

# Paolo Soleri: Another Urban Utopian

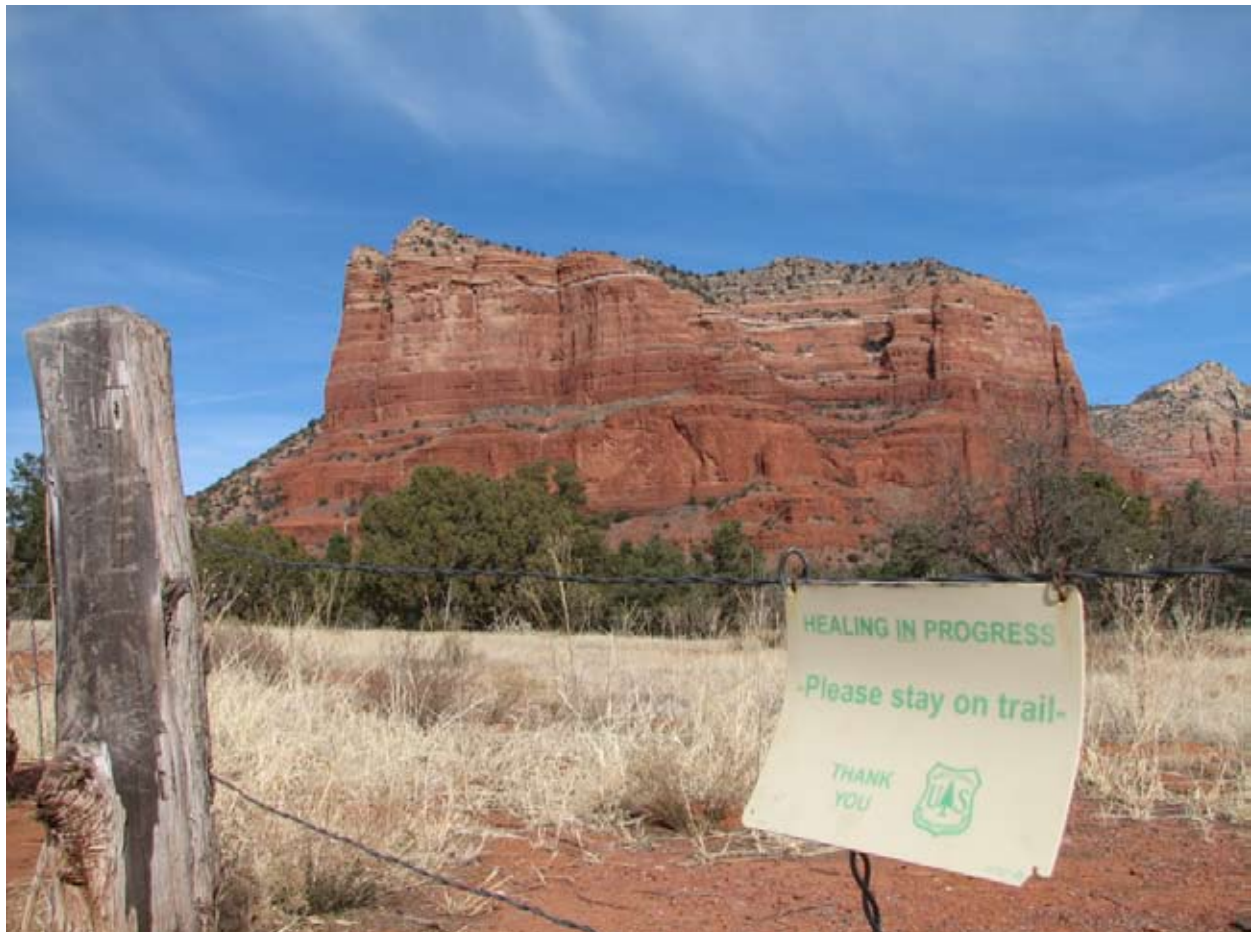
Catherine Gaines Sanders

This paper is a comparative analysis of two urban theorists, Paolo Soleri and Ebenezer Howard, with a focus on Soleri. It briefly introduces Soleri's projects and theories. The paper then gives a history of Howard, especially focusing upon his Garden Cities, followed by a more detailed history of Soleri, which touches on his life before, during, and after the construction of his famous urban experiment, Arcosanti. The paper then compares the two theorists, highlighting their similarities and differences. The paper concludes with an author's reflection upon the success and failure of Arcosanti as an urban experiment and as a model of a sustainable habitat.

