

Arcosanti: An American Community Looking Toward the Millennium

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IT HAS BEEN MORE THAN TWENTY-THREE YEARS since Paolo Soleri, an urban architect, initiated construction of a small number of structures located at Cordes Junction in central Arizona. Since 1970, a tiny, fluctuating community called Arcosanti has worked toward building an "arcology," Soleri's term to describe a new urban form which harmonizes architecture and ecology. After a brief history of this project and its relationship to Utopian communities, this paper probes three major aspects and concerns observed at Arcosanti. First, Arcosanti's lack of progress may be attributed to an inability to attract appropriate investors or commissions with sufficient funds for completion. Second, Soleri's preoccupation with operating an urban laboratory, while trying to establish a spiritual center and intellectual community through educational programs, may be diverting energy from the project itself. Third, although dedicated conscientious staff members sustain the idea behind Arcosanti, a loss of evangelical zeal to build the city frustrates good intentions to tackle organizational problems, promote new construction activities, and address management issues pertaining to the community's healthy growth and development.¹

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Any interpretation, perceptions and analysis, however, derive from my own judgment, and I alone am responsible for what content remains.

50 COMMUNAL SOCIETIES

Arcosanti, if it is ever finished, might offer a viable alternative to the appallingly inefficient urban sprawl; unfortunately, its physical vitality appears fragile because of apparent negligence and nature's deleterious effects upon the structures. Not only do Arcosanti's chances for survival diminish because of a chronic lack of funding, the spirit of Arcosanti cannot thrive amid serious threats to its principal goal. At some point, keeping construction projects alive with minor renovations should not supercede a major assault on the mesa and the construction of the actual city.

As a former staff member and workshop participant, no longer on the inside of the project, I can only evaluate the perceived tensions and problems with partial first-hand knowledge. My periodic visits provide glimpses of what appear to be inattention to essentials and a misdirected energy. This personal view of Arcosanti evaluates its current activities, hoping to bring a greater awareness of its physical and spiritual state to its admirers, detractors, and curious visitors. A perspective on Arcosanti's Utopian context and communal activities may help to understand how Arcosanti's purpose has been modified.

Soleri's ideas originate with countless literary and historical Utopias. Arcosanti can be compared to Plato's *Republic*, Augustine's *City of God*, and More's *Utopia*. These ideal communities still inspire those in search of the best of all possible worlds. Urban critic Lewis Mumford claimed that "the concept of Utopia is a city itself."² Soleri's knowledge of dozens of ancient and relatively modern literary Utopias places him within a long tradition of anti-suburbanism. In spite of his public denunciations of other Utopian communities, Arcosanti is a product of Utopian models in history and literature.³

2. Lewis Mumford, "Utopia, the City and the Machine," *Daedalus*, 94 (Spring 1965), 271.

3. The abbreviated index of Utopian books is confirmed reading by Soleri. In 1970, I presented him with a chronological catalog of selected Utopias. We discussed their relevance; this partial list contains titles he recalled; only a few were vague recollections, and they are identified by asterisks. A complete listing is in the Appendix of my M.A. thesis, "Paolo Soleri and the Building of a Utopian Community," located in the Paolo Soleri archive collection, Department of Architecture, Arizona State University.

St. Augustine, *City of God*

Bacon, Francis, *The New Atlantis*

Bellamy, Edward, *Looking Backward**

Campanella, Tomasso, *City of the Sun*

Howard, Ebenezer, *Garden Cities of Tomorrow*

Hudson, W.H., *A Crystal Age**

Huxley, Aldous, *Brave New World**

More, Thomas, *Utopia*

Plato, *The Republic*

Plutarch, *Lycurgus*

Wells, H. G. *A Modern Utopia**

Originally, Soleri specified that Arcosanti would have a population of 1500; that figure increased to 5000 during the middle 1970s. As in Plato's *Republic*, Arcosanti's cap on growth closely matches Plato's limit of 5040 citizens. Soleri's Arcosanti presents us with a city that cannot grow beyond its capacity. When an arcology reaches the population density appropriate to its design, no additions or changes will be allowed. Limits to growth rather than a small-is-beautiful philosophy dominate its integrity. Unless the city's progress accelerates, Arcosanti's staff-in-residence probably will continue to hover around fifty.

