



Recycling the City: Darning Downtown Phoenix

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One way the Phoenix region can demonstrate resilience during the current economic downturn is by patching holes in the urban fabric. Presented with a challenge from the Mayor of Phoenix to propose interim uses for vacant lots in the downtown, an ASU planning and sustainability workshop considered this task within the larger context of stanching the centrifugal flow of residents and workplaces from the central city to the outskirts. By recycling these discarded bits of the city, the proposed Desert TULIP (Temporary Urban Laboratory Infill Projects) would provide community amenities as well as attractors for adjacent development, thereby providing viable alternatives to sprawl. When landowners are ready to develop the properties, these temporary projects can be easily moved to other vacant lots, serving again as catalysts for urban and economic revitalization. We describe here this tactical strategy to increase urban resilience, involving an approach to planning effectively for flux and uncertainty that may be applied elsewhere.

Introduction

[In Greater Phoenix] the sheer abruptness of the shift from hyper-growth earlier in the decade to a contraction in the past year has spawned a sense of almost existential whiplash. ... Confronted with the breakdown of the old order, Valley residents with vision should put the crisis to work and use it to invent a newer, more sustainable future.

- Marc Muro (2010)

As Phoenix struggles with the contractions described by Muro, one way the area can demonstrate resilience is by reusing - or recycling - the swatches of older urban fabric that have been abandoned for newer and farther reaches of the city over the last century. Presented with a challenge from the Mayor of Phoenix to propose interim uses for vacant lots throughout downtown, a group of Arizona State University (ASU) students considered this task in this larger context of stanching the centrifugal flow of residents and workplaces.¹ By recycling these discarded bits of the city, the proposed Desert TULIP (Temporary Urban Laboratory Infill Projects) would provide community amenities as well as attractors (replacing detractors) for adjacent development, thereby providing and promoting viable alternatives to sprawl. When landowners are ready to develop the properties, these temporary projects can be reused on other vacant lots, serving once again as catalysts for urban and economic revitalization.

Concurrent with throwing away socks to purchase new ones, rather than darn them, we had been disposing of our central cities, leaving them behind for new homes on virgin land. The Desert TULIP proposal recommends darning these holes in the urban fabric - recycling our cities – instead of discarding them. Rather than impose a master plan on the area, this proposal introduces a process that could assist the city, private sector, and neighborhoods transform vacant lots from liabilities into assets, and allow for appropriate transformations over time. We describe here this specific tactical strategy for increasing urban resilience through an approach to planning effectively in times or places of flux and uncertainty.

VIDA: The Process

In developing this proposal for temporary urban infill, we practiced VIDA: Visioning, Inspiring, Demonstrating, and Advocating. Rather than cope with the poor quality of places through denial, deflection, or distraction (Ellin 1997, 1999), this method applies two kinds of vision: the ability to see things clearly and a vision for a better future. These can be acquired through “me-search” and “we-search”. Me-search entails listening to our own intuitions, preconceptions, and biases. We-search involves listening to others and carefully observing places to build relationships, identify assets, and consider how best to leverage these assets. Combining the me-search and we-search with research into the past, best practices elsewhere, and current conditions, we paint

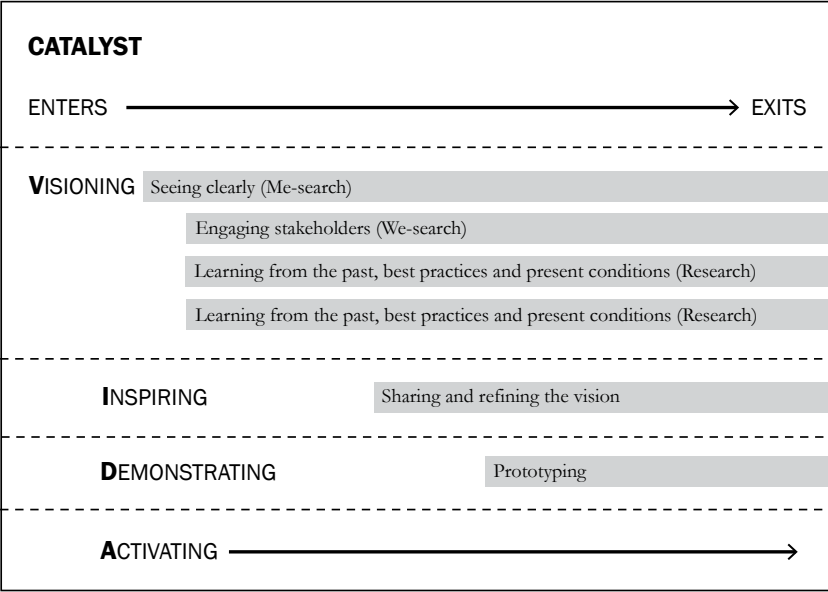


Figure 1: The VIDA process

a vision of what could be and inspiration implement the vision (Figure 1).²

Just as a good manager builds on existing strengths of an organization, good urbanism builds upon given assets of places as well as exemplary practices elsewhere. Rather than neglect, abandon, or erase our urban heritage, this approach preserves buildings, neighborhoods, cultural institutions, creative and intellectual capital, and natural landscapes that we value; rehabilitates, reclaims, restores, or renovates what is underperforming; and adds what we do not have yet but would like, as informed by effective collaboration and community engagement. And it does so in that order. As with Otto Scharmer’s “Theory U” process, the goal is “co-creating,” or “enacting prototypes of the future ... through the guidance of fast-cycle feedback from all stakeholders in real time” (2007, 464).³

The VIDA process is iterative, rather than linear, thereby setting in motion a generative and dynamic self-adjusting feedback mechanism. Consequently, new interventions build upon existing assets and are deeply influenced by this ‘DNA’ of a place, allowing for unique and meaningful expressions to unfold. Applying this process, communities build creatively upon their strengths, often even converting their greatest problems into their most resilient solutions.

