvard Design Magazine*, Spring/Summer 2007, Number 27. To order this issue or a subscription, visit the HDM homepage at <<http://www.gsd.harvard.edu/hdm>>.

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Innovate or Perish

New Technologies and Architecture's Future
by **David Celento**

Innovation is a development that people find useful or meaningful. To be innovative, architects — and works of architecture themselves — must become more responsive to their users and environments. In other words, they must



Motivations...

Architecture **generating knowledge.**

Archibots promise

to be more complex, more adaptive, more dynamic

and, ultimately, more stable

than conventional forms of architecture

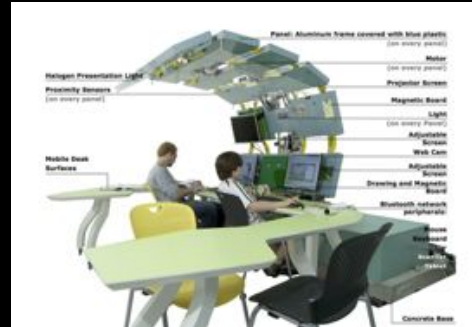


A proposition...

Musclebody / HRG



AWE / Clemson



Hyperwall / Decoi



[your research here]

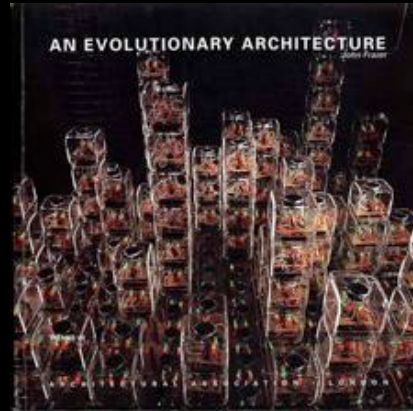
Arch Machine Grp



Always Bldg. / HM



Research



[your book here]

Books & Publications

2009 - Archibots at Ubicomp 2009 in Orlando

2008 – Interactive and Adaptive Furniture at U. Aarhus, Denmark

2006 – Situated Technology at the Architectural League, NYC

2006 – Game Set Match II at Delft U Hyperbody

2001 – Game Set Match at Delft U Hyperbody

1999 – CoBuild at Carnegie Mellon University

1998 – CoBuild at Darmstadt



Events

courses – Columbia, U Virginia, Georgia Tech, ...

focus – Art Institute of Chicago

focus – Architectural Robotics at Clemson / MS and PhD

focus – Situated Technology at U Buffalo / MArch

focus – Hyperbody, Delft U / Minor within Degree

degree – Master of Tangible Interaction, Carnegie Mellon U

[your educational courses and degree programs here]



Education: Courses and Degrees

- Hyberbody Research Group / Delft
- IMSA / Clemson
- Situated Technology / U Buffalo
- CoDe at Carnegie Mellon University
- [your group here]



*intelligent materials and
systems for architecture*

Research Groups, Centers, Institutes

National Science Foundation

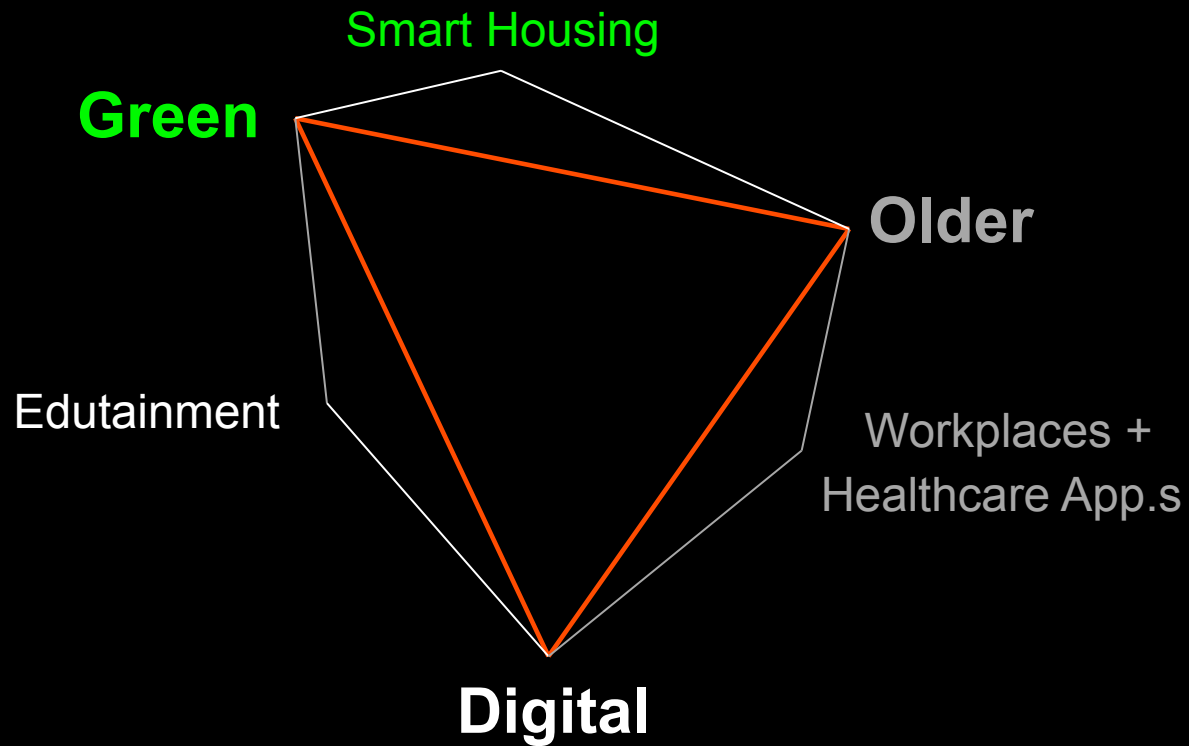
DARPA

National Endowment for the Arts

[your funding source here]



Funding



opportunities

We are getting older, greener and more digital.
What will we do about this? How do we prepare our students?

more opportunities: _____

- Henriette's call for papers...

- CHI 2010 Atlanta...

- [fill-in the blank]



opportunities

What will we do? How do we prepare our students?

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Workshop Schedule

10:30-12

9-10

Benjamin

Omar

Ian

Ellen

Abdulmajid

Aurellie

Mike W 9-10

John

Linnea

Michael F.

Jeff

Kentaro

Mike W. 10:30

JOE

CHENG

TAREK

Miles

Paul

Henriette

Henrique



Teams