

Plant Life Support System (PLSS)

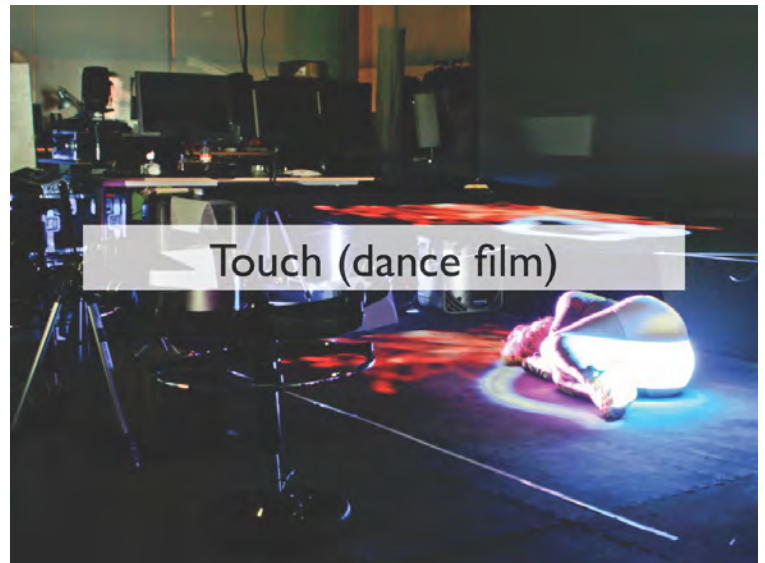
Life Support for Plants in Hostile Environments

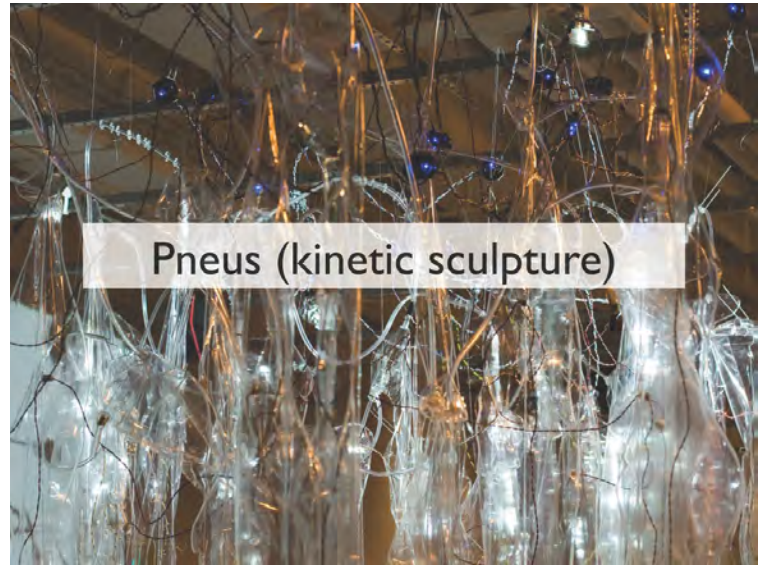
Morgan Sutherland
Concordia University, June 2010

Topological Media Lab

The Topological Media Lab provides a locus for studying subjectivation, agency and materiality from phenomenological, social and computational perspectives. Investigating such questions,

Responsive Environments





Pneus (kinetic sculpture)