Conventional urban interventions over the last century usually proceeded in the reverse order, considering first what was needed, but at the expense of what was valued. In many instances, practitioners even opted to begin with a *tabula rasa*, or clean slate, razing what was already there or finding pristine land upon which to erect master plans. The VIDA

approach veers away from the clean slate as well as master plans that, in their focus on controlling everything, ironically tend to generate fragmented cities without soul or character. Instead, this process determines where there is energy in the larger system, both physical and social, and where it is lacking. It can thus perform ‘urban acupuncture’, skillfully inserting interventions into the urban organism that clear blockages along urban meridians, thereby liberating the life force of the city, to catalyze additional positive growth and change.⁴

In contrast to conventional urban interventions of the last century, VIDA works toward a greater goal (pro-active), rather than focusing on problem-finding and problem-solving (reactive). While the latter approach applies a negative thesis, searching for truth through the elimination of possibilities (Block 2008), VIDA proactively pursues possibilities by applying a positive thesis. As English professor George Brosi advises his students:

The positive thesis always represents a dramatic improvement. For example, instead of writing around the thesis that children should be removed from an abusive home, write around your particular alternative to the home environment. Sure, it is more difficult to solve a problem than point out that another solution is inadequate, but the positive thesis is much more worthwhile (Brosi 2009).

Applying a positive thesis does not ignore problems and obstacles, but regards these as fuel for positive transformation rather than ends in themselves, similar to the way childcare experts recommend redirecting children’s energies rather than punishing them.

As Peter Block (2008) maintains, shifting attention from problems to possibilities allows us to question assumptions embedded in our beliefs and frees us from constraints created by framing issues according to past experience. Similarly, McKnight and Kretzmann (1996) have long been mapping community capacity, as opposed to deficits, and connecting these dots to generate something larger than the sum of parts. The VIDA process learns from these community-building practices and extends them to encompass urban design, the ‘container’ (place) as well as the ‘contents’ (people).

As these possibilities are outlined, refined, and shared, the demonstration phase begins with painting the picture to others, evolving through prototyping and turning possibilities into realities. Advocating occurs throughout the VIDA process by communicating the vision to appropriate audiences by writing, presenting, and convening public programs. Depending on the project, demonstration and advocacy may involve public scholarship, scholarly writing, branding, or the development of a business plan including funding sources, management, impact assessments, and long-term sustainability projections.

With VIDA, the process becomes yet another asset along with the product of the process. As Block explains, the community collaboration to support urban revitalization effects a collective transformation, bringing together the knowledge of many to support something new and to maintain or transform it accordingly (Block 2008). Resilient communities, like resilient ecosystems, structure processes of collective engagement and adaptive co-management. Thanks to this collective transformation, the successful VIDA process is catalytic, effecting significant and ongoing

change, eventually without the initial stewards, who may move on to catalyze other projects.

More specific to this task, students referred to the Vacant Property Revitalization Cycle (VPRC) developed by the National Vacant Properties Campaign (NVPC), an umbrella organization dedicated to providing research and resources for infill projects. VPRC includes prevention, assessment, stabilization, rehabilitation, property transfer, and long term planning (Vacant Properties 2009, Figure 2). Built into this cycle are stages of a process, rather than specific intervention solutions, so it can be adaptable to multiple contexts. Bringing VIDA to this cycle may contribute to identify new resources and galvanize meaningful collaboration from multiple stakeholders to leverage these assets.

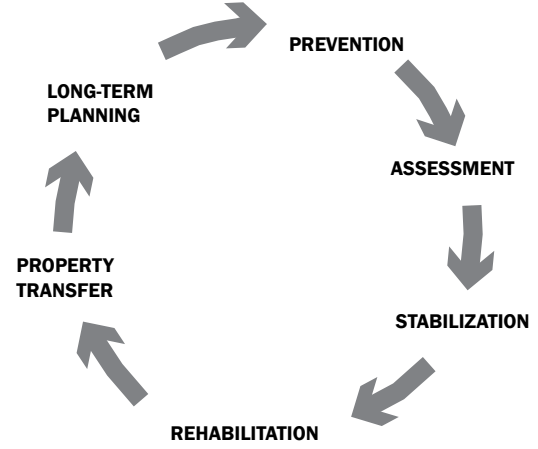


Figure 2: Vacant properties revitalization cycle.
Source: Vacant Properties Campaign, 2009.

Vacant Lots in Phoenix

The term ‘vacant’ is typically defined by what it is not, or an absence. Merriam-Webster lists several definitions of the term including: not occupied, without content, free from activity, devoid of thought, not put to use, and not lived in. ‘Vacant land’ has been defined as “publicly-owned and privately-owned unused or abandoned land or land that once had structures on it ... [and] also the land that supports structures that have been abandoned, derelict, boarded up, partially destroyed, or razed” (Pagano and Bowman 2000). According to the National Vacant Properties Campaign, “Vacant properties include abandoned, boarded-up buildings; unused lots that attract trash and debris; vacant or under-performing commercial properties, known as greyfields (such as under-leased shopping malls and strip commercial properties); and neglected industrial properties with environmental contamination, known as brownfields” (Vacant Properties 2009). In an urban context, vacant land, lots, and property are defined as what they are not: they are not positively contributing to either the form or the function of the urban fabric.

