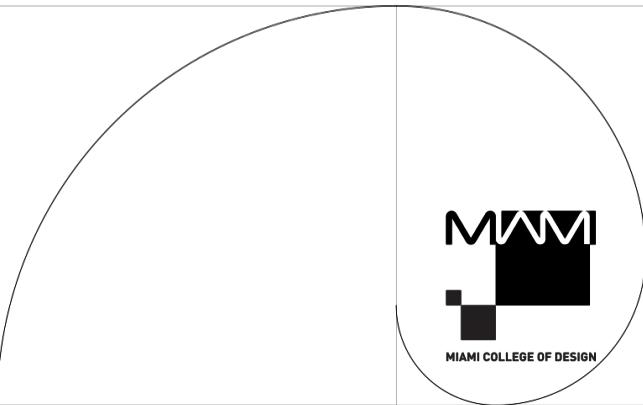
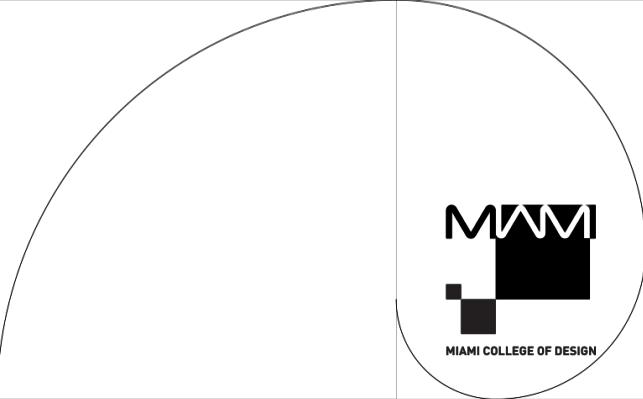


Week 3
18 March 2017



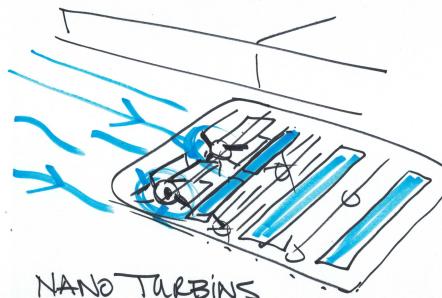
Recap: Week 1 w/ Evan Kodra

COMMUNITY	PERSONAL
 ENERGY	Hurricane Detonator Storm Surge Capture Salt Water Lamp post Personal Gravity Store
 TRANSPORTATION	Water Transport Connecting High Ground Ziplines Water Walkers Legged Motion
 INFRASTRUCTURE	Protecting Power Stations Dual-Purpose Spaces Tsunami Detector Mangroves Salt-Tolerant Landscaping Embedded Lighting to High-Ground
 EDUCATION	Tagging 2040 Flood Lines Gamification (Pokemon) VR Experience
 WATER & FOOD	Desalination Lamp-Post Cisterns Small-scale Desalination Water-Quality Faucet Personal Storage (Umbrellas, Cisterns)
 RECREATION	Music New Water Sports Water Bike