Although Soleri altered his original population estimate, the overall size and acreage have remained the same. He wants organic unity derived from a cellular design that does not exhibit amorphous expansion in any direction. Harmonious proportion and symmetry reflect the Platonic ideal. Soleri rejects the well-known axiom that "form follows function." Like Plato, "form should dictate function." Therefore, Arcosanti must maintain a fixed limit and a population of (no more than) 5000. "The city may increase to any size which is consistent with its unity; that is the limit."⁴

Urban historians, such as Kenneth T. Jackson, have regularly indicted exponential growth as responsible for lack of vitality and efficiency. Good city planning respects organic integrity; enormous size destroys vitality and viability. Working from the premise that today's megalopolis increases alienation, Soleri inherits some of his visionary solutions from an eclectic group of individuals, including Saint-Simon, Antonio Sant Elia, Ralph Waldo Emerson, Ebenezer Howard, Daniel H. Burnham and Frederick Law Olmsted, who reconceptualized cities hoping to create improved civic responsibility. Moreover, Soleri's urban designs exhibit some influence from Frank Lloyd Wright.

In 1947, after an 18-month apprenticeship, Soleri moved out of Taliesin West, Wright's architectural studio on Shea Boulevard in Scottsdale, Arizona. Contrary to legend, Wright and Soleri parted amicably and mutually decided to end their association.⁵ Wright, who incorporated Transcendentalist views into his environmental concerns, may account for some of Soleri's fascination for free access to nature; however, that is where the association ends. In the early twentieth century, Wright calculated that there were fifty-seven acres per person in America; furthermore, each man, woman and child

4. Lewis Mumford, *Story of Utopia* (Cambridge, Mass: Peter Smith Publishers, 1922), p. 39. 5040 is a number related to efficient communication.

5. On November 14, 1992, after many years, Soleri returned to the Wright compound for his first lecture engagement at Taliesin West. (Mr. Davis provided this important biographical note during a telephone interview on December 8, 1992).

should receive no less than one acre.⁶ Not unlike the garden cities of the nineteenth century, Wright proposed a model, Broadacre City, where individualism could flourish amidst nature and subsistence farming but still have the advantages of the city.

Soleri, always a rebellious prodigy, reexamined Wright's analysis of a citizen's relationship to nature and the city. He concluded that the garden metropolis occupied too much land and damaged the natural environment. Adhering to the Platonic principle that cities are organisms subject to disease, he stresses a manageable size in which face-to-face interaction is still possible. By miniaturizing urban sprawl and compressing city size, he hopes to increase a strong social intimacy and reduce wasted time and motion; an arcology efficiently conquers space while intensifying the dynamics of inter-personal communication. Arcosanti responds to the urban crisis by eliminating space-devouring freeways and garages. With fewer cars and roads we liberate ourselves from mundane driving and can focus attention on spiritual and intellectual interaction.

If Arcosanti is completed, it could be one of the major urban achievements of the twentieth century. His vision of a city devoted to better human communication, less alienation and isolation, the abolition of automobile transportation, and efficient utilization of energy offers an alternative to squandering time, energy and motion.

During the forty-five years in which Soleri has lived in the United States, he has experienced a chronic lack of support. Born with Da Vinci's imagination but Rembrandt's bank account, he has acquired few commissions and built even fewer actual structures. In 1949, a wealthy Philadelphian, Leonora Bully Woods, who later became his mother-in-law, commissioned Soleri and Mark Mills to build the "Dome House" in Cave Creek, a partially underground residence north of Scottsdale. This fortuitous beginning enabled him and his wife Colly to buy property about ten miles west of Taliesin. In 1956 they moved into an unair-conditioned ranch-style house at the end of Doubletree, a long unpaved dusty road (until recently) in Paradise Valley, Arizona. This location became home and headquarters for his Cosanti Studios.

During the early and mid-Sixties, Soleri contented himself with the construction of his ceramic and bronze windbells studios and architectural studios in Scottsdale. His artistic brother, Luciano, and sister-in-law, Maria, arrived from Italy to manage the ceramic bell production which was modeled after the Solimene ceramics factory in

6. Morton and Lucia White, *The Intellectual Versus the City*. (New York: Mentor, 1962), p. 199.

Vietri Sul Mare near Torino. The wind-bell studios brought a steady income and enabled Soleri to dedicate every moment to the realization of Arcosanti.