The negative connotations associated with vacant lots in an urban context also stems from their wide-ranging detrimental impacts. Vacant land disrupts urban connectivity, hindering movement between places. The resultant holes in the urban fabric negatively impact local economies, communities, and ecologies. Vacant places can reduce property values and tax revenues for entire neighborhoods (Bass et al 2005). A study by Temple University on vacant properties in Philadelphia found that homes located near abandoned properties sold for about \$6,700 less on average than other homes. Similarly, a University

of Minnesota study of St. Paul, Minnesota determined that \$26,397 in tax revenues was lost on one vacant property over a period of twenty years (Bass et al 2005). In addition, vacant lots can impact public safety as well as perceptions of security. Studies in Richmond, VA and Austin, TX found elevated crime rates correlated to areas with vacant properties (Bass et al 2005). Lack of maintenance can lead to a build up of trash and pest infestation, also posing threats to public safety and health as well as incurring high clean-up costs for municipalities (Bass et al 2005, 2001). Lack of maintenance may also incur larger environmental costs because many are on toxic brownfields (Bowman and Pagano 2004).

The extent and nature of vacant lots in the United States is difficult to ascertain in the absence of consistent data collection through time. While, the United States Census does not collect vacant land data, the Brookings Institute published a national survey in 2000, the first since 1968. This survey found that in the Northwest and older U.S. cities, abandoned structures accounted for the majority of vacant land. In contrast, vacant land in younger cities in the South and Southwest - such as Phoenix, AZ - were predominantly composed of lots without structures (Pagano and Bowman 2000). Even within a region, the characteristics of vacant land can differ. For example, in the northern periphery of Phoenix, vacant land often refers to undeveloped farmland. In the center city, vacant land is mostly undeveloped or previously developed (but demolished) properties. In the southern area, industrial brownfields compose the majority of vacant lands (Bowman and Pagano 2004).

Vacant land data specific to Phoenix is outdated and lacking in specificity. In a survey conducted by the

City	State	Population	Vacant land (acres)	Vacant land to total land areas
Baltimore	MD	675,000	1,000	1.9%
Seattle	WA	536,000	2,000	3.7%
Kansas City	MO	442,300	12,800	6.3%
Tempe	AZ	158,315	1,950	7.6%
Providence	RI	160,000	1,776	15%
Orlando	FL	173,122	18,000	28.7%
Phoenix	AZ	1,220,000	128,000	42.6%
(Source: Pagano, M.A., Bowman, A.O. Vacant Land in Cities: An Urban Resource. Center on Urban & Metropolitan Policy, December, 2000.)				

Figure 3: Amount of vacant land in selected American cities. Source: Pagano and Bowman, 2000.

Center on Urban and Metropolitan Policy in 1998, ninety-nine cities with a population of 100,000 or greater responded to questions regarding vacant land. The survey found that on average, 15 percent of a city’s land was vacant (Pagano and Bowman 2000). As seen in Figure 3, Phoenix tops the list with nearly half of its land vacant, although this figure reflects a certain amount of unused farmland as noted above. The Maricopa County Assessors office keeps records of the total number of vacant lots in the county. In 1998, 178,585 out of 1,431,491 parcels were vacant, or about 12 percent. That number has remained relatively stable through 2010, with 190,625 out of 1,530,636 vacant, still about 12 percent (Maricopa County Assessors 2010). These figures show that the total number of parcels increased in the form of new greenfield development, as did did the total number of vacant parcels. Indeed, lots in central Phoenix are becoming vacant at about the same rate as new lots are being developed on the outskirts.⁵

Since there is little current vacancy data at the level of detail required, students walked and biked downtown Phoenix to inventory vacant land within the boundaries of our study area. Figure 4 identifies publicly and privately-owned vacant parcels, vacant structures, and surface parking in order to determine where ‘holes’ reside in the urban fabric.

Practicing VIDA in Downtown Phoenix

Reframing the Question from Problem to Possibility

Practicing VIDA for the vacant lot challenge, the student workshop developed a positive thesis, reframing the question from “How do we rid our community of vacant lots?” (the Mayor’s initial challenge) to “What are the possibilities for vacant lots to contribute to enhancing quality of life?” While we

did not turn a blind eye to the problems associated with vacant lots or the obstacles along the path toward transforming them into assets, we regarded these problems and obstacles as potential contributors to building on existing assets. Indeed, turning to the Latin root *vacare*, to be empty or free, vacant also connotes boundless possibility.

Others have viewed vacant lots in this light as well. Tom Fox considers vacant lots opportunities to enhance well-being, economic, community, and

environmental quality by creating systems “all those thousands of outdoor places, designed and informal, where people congregate to relax, to exercise, and to restore themselves” (1989, 79). McKnight and Kretzmann (1996) also identify vacant lots as an important community resource. The acronym WIMBY, which stands for “Welcome in my back yard,” has been used to identify and assess desirable vacant lot renewal opportunities (Aruninta 2009).

After formulating a positive thesis, we visited the

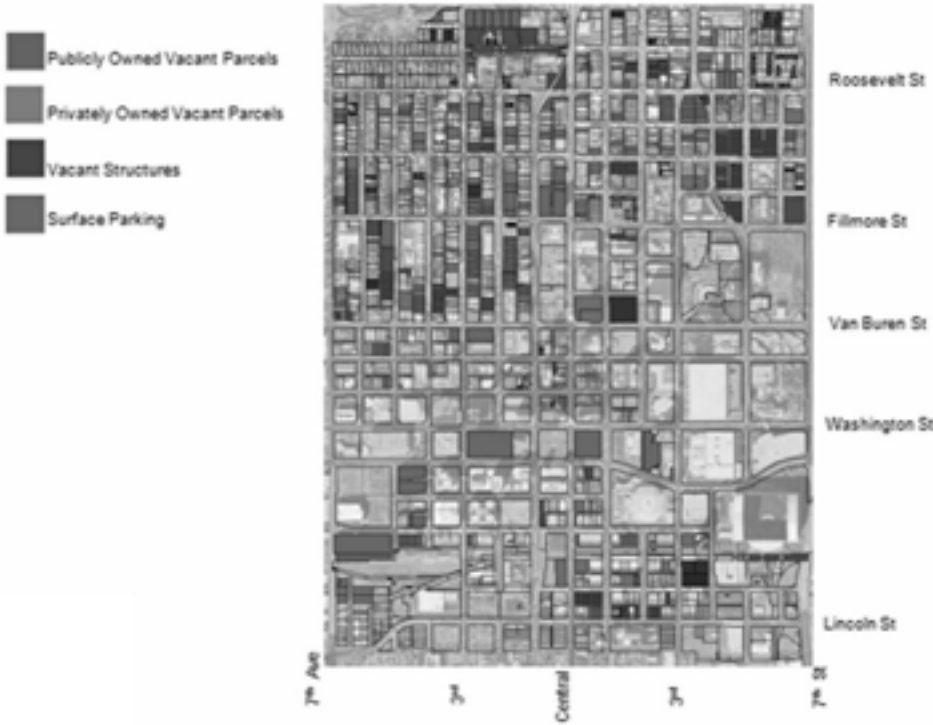


Figure 4: Vacant parcels and structures in downtown Phoenix. Map compiled by Thomas Heslin.

vacant lots independently to contemplate possibilities and proceeded to share these initial ideas with each other and obtain feedback. Students envisioned a wide variety of uses from music and art venues to history and environment educational facilities. Most agreed the lots should be multi-functional or have layered uses and we began to enumerate the many ways in which vacant lots can become assets, with a particular eye toward what would serve downtown Phoenix.

A group of students then conducted in-depth semi-structured interviews with 36 key stakeholders in the area. These stakeholders included city officials, local business owners, administrators in local schools, and members of community organizations. Interviewers attempted to gauge current perceptions of vacant lots as well as generate ideas about how to move solutions forward. Those interviewed felt strongly and consensually about transforming the vacant lots from liabilities into amenities, with an especially strong desire for parks and gardens that might involve local schoolchildren.⁶

The results of the community engagement process informed the proposal in every way. It also built the relationships and connections necessary to form a coalition of stakeholders willing to advance the project through financing, constructing, and maintaining temporary solutions on vacant lots. Based on information gathered during the community engagement process, we produced a social network map demonstrating relationships among the 36 principal stakeholders.⁷ This map assisted us with navigating the social territory and identifying key relationships that could be leveraged to advance the proposal.

Through the We-search process, along with studying best practices elsewhere, we learned of a wide range of possibilities.⁸ Revitalizing vacant lots could enhance inter-neighborhood connections, while beautifying the area and improving views from tall buildings. Urban reforestation on these lots would provide shade and mitigate urban heat island and carbon sequestration (Grimm et al. 2000). Urban gardens could create sources for local produce and provide economic and educational opportunities. Conversion of vacant lots into amenities would attract investment and adjacent development, increasing property values, and offering a boon to tourism. Vacant lot revitalization could provide places to display artistic and musical talents, safe places to gather, and opportunities for passive and active recreation. These public places could foster a much-needed sense of identity and community pride. Education opportunities could stem from creative partnerships with schools and non-profit organizations to showcase green technologies, urban gardens, innovative construction techniques, and more. Vacant lots could also provide local leadership with the ability to promote and support projects that tangibly benefit communities they represent. In summary, virtually every element of the urban system could reap benefits from vacant lot revitalization.

Through the We-search and Re-search processes, we also investigated potential obstacles along the way. The most commonly cited barrier to implementation was liability for the City of Phoenix. One student, Mich Lyon, found that the City of Phoenix maintains a combination of commercial insurance and self-insurance. He determined from assessing the city code that altering the City's risk profile to incorporate a new temporary use of city-owned real estate would not,

in fact, require an additional policy from a private sector carrier, but merely inclusion under the existing self-insurance umbrella. Hence, the oft-cited liability issue could be considered a red herring.

The other big obstacle to temporary infill was concern among public officials about providing an amenity to the community that would be subsequently taken away when an economic development opportunity arises. To deal with this concern, we gravitated toward the idea of temporary and portable improvements that could be moved, rather than removed. Other potential obstacles were the management of these projects along with costs of materials and maintenance. In the face of this challenge, however, we observed through our community engagement a significant number of creative solutions involving public-private-nonprofit partnerships and coalitions fostered by the current recessionary climate step forward to oversee Desert TULIP projects.

Interestingly, the environmental costs associated with improving vacant lots, particularly those associated with water demand in an arid environment, were not a major point of concern for stakeholders. This reflects a political consensus that urban improvements and greening have a net positive impact and that efficient water use mechanisms may be employed, even serving as demonstrations of best practices in sustainable urbanism.

The Vision

Building upon these findings, students proposed Desert TULIP, interim infill that is sustainable

(economically, environmentally, and socially) and movable to other locations.¹⁰ The portability of the Desert TULIP proposal is key in addressing the biggest challenge of temporary infill, that of removing something from a community when development occurs. Portable solutions protect communities from losing an asset, which merely changes location as the urban form itself evolves.

The Kit of Parts

Drawing from community feedback and best practices research, students assembled a kit of parts that can be mixed and matched for different sites: The first, parks and recreation, introduce gathering spots and places to play, as well as public restrooms and drinking fountains. The second, farms and gardens provide fresh produce, offer educational opportunities for schoolchildren, and mitigate the heat island effect. The third, arts and culture transforms vacant lots into locations for visual and performing artists to display their work. The fourth, called living laboratories, use the lots to demonstrate new materials, portable construction technologies, shading strategies, alternative energies, or other innovations. As another option, creative entrepreneurs could use the vacant lots for a range of temporary businesses, from cafes and restaurants to galleries, bike shops, gyms, boutiques, and more. Finally, vacant lots can enhance transportation and connectivity, facilitating movement through the city by opening up blockages in urban circulation, offering way-finding environmental graphics, providing green parking lots for cars, and integrating sustainable modes of transportation.

In addition to the kit of parts (or the ‘what’), the students also compiled a collection of implementation tools including zoning, codes, ordinances, enforcement mechanisms, creative coalitions, guerilla tactics, and information and outreach (the ‘how’). Interim use permits may be the closest example of an explicit tool to achieve temporary infill goals. In the United States, interim use permits are typically issued out of a practical need and usually associated with events (Haydn and Temel 2006). Other jurisdictions often have more appropriate tools such as in Leipzig, Germany, where the local government issues temporary permits for the creation of provisional parks. Flexible smart growth zoning is another possible mechanism for encouraging temporary infill projects for vacant lots until longer-term projects begin (Vacant Properties 2009).

Local ordinances provide communities with a legal mechanism to enact temporary infill projects. Registration ordinances have proven particularly effective because they systematically gather information about the number, quality, and ownership of vacant properties thereby empowering communities to work with owners and strategically target particular lots. Other ordinances encourage timely development either through development assistance or penalties for vacancy. For example, in Wilmington, Delaware, property owners must pay an annually increasing fee for every year the property remains vacant. If property owners cannot afford the initial investment necessary for permanent infill projects, they might turn to temporary infill to avoid these fees. Cincinnati, Ohio requires that property owners obtain liability insurance (Vacant Properties 2009). Since a lack of liability insurance is often cited as a barrier to infill, this mandate effectively removes that barrier and

encourages both temporary and permanent projects.

In many cases, laws already exist to prevent land from lying vacant and cities respond by creating enabling mechanisms. For example, Tucson, Arizona established the Slum Abatement and Blight Enforcement Response Team (SABER) to target particular vacant lands and leverage available strategies to encourage infill and penalize vacancy and blight (Vacant Properties 2009). Other scales of legal action can also encourage temporary infill. For example, many states and cities - including Phoenix - have established infill districts. However, these infill projects tend to be aimed at encouraging private residential development rather than targeted temporary interventions. Nationally, the 2009 Community Regeneration, Sustainability, and Innovation Act was proposed by the federal government to provide resources for fifteen communities across the United States to implement infill projects, though there is no specific provision for temporary infill (Vacant Properties 2009).

Another strategy is the formation of creative coalitions such as task forces, umbrella groups, the appointment of a coordinator position in local government, and national or international partnerships. In San Diego, California, the establishment of an official Vacant Properties Coordinator allows the city to engage in a coordinated effort (Vacant Properties 2009). In Europe, several international conferences have convened parties specifically interested in temporary infill strategies. These conferences include the European Union Urban Catalyst meetings from 2001-2003, Temporary Uses in Urban Space (Vienna 2003), and the Camp for Oppositional Architecture (Berlin 2004) (Hayden and Temel 2006).

Information and outreach is important for the success of temporary infill projects, because connecting people with resources is an invaluable step in seeing infill projects into fruition, particularly given the fact that project sponsors tend to have limited financial resources and operate on small scales. The Neighborhood Knowledge Los Angeles (NKLA) program provided communities and stakeholders with accurate property information. Other projects, have made information about applying for infill projects and creating ordinances accessible online (Vacant Properties 2009).

Guerilla tactics involve the taking or occupying of land without formal permits or permissions. While such tactics have the benefit of immediacy, the adversarial nature of the undertaking can be damaging to relationships with local leaders and other community members. This toolkit of the ‘what’ and the ‘how’ yields a multitude of possibilities for converting vacant lots into assets (see Figure 5).

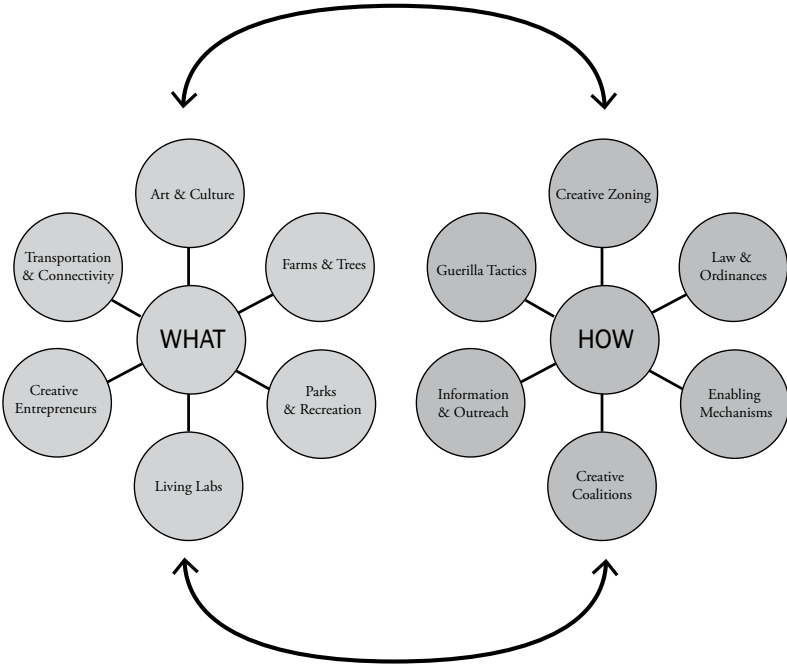


Figure 5: Kit of parts and kit of tools: Items from the ‘what’ and ‘how’ wheels co-ordinate to achieve temporary infill.

The Planter Box Experiment

To learn about the actual process and potential roadblocks for transforming vacant lots in the Phoenix context, and to demonstrate Desert TULIP, students undertook a small experiment involving movable planter boxes. Planter boxes were selected because they offer a versatile, portable option for integrating gardens into the urban fabric. Each planter serves as a miniature farm and ecosystem. Shade structures, composting mechanisms, irrigation technology and water harvesting and re-use systems are integrated into self-contained, forklift-ready planter boxes that can be easily moved and reconfigured as needed. Despite the desert setting, resources can be used efficiently through arid plant selection, shade structures, and slow-drip, targeted irrigation.

Planter boxes were constructed using recycled and re-purposed materials donated by local construction, landscaping and agricultural businesses. Thanks to a relatively simple design, the boxes can be



Figure 7: Planter boxes ready to be painted and planted, in transit to sites. Photograph by Braden Kay.



Figure 6: Planter boxes under construction at Arizona Skills USA Construction Competition. Photograph by Braden Kay.

constructed by almost anyone. In the future, partnerships can be developed with local schools and neighborhood members for the ongoing care, monitoring and maintenance of the planter boxes, offering opportunities for education, community-building, and service, while beautifying the city. As vacant lots develop, planter boxes are well-suited to a variety of transition strategies. Due to their portable, self-contained nature, they can be temporarily moved and then reintegrated into the landscaping scheme of the new development, adopted by local schools, businesses and residents, or used as a migratory

garden strategy that rotates throughout the city. We recommended an emerging arts and culture nonprofit organization focused on downtown Phoenix oversee this activity.¹¹

One of the workshop students, Braden Kay, subsequently recommended that Arizona Skills USA Construction Competition use the Planter Boxes as their annual competition project. In April 2010, students from around the state gathered at the Phoenix Convention Center and spent eight hours constructing planter boxes (Figure 6), with donations of time and materials from AGCA, Skills USA and Sundt Construction. The 30 resulting planter boxes were then adopted by various property owners and schools throughout the downtown to be painted and planted (Figure 7). Through this project, young

people learned construction skills and Skills USA produced projects that, for the first time, were not discarded after the competition

Sharing the Vision

To communicate the Desert TULIP vision with the community, we hosted over sixty stakeholders from government, non-profits, neighborhood organizations, and the private sector where we shared a presentation, including a digital animation demonstrating what the site looks now and what it could become if the proposal were implemented (Figures 8 and 9).¹² Following the presentation, we invited responses from the Assistant City Manager



Figure 8: Presentation to community stakeholders. Photograph by Kelly Turner.



Figure 9: Digital animation of downtown Phoenix. Image by Digital Phoenix, ASU (Yoshihiro Kobayashi, Christopher Grasso, and Mike McDearmon).

of Phoenix, President of the Phoenix Community Alliance, and two local leaders in the arts and small business community. A robust discussion with the audience ensued, with suggestions for refining and implementing the proposal.¹³ We synthesized all the students' work into a professional report describing our proposal for the City of Phoenix.¹⁴

Planning for Uncertainty and Spontaneity

In sum, the VIDA process seeks to identify strengths and opportunities, share relevant best practices as well as worthy precedents, empower others to contribute from their strengths, convene people to envision a better future, advocate for and build support to realize

the vision, carve out specific proposals around which people can rally, and act as steward and watchdog over these initiatives until they become self-sufficient.

The VIDA approach finds models simultaneously in ecosystems and information technologies, a departure from modern urbanism, which used the machine as a model, and postmodern urbanism that looked to cities of the past as a model.¹⁵ With ecosystems as models, this approach adopts the Buckminster Fuller's adage 'more from less', rather than the modernist 'less is more' or the postmodernist tendency toward 'more is more'. This approach also adopts the logic that the health and well-being of places derives from optimizing numerous variables rather than trying to maximize one variable (Forman 1995). From information technologies, VIDA learns about

the distributed, dynamic, and resilient qualities of networks. The result is urban design interventions that are inclusive, dynamic, and evolving thanks to self-adjusting feedback mechanisms.

By growing out of stakeholder input and creating a mechanism for implementation and ongoing adjustment, VIDA offers a hardy approach toward planning effectively, particularly in times and places of flux and uncertainty. This approach is particularly well suited to urban planning and urban design initiatives that may be contentious and require consensus-building, community buy-in, or political support. Since the success of the approach relies upon the ability to obtain stakeholder input and to effectively synthesize and apply this input, it would therefore be less appropriate to conditions where this is not possible due to lack of stakeholders, lack of ability to obtain input, or difficulties in applying contributions.

