Alleys as Community Resources: White Paper

By Steven A. Moore, PhD, RA
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Co-Director, Graduate Program in Sustainable Design

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The mission of the Office of Sustainability is to provide leadership, influence positive action through engagement, and create measurable benefits for Austin related to climate, food, resource efficiency, and resiliency.

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The alleys of Austin, like most other North American cities, are under- or mis-utilized community resources. It is not that city planners or the Department of Public Works have been guilty of neglect, but rather that the kind of infrastructure envisioned for the 19th century, when Austin was initially laid-out, is quite different from the needs of the 21st.

In this era of climate change citizens might undertake three sequential actions to adapt to the surprising conditions in which we find ourselves:

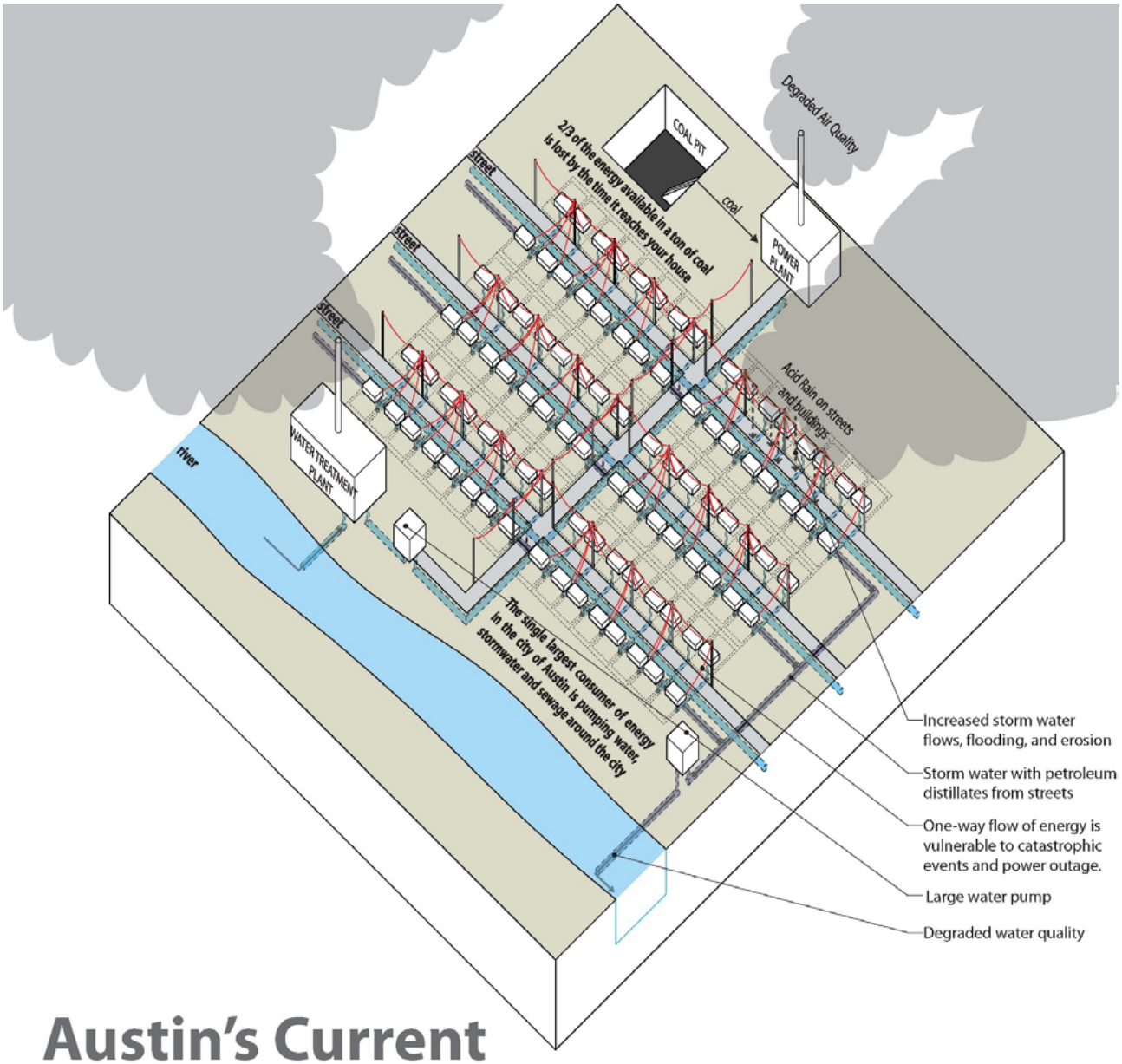
First, it is helpful to understand history, or why we have built our alleys as we have. People will find, of course, that each city is somewhat different. In Galveston, for example, alleys were built in the 18th century to accommodate slave housing at the back of deep residential lots so that servants would be close to their work. Austin, by contrast, was more a product of the period of rational planning that emerged in the late 19th century, an era in which the infrastructure of modern life distributed commodities we needed to live healthfully (water and later, electricity and communication wiring), or collected things that threatened our health (sewerage and garbage). Alleys were, then, conceived as infrastructure conduits that would (a) transport the *goods* and *bads* of urban life to and from large industrial treatment facilities built in the city periphery, and (b) be out of the public eye. Understanding the flows of liquids, solids and information in the existing industrial city—what is called *urban metabolism*[i]--also helps us to understand how infrastructure influences human flows and relationships.

