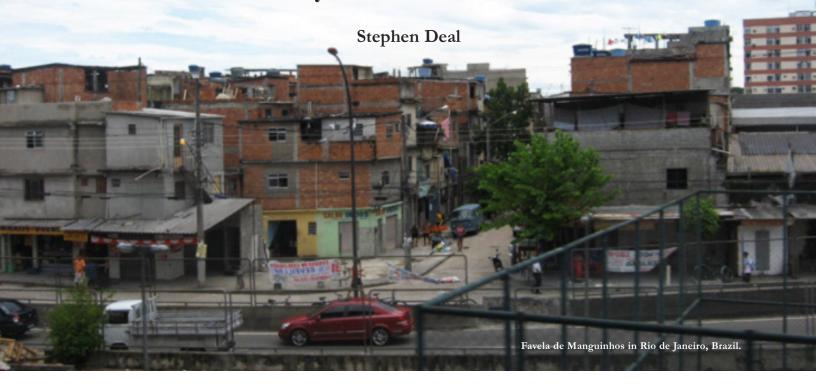
Life on the Edge:

How Does Community Persist in the Harshest of Conditions



Scarcity and shortage have a way of pushing human

beings to maximize their efficiency and improve their capacity to adapt to sudden change. Cities, in many respects, are a collective response to scarcity and adverse environmental conditions. However, in a sprawl dominated age, communities with easy financing and plentiful road access may lose some of the cultural traits that develop when sustaining life in an adverse environment. A community's capacity to share resources and transmit local knowledge, such as where and how to build or what type of materials one should employ, are valuable cultural traits which make a place more resilient and less prone to suffering a sudden setback. Although local regulations also provide insight into a community's built environment, staff turnover and a lack of comprehensive ownership in the government planning process tend to make regulatory knowledge a fragile commodity, whereas cultural traits are deeply embedded in the everyday life of a place and can be transmitted across decades or even centuries. These types of cultural traits are also important in adverse social situations as well, such as

inadequate housing or poor economic conditions. With that in mind, planners and urban design professionals would be well served to learn from communities, that have grown accustomed to unfavorable environmental and economic circumstances and have changed their living patterns as a result. In other words, when the instruments of modern convenience break down how do people sustain themselves and, equally important, how do they begin to build the basic foundations of community with little aid or assistance from external actors.

The Dune Shacks of Cape Cod

Nestled in the rolling sand dunes outside of Provincetown, Massachusetts are 19 small shacks without electricity or running water. The presence of these shacks on the landscape is a unique portrait of island living stripped down to its bare essentials. All but one is owned by the National Park Service as part of the Cape Cod National Seashore in the 1,900-acre Peaked Hill Bars Historic District. Today, many of these properties are maintained for the enjoyment of artists and writers as part of a residency program.

The sizes of the shacks range from just over 1,000 square feet to a mere 96 square feet, but despite their small size, these structures display a wealth of innovative techniques by their inhabitants to adapting to barrier island conditions. In 2005, an ethnographic report compiled for the National Parks Service described the dune shacks as, "small, weathered and rustic looking, built on skids or pilings allowing for occasional repositioning on unstable dunes." In a natural environment such as the barrier islands, where everything can be subject to drastic change over a relatively short period of time, the impermanence of the shacks is a positive attribute rather than a hindrance. Records indicate that of the 18 dune shacks that have been surveyed by Cape Cod National Seashore over the years, five of the shacks have had to be moved at some point in their history.

The continued survival of the shacks can largely be attributed to the watchful eye of the occupants. Shack residents regularly perform basic maintenance such as installing sand fences and putting in dune plants to help stabilize the site. In previous years, some residents even maintained birdhouses adjacent to their properties, which had the beneficial side effect of keeping the insect population in check. Periodic repairs and patch jobs were a consistent feature of shack life as the dune environment could quickly reclaim a neglected property. A quote from the 2005 report emphasizes the importance of maintenance to the continuing survival of the shacks: "The severe conditions of the Backshore would destroy shacks except for the vigilant care of residents. Strong winds, blowing water, and shifting sands quickly overwhelm the vulnerable shacks without intervention."

Periodic maintenance, though, was not the only set of skills shack dwellers developed; many of the residents had to become highly adept at shack relocation as houses regularly had to be moved to keep up with the shifting dune landscape. This skill proved to be invaluable in 2004 in saving the Isaacson-Schecter shack, which had been overtaken by sand in the early 2000s. Initially the owners of the sand infested shack approached the National Park Service about finding a way to relocate the shack to more stable ground. The costs for relocating the structure were initially estimated at \$15,000. However as outside bids started to come in for the project, the cost projections quickly ballooned to between \$80,000 and \$100,000. Faced with these staggering cost projections, the shack's owners opted for a more traditional

approach using local knowledge and in-kind services. With the aid of human labor, a few beam supports, and some hand-pumped hydraulic jacks, the dune dwellers were able to pull the structure out of the sand. This informal process meant that the park service did not have to employ any funds to relocate the house as the work was done using the local resources and networks the shack dwellers had access to.