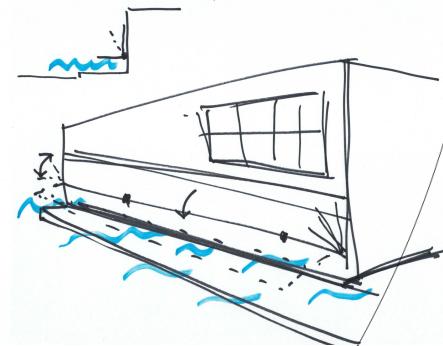


Recap: Week 2 w/ Iulius Lucaci

Energy generation



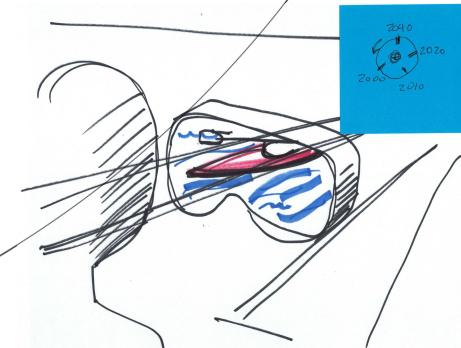
Smart sidewalks



Smart roads



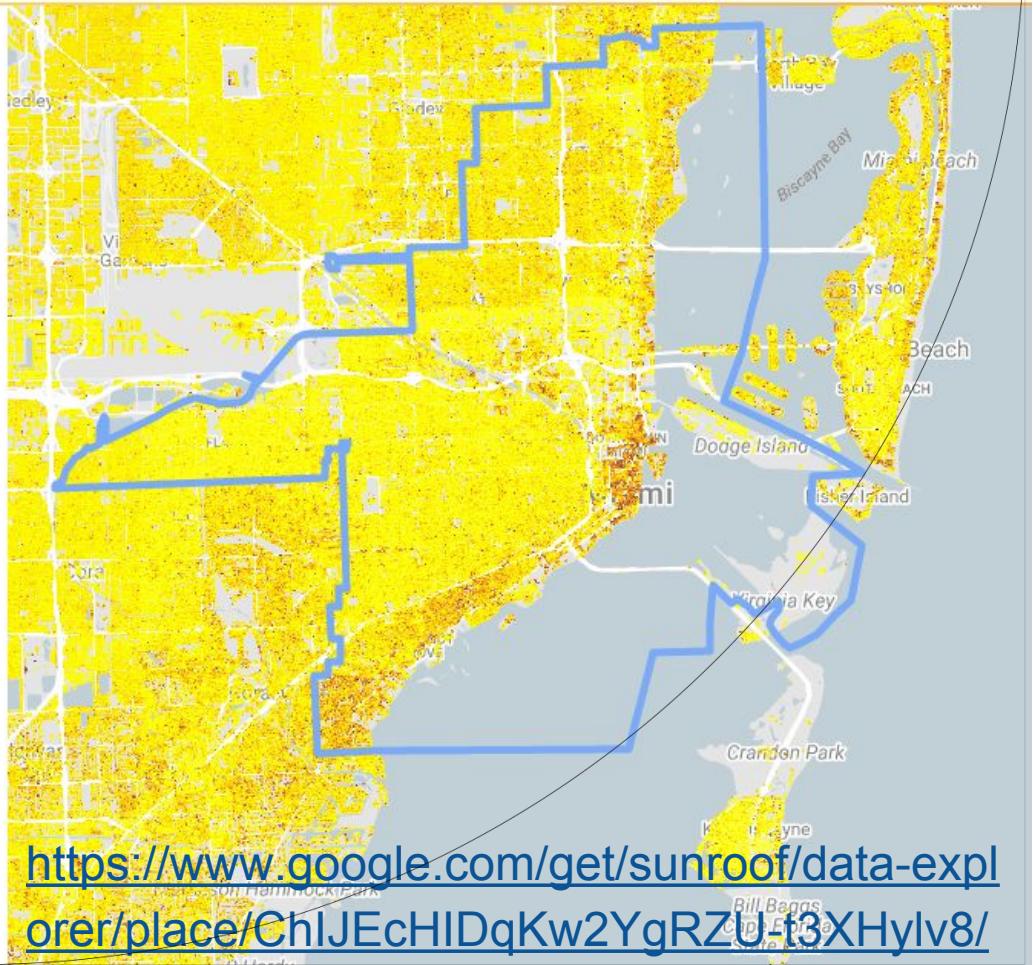
Augmented reality





The Sunshine State

Google Project Sunroof





Week 3 Goals

1. Example of drilling down: Rethinking Sidewalks
2. Forming project team(s)
3. Brainstorming (SCAMPER)

Rethinking sidewalks

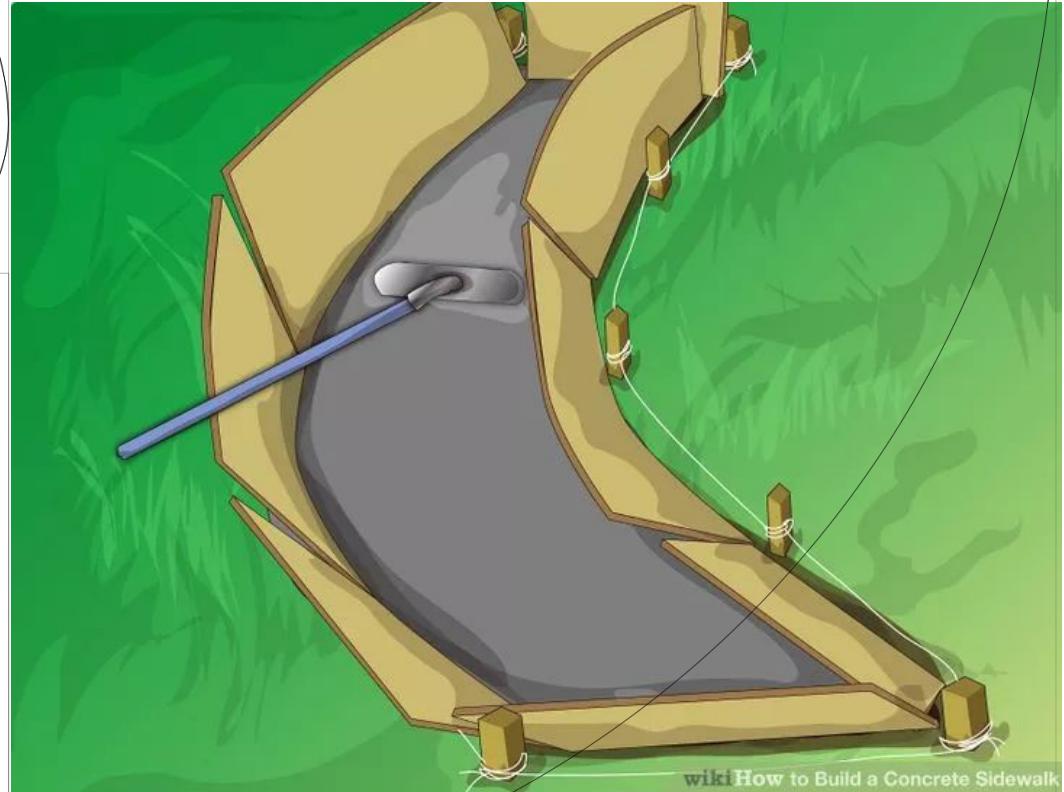


Can we develop a sidewalk that:

- Generates energy
- Filters and stores or drains water
- Desalinates
- Supports aquaculture
- Illuminates
- Indicates paths to safety
- Responds to water levels (lift?)
- Communicates information about climate change?



Sidewalk status quo: Don't forget to call "Dig Safe"



From <http://www.wikihow.com/Build-a-Concrete-Sidewalk>



Sidewalk
illumination:
fluorescence,
LEDs, et al.





Sidewalks as an energy source

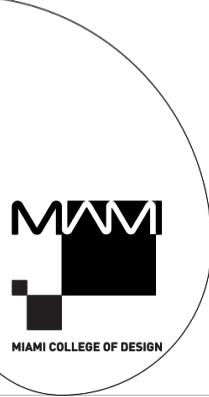




MIAMI COLLEGE OF DESIGN

Desalination:
evaporation,
reverse osmosis,
electromagnetic
filtration, et al.



