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To cite this article: Kim Steele (2007) Topography of Vacancy, Design Philosophy Papers, 5:2, 61-68

To link to this article: <http://dx.doi.org/10.2752/144871307X13966292017351>



Published online: 29 Apr 2015.



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Topography of Vacancy

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There is something profoundly arresting about viewing Phoenix from above. Scale alone can overwhelm the uninitiated visitor. Add in the consistently brown tone of the desert landscape, the relentless grid of streets, and the monotonous intensity of the sun and the scene exceeds rationality. Closer inspection reveals surreal aspects in the cityscape: waterways, lakes, ponds and swimming pools abound. Patches of relatively densely treed areas emerge replete with acres of turf grass and tropical plants. And perhaps most significantly for such an economically strong and growing metropolitan area, tracts of vacant land appear, stringing their way throughout the urban area. These vacant parcels occur in all areas of the greater Phoenix metropolitan area extending from upscale Scottsdale to the lower income neighborhoods of south and west Phoenix. Nestled in residential areas, defining significant intersections, and spreading across industrial and commercial zones, the vacant lot is a ubiquitous and defining feature of the Phoenix urban landscape and the implications of this are wide reaching. The impacts of vacant land range from detracting from the aesthetic quality of the city as a whole to contributing to neighborhood decline and exacerbating poor air

quality. This essay tackles the phenomenon of the urban vacant lot re-claiming it as a site for regeneration across scales: local, neighborhood and city.

Territory

Occupying the central slice of a much larger metropolitan area, Phoenix is the fifth largest city in the United States, sprawling over 550 square miles and housing 1.5 million people (compare with Los Angeles' geographic area of 470 square miles and population of 3.8 million). Incorporated in 1871 after being sold for \$550, the city originally existed as an agricultural hotspot and only in recent years relinquished this status to accommodate booming population growth and shifting land demands. This growth has led to a blurring of political boundaries between the various independent cities that sprung up over the years in the desert surrounding Phoenix. Comprised of twenty-three contiguous municipalities and three Indian communities, the greater Phoenix area now spreads over 2200 square miles and has a population exceeding 4 million people. Strong economic conditions and cheap, available land throughout the Valley of the Sun, as the region is known, has given rise to a low density, low-rise urban metropolis with few geographic constraints to impede development.

Divisions

As with most urban conurbations, the Phoenix metropolitan area is stratified according to race, ethnicity and income: to the north, including north Phoenix and the cities of Scottsdale, Paradise Valley, Cave Creek, Carefree and Fountain Hills, income levels are high, land is relatively expensive, and the population is generally white. The eastern municipalities of Tempe, Mesa, Chandler, Gilbert and Maricopa, tend to be middle income, racially mixed communities as do their counterparts to the extreme west of Phoenix (Buckeye, Laveen). These areas (excluding Tempe which is landlocked) have seen unprecedented growth in the last ten years due to their proximity to inexpensive, undeveloped desert land. Nationally, Gilbert was the fastest growing city in 2006. Within Phoenix proper, the neighborhoods south and west of the central business district feature the lowest incomes with many residents living in poverty and are predominantly Hispanic and African American. Economically depressed and disproportionately burdened with low quality, contaminated land (Bolin et al, 2000) these areas have become a virtual 'no-man's' land for the majority of the region's population.

Condition

As a low density city with few high-rise buildings, much of the Phoenix metropolitan area seems somehow vacant: the absence of pedestrians and significant public spaces, wide streets, sparse vegetation, and seas of cars, both parked and

mobile, exacerbate this vacant quality. Within Phoenix proper, the few public spaces the city does support are often empty either by necessity (too hot, not enough vegetation) or because the spaces do not appeal to the city's residents because of location or accessibility (Deck Park, Indian School Park) or they serve a narrowly defined population (South Mountain Preserve appeals to hikers and mountain bike enthusiasts). Compounding the sense of vacancy is, quite literally, the presence of endless plots of vacant land. Large swaths of Phoenix's central business district remain undeveloped, lots within established residential neighborhoods sit empty, and prominent intersections remain empty on one or more corners. Couple this with the many brown fields and tracts of disturbed open land surrounding the Salt River, a prominent feature running through the center of the urban area, and the city frequently appears more derelict than thriving.