In 1965, he and Colly established the Cosanti Foundation as a non-profit, educational organization. Without the regular patronage that Wright sustained, Soleri resorted to advertisements for his wind-bells in prestigious magazines and journals. In 1966 Santa Fe, New Mexico, commissioned Soleri to build the Outdoor American Indian Theatre. Although Soleri entered competitions to build other structures, including San Francisco State University's student union in the late Sixties, no one else awarded him any major commissions.

Fortunately, while Soleri auditioned his plans for the university's new student union, he also discussed his plans for the acquisition of property in Arizona with Herb Kauffman who visited the site and offered him a down payment to buy the "Farmer Ranch." Kauffman bought the Farmer cattle and eventually he acquired adjacent property, the "Bench Ranch." Over a ten-year period, Soleri paid Kauffman back in grazing rights and leases, and cash.⁷ According to Roger Tomalty, construction supervisor in the early days of the project, "Farmer Ranch" and "Bench Ranch" blended together to form 4000 acres. The Cosanti Foundation owns far less, since much of the site is federally managed by the Bureau of Land Management and leased by the Foundation. On the other hand, Margaret Kauffman recalled that a section of the "Bench Ranch" may have been sold to someone else, especially the area surrounding a house which Herb's daughter, Liz, built. Presently, the community uses only a fraction of the 25-30 acres from the intended 860-acre parcel to be developed for the construction of Arcosanti. The remaining 3200 acres may constitute the leased BLM acres.

Soleri was unable to begin actual construction until small contributions arrived and financial support from the Guggenheim Foundation and the Housing, Urban and Development Commission sponsored the Corcoran Museum's exhibit of his plexiglass models and a nationwide tour. In the early Seventies, a sense of urgency

7. Margaret Kauffman, letter to author, 31 October 1993 and telephone interview 20 October 1993.

Her knowledge and direct involvement in the financial entanglements of Herb's ranch and cattle reveal a slight difference of opinion with Roger Tomalty's recollection. Tomalty's interview on 30 May 1991 indicated that Soleri paid back Kauffman in grazing rights over a ten-year period, whereas Margaret believed Soleri paid back the "Farmer ranch" loan and also reimbursed Herb with the purchase of the adjacent property. Soleri's records and Kauffman's records have not been accessible; however, Herb's widow may make his diaries and records available for research purposes.

permeated Soleri's interviews, but he was able to attract only a few generous investments.⁸ Kauffman's donation facilitated the construction considerably. Anxious to audition his arcological idea, he put every dime into the project and construction.

Although the property's useable soil has never yielded enough for the community because of its marginal quality in high desert terrain, a small percentage of the land is used for growing food in hothouses, greenhouses, gardens and open-range areas. (A root cellar, once used for storage, was abandoned nearly two decades ago.) As in Plato's proposed community, the materials were to be free: lumber from the forests, stone from the mountains, and food grown on the land with the profit motive removed. During its early years, Arcosanti benefited from donated materials and available ingredients from the Agua Fria River Valley. The local mesquite forest supplied firewood. At first, concrete was derived from available silt, gravel and soil in the river bed; however, since the quality was not always consistent, Soleri soon began to purchase all his materials from local suppliers.

In early Spring 1970, concrete modular construction began on the base camp's housing which enabled Soleri and his associates to "employ" more participants. Since its inception, voluntary participants have subsidized the construction. Unskilled "workshoppers" (most participants are novices according to Soleri's own brochures) still pay to learn silt-casting, pouring of concrete, model building, etc. In early 1970s tuition was approximately \$225 for five weeks, and workshops overlapped and averaged 200-250 participants every 4 to 6 weeks from early March until late October. The 1992 workshop tuition was raised to \$400 for a seminar week and \$260 for a four-week construction workshop.

Apprenticeship programs and workshops enable Soleri to compensate for lack of professional companies and adequate corporate funding. Virtually all donations, sales revenues, tuitions and income have gone into the building of Arcosanti. Construction progress has been primarily a result of dedicated amateurs under the supervision of specialists. Students can receive certification and credit through universities which sponsor them. Management might assign a new arrival with agricultural interests, engineering skills, or culinary abilities to appropriate work.