The VIDA approach favors positive over negative reinforcement, emphasizing enabling mechanisms rather than punitive regulatory practices. Instead of implementing urban growth boundaries (UGB), for instance, this approach might instead provide incentives for vital urban hubs. While a UGB is negative reinforcement ("do not go beyond..."), positive urban reinforcement, or redirection, allows for the growth of a dynamic polycentric and networked city rather than an artificially imposed and bounded mono-centric city. Efforts to prevent shoreline erosion demonstrate this principle. The Army Corps of Engineers discovered that huge and costly walls eventually collapse whereas undercurrent stabilization - an intervention in the ocean itself that allows the waves to roll in more gently - effectively prevents shoreline erosion.¹⁶ In similar fashion,

we would invest in supporting urban nodes so that resources and people do not flood out of them but rather, they attract new activity and residents. It is more effective to redirect growth and offer positive reinforcement, rendering such walls unnecessary and supporting sustainable urban and community building.

In contrast to the nineteenth-century Darwinian notion that evolution leads to fittest design and that thermodynamics leads to thermal equilibrium, VIDA understands that, as long as there is intense flow of energy coursing through a system and mutual interaction among components, it will experience transitions between stable states (bifurcations) and will be nonlinear (because of feedback).¹⁷ Therefore, there is no 'fittest design' and no one state of equilibrium. Instead, systems are always changing with multiple coexisting forms (static, periodic, and strange attractors) (Forman 1995). The goal is not, therefore, to achieve a stable perfect state, but to generate places that optimally support humanity by offering accessible and sustainable places of comfort, beauty, and interest.

In *Framework to Improve Resilience Planning for Urban Communities*, Andrew Fox (2003) points out that urban planning over the last century has been guided by assumptions that challenge resilience including (1) separation of form and function, (2) reliance on traditional resources, and (3) designing permanent structures. Urban planning that separates physical urban form from the process that generates that form falsely presumes stagnancy and fails to consider place specific needs. Furthermore, separating form from function may engender developments that are not appropriate for the new locale and lack

the authenticity that inspires care and maintenance required for resilience (Ellin 2006, 2009). Form and function may operate in tandem when the physical features may inspire the planning process while the planning process guides the creation of physical form. Secondly, effective and ongoing engagement with multiple stakeholders taps and synthesizes resources that may be overlooked. Lastly, resilient urban planning would include temporary structures that correspond to the increased need for short-term and quick urban interventions. These temporary interventions typically require less capital investment and risk, encouraging greater experimentation (Haydn and Temel 2006). By fusing form and function in the urban planning process, tapping community resources, and incorporating temporary structures, there is opportunity to plan in a way that is more adaptive and responsive to physical and social transformation.

Confronted by threshold experiences, which “require us to bend, redirect, and transform our collective field of attention” (Scharmer 2007: 114), planners are increasingly questioning these assumptions. While pulse events of high intensity and short temporal scale are more easily recognizable as bringing about dramatic changes, press events, with low intensity and a longer temporal scale, also present systems with threshold scenarios that are cause for reorganization (Resilience Alliance 2010). The proliferation of vacant lots in urban areas and the inability of traditional mechanisms to reverse this trend is one such threshold experience, inspiring new ways of practicing urban planning.

In bringing the VIDA process to the Phoenix vacant lot challenge, the ASU students in this workshop

began regarding the city as canvas and themselves urban artists. Co-creating with one another and community stakeholders, they aimed to reveal beauty where there was ugliness, the marvelous in the mundane and the extraordinary in ordinary. Applying lessons from community building and organizational change to urban planning and urban design, VIDA generated an easy-to-implement proposal for darning holes in the urban fabric of Phoenix and revitalizing this city. Inflecting conventional assumptions and practices, this process may be applied to enhance other places by planning for uncertainty and spontaneity.

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Notes

¹ Participants in this Urban Design Practice workshop, led by Nan Ellin (Fall 2009), were primarily from graduate programs in Urban Planning, Sustainability, Design, and Public Policy: Tristan Charlesworth, Rongrong Chen, Thomas Heslin, Prathima Jasti, Mike McDearmon, Pushkaraj Paradkar, Jennifer Rearich, Kelly Turner, Mich Lyon, John Harlow, Christopher Harto, Braden Kay, Truman Kiyaani, Carissa Taylor, Colin Tetreault, and Pei Zhai.

² This process was originally developed by Ellin for Canals-

cape (Ellin 2009), building upon the theory of integral urbanism (Ellin 2006). In addition, the VIDA process draws from the “tao of urbanism” (Ellin 2010) and is inspired by community-building and organizational learning approaches, particularly Asset-Based Community Development (McKnight and Kretzmann 1996), the Creative City (Landry), Boekraad (2000), and “Theory U” (Scharmer 2007).

³ Theory U is a theoretical framework advanced by Otto Scharmer to promote transitions to a more sustainable world. See www.ottoscharmer.com, www.solonline.org, and Scharmer 2007.

⁴ On urban acupuncture, see Lerner 2005, Frampton 1999, De Sola-Morales 2004, and Ellin 2006.

⁵ This research was overseen by Pei Zhai, PhD student in Sustainability.

⁶ The community engagement team was comprised of Braden Kay, John Harlow, Carissa Taylor, Tristan Charlesworth, and Kelly Turner. Stakeholders were identified through a snowball approach and included city officials, non-profit organizers, and active community members and business owners. While this is by no means an exhaustive representation of the city population, it is an informed cross section of diverse interests. While stakeholders had personal preferences towards different types of infill projects (such as gardens and playgrounds) they generally agreed that any kind of infill was better than no infill at all.

⁷ Developed by the author, this map which is not included here to ensure confidentiality.

⁸ Best practices were researched by Mich Lyon, Christopher Harto, Carissa Taylor, Rongrong Chen, Pei Zhai, and

Pushkaraj Paradkar.

⁹ Tristan Charlesworth, undergraduate student in Planning, researched these potential obstacles and barriers.

¹⁰ We thank Braden Kay, PhD student in Sustainability, for introducing the name Desert TULIP.

¹¹ We acknowledge Carissa Taylor, PhD student in Sustainability, whose expertise in urban agriculture was critical to this project. We recognize Taylor as well as Braden Kay and John Harlow (Masters student in Sustainability) for their leadership on this project; Truman Kiyaani (undergraduate student in Sustainability) for providing the skills, tools, and materials for constructing the planter boxes; and Rongrong Chen for contributing her design and graphic design skills.

¹² The digital animation was overseen by Masters in Design student Mike McDearmon.

¹³ Masters student in Sustainability, Colin Tetreault, served as Project Manager for this final presentation and event.

¹⁴ This report was overseen by Jennifer Rearich (undergraduate in Urban Planning).

¹⁵ See Ellin 1999, Chapter 8 “Metaphors for the City and Culture,” 267-71.

¹⁶ This method has been successfully applied to restore the shoreline at Najmah Beach in Saudi Arabia.

¹⁷ Ilya Prigogen demonstrated this principle in the 1960s.

Lead Photograph

Vacant lot in San Francisco. Photograph by Kristin Holden.

References

Aruninta, Ariya. 2009. WiMBY: A comparative interests analysis of the heterogeneity of redevelopment of publicly owned vacant land. *Landscape and Urban Planning* 93: 38-45.

Bass, Margaret, Chen, Don, Leonard, Jennifer, Levy, Lisa M., Little, Cheryl, McCann, Barbara, Moravec, Allie, Schilling, Joe, and Snyder, Kevin. 2005. *Vacant Properties: The True Cost to Communities*. National Vacant Properties Campaign. Washington DC.

Block, Peter. 2008. *Community: The Structure of Belonging*. Berrett-Koehler Publishers, Inc. San Francisco.

Boekraad, Hugues. 2000. *Copy Proof: Principles for Design Education*. Rotterdam: 010 Publishers.

Bowman, Ann. O. and Pagano, Michael. A. 2004. *Terra Incognita: Vacant Land and Urban Strategies*. Washington, D.C.: Georgetown University Press

Brosi, George. The Research Paper Thesis. <http://www.english.eku.edu/services/comp102/hand12.htm> (Accessed 2009)

De Solà- Morales, Manuel. 2004. The Strategy of Urban Acupuncture. *Structure Fabric and Topography Conference*, Nanjing University.

Ellin, N. 2010. Live Theory: Practicing Integral Urbanism. *Journal of Urban Design*, Special Issue, Jeremy Nemeth and Stephen Schmidt, eds., forthcoming.

Ellin, Nan. 2010. *The Tao of Urbanism in What We See: Advancing the Investigations of Jane Jacobs*. Goldsmith, S. and Elizabeth, L., eds. Oakland: New Village Press.

Ellin, Nan. 2009. *Canalscape*. Phoenix: SRP.

Ellin, Nan. 2006. *Integral Urbanism*. New York: Routledge.

Ellin, Nan. 1999. *Postmodern Urbanism*, Revised Edition. New York: Princeton Architectural Press.

Ellin, Nan, ed. 1997. *Architecture of Fear*. New York: Princeton Architectural Press.

Forman, Richard T.T. 1995. *Land Mosaics: The Ecology of Landscapes and Regions*. New York: Cambridge University Press.

Fox, Andrew. 2002. A framework to improve resilience planning for urban communities. *Security Monitor* 1 (5): 8-10.

Fox, Tom. 1989. Using Vacant Land to Reshape American Cities. *Places* 6 (1).

Frampton, Kenneth. 1999. Seven Points for the Millennium: An Untimely Manifesto. *Architectural Record* 15.

Grimm, Nancy; Grove, M. Morgan; Pickett, Stuart; and Redman, Charles. 2000. Integrated Approaches to Long-Term Studies of Urban Ecological Systems. *Bioscience* 50 (7): 571-584.

Growing Power Farm (Accessed 12.09) <http://www.growingpower.org>

GTEC, Growth Through Energy and Community Health (Accessed 12.09) <http://gtechstrategies.org/>

Hayden, Florian. and Temel, Robert, eds. 2006. *Temporary Urban Spaces: Concepts for the Use of City Spaces*. Boston: Birkhauser.

Landry, Charles. 2000. *The Creative City: A Toolkit for Urban Innovators*. London: Earthscan.

Landry, Charles. 2006. *The Art of City Making*. London: Earthscan.

Lerner, Jaime. 2005. *Acupunctura Urbana*. Rio de Janeiro and São Paolo: Editora Record.

Maricopa County Assessors (Accessed 4.10) <http://www.maricopa.gov/assessor/>

McNight, John L. and Kretzmann, John P. 1996. *Mapping Community Capacity. Report of the Neighborhood Innovations Network*. Chicago Community Trust and Northwestern University.

Muro, Marc. 2010. “Brookings Mountain West.” *Arizona Republic*, January, 3.

Naturehood (access date, 12.09) http://www.earthdaycoalition.org/naturehood_main.php

Pagano, Michael A. and Bowman, Ann O.M. 2000. *Vacant land in cities: an urban resource*. Center on Urban & Metropolitan Policy, Brookings Institution, Survey Series.

Permanent Breakfast (access date, 12.09) <http://www.permanentbreakfast.org/>

Resilience Alliance “Key Concepts.” (access date, 1.10) <http://www.resalliance.org/564.php>

Scharmer, C. Otto. 2007. *Theory U: Leading from the Future as it Emerges*. Cambridge: The Society for Organized Learning.

The National Vacant Properties Campaign. (access date, 12.09) <http://www.vacantproperties.org/what/properties.html>