Team

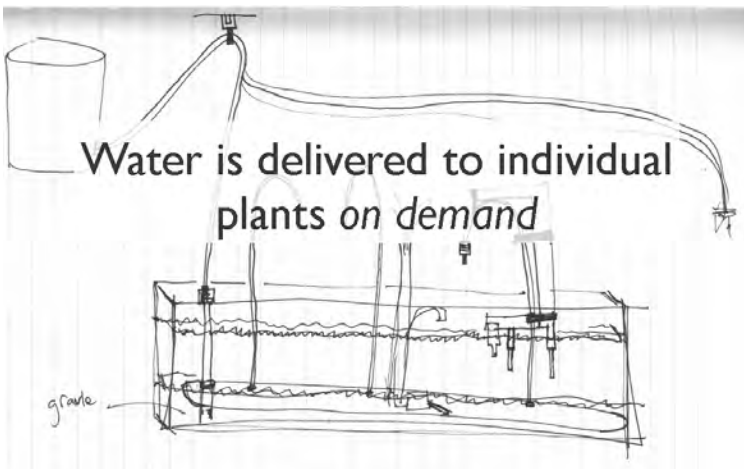
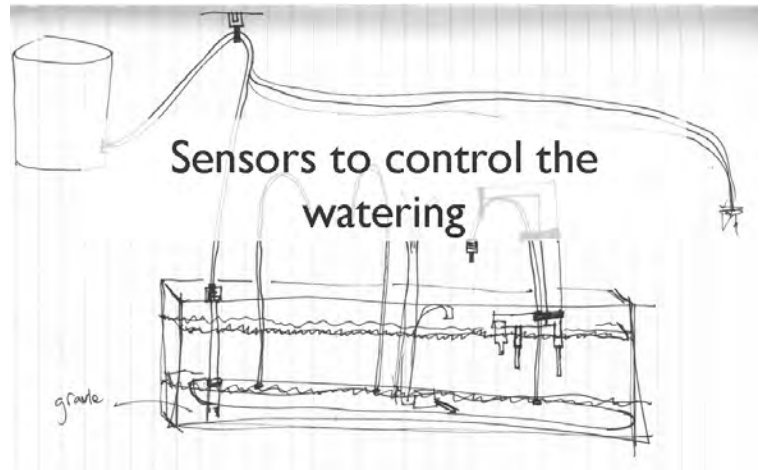
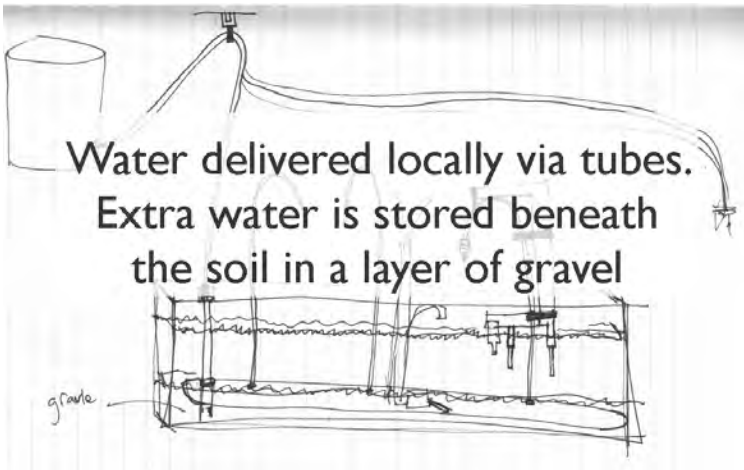
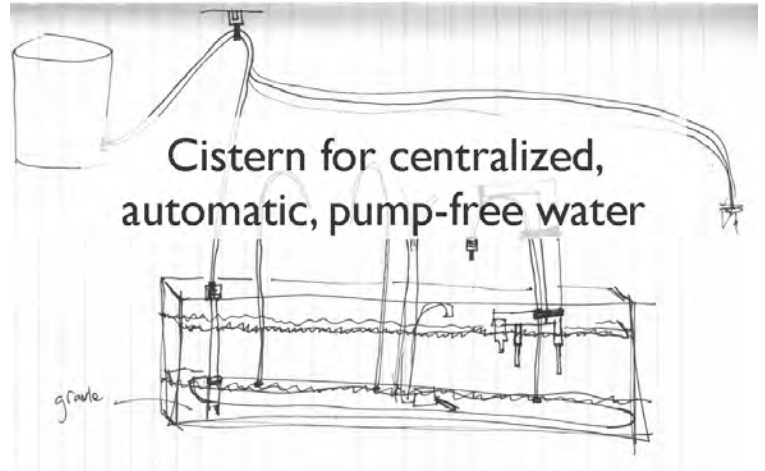
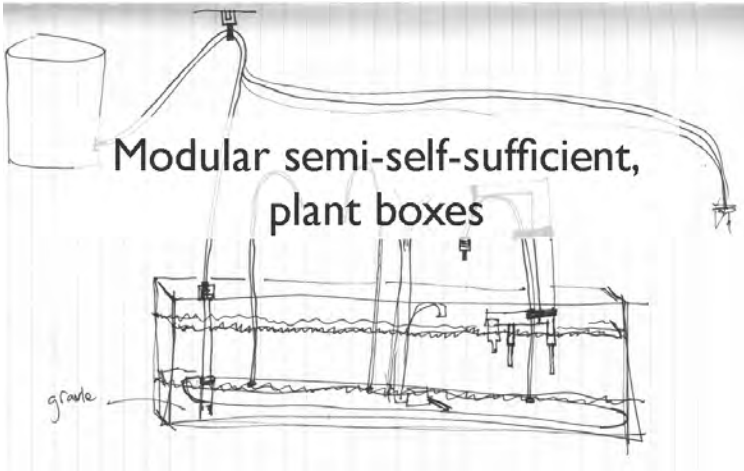
- Morgan Sutherland (Computation Arts)
 - Laura Boyd-Clowes (Philosophy)
 - Tobias Glidden (Geography)
 - Jordan Yee (Design)
 - Katie Lee (Architecture)
 - Flow Lunn (Fibres)
- Sha Xin Wei (PhD Mathematics)