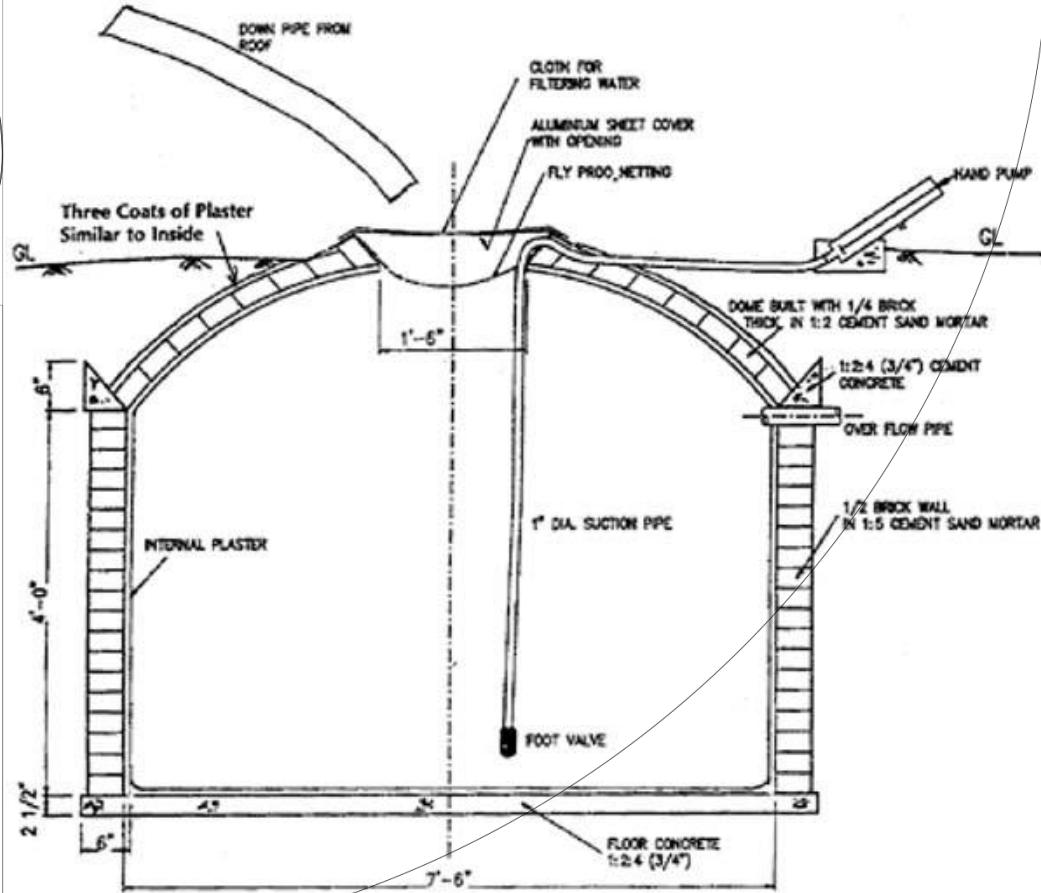


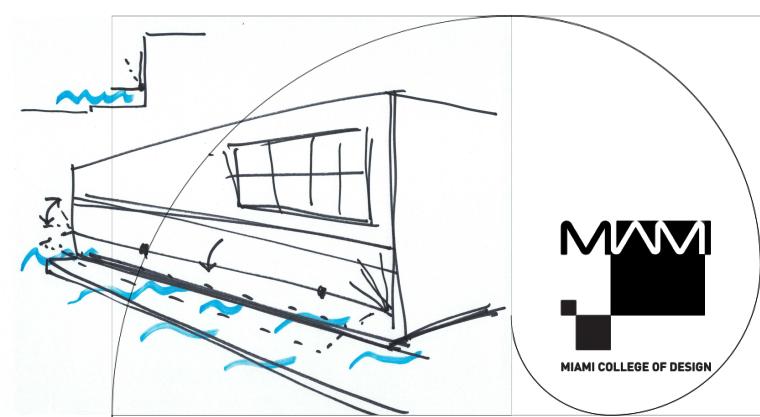
Water filtering





Water storage





Raising sidewalks



Too cool:

<http://splloid.gizmodo.com/amazing-foam-raises-heavy-concrete-slabs-as-if-it-was-a-1681083593>

SCAMPER



SCAMPER is a mnemonic

- Substitute
- Combine
- Adapt
- Modify
- Put to another use
- Eliminate
- Reverse

(From https://www.mindtools.com/pages/article/newCT_02.htm)

SCAMPER: Substitute



Substitute

- What materials or resources can you substitute or swap to improve the product?
- What other product or process could you use?
- What rules could you substitute?
- Can you use this product somewhere else, or as a substitute for something else?
- What will happen if you change your feelings or attitude toward this product?

SCAMPER: Combine



Combine

- What would happen if you combined this product with another, to create something new?
- What if you combined purposes or objectives?
- What could you combine to maximize the uses of this product?
- How could you combine talent and resources to create a new approach to this product?

SCAMPER:

Adapt

Adapt

- How could you adapt or re-adjust this product to serve another purpose or use?
- What else is the product like?
- Who or what could you emulate to adapt this product?
- What else is like your product?
- What other context could you put your product into?
- What other products or ideas could you use for inspiration?



SCAMPER: Modify



Modify

- How could you change the shape, look, or feel of your product?
- What could you add to modify this product?
- What could you emphasize or highlight to create more value?
- What element of this product could you strengthen to create something new?

SCAMPER: Put to another use



Put to Another Use

- Can you use this product somewhere else, perhaps in another industry?
- Who else could use this product?
- How would this product behave differently in another setting?
- Could you recycle the waste from this product to make something new?

SCAMPER: Eliminate



Eliminate

- How could you streamline or simplify this product?
- What features, parts, or rules could you eliminate?
- What could you understate or tone down?
- How could you make it smaller, faster, lighter, or more fun?
- What would happen if you took away part of this product? What would you have in its place?

SCAMPER: Reverse



Reverse

- What would happen if you reversed this process or sequenced things differently?
- What if you try to do the exact opposite of what you're trying to do now?
- What components could you substitute to change the order of this product?
- What roles could you reverse or swap?
- How could you reorganize this product?

SOLAR SIDEWALKS



- <https://www.facebook.com/NowThisNews/videos/1204177649672357/>
- <http://www.kansascity.com/news/local/article93755517.html>
- <https://techcrunch.com/2016/11/22/platio-turns-sidewalks-into-a-solar-collectors/>
- <http://bigstory.ap.org/article/e7a80f13ebd44dc8a5268e3fc0809d6b/walking-sunshine-idaho-company-debuts-solar-sidewalks>
- <http://www.solarroadways.com/Product/Features>
- <http://www.sandpointidaho.gov/visiting-sandpoint/solar-roadways#ad-image-6>
- <http://www.cbc.ca/news/technology/solaroad-generates-more-power-than-expected-1.3069371>
- <https://cleantechnica.com/2013/10/17/introducing-worlds-first-solar-sidewalk/>

CISTERNS & DESALINATION



- <http://laurencistrauss.com/?p=535>
- <https://www.technologyreview.com/s/534996/megascale-desalination/>
- <http://news.mit.edu/2015/shockwave-process-desalination-water-1112>
- http://www.globalspec.com/learnmore/manufacturing_process_equipment/environmental_instruments_equipment/electric_electromagnetic_treatments
- <https://futurism.com/art-meets-tech-georgeous-solar-powered-pipe-can-desalinate-1-5-billion-gallons-of-seawater/>
- <http://www.ionicsfreshwater.com/desalination>



WATER PURIFICATION FROM NATURE

- <http://www.ayala-aqua.com/>
- <http://www.amnh.org/learn-teach/young-naturalist-awards/2012-winning-essays/using-plant-based-biofilters-to-purify-household-wastewater/>
- <http://news.mit.edu/2010/italy-water-0407>