

High and Dry:¹ Performances Around Water's Absence

Rammed Earth. That's what Tere O'Connor called his then latest choreographic performance when I first interviewed him in 2009. I inquired about the title, which had no visible resemblance to the performance I'd experienced in which we, the audience, created, and recreated, the space of the performance according to a set of instructions printed on the program. Nor did it appear to have anything

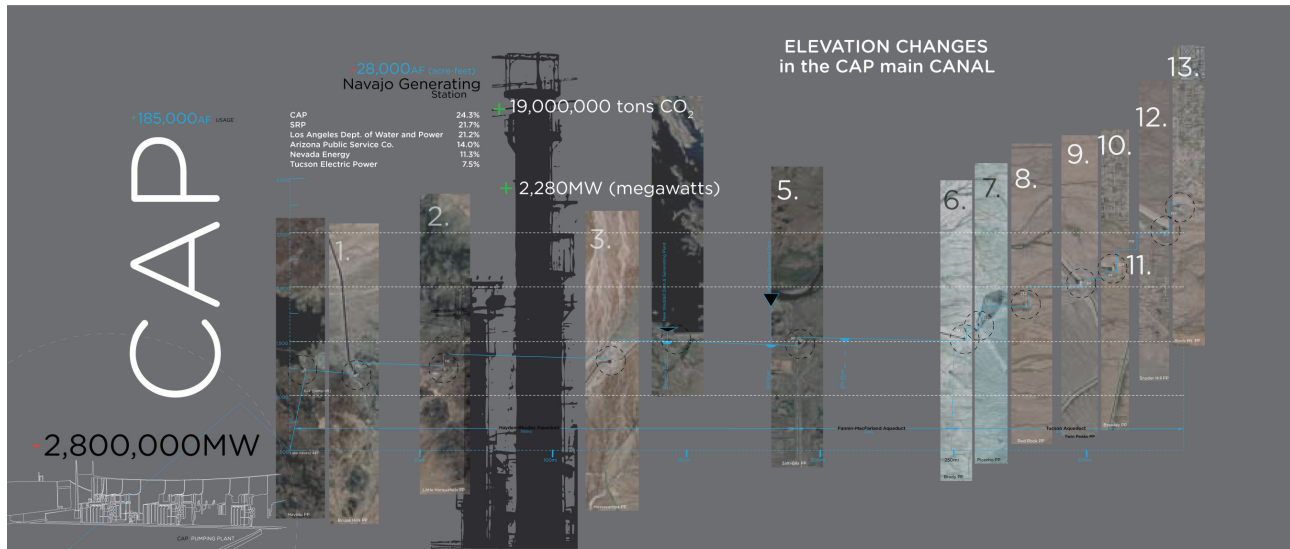
at all to do with that building technology and material indigenous to my university's surroundings. O'Connor replied stating that, like rammed earth, this work was something created from seemingly nothing, from what was already there, but unseen.²

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CONFLUENCE OF STRANDS

The projects that follow are the outcome of an interweaving of seemingly disparate interests and practices related to performativity, performance making, and ecological research-informed design. These projects embrace "performance" in part on technological, organizational, and cultural levels;³ at times as literal spatio-temporal events; and, in the latter works discussed, the performing of the work that results in such things and events coming into being and which abides by theater's 1st law: "the show must go on."

Working within the realm of performance design—making environments for plays, dances, and strategizing site-specific works—has offered innumerable lessons in productively and creatively operating within tight constraints. Certain conditions of performing/performance art practices are at the root of this: access to rehearsal space and to performers' time to develop work is extremely limited by space's affordability and performers' availability; a work's "production value" (costumes, set, lighting) is, without (European) government or (American) private funding, limited to non-existent. The result of these two dominant conditions is the pressure to make something from nothing and within a constricted time frame: O'Connor's rammed earth. These lean and mean conditions of performance-making practices tend to prohibit the accumulation of decorative and conceptual "fat." The lack of time necessitates working methods with embedded rapid feedback loops, to quickly shake off preconceived ideas and get to the essence of things.



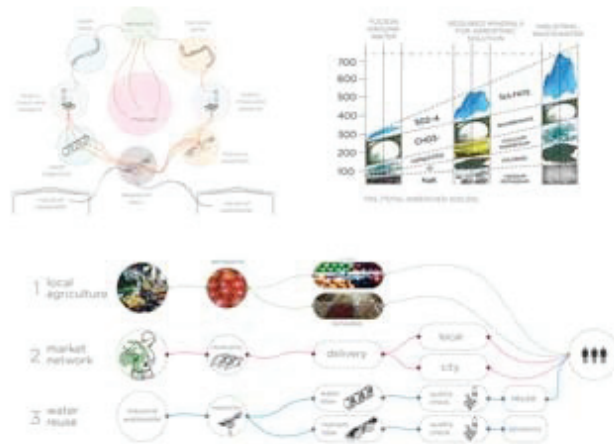
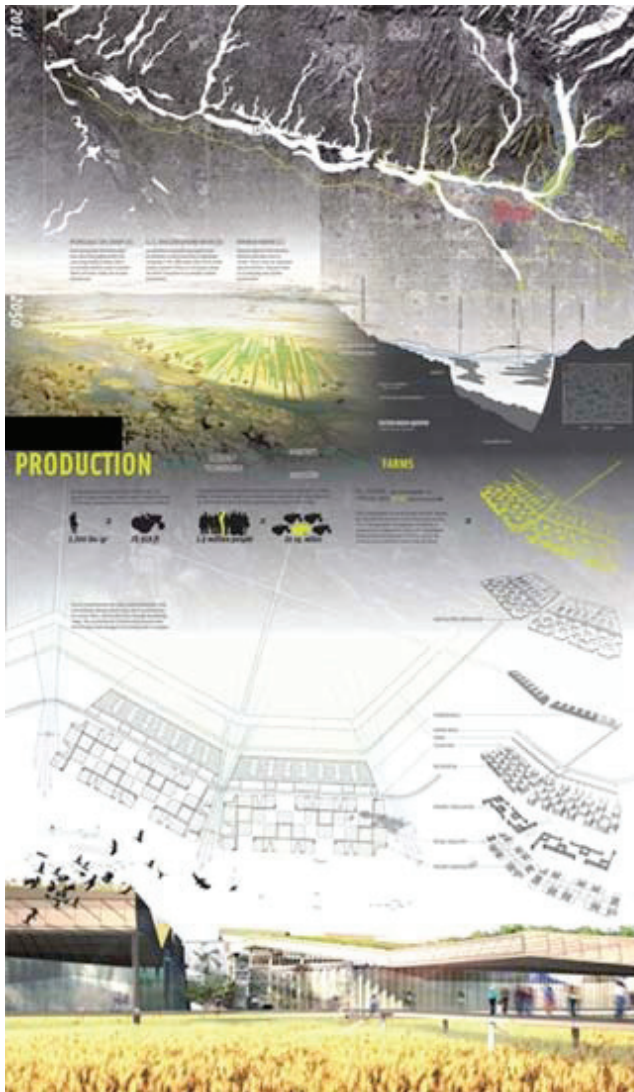
These are the constraints that I have been bringing from designing for performance into the design studio—as method—to interrogate other absences, lacks, or scarcities as the topic of inquiry. The projects that follow explored scarcity as *motive*, scarcity as *opportunity*, and scarcity as *method* in relation to the same content: water.

SCARCITY AS MOTIVE

The immediate environment of the University of Arizona offers ever-present reminders of absence. Gouged out of the landscape are gullies, gulches, arroyos, where water once coursed year round, and now only appears during summer monsoons and winter rains. The rarity of water’s appearance is evident in contoured landscapes that serve as retention basins, by the purple caps that give access to buried drip irrigation systems, by galvanized cisterns attached to gutters, and xeriscaping everywhere.

With the rivers already dry, the continuous sinking of the water table is invisible to us. The repercussions, however, are all around. The topic of water, and its presence or absence in our region, was one focus of a recent design studio. Students dove into the topic by examining water relative to their home cities, revealing that we all “have issues” with water, be it too much, too little, too salty, too toxic.

One student, Mathew Propst, researched the generation and usage of energy tied into the network that transports water across the desert to Phoenix. The act of documenting the vicious cycle between power generation and rendering water available in the desert made evident that the whole premise of supporting a growing community on water transported uphill, in open-air canals, across great distances is deeply flawed (figure 1). In Propst’s case, the scarcity and squandering of resources raised larger questions about the settlement patterns along this city’s Rillito River, land use, and economic activity related to this now-dry river. Balancing geological, hydrological, and agricultural/food industry data, Propst came to the conclusion that the riverfront could, with a combination of new greenhouse



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architectural infrastructure and more traditional farming, support the entire community's food needs, recharge ground water, and offer renewed public access to riverfront landscape.