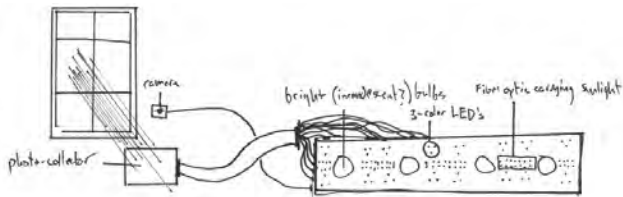
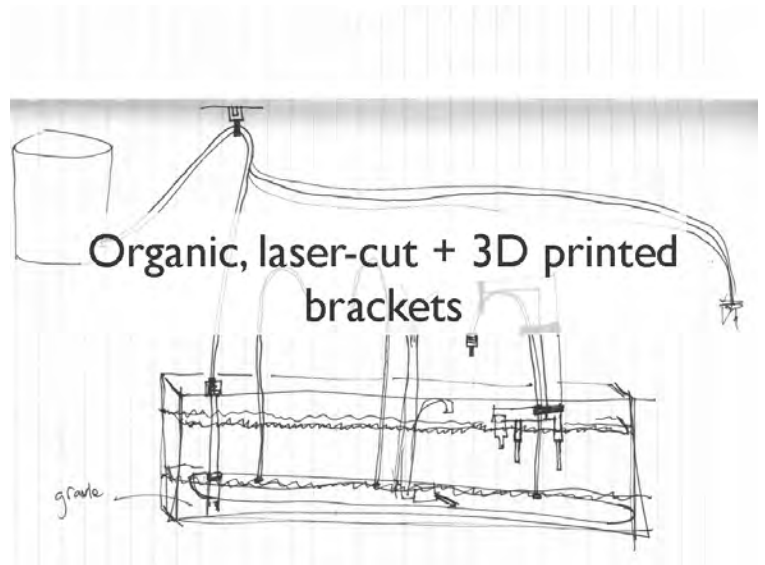
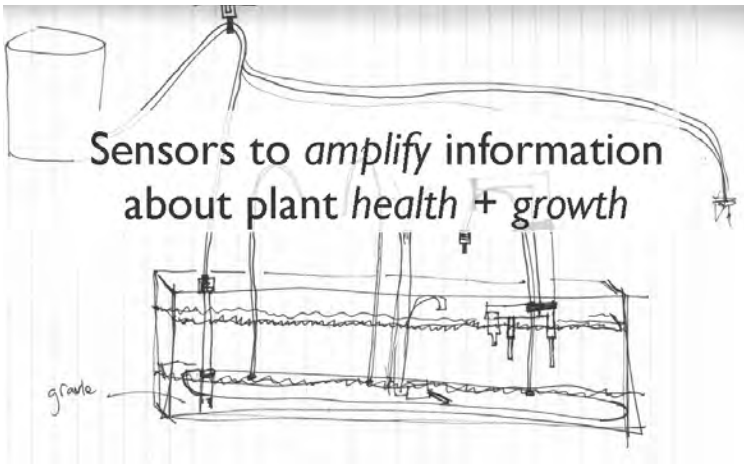
Team

- Morgan Sutherland (Project Lead, Sensors)

What is PLSS?

Modular





“Natural” Lighting:
mirror based,
led, computer controlled,
or fiber optic



Software and hardware open

Locally manufactured

Easy to obtain, inexpensive

Why?

“We are bleeding at the roots, because we are cut off from the earth and sun and stars, and love is a grinning mockery because, poor blossom, we plucked it from its

-D. H. Lawrence

Practically,
Responding to community
desire,

Vivid green things
make people happy

+

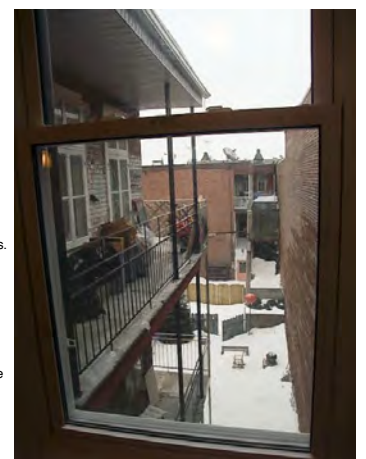
Interfacing with plants requires
responsibility

But let's go further

“Physical **public spaces** as arenas for a wide range of interaction and social change are **losing even their symbolic importance** as the global marketplace has shifted from commonly accessible public markets to dispersed and abstract omnipresent networks. Those physical spaces that remain have largely become **ornamental simulacra** of common living space - **voids** in our urban space only nominally accessible to the public. In the late twentieth century, city after city built financial or government districts that seem to have a certain vitality during the business day, but transform into vast deserted canyons lined with dead facades after hours. In fact to call the city's voids deserts would do injustice to the harsh vitality of the ancient desert habitats. **Wastelands might be a more appropriate name for these voids.**”

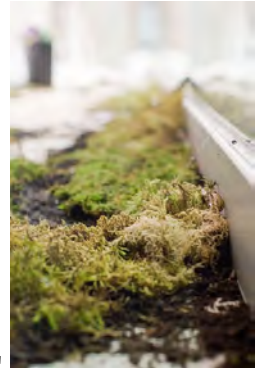
“Moreover, there is another kind of wasteland, the **wasteland of monoculture** [...] the very activities that are acceptable in public have become more and more regulated with the reduction of [...] collective urban space to **spaces of consumption.**”

“Sustainable Arenas for Weedy Sociality: Distributed Wilderness”, Sha Xin Wei (TML) and Maja Kuzmanovic (Foam)



Strive towards a society of
producers, not consumers

"It is not economic Reality but the **imaginary** that we propose to grow in the heart of our cities. How might we do this? By **seeding the city's empty spaces with 'weeds,' by cracking the crystal lattice grids of the urban space** and filling the cracks with accidents of speech, of unruly, untamed image and animate fabric."
"Sustainable Arenas for Weedy Sociality: Distributed Wilderness", Sha Xin Wei (TML) and Maja Kuzmanovic (Foam)



"Plants in the cracks"

"We cannot conceive of solutions to the poisoning of the atmosphere and to global warming due to the greenhouse effect, or to the problem of population control, without a mutation of mentality, without promoting a **new art** of living in society."

- Félix Guattari

"Guattari's use of the term ecology is worth noting [...] because the stakes he assigns to **media are** rightly perceived as being profoundly political or **ethicoaesthetic at all scales.**"
"Aligning such political processes with creative powers of invention that demand **'laboratories of thought and experimentation for future forms of subjectivation'**" also poses a demand for the inventive rigor with which life among media must be taken up."

- Matthew Fuller quoting Félix Guattari

laboratory of thought and
experimentation for future
forms

Roadmap:

f: soil humidity sensors → valves
→ amplification (projectors?)
install cistern and tubes
find a place for 3d printer
cut brackets for tubes
data logging
more sensors