## Introduction

For over three decades, Paolo Soleri has been challenging designers with his drawings, writings, and innovative architecture. Soleri, highly critical of contemporary movements in the built environment, has sought, over the course of his life, to promote *arcology*. "Arcology" is

a neologism he coined himself, a blending of the words "architecture" and "ecology." Soleri sees ecological systems as the model of how architecture should be built, and he has spent his life drawing and designing arcologies in many environments. The project that he is most well-



Sedona Desert. Photo: Allison Craddock

known for—the city of Arcosanti, Arizona—is a futurist vision of a city; however, it is also a contemporary model of an arcology.

His ideas are not futuristic in the way that most people understand the term. For Soleri, humankind overshoot the “future” in its hell-bent dash towards progress. His vision is retrospective, considerate of natural processes, and innovative in a way that seems archaic. At Arcosanti, the residents and visitors are themselves actors in the city’s strange evolution—they build, maintain, administrate, guide, and teach. This kind of community is resonant of the self-sustaining towns of the pre-industrial era. It is a return, then, to a lifestyle that has been lost and which Soleri asks his adherents to find again. However, Soleri is not satisfied to naively return to a pre-industrial-like state; rather, he challenges the status quo to use its nearly endless resources to be thoughtfully progressive. Soleri places learning and cultural institutions in every arcology, promoting learning, discussion, revelation, and innovation, and in this way he assures that these cities can be *truly* self-sustaining.

While Soleri’s challenge is pertinent, it goes too far, and the worthiness of his drive has been lost in a cultural clash of worldviews. Soleri, rather than being collaborative, has been combative, refusing to cooperate or to compromise. Soleri envisions a solution to the world’s problems; however, he ignores the many steps required to get there.

It is for this reason that he can be so easily compared to the other famous utopian designers of the 20<sup>th</sup> century, especially Ebenezer Howard. By comparing Paolo Soleri’s successes and failures to Howard’s, and contrasting their differences, it is easy to see how progressive urban theory has changed in the 20<sup>th</sup> century. This essay will briefly establish Howard’s history and theories in order to compare them with Soleri’s own ideas. Howard’s and Soleri’s relative successes and failures will be explored, and, finally, Soleri’s work will be critically analyzed for its impact on “outsiders.” In this way, it will be easy to discover how Soleri fits within an established group of urban utopians.

## A Brief History of Ebenezer Howard and his Work

Ebenezer Howard’s career as an urban theorist spanned the turn of the last century, and was very fruitful. Born in London, England in 1850, Howard saw first-hand the effects of industrialization on the urban landscape (Howard, 2007). At that time in London overcrowding was rampant, and its effects, combined with sanitation and water supply problems, were devastating. It is not difficult

to see how urban density could be seen as such a horror—as an *agent*, rather than a *symptom*, of social ills. Similarly, it is not difficult to see how Howard’s proposal seemed the perfect “solution” to these ills.

Howard, in his publication, “Garden Cities of To-morrow,” proposed Garden Cities—decentralized satellite cities. For Howard, the problem was *redistribution*, and the fact that this redistribution of the population had to be self-selected only intensified the problem. People were “drawn” to the Town for the benefits it offered: jobs, wages, and excitement. In order to “draw people out,” attractions outside the city had to be created that were more potent than attractions in the city. Howard used magnets as a metaphor for this process, initially opposing the Town and the Country “magnets”, and allowing them to use their respective “draws” to direct the population. However, he saw that many of these draws were antithetical, and rather than wasting their “energies” in an oppositional way, he proposed a compromise: the Town-Country magnet, which would improve upon the attractions of both the city and the countryside (Howard, 2007). The Garden City was the result of this idea. It was built to be low-density, and filled with commercial/ industrial areas where residents would work, retail stores where they would shop, and residential areas where they would live. Howard intended for these cities to be self-sufficient, but with easy access to a wider network of other Garden Cities throughout the region. The first Garden City built to reflect these ideas was Letchworth. Howard himself did not design the city; rather, he hired designers to realize his dream. Howard was not afraid of allowing others to have control of his project—he compromised, and let others interpret his ideas, giving them a friendly business environment.