The project definition of another student, Sulaiman Alothman, also emerged from his home-city research, specifically in relation to desalination processes, brackish wastewater, soil degradation, and subsidence. Delving into the specific chemical make-up of industrial wastewater and those minerals desirable for hydro- and aero-ponic farming, Alothman leveraged this research to propose new symbiotic relationships between light industry, waste-water reclamation, hi-tech alternative farming and a public market program (figure 2).

In these projects, water, or lack thereof, instigated the rethinking of building programs and typologies, and relationships between "constructed" and "natural" infrastructures.

Perhaps the greatest outcomes of the half semester research and design assignment were not the proposals in and of themselves, but a sea change in thinking for the students as a whole. Propst, Alothman, and others expressed, in retrospect, a losing of their naivety regarding water's importance in urbanization, architectural and landscape design considerations, and the larger issues of public health, food production, energy, and so on. They become aware of just the tip of the iceberg; but this new awareness gave them both motivation and a direction for future design studios. Both Propst and Alothman continued to explore their home-city issues in their subsequent studio. In Propst's case, this was designing water-collecting, plant-supporting evaporative-cooling urban canopy system; Alothman continued to research potential links between greenhouses, water desalination, and wastewater regeneration cycles.

SCARCITY AS OPPORTUNITY

The dry river, in Jennifer Heinfeld's case, offered not only a research topic, but also a physical space and a moment in time to inhabit.

A local arts group interested in raising awareness about local water issues and the impact of water depletion on the larger ecosystem, had since 2007 organized annual cultural events in the river. Heinfeld responded to the invitation from this group to faculty and students in art and architecture for proposals for the 2010 incarnation of this event, and the project developed as a directed undergraduate capstone. Her research around and across the border created by this dry river uncovered the river's delineation of borders between economic and ethnic groups, wealth, property, and public/private services, and diverse topographic conditions.

The challenge, both externally and self-imposed, was to create an ephemeral manifestation of the dividing (and uniting) boundary wall. Given the ephemerality of its use during a single day event, the following additional constraints became self-evident: limited financial and environmental footprint (*in situ* and afterlife), appropriate effort, simplicity of construction, and limited assembly and disassembly time. Heinfeld's response was

conceptually “parametric” in that the set of rules were developed as a flexible response to site, material, time, and performative purpose. Topographic traces of the last rain defined the wall’s boundary. Available flat zones of sand provided the raw material in varying quantities. The varying quantity limited the number of sacks filled in any zone, and with visibility and other context variables determined if the stacking pattern was to encourage social gathering or spatial separation.

Heinfield developed this strategy into meandering separating and seating walls of an amphitheater located at the overlap of a pedestrian bridge above, a gulch and the river below, and the crisscrossing invisible line of the city limit. Her construction methodology was adopted and adapted for the actual event, located a mile to the west and that transpired later in the year. The sandbag configuration performed as a giant sandbox, seating area, and stage for speakers and musicians. One thousand sandbags were filled with river sand with the help of thirty hearty volunteers at dawn, and then emptied back into the river late that same night after the event, leaving only traces to be erased by the natural course of activities and flows.⁴

The site, created through water’s temporal absence, offered an opportunity for ephemeral inhabitations, and a number of performances—Heinfield’s springtime prototyping, which enlisted family and friends; the dusk-hour drawing at full scale in the sand of the final sandbox form; the organization of an unskilled-lightning-construction crew to work with a “technology” that leaves no trace, and the even more rapid, almost viral, participatory action of returning the site to its “natural” condition. The students’ engaging in publically exposed actions of an open, participatory nature, created not just unique spatial but also social conditions, for a day, within an otherwise physically and socially isolating landscape.


SCARCITY AS METHOD

These projects pointed towards an increasing need to address absence, of water amongst other things precious, as something embedded in the reasoning behind designing any spatial intervention (*why*), and as informing *how* the space or the life it supports performs and responds to that scarcity, be those performances of a cultural, organizational, or technological nature. The last project, *OPS* or *Occupy Public Space*, will be discussed in terms of the pedagogical objectives of embracing scarcity as working condition or constraint, and as content of topic.

In order to empower the students in their own decision-making process, it was important to render transparent all frameworks and objectives, beyond the criteria of problem definition (*why*) and performance (*how*). These frameworks and objectives included the imperative, as in the first project discussed, of integrating research and design, plus production, and action in one project; another understanding of integrated process as one finds in the rapid concept-to-curtain cycle in performance design; and empowering students’ decisions by having their research direct the project format and content, including site selection, material strategy, and programmatic objectives and agendas. As an additional overlay on the project agenda as found



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in the Rillito River Project, *OPS* depended on successful team coordination, and challenging students in a new way through public engagement, and embracing risk and responsibility.

Scarcity was also addressed head on in the constraints, working means, and methods. Given a tight budget, the materials were limited to (1) just a few things purchased, and mostly things found, recycled, and recyclable and (2) to things that did not necessitate skilled fabrication in order to allow an inclusive assembly team and flexible installation process. There was also a scarcity of time, necessitating good teamwork brainstorming and testing ideas. The students were to build more robust design development skills by physically mocking up ideas quickly, in order to move between hypothesis and evidence, allowing the artifacts themselves to provide the most valid feedback.

A full-scale intervention in the city's main transit depot, *OPS* was the outcome of research into the public's performance in civic space. From the students' individual research they developed an elaborate list of (performance) criteria, with each of them taking personal responsibility to see that a particular concept became manifest in the final constructed and installed space:

Color / light / shade / Depth perception

Porosity (inside / outside)

Chaos + emergent order

Change over time

Controlled versus free

Objects choreographing movement

Movement between things

Responsive / morphing to context

Addressing removal / loss

Encourage interaction

Promoting collective discovery

Framing what's there

Enticing participation

Malleability

Collectively what emerged as the most important ambitions were the introduction of information (about water/lack there of), evaporation and vegetation (as means of bringing cooling and "delight"), and instigating participation (through its assembly and by giving the public occupying this downtown space something both mysterious and inviting to investigate and discuss.

The students in several constantly shifting teams worked through multiple iterations—exploring several potential sites for an intervention, debating reasons to intervene, questions about what benefit would be brought to the space, plus material logic—before arriving at the most central



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place, populated with the city's most disenfranchised, and committed to working with water as theme and water bottles as medium. Additional materials were plywood, chicken wire and hooks, cotton fabric, ice, cables, and plastic signage.

CONCLUSIONS

As with the earlier projects discussed, the greatest outcomes of these projects—researched, designed, and brought into physical being by a diverse group of students working within a tight schedule and budget—were above and beyond the usual expectation of drawn and modeled projects, and beyond the ability to “pull it off.” The students discovered in themselves and their colleagues a much larger breadth of capabilities and ways of participating in and leading a team. They engaged in their community as public advocates for good design as well as for water conservation. As designers they had perhaps their first experiences linking research and design as a way of pursuing issues of interest to them. They gained invaluable insight about the translations from drawing to building, and the gaps between the theory and the embodied, experienced, constructed reality. The students also gained in courage and their abilities to articulate and argue their ideas within a team, and learned how to support the best idea, regardless who authored the idea. *OPS* created an opportunity for the students to perform as public citizens, to introduce the efforts of a collective body and mind as a physical and temporal intervention in the public space, and to test its performance—in this case sensory and participatory, communicative and evaporative (figure 5). ♦

ACKNOWLEDGEMENTS:

Many thanks to Ellen McMahon for her partnership from start to end of the Ground|Water project, and to the Confluentcenter for Creative Inquiry for support that made the Rillito River Project (RRP) installation, exhibition, and book possible. Thanks as well go to the students in the spring 2011 and 2012 design studios for beautiful work, and to Jennifer Heinfeld for her tenacity that resulted in the RRP installation for BatNight 2010.

ENDNOTES

1. *High and Dry*, in addition to being a song by Radiohead, is the title of Michael Toubassi's 2005 film, *High and Dry: Where the Desert Meets Rock 'n Roll*.
2. Author's telephone interview with Tere O'Connor, Feb 13, 2009.
3. Jon McKenzie elaborately unfolds these ideas in *Perform or Else*.
4. Although no trace was left in the river, the 1000 orange sandbags did not end their life in an appropriately eco-friendly manner. After inhabiting the school's shop for a semester and off campus storage for another year, it was discovered that they'd seriously molded and needed to be “thrown away.” This raised questions for subsequent projects about the recyclability, reusability, or degradability of materials.