Now that workshops are no longer as well-attended, any real progress appears to be at a standstill. The number of participants

8. Douglas Davis, "The Arcologist," *Newsweek* (March 2, 1970); 78-79. The Xerox Corporation invested about \$20,000 toward the project.

fluctuates, resulting in limited active new construction such as extensions on the East Crescent. Arcosanti's newsletter and December 1991 holiday greeting recorded that only about 100 people participated in workshops throughout the entire year. (Current statistics are not available.) Nevertheless, Scott Davis, a Soleri associate, sees a "recent resurgence in workshopper interest and revived Arcosanti spirit."⁹ Without Soleri's renewed sense of commitment to build the city, Arcosanti can never be anything but an experiment in futility.

After two decades, and approximately seven million dollars later, only about three percent of the pre-city is completed; this often cited percentage is not a part of the original design in Soleri's arcology book and does not represent the actual structure. Long-time employee Roger Tomalty agrees with Soleri that they need at least a half billion dollars and another twenty years to accomplish his goal.¹⁰ Soleri has publicly stated that the cost equivalent is about "one stealth-bomber." Tourism cannot provide even a fraction of what is required. With an average of 40,000-50,000 visitors a year, Arcosanti suffers from physical exhaustion—tourism may become an ecological offense and a chronic interruption. In 1993 only a percentage of those visitors paid the \$4.00 fee for an officially guided tour of the premises.¹¹ Tourists can freely roam through the wind-bells gallery and walk anywhere within the designated areas. Taking care of tourists occupies workers. The cafe, bakery, gallery and hotel operations consume time and energy which might better be spent in bona fide fundraising and construction.

During regular workshop months between February and late November, it is practical for meals to be communal. The cafe serves the traditional buffet lunch and dinner for workshop participants. It has never been feasible for participants to eat separately; however, staff and residents may choose to eat in their living quarters. Many visitors, tourists and residents use the cafe rather than drive a half-hour or more to nearby towns. During winter months no events are officially scheduled, although some special activities are occasionally planned. Preparations for the workshop invasion occupy staff while some residents take well-deserved vacations.

Arcosanti's remote location requires much food planning and preparation for workshops. Arcosanti has never claimed to be en-

9. Scott M. Davis, letter to author, 17 December 1992.

10. Interview with Tomalty at his Arcosanti residence, 30 May 1991.

11. The Biosphere II in Oracle, Arizona averages 600 tourists a day and charges \$9.95 for one adult. See Anastasia Toufexis, "The Wizards of Hokum," *Time* (Sept. 30, 1991), 66.

tirely self-sufficient; most food supplies are not derived from its own orchards and property. Arcosanti's restaurant and cafe menu feature seasonal selections and a variety of herbs and vegetables grown on the premises. Indigenous herbs and vegetables supply researchers with opportunities for horticultural experimentation and innovation.¹² Organic herbs and fruits are sold to area restaurants and produce markets, depending on the season. Recently a "Farmer's Market" featured Arcosanti's produce for sale to visitors. Residents also buy many essentials from the Tucson Cooperative Warehouse, a huge discount store.

Arcosanti's bakery furnishes the cafe with its simple menu. The menu choices discourage excessive consumption: homemade soups, sandwiches, organic vegetables and salads are the standard entrees. Desserts are mostly honey-based; although some are dry and tasteless, others can be delicious. Perhaps the 3750-foot altitude contributes to baking problems.

Although the Arcosanti region offers 114 botanical species, few are harvested.¹³ Native Americans used the flowering plants for medicinal and nutritional purposes, but today these plants are largely ignored and are under-utilized in the preparation of food at the bakery and cafe. The Christmas 1991 Greeting, however, praised the communal gardens for producing quantities of basil, peppers, eggplant, pumpkins, and its prize-winning Hopi corn which won the "Best of Selection of Field Crops" at the Yavapai County Fair. Arcosanti's 20-year record of participation at the county and state fair competitions has produced dozens of blue ribbons.

Some managers are semi-permanent staff members; they coordinate and direct numerous activities for the temporary guests who seek to learn more and work on projects. However, transience typifies the staff. In the early workshop decades, barracks, bunk-beds, sleeping bags and k.p. duty were traditional aspects of the rigorous apprenticeship program. Visitors and workshopers may choose to sleep on metal jail-type single beds in the guest rooms rather than sleeping bags or cots. Accommodations are not comfortable; ergonomics are not a design feature. In the midst of what might appear to be a strictly regimented communal schedule, however, there are opportunities for creative expression.

12. Roger Tomalty, *Focus*, Volume I, No. 1, Fall Equinox 1985 (Scottsdale, AZ: Cosanti Foundation), 4. Tomalty, a doctoral candidate in climatic geography at Arizona State University in 1991, and site coordinator and supervisor, and I worked together in 1970-71.