Howard’s ideas were highly resonant in their time, and they have, perhaps, affected the built environment more than his other fellow utopians. One cannot write off the validity of many of his arguments—that urban crowding creates social ills and disharmony, and that a mix of “town & country” presents a good solution. However, it is difficult to deny the possible intellectual-cultural child of his Garden City idea: urban sprawl. Although Howard explicitly limited the outgrowth of his cities with a greenbelt of agricultural land, the idea of dispersion was legitimized by his writings. Such dispersion has become the progenitor of suburban sprawl, which has effectively created habitats that are inaccessible except by car, inefficient in terms of trips, especially to work, and culturally diluted. It is unfair to directly link Howard to these developments; however, when exploring Howard’s intellectual legacy, it is imperative to discuss both the good and the bad repercussions.

## Paolo Soleri's History, Arcology, and his Urban Experiment, Arcosanti

Soleri was born in Torino, Italy, on the summer solstice, 1919; his name, Soleri, means, "You are the sun" (Soleri, 2001). Just as the sun is radiant, shining light against darkness, Soleri has influenced many minds with his ideas and designs. His life has been active, filled with many accidents, all of which have led him to his theories of arcology. These theories began when he became an architect. At the age of 27, Soleri obtained his PhD in Architecture at the *Torino Politecnico*, and after his graduation, he came to America to visit and learn from Frank Lloyd Wright (Soleri, 2001).

His time at Taliesin West was his first introduction to Arizona. Soleri spent little time at Taliesin; after a falling-out, Soleri left, but stayed in the Phoenix area. His next project—his last in the Arizona area until the early 1950s—introduced him to his future wife, and after their marriage, the Soleris moved back to Italy. Soleri stayed in Italy long enough to learn about ceramics, and to complete another project—a ceramics factory. However, Italy was not economically stable at the time, so the Soleris returned to the US, this time settling in Santa Fe (Soleri, 2001).

Soleri had learned ceramics well enough while in Italy to start a business making pots. After a while, Soleri was approached by a local vendor, who asked Soleri to make Korean wind bells. However, Santa Fe was not the appropriate climate for making ceramics, so Soleri returned to Phoenix. Soleri soon became a master at ceramics casting. He had developed a technique of casting ceramic bells in the soil, and he began to do the same thing with concrete—casting larger and larger structures, which soon became suitable as architectural elements. He would later use this technique to create structures at Arcosanti.

At around the same time, Soleri also contacted a foundry man, who taught him about bronze cast work. Soleri and his group learned to cast bells of bronze, which have become, since that day, a distinctive element of Soleri's specialties. One of Arcosanti's main income sources, even today, comes from the sales of these bells (Soleri, 2001). It seems that from such small and intricate work, it is a difficult leap to city design. However, Soleri had never stopped drawing and designing—he was an architect at heart. In Soleri's words:

In the late 1950s, I began doodling with urban questions...one day one of the salesmen who sold bells for us...came by on one of his regular trips and I showed him some of the doodling. Toward the end

of our conversation he said, "Why don't you design a city?" And I thought, "Why not do it?"... That was the trigger. (Soleri, 2001. 34.)

This "trigger" led Soleri to design "Mesa City:" a city, as the name suggests, built upon a mesa. Soleri was, even at this early stage, concerned with preserving agricultural land, and he thought that rich agricultural land should not be eliminated by built habitats. He believed that cities and their accessory uses should be built on land that was unsuitable for agricultural pursuits. However, Soleri soon felt that he had missed something.

