

who visit or live at Arcosanti. Soleri believes that all of nature reflects the inexorable drive towards “complexity” (clustered living processes), “miniaturization” (maximum utility of resources and space-time), and “duration” (living processes and energy use across time).<sup>13</sup> These processes imply that successful community living should approximate a “living organism” that is “coherent” with the “complexity-miniaturization-duration paradigm.” Arcosanti expresses these principles in confronting urban decay and suburban sprawl, within a framework of renewable energy, self-sustaining agriculture, and compact multi-functional spaces connected in a structural totality. Of course, this utopian model anticipated the now common idea that urban density is more energy efficient and ecologically sustainable than single-person residences in the suburbs and small towns, given current energy technologies. That problem could be eliminated, though, with a radical breakthrough in solar power, which is the best hope for humanity’s long-term energy needs.

However, Arcosanti is more than a model for urban density and complexity. Arcosanti is a utopian model born of the Earth and open to the cosmos. Many of Arcosanti’s structures and building materials come from the nearby desert landscape, and its buildings are designed to take advantage of solar patterns and prevailing wind conditions for lighting, heating, and cooling the city. The open-air spaces welcome the sky and desert, in contrast to the electrified metropolises, whose skyscrapers may point toward the stars, but their residents are far removed from nature and the cosmos, now hidden by the electric glow.

Soleri apparently took to heart Wright’s utopian model of “organic architecture,” which means that form and function come together in architectural design, the purpose of the structure, the nature of the materials, and the surrounding landscapes and environments. Arcosanti seems aimed to integrate the city, not only into nature and the environment, but also into the cosmos, to make a living space that is open to the space beyond. Having spent several days at Arcosanti, I can personally attest to the sense that the overall structure is anchored in the Earth below, yet open to the universe beyond. Arcosanti seems to embrace Buckminster Fuller’s humanist challenge about “how to maintain man as a success in the universe,” which he discussed in the 1969 book, *Utopia or Oblivion*.<sup>14</sup> In *Arcosanti: An Urban Laboratory?*, Soleri realizes we need living structures that are welcoming of the cosmos and our relationship to it: “We would therefore like to cultivate an environment where structures and grids would make astronomical sensitivity a normal presence.”<sup>15</sup>

In my judgment, the combination of arcological ideas and existential cosmic stance makes Arcosanti one of the most impor-

tant utopian models of the past forty years. Arcosanti was born in 1970, the year after the Apollo 11 moon landing and two years after Apollo 8’s famed “Earthrise” image, which showed humans to be a global species in a global ecosystem, all existing on a single small planet floating in the vast cosmic void. This meaning meant that humans are not the center of the universe, but we possess the power to embrace, explore, and understand the universe from which we emerged and evolved.

Perhaps this time was the peak moment for modernity and the utopian possibilities of a humane global civilization based on a humanist cosmology, featuring the integration of ecology and technology into a new model for designing and building our cities on our planet, which Fuller famously called “Spaceship Earth.” Though Soleri hoped Arcosanti could realize the utopian ideas pregnant in the moments after Apollo 8 and Apollo 11, most of civilization ignored Arcosanti as well as the meanings of Earthrise. Since Apollo 11, Apollo 8, and Earthrise, it seems as if the space age yielded an unintended effect at its penultimate moment, a cosmic vertigo in which humans could not handle the existential meaning of their greatest accomplishment.<sup>16</sup> As Soleri stated in explaining the need for a “cosmic” architecture: “The minute and the immense are confronting our existence.”<sup>17</sup>

This cosmic stance is what makes Arcosanti so radical a concept, for it offers a direct challenge to the existential view of nearly all urban, suburban, and domestic architecture and technology, all of which combine to sequester humans away from nature and the universe. Just look at the millions of suburban homes, hunched under their pitched roofs, with walls containing tiny windows, all suggesting a structure afraid of nature and terrified of the cosmos above. Many of the urban homes are no better, squeezed together and shielded from nature and sky. Should we be surprised that television and computers dominate our lives and “realities,” even more so at night? It is not shocking that nature has become a “lost world” in our cities and suburbs, though that effect was not necessarily the original intent.

As humans migrate to the mechanized metropolises (urban and suburban), glowing with electric light and electronic screens, they are slowly, but certainly, removing themselves from nature and the cosmos from which they emerged and evolved. It is our electric cities and electronic screens that make us feel as if we are the center of everything, when actually we are the center of nothing. And, it is the nothings and nothingnesses that most everyone fears — the emptiness of absence and being alone (on Earth or in the cosmos), the possibility of no meaning to life, the uncertainty of the future, and the vast voids of the cosmos we inhabit. That’s why Facebook and social media are much less about the desire to connect than

## 2. THE ROLE OF UTOPIAN MODELS

Is it still possible to think of “utopia” in reference to our urban metropolises? Most would scoff: “No, it is impossible!”

Yet, if we seem destined to a dystopian future of unsustainable living amidst global warming and terror wars, and we are without any new “utopias,” then what is going to motivate humans to remodel their cities and refresh their minds to live and think more in harmony with nature and the cosmos? The fact is: humans need utopias. More specifically, we need new utopian models for living on Earth, models that are sane and sustainable, especially in relation to population expansion, migration to metropolises, and to the ecology and biosphere of our planetary home floating alone in the vast expanding universe. These needs are central to the cosmic and utopian ambitions of Arcosanti.

Utopian theory has long provided “grand narratives” for humanity and society, spanning the millennia in providing models for a better world or an “ideal society.”<sup>1</sup> It is common to think of “utopia” as referring to an impossible perfection tainted by a flawed humanity, a totalitarian regime to which we all must conform, or a place that is unreal and utterly imaginary. After all, the word “utopia” originally meant “no place.” In the realm of political or religious utopias, the goal may indeed be an unrealistic norm or unverifiable faith to which all people and all reality must conform, which is why political and religious utopias so often end up being totalitarian.<sup>2</sup> On the other hand, the everyday impact of other kinds of utopian theory is more nuanced and complex, especially in the models drawn from technology, architecture, and urban planning, where the goal is not necessarily a perfect world, but a *better* world.<sup>3</sup>

Across history and geography, utopian models have guided the trajectories and destinies of humanity and society, while shaping the actual forms and functions of daily life. Can we deny the reordering of daily life under industrial and information technologies over the past two centuries? These technologies were celebrated in numerous utopian models displayed in world’s fairs from 1851 through 2010. For example, the 1851 Great Exhibition in London celebrated the rise of industrialization, the 1939 New York World’s Fair celebrated the industrial and technological “world of tomorrow,” the 1964 New York World’s Fair celebrated the “information age” and the “space age,” Expo 67 in Montreal and Expo 70 in Osaka both celebrated the role of science and technology in reordering our world and our place in the cosmos, and Expo 74 in Spokane introduced ecology and the environment to the utopian equation.<sup>4</sup> By and large, humans have built the worlds featured in these fairs, and these are but a few of the sites and places where utopian mod-

els have been presented to society. Obviously, the details vary widely, but the essential utopian models have been embraced and constructed — for better and/or worse — to create the industrialized, mechanized, electrified, urbanized, suburbanized, mediated, Disneyfied, and globalized world we inhabit.

The existential assumption of any utopian model is that if the material or intellectual world can be improved around humans, then life could be improved for humans, life in its actuality and spirituality. It is this endless quest for a “better” world that fuels the embrace of utopian models and most new technologies. Of course, virtually all utopian models have had the unintended and unexpected consequence of producing dystopian effects, especially when mixed with hubris, greed, short-sightedness, and the sheer folly of humanity’s wars, tribalism, and mindless consumption. So naturally we have a long history of dystopian models (shown in numerous sci-fi films and apocalyptic news stories) warning us of a world made not better, but worse, and often much worse. In fact, our culture is filled with dystopian and apocalyptic models that dominate our thinking about the collective future.

Thus, what surrounds us in our cities is what came “after utopia,” and what we face now is the moment “before utopia,” the moment when we must imagine better models for the future metropolis and planet. And that moment is the goal of this exhibit and the models presented in Arcosanti and Masdar.

The quest for utopian models reaches back to Plato’s Atlantis, the myth from before the first millennium that has exerted a profound and lasting cultural influence well into the third millennium. Just as Socrates sought a model for an ideal society, so, too, do we today in places like Arcosanti and Masdar. In the myth of Atlantis we can see the existential origins of many utopian and dystopian models in our culture, including Arcosanti, Masdar, Ordos, and *Abandoned America*.

## 3. PLATO’S ATLANTIS

Plato’s Atlantis was a mythical island-utopia, the first utopian model in Western culture, the first utopia to disappear in an apocalypse and the first science-fiction utopia to project a technological future where humans lived with nature by conquering nature. Born in the dialogues of Timaeus and Critias, Atlantis was described by Plato with such poetic detail that it seemed like a civilization that surely could have existed.<sup>5</sup> The story was told by Critias in response to Socrates’ question about whether an ideal society had ever existed.

Once upon a time, 9,000 years ago, Atlantis existed as a great civilization situated on a magnificent island, somewhere in the oceans beyond the known world. Three sides of the island contained cliffs and mountains, while one side was open to the seas. Between the mountains was a fertile agricultural area irrigated with a grid of canals and channels, which carried river water flowing from the mountains. The island was also populated by many kinds of animals, along with exotic plants and fruits. There was an abundant supply of precious metals and food, so much that the Atlanteans material wants were filled in this paradise on Earth.

The capitol of Atlantis was situated on the open side of the island and was structured as a series of concentric circles — alternate rings of land and water. Connected by bridges, the rings of land contained places to appreciate art and nature, gardens and fountains, and places for exercise and contemplation. At the center of the city was the palace of the gods, surrounded by walls of gold and statuary. Ruling over Atlantis was a benevolent royalty, and the island utopia was protected by a powerful military. Despite the wealth and luxury, the Atlanteans were not intoxicated by material wealth and dedicated themselves to pursuing knowledge and living in harmony.

Eventually, however, power-lust emerged on the island civilization, and the Atlanteans sought to impose their model on Athens. Athens, displeased and unyielding, dealt the Atlanteans a crushing military defeat, ending the civilization that went from utopia to dystopia. The cosmic forces turned against Atlantis, for it was soon destroyed in an apocalypse of earthquakes and hurricanes, causing the island utopia to disappear, forever lost beneath the ocean. In the Atlantis myth, one can easily see a warning for contemporary America, dedicated to imposing its way of life on others, squandering its wealth in endless wars at home and abroad, exploiting its natural resources to the detriment of the environment, and living super-sized lifestyles funded by unsustainable personal and government debt. But, the influence of Atlantis runs deeper as it spans the millennia.

#### 4. LIVING AMIDST LOST WORLDS AND NEW WORLDS

Created long before the “great fall” was appropriated by sacred texts, Atlantis was the first utopia where nature, technology, and civilization existed in harmony, all of which was destroyed and disappeared in an apocalypse triggered by greed, hubris, and natural forces. Atlantis provided a utopian agricultural model, where farming and irrigation amplified the bounty of nature. Atlantis was the first model of the urban plan, where

the city is ordered through geometric forms. Circles, spheres, and grids dominate virtually all subsequent utopian models, up through the twentieth century, from Le Corbusier and the modern metropolis to Walt Disney and the postmodern theme park. Perhaps most important, Atlantis originated two key utopian concepts that have spanned the millennia — the “new world” and the “lost world.” It is these two concepts that inform the trajectories of global metropolises, ecological utopianism, and the connected meanings of Arcosanti, Masdar, Ordos, and *Abandoned America*.

Atlantis was the first model of the utopian “new world,” a human-created world that overcame the constraints of pure nature through the deployment of technology. In other words, Atlantis was the first example of the machine that transformed the garden. Since Atlantis deployed technology and planning, it was the genetic origin for the succession of rationalized utopian models, all oriented toward the future and building a “new world” — the march of science, technology, civilization, consumer paradise, land of progress, metropolis, global village, information age, global brain, network society, and so on. Since Atlantis was destroyed in an apocalypse, it was also the first model of a “lost world,” a world or civilization that was destroyed or disappeared. Atlantis is the genetic origin for an endless variety of nostalgic utopian models, all looking toward the past and the preservation of a “lost world” — the return to nature, ecology, wilderness, garden paradise, promised land, small towns, local village, golden age, Gaia hypothesis, and so on. Obviously, many of these lost and new world models overlap and embrace others at the same time. The following table illustrates this complex duality, the tensions between past and future and the many utopian models born of yearnings for yesterday or the tomorrow to come:

<b>TIME:</b>	<b>“THE PAST”</b>	<b>“THE FUTURE”</b>
	• yesterday was better	• tomorrow will be better
	• premodern, antimodern	• modern, postmodern (which can also incorporate features of the premodern)

<b>MODEL:</b>	<b>THE LOST WORLD</b>	<b>THE NEW WORLD</b>
	• return to nature	• march of science
	• ecology	• technology
	• wilderness	• civilization
	• garden paradise	• consumer paradise
	• promised land	• land of progress
	• small town	• metropolis
	• local village	• global village
	• golden age	• space age, atomic age, information age
	• Gaia hypothesis	• global brain, the network

the “lost world” trajectory, a past time and place in America that now seems destined to disappear as it devolves into ruins of the twentieth century. *Abandoned America* is what comes “after utopia,” the onset of dystopia and decay in a lost world. What we should understand is that *Abandoned America* does not happen outside its cultural context. The dystopian “autopsy” of *Abandoned America* is in stark contrast to the utopian optimism of *Scientific American’s* cover story about better, greener, and smarter cities. This difference between dystopian pessimism and utopian optimism lies in the difference between seeing the entropy of a lost world (*Abandoned America*) and sensing the emergence of the “new world” (*Scientific American*), the lost industrial world versus the new mediated world.

Coinciding with the fall of the former Soviet Union, the Internet began its explosive growth around 1990 and has spread across the planet, with America at the center of the explosion. Thus, over the past two decades, America has been the world’s dominant superpower, while existing at the center of the Internet explosion. As mentioned earlier, we can wonder if America has gotten collectively “smarter” as its populace jacks into the Internet and its “intelligent” technologies. Do the sites of *Abandoned America* reveal some hidden cultural and technological intelligence at work?

If Americans have collectively become more smart over the past two decades, then why has the American government invaded countries, bombed civilians, surveilled citizens, tortured enemy combatants, jailed war prisoners without trials, and assaulted the First Amendment with arrests of peaceful protestors and attacks on WikiLeaks? As illustrated in the ten year anniversary analyses of the aftermath of September 11th, government leaders and media experts have failed to realize that the attacks and subsequent wars are much more about empires and sacred texts — which embrace pre-modern and anti-modern utopias promising spiritual purity and eternal destiny — and far less about wars to destroy or protect our “freedom.” Inspired by antiquated utopian models of cultural and spiritual purity, mainstream America mandates that government ceaselessly wages wars on drugs, immigration, and various other perceived ills, all of which are celebrated by the media with endless TV shows and movies. America has the largest prison system in the world.

Doubling since 1990, the prison population is now approaching three million people. Moreover, government money spent on prisons is exploding, now approaching the level spent on higher education, and many more prisons are being built than colleges and universities. Should we be surprised that evolution is denied by 40 to 60% of the population, and American teenagers are now ranked 14th in reading, 25th in math, and

17th in science in comparison to other developed nations? <sup>12</sup> Meanwhile, college football coaches make millions of dollars to lead the entertainment function of American universities, and NFL football players are local gods who earn tens of millions of dollars so citizens can feel good about their cities. This is not to say that there are no positive or utopian trends in America, but *Abandoned America* is not about such trends. Plus, the list of dystopian trends seems much longer (much more than can be mentioned here) and deeper. After all, the total U.S. debt now exceeds tens of trillions of dollars, or more than \$100,000 per person, totals that are absurd and insane.

Many trillions of dollars have been squandered on the terror and culture wars, money which could have been used for education, ecology, infrastructure, and alternative energies in our cities, crucial issues of which Americans have been aware of since at least 1970. Everyone is worried about the overall economy, but what about general sanity? Should we be surprised that parts of America lie abandoned, and places as progressive and forward thinking as Arcosanti have been ignored?



### **Arcosanti: Relic of the Future Past or Utopian Model for Spaceship Earth?**

An ongoing experimental city in the desert, Arcosanti’s utopian model seeks to integrate the past into the future, ecology with technology, preserving a natural world (that could become lost) with a new world that uses science and design to live with nature, not to dominate it or remove it from our cities. Arcosanti offers a prototype with principles that are local and global, and thus good for *Gaia* and the network society. It’s a sad commentary on the state of utopian theory and practice that Arcosanti has not had a much larger impact on design and architecture, especially in America. This is not to say that Arcosanti has had no influence, just that it is minimal compared to the models that have driven suburban sprawl, urban hubris, and terror wars.

Once a student of Frank Lloyd Wright, Paolo Soleri, the creator of Arcosanti, shares his theories of arcology with an ever-changing cast of international artists and workshop students