The stories and history behind Cape Cod's dune shacks suggest that while many buildings aren't built to span the ages, the cultural traditions and vernacular craftsmanship that creates them can be. Whether it is relocating a house or doing basic maintenance such as installing sand fences, the dune dwellers demonstrate a deep understanding of coastal systems, which has been tested by decades of trial and error experimentation in a hostile environment. Through constant maintenance and repair, coupled with a basic respect for the harsh surroundings and natural terrain, the dune shack builders have been able to strike a balance between human needs and those of the environment.

The Favela Communities of Brazil

Not all adversity is environmental though; sometimes adversity comes in the form of lack of economic opportunity or institutional support. In large portions of the developing world, people struggling to scratch out a living often employ a simple solution to share resources and forge stronger social bonds: they build a city. Usually these communities are built with little to no oversight from public officials, and they generally don't benefit from public services such as sewer and power lines. The high prevalence of these settlements suggests additional study and analysis is warranted.

One nation that has drawn attention from both urban planners and social scientists when it comes to informal communities is Brazil, where the communities are known as favelas. The scale and complexity of some favelas can be quite impressive. In one of Brazil's largest cities, Rio de Janeiro, it is estimated that 25% of the population lives in favelas.⁴ Life in the favelas is far from ideal, but that community represents a blank slate where people can forge a new life and have some degree of freedom to operate and make critical life choices.

Although no formal building codes exist in the favelas there are a number of basic techniques people employ that have gained general acceptance over time. Much like traditional urban areas in the United States, favela residents who happen to live near an important commercial street will generally choose to reserve the ground floor as commercial space.5 When it comes to constructing a new home, favela residents employ simple materials such as brick, concrete and corrugated iron. These materials are desirable because of their low cost, light weight, and the ease with which they can be transported through the Favela's narrow streets and alleys. Bartering for new goods or services can also occur in the favelas. For example, one favela resident recounted a situation where they exchanged roof tiles in order to obtain new windows. Some of the favelas have even been able to marshal resources for civic entities such as community centers. The favela community Maré, for example, created art centers to help its younger residents develop new skills. This type of life sustaining activity can generally go unnoticed since it is not formally organized and it generally functions as part of the web of casual public life in the favelas.

In the 1960s many Brazilian communities razed the favelas and relocated families to large housing complexes with infrastructure and services, an approach that paralleled American urban renewal efforts around the same time.6 This method of eradication and relocation into isolated housing complexes failed, however, because while it was easy to transport people, the support networks developed over time in the favelas could no longer be maintained in the housing complexes. Urban theorist Jane Jacobs, who arguably was the most vocal opponent of this urban planning approach, was one of the first to document the invisible support structures and networks people cultivate in a high functioning slum neighborhood. A key component to the success of these neighborhoods that Ms. Jacobs noticed was that "People are accommodated and not assimilated, not in undigestible floods, but as gradual additions, in neighborhoods capable of accepting and handling strangers in a civilized fashion." In Brazil, many of the favelas do appear to display the characteristic of having an informal process to accommodate gradual change over time. The main lesson favelas provide to American planners is a simple one: to improve economic opportunity it is important to facilitate the creation of mutual support networks in low-income neighborhoods showing improvement and to create new support networks in lowincome area devoid of meaningful social relationships.

Conclusion

Human resourcefulness can be an amazing thing, and it is often easiest to spot inventiveness and adaptability in locations where resourcefulness is a requirement of life. In the two examples cited, thrift and ingenuity are essential components for maintaining local traditions, such as with the Cape Cod dune shacks, or in providing for the basic necessities of life, such as with the Favelas. For the dune shack dwellers, life on the dunes is in a constant state of flux because Cape Cod, itself, is in a constant state of flux. Those who have opted to live there, live with the change rather than fight it, using a built environment that can change as frequently as the natural environment does. In Brazil the ad-hoc solutions and incremental changes are used to build a lasting community. The changes incorporated into life in the favela are attempts to build a stable and resilient lifestyle despite numerous social and economic disadvantages. For those who live on society's edges, whether it is in rustic isolation in a hostile environment or in a low income informal urban area, the ability to cultivate a series of cultural mores that can be mutually reinforcing is key. By having an informal body of knowledge and skills to pass on to succeeding generations, vulnerable communities can ensure their continued survival, even in the face of daunting odds. T

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Endnotes

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