The problem was scale. He says, "Mesa City, as it turned out, was too big" (Soleri, 2001. 34). Soleri explored systems, especially ecological systems, and observed that in nearly all cases complexity and miniaturization were present. Soleri describes it in the following way:

Take one human brain, for example. If it were two-dimensional it might cover an area of twenty or so square miles. There's so much going on within it that you would need thousands of miles of connectors for it to function. But the human brain, as it has evolved, is an example of enormous *complexity* which comes about because of its folding over, three-dimensionally, back upon itself, and the notion of *miniaturization* is intrinsic to this process.

So what I had been doing by spreading Mesa City across the landscape—and what we've been doing, in a way, in cities like Phoenix and Los Angeles, and most other place—is like taking the brain and saying, "Well, we want this brain to be more in touch with nature," and unfolding it across the land. By doing that, we destroy the brain and destroy nature—we destroy the city and destroy nature—automatically. (Soleri, 2001. 35) *Italicization by author.*

This was Soleri's criticism of modern city building practices. For Soleri, these practices did not learn from the ecological systems around them, and as a result were highly abusive of nature. For him, nature is filled with models of proper habitat formation. This is how the idea of arcology was born. An arcology is a practice in complexity, miniaturization, and duration. Soleri envisioned a holistic building, filled with a network of social interrelationships. This single structure would house a dense population of residents. It would also be site-specific, relating to the environmental conditions of each place, capitalizing upon climatic patterns and natural resources, and using passive solar. Soleri says: "In an arcology, the built and the living interact as organs would in a highly evolved being. This means many systems work together, with efficient circulation of people and resources, multi-use buildings,

and solar orientation for lighting, heating and cooling” (“Arcosanti Project History.” 2003). Soleri worked tirelessly to put a book together that explained these ideas—*Arcology: The City in the Image of Man*. By the time the book was completed, a plan for Arcosanti was in full force.

The site for Arcosanti is 70 miles from Soleri’s home in Phoenix, in the desert, near a canyon. The climate is extremely dry, which means that fluctuations in humidity do not affect the casting of ceramics or cement—which are crucial to the ongoing activities at Arcosanti. The low humidity also makes it an ideal location for such an urban experiment, because passive solar and evaporative cooling can be easily used as low-tech substitutes for air-conditioning.

Soleri wanted his project to be entirely under his intellectual control, which meant building it himself. This was very limiting, and prevented Soleri from creating the single structure that he originally envisioned. The structures that have been built on the site are mostly silt-cast concrete, and most utilize passive solar.

Arcosanti has always been highly supportive of educational, artistic, and cultural pursuits. From its inception, it has invited artists, performers, musicians, students, and international visitors to share their knowledge and experience, and in this way, the idea of arcology has been spread around the world (Soleri, 2001). This aspect of Arcosanti has been highly successful. Arcology is not only about the built environment—to be truly effective, it depends especially on changing the way that people think about habitation. However, Soleri’s arcologies fundamentally challenge most people’s worldviews, and until Soleri’s worldview and ours can be reconciled, his ideas will be impractical to implement, except on an experimental level.

Arcosanti, like many experiments in sustainable living, has been successful; however, it is not a city. Arcosanti, even now, is only three percent complete; of the 5,000 residents it is designed to eventually hold, it rarely has even 2% of that number at any point in time (Cosanti Foundation, 2003). These numbers do not constitute the “urban effect”. As an urban experiment, Arcosanti is a failure.

### Comparative Analysis

Paolo Soleri and Ebenezer Howard have many striking similarities. Both men visited America early in their careers, and were changed by the experience. Both men reinforced their theories with published works and active building. Both lived to see at least a part of their ideas realized. Also, some of their theories substantially align, especially the way that they saw the city and its hinterland as co-dependant—essential to the physical and psychological well-being of humanity.

However, Howard would be highly critical of Soleri’s “complexity and miniaturization,” which would call for an urban density of 200 people per acre (“Arcosanti Project History.” 2003). Similarly, Soleri is denunciatory of Howard’s intellectual legacy—the suburban trends that have become deadly in the later half of the twentieth century. Although Howard did not advocate such extreme sprawl—his cities were designed for 30 people per acre (Howard, 2007. 318), which is hardly conducive to large rural estates—Soleri would indicate that he is hardly to be congratulated. Soleri would cite the waste of such low densities—the waste of good agricultural land, the waste of production, of commutes and trips, and especially the waste of hyper-consumption, which, for him, sprawl reinforces. For Soleri, we are at the nexus of doomsday; cities are the only solution, and only if they are practices in complexity, miniaturization, and durability.

Again, this is what Soleri has tried to demonstrate at Arcosanti. Had he learned from Howard’s example, he might have brought serious attention—not to mention financial investment—to his project. However, it has been over thirty years, and neither Soleri nor Arcosanti have made much progress along that line. Without financial assistance to change the rate of completion, it will take almost a millennium to complete the project (“Recycling Arcosanti.” 2004). In the end, Soleri’s words are lost in energy that has been spent combatively, which should have been spent collaboratively.

If the works of both men could be synthesized, a surprising middle ground might be discovered. If Soleri’s concerns for the limited resources of this planet could be combined with Howard’s more gradual method of change, perhaps our culture would be more accepting. It is impossible to know for sure, at least until outsiders are allowed to take what each man has respectively learned through his works, and apply it to habitat design and construction. Perhaps the respective benefits of each man’s vision, contrasted starkly with the deficiencies, will then be easier to understand, and to capitalize upon.

### Reflections by the Author

I cannot deny that Paolo Soleri is an intriguing subject. Much of what he has said, and still makes an effort to say, is incredibly valuable. Paolo Soleri, to me, represents a member of the Old (Utopian) Guard because his ideas are so top-down. He has tried to implement his ideas in an urban experiment in the middle of the desert rather than integrating them into functional systems; he has imposed his way upon the design, and it is too radical. Utopian solutions are what they are because they won’t “play nice” with existing systems. They are necessary, and highly valid,

because they are an opportunity to criticize the status quo, and spur interest in alternative solutions, but they are impractical as ends in and of themselves.

It was easy to compare Soleri with Howard because their histories and accomplishments run in the “same vein,” even though their views are so strikingly different. For me, the differences in their views represent the changes that the world has undergone in the past century. Through trial and error in the built environment, we have discovered how to build well, even at very high densities; however, we have also discovered how unsustainable our current building methods are—methods that are now being exported around the globe—and we are now caught in a race to stop practices that started snowballing sixty years ago.

Soleri, in his theories and practice, sees the danger that Howard could not see, and he has consequently called for radical changes. As he and his followers have built Arcosanti, they have designed it to work with its natural surroundings, designing buildings to use passive solar heating in the winter, and using evaporative cooling in the summer. He has made the sparse structures walkable, even if residents need to hop into a car for amenities 70 miles away in Phoenix.

However, many buildings, and even communities, are now implementing the same efforts towards sustainability; many have even gone farther, especially with LEED Ratings as an incentive. Arcosanti may have been a radical experiment in sustainable city-building 40 years ago, but in a world where green building practices are becoming popular and mainstream, it is neither experimental nor radical anymore.

This theme seems to fit Arcosanti very well—“it isn’t anymore.” It is no longer the “future” in city design; it is no longer a cutting-edge experiment. The city, and its residents, seems to cling to a vision in the way that many people do once they have decided that they are past their prime. They have acquiesced. Arcosanti could be called a “learning community,” or an “experimental community,” or an “arts and crafts guild.” It can’t be called “the city of the future” anymore.

## References

“Arcosanti Project History.” Arcosanti. 2003. Cosanti Foundation. 8 Nov. 2007 <<http://www.arcosanti.org/project/background/history/main.html>>.

Howard, Ebenezer. 2007. Garden Cities of To-Morrow. In *The City Reader*, 4ed, edited by Richard T. LeGates and Frederic Stout. New York, NY and London, UK: Routledge.

Soleri, Paolo. 1987 [1983]. *ARCOSANTI: an Urban Laboratory?* Santa Monica: CA. VTI Press.

Soleri, Paolo. 2001. *The Urban Ideal Conversations with Paolo Soleri*. Ed. John Strohmeier. Berkeley: CA. Berkeley Hills Books.