Second, we need to understand how our alley infrastructure is dysfunctional before we can imagine more functional alternatives. The list of dysfunctions is long, but here are a few: Utilizing water of drinking quality for homeowners to flush the toilet, wash the car, or water the lawn is no longer wise in an era of rapid population growth and drought. Draining water run-off from roofs and fertilized lawns to alleys, where it picks up other

pollutants before being conveyed to our drinking water reservoir (Lady Bird Lake) is of questionable economic and health reasoning. In the era of climate change, transmitting electrical power from coal-burning sources to residential alleys many miles away, and in the process losing large percentages of the energy available through transmission losses, is not the most efficient strategy. Similar observations can be made with regardto compostable solid waste, affordable housing, and public recreational space. Like all societies before us, we have inherited our infrastructure from previous generations who built under very different conditions, and it is time we imagined alternatives appropriate for today, yet flexible enough for future generations to adapt to ever-changing conditions.

So, third, what kind of action might citizens take? Research has demonstrated that sustainable infrastructure should be "distributed" around the city at the scale of the neighborhood, or preferably the block. Multiple, small power generators, water collectors or recycling stations will be significantly more efficient than large industrial installations (because they reduce transmission losses) and resilient (because when one unit *goes down* others are available to take its place). Plus, small units lend themselves to more sustainable technologies like photovoltaics, algae, or other organics (as illustrated in Figures 3 and 4).[ii] Fortunately, Austin has already fostered an experiment at the scale of the neighborhood block that might inform other citizen groups.

rethink/Austin
FOR A BRIGHT GREEN FUTURE



Austin's Current Power and Water Flows

Figure 3: Centralized Infrastructure (Moore 2008)

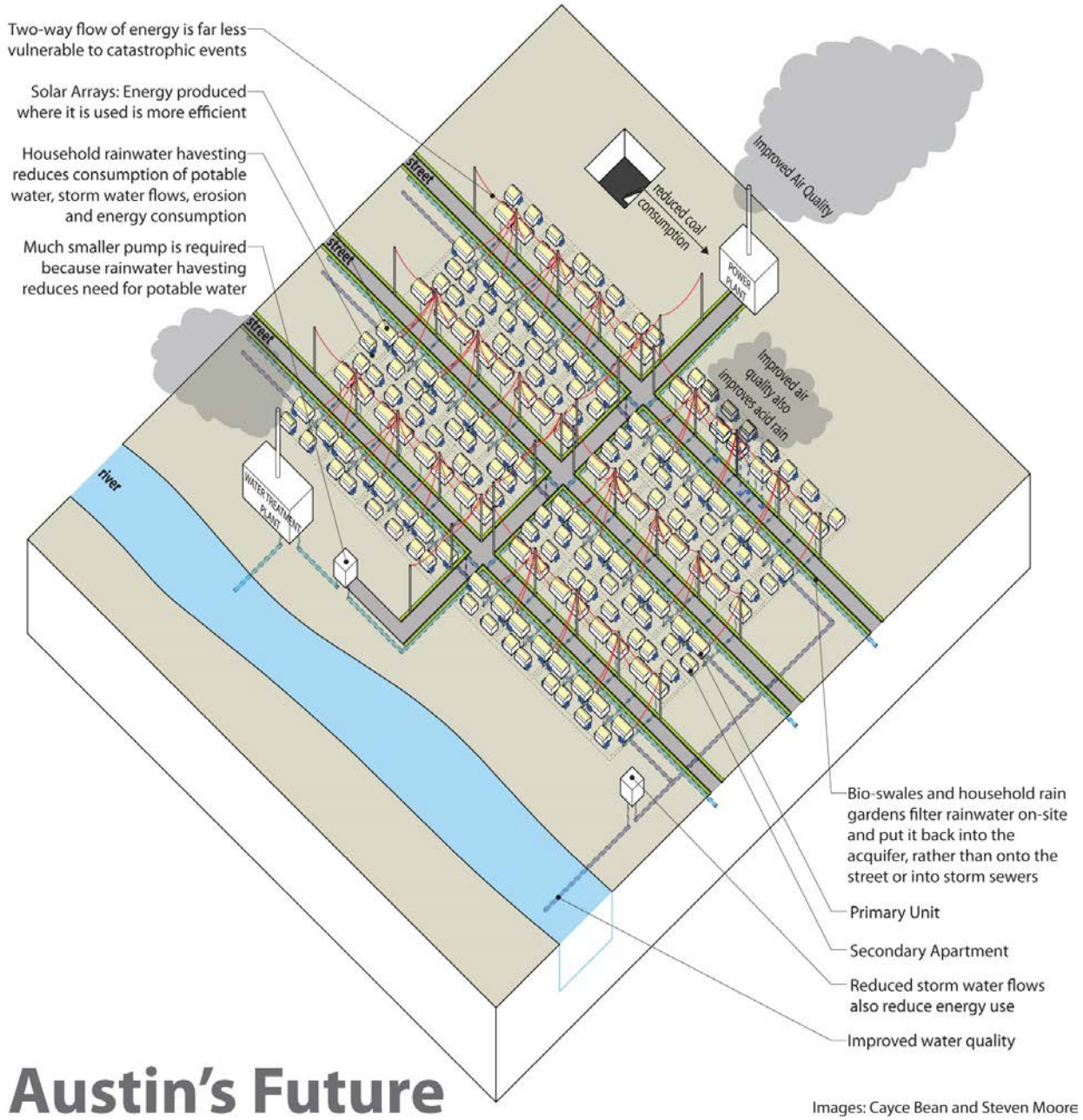


Figure 4: Distributed Infrastructure (Moore 2008)

Figure 1: Members of the Green Alley Demonstration Project in the Guadalupe Neighborhood, May 2014.

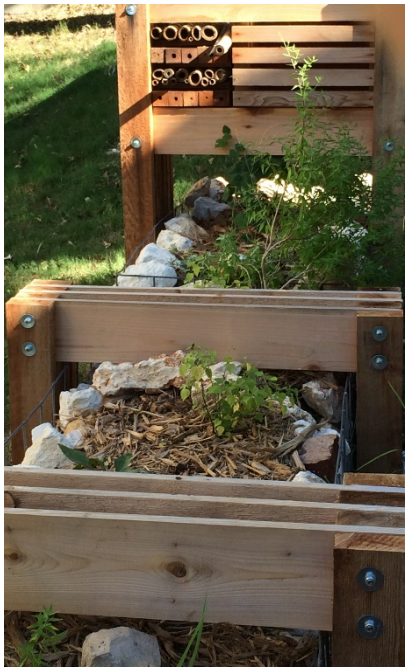


Figure 2: Plant and Pollinator Habitat Designed and Constructed by UT Public Interest Design (PID) Students.

The focus of this paper is residential alleys and ways to increase the value of these neighborhood assets to address housing and affordability. However, others have focused on downtown alley assets, such as the City of Austin Downtown Commission 2013 report that provides an account of activating downtown Austin alleys as public spaces, utilizing temporary physical improvements and art installations. The focus of that study was a lack of vibrant public spaces in the downtown and strategies to create events and programming to "contribute to a more vibrant network of people-oriented public spaces in Downtown Austin." [iii]

But there is more.

Beginning in 2005, *The Alley Flat Initiative*—a collaboration of the UT Center for Sustainable Development (UTCSD), the Austin Community Design and Development Center (ACDDC), and the Guadalupe Neighborhood Development Corporation (GNDC) began a program of constructing small, affordable homes in the backyards of families threatened by the pressures of gentrification.[iv] These <850 SF energy-efficient "alley flats" serve either as a source of income for "land-poor" families, or they allow seniors to "age-in-place" and reduce overall family expenses. After only a few years of this program, it became apparent that there was a larger opportunity. Not only might affordable homes be inserted into the existing urban fabric with minimal disruption, but whole alleys might be transformed in a manner that could re-envision alley infrastructure. With the support of the City of Austin Office of Sustainability, and the Public Interest Design (PID) program at UT, The Green Alley Demonstration Project (GADP) was born in 2013.[v]

Two characteristics of this initial experiment made it successful: (1) Neighbors abutting the alley were involved in substantive decision-making from the very beginning. As a result, original thinking emerged--neighbors focused on a dimension of urban sustainability (urban pollinators) that had never occurred to other partners. And (2), the

Office of Sustainability secured the active participation of five other City departments, without whom very little would have been accomplished. This demonstration, completed in August 2014, realized only a few of the possibilities for sustainable urban infrastructure discussed above. It did, however, demonstrate that the city, the university and the community can work together in pursuit of transforming under-utilized community resources into the sustainable infrastructures of the future. What is needed now is for other neighborhood groups to come forward with an alley experiment of their own.

Notes:

[i] Ferrao, Paulo and John. E. Fernandez. 2013. *Sustainable Urban Metabolism.* Cambridge, MA. MIT Press.
[ii] Guy, Simon; Simon Marvin and Timothy Moss. 2001. *Urban Infrastructure in Transition: Networks, Buildings, Plans.* London: Earthscan; El Kafif, Mona. 2012. "Coding Urban Metabolism." *Scenario Journal* 02 (Spring); Shepard, Mark. 2014. "Beyond the Smart City: Everyday Entanglements of Technology and Urban Life." *Harvard Design Magazine* 37:18-23.
[iii] Activating Austin's Downtown Alleys as Public Spaces, A Report by the City of Austin Downtown Commission Alley Activation Workgroup. Nov. 4, 2013. Page 3. http://austintexas.gov/sites/default/files/files/EGRSO/Activating_Austins_Downtown_Alleys_as_Public_Spaces.pdf
[iv] *The Alley Flat Initiative*. 2009. Moore and Palleroni. See: https://utexas.box.com/s/qb9l02jnj6vkj4oafyff8u8kddvt4quy.
[v] *The Green Alley Demonstration Project*. Available at: https://utexas.box.com/s/zyo68q54xskvdogc1pnd. See also: Neighborhood Survey, https://utexas.box.com/s/r4gggv3oir2z2fej4k107ej95vyp40bi.

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