Classification

The term 'vacant land' typically designates unused or underused land (Bowman and Pagano, 2000) and falls into five categories: small, undeveloped, often irregularly shaped remnant parcels; unbuildable parcels due to physical constraints; land held for speculation; publicly owned land set aside for future development; and corporate owned land held for future expansion (Northam, 1971). In a study done ten years ago, the amount of vacant land the metropolitan region was estimated at 43% (Brookings Institute). Within the city of Phoenix, there is an estimated 128,000 acres of usable vacant land putting the city substantially ahead of the national average of 12,309 acres. Largely found in older residential neighborhoods, industrial districts and in Phoenix's central business district, this land traditionally has been unappealing to developers. Developers tend to flock to the much more desirable low-cost land at the urban edge. The recent economic boom expedited growth at the periphery where large tracts of desert are consumed at a rate of an acre per hour (Ewan, ASU Research Magazine, winter 2004). Newcomers to the Valley typically desire single family homes on large lots often in gated communities governed by homeowners associations: infill housing in older neighborhoods not only does not appeal to the general public, it is effectively unavailable as an alternative. New businesses have followed suit moving to fringe communities to take advantage of the growing employee pool and economic incentives offered by the various municipalities. As a consequence, extant vacant land remains vacant.

Fallout #1

Much of the vacant land in Phoenix's central business district falls into the 'land held for speculation' category. As the economic boom of the past few years lead to unprecedented fringe development, landowners in the CBD held onto their land and purchased more

anticipating an eventual upswing in downtown development. (Figure 1) With the recent increases in gasoline prices giving rise to escalating commuting costs, interest in developing the abundant empty parcels in downtown Phoenix has grown considerably. Armed with the value inhered upon their land through zoning, CBD landowners excitedly have attempted to cash in only to learn that the value of their land (estimated at \$4.3 million per acre) exceeds the amount developers are willing to risk. While the city is attempting to increase desirability of the CBD by building a light rail and upgrading public institutions, the overall lack of amenities people expect to find in their community such as, at the most basic level, quality, affordable housing and grocery stores remain absent. Add to this the glut of land available and it appears that only the most adventurous developer is willing to bank on the 'build and they will come' strategy for development.

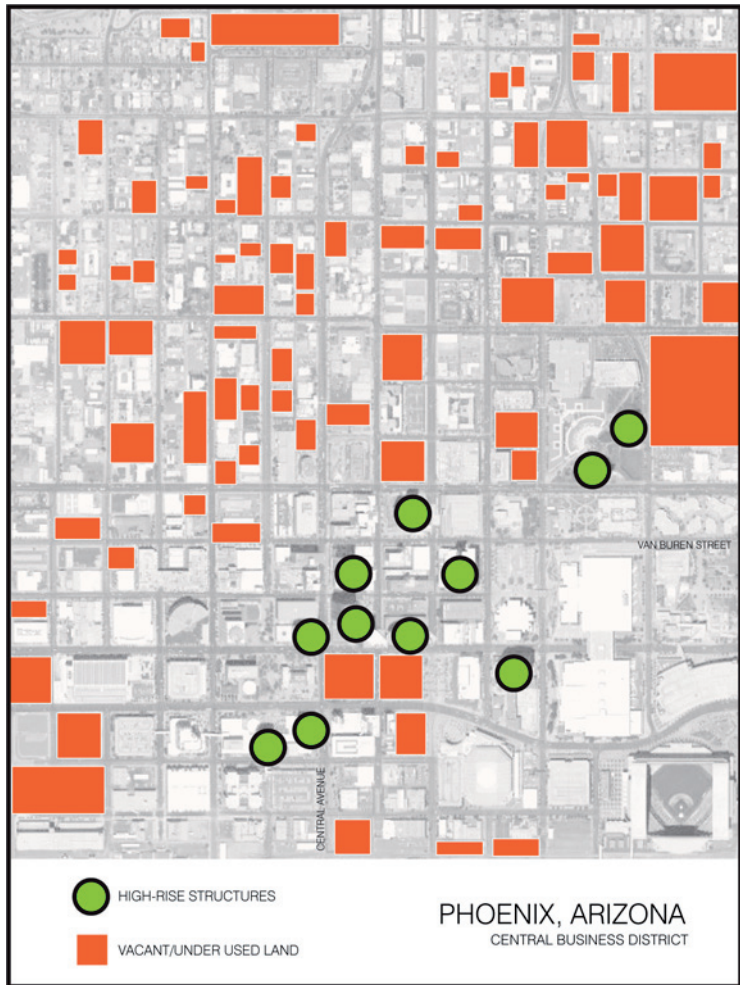


Figure 1

Moving a bit to the south the character of vacant land takes on a different form. Located in the historically Hispanic section of the city, south Phoenix currently houses a variety of vacant land types that evolved for various reasons. The historic Golden Gate Barrio, located to the west of Interstate 10 and Sky Harbor airport, underwent a substantial transformation when the city of Phoenix decided to expand services associated with the airport and the completion of I-10 in early 1980s. Throughout the years, neighborhood activism kept the Barrio intact through various assaults on its integrity but expansion of airport runways and the \$500 million Sky Harbor Center, an industrial and commercial park slated for development on the eastern half of the community, was too big to overcome. Threatened with eminent domain¹ many sold their land at under market value. With the remainder of the neighborhood designated a slum, the city took ownership of the land. Today, the western half of the neighborhood, ringed by industrially zoned land, is in complete disarray with dilapidated housing, high levels of poverty, numerous vacant lots, and physical isolation. The Sky Harbor Center is only partially built-out leaving large tracts of land empty. Many of the businesses that have moved in are heavy polluters creating a toxic swath of land adjacent to the remaining homeowners. As a consequence, there is little resale opportunity for homeowners here and given the lack of political power of the remaining fragmented community, little possibility of help from the city.

Fallout #2

PM10 is the EPA designation for airborne particulate matter sized between 2.5 and 10 microns in diameter. Various sources contribute to PM10 including dust from roads, construction sites, agricultural fields, mining operations, and vacant land as well as vehicle exhaust and certain chemical outputs. When wind whips through the valley fine particulates are stirred into the air eventually making their way into the respiratory systems of residents in the affected area. Certain populations experience particular difficulty with PM10 pollution: the elderly, children, smokers, and people with cardiovascular disease, asthma or other respiratory diseases (EPA PM10 Fact sheet). For the past seventeen years, the Phoenix metropolitan area has been a nonattainment area² for PM10.³ In addition to negative impacts on population health, the county risks federally imposed civil penalties among other attainment enforcement methods. Vacant land is recognized to play a significant role in PM10 pollution and, as a consequence, bills outlining methods for mitigating airborne dust routinely come before the state legislature. Strategies currently employed include watering or applying chemical stabilizers to disturbed vacant land, covering the target area with gravel or vegetation, restricting vehicle access, and imposing fines on owners who do not effectively control

dust emissions on their land. Visual inspection of numerous sites around the Phoenix area over the past two years reveals spotty implementation of physical dust control measures: most sites still have little to no vegetation or gravel, vehicular access has not been curtailed and there is no evidence of routine watering.

Fallout #3

Extreme discomfort from heat defines the summer experience in Phoenix: Temperatures exceeding 110°F (43°C) typify June through August. As a result, heat mitigation strategies are important throughout the valley but especially in lower income neighborhoods that often do not have access to traditional cooling methods. Air conditioning creates cooler indoor conditions, while swimming pools and high levels of vegetative cover contribute to cooler urban microclimates and are found most readily in upper income areas. Not surprisingly, the highest temperatures are recorded in industrial and commercial land uses where the incidence of vegetation is markedly absent and paved, gravel, unstabilized, and desert land is abundant. The daily heat gain on these sites leads to the heat island effect wherein heat is retained in high thermal mass materials and radiates from them as night temperatures drop resulting in higher temperatures throughout a 24-hour period. Consequently, the presence of unvegetated vacant land within residential neighborhoods decreases the comfort level of residents by increasing overall local temperature. The same holds for industrial zones and the large tracts of vacant land that regularly accompany this land use in the Phoenix metropolitan area.

Inventory

Phoenix and the adjacent municipalities exist aesthetically in a perpetual edge condition. In Phoenix, any sense of having arrived at the 'center' routinely is deferred since the 'center', with its expectation of building density, cultural density and population density, never materializes. Rather, vacancy appears and reappears throughout the metropolitan area: each city block seems to repeat over and over again with little variation. The sense of vacancy is validated in the profusion of vacant lots and is exacerbated by the associated problems these lots bring: heat, dust, denigration, devaluation and over valuation, pollution, and fragmentation. Short term, stopgap solutions might offset some problems (PM10 pollution mitigated by a sea of gravel) but will intensify others (heat gain) and therefore fall short of an effective, viable answer. Reducing these problems requires innovative thinking and political will.

Notes

1. 'Eminent Domain' defines the right of the federal or state government to seize private land in exchange for fair market value compensation. The state of Arizona has exercised this

- right on numerous occasions to take ownership of ‘blighted’ neighborhoods or buildings with the intent of selling the properties to private developers. See Jordan Rose, 2002. “Eminent domain abuse in Arizona: the growing threat to private property” *Arizona Issue Analysis* (Phoenix, AZ: Goldwater Institute). 174: 1–19.
2. As defined by the EPA, a nonattainment area is a site that is in violation of the National Ambient Air Quality Standards as established by the federal government in the Clean Air Act. (http://www.fhwa.dot.gov/environment/conformity/ref_guid/glossary.htm).
 3. In addition to being a nonattainment area for PM-10 since 1990, the Phoenix metropolitan area is also a nonattainment area for ozone (1991-present) and was for carbon monoxide between 1990–2003 as well (see www.epa.gov for data on national nonattainment areas).

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