13. Albert Edward Feldman, *An Introduction to the Plants of Arcosanti*, (Mesa, AZ: Echoes Press, 1986), p. 34.

Until recently, seasonal celebrations and festivals occurred on the solstices or equinoxes and attracted creative individuals from around the world. Unlike Plato, Soleri does not ban creative artists; but then, Plato did not ban all the artists, just those whose style might have conflicted with the plan for the Republic.¹⁴ Soleri does not censor topics or artistic creativity and independent thinking although he does dictate much of what can occur.

At the Teilhard Centennial Celebration in 1981, Tal Streeter, a sculptor of large-scale monuments in environmental space, offered his proposal for a structure which Streeter called "Sky Tower One," a 150-foot-high pre-fabricated metal tower designed to accommodate a variety of appropriate utilitarian functions: microwave relay, weather station, radio/shortwave transmission antennas, fire observation and warning along with wind and solar elements. Festival lights, flags and banners would adorn the tower's observation decks for site visitors and highway visibility.

Together Streeter and Soleri discussed his ideas at length, but lacking anything resembling an enthusiastic response, Streeter was not encouraged to proceed in any official manner. Nevertheless, he continued to work on his conception, examining "Sky Tower" from both practical and theoretical design points of view. The modularized tower could have been built in stages, and "fund-raised up" much in the same way Arcosanti has been constructed; however, the tower required a very deep foundation pit in which the base rested. Most of the cost would have been in the foundation's excavation and the base. Soleri's rejection justifiably centered on fund-raising problems, the detraction from his own work, Arcosanti, and the unwillingness to siphon more sculpturally-inclined students to Streeter's monument. Moreover, sharing the premises with another sculptor might have opened up competing interests.¹⁵ Soleri's inability to exhibit an interest in artistic collaboration may be one more reason why the project has been doomed since its inception.

Streeter's observatory remains an excellent idea, considering the

14. Iris Murdoch, *The Fire and The Sun*, (New York: Oxford University Press, 1977), p. 1. See Plato's *Republic* 398a, 424c and 607b. "New styles of architecture bring changes of heart." Perhaps they can also bring changes in consciousness.

15. Tal Streeter, in a telephone interview on 19 December 1992, provided initial update; however, his 8 February 1993 letter clarified how Soleri received the proposal. Over the years, starting with Bruce Joseph, an invited artist whose managed events and presentations appeared at Arcosanti, Streeter expressed a desire to be considered an "artist-in-residence." The Dean of the School of Arts at the University of Arizona and Streeter explored possibilities. "Sky Tower" would have meant a larger commitment to Soleri and Arcosanti but the project never materialized, remaining on the backshelf. (Letter, 8 February 1993).

possibility of summer fires caused by lightning bolts. Accidental holocausts, such as catalytic converters igniting uncleared brush areas during the 1978 autumnal equinox celebration, have in the past devastated the grounds and destroyed several automobiles, but fortunately did not cost human lives. The fire's rapidly moving and unpredictable path might have been easily charted from the highest observation deck. In a second potentially disastrous and terrifyingly ironic situation, Streeter and I performed minimalist "sky art" (irresponsibly), throwing flares across the canyon. A flare caught fire on dry sagebrush; fortunately unknown participants carefully extinguished it.

Artists, writers, painters, sculptors, and performers participate regularly in conferences and festivals. Over the years, Arcosanti has sponsored poetry readings, concerts, dance performances and a variety of lecturers. "The Valletta," a dance performance area below the mesa, provided adequate space for ballet, but as yet there is no permanent stage. (One of Soleri's daughters, Kristine, danced with the Joffrey Ballet in the mid-Seventies and performed at Arcosanti.) The enormous vaults also provide natural stage settings for theatrical productions such as "Hamlet." Perfect acoustics amplify the whispered dialogue to the back-row audience and beyond.

Lectures provide the opportunity for professionals, students, and the general public to hear diverse viewpoints. An example of Soleri's tolerance for dissenting opinions was my invitation to lecture at the 1981 Teilhard Centennial Celebration. During my lecture, as a kind of protest, I wore fake dynamite strapped to my torso, performed flute music, and explained why it was necessary to dynamite the malapai basalt. In my early residency at Arcosanti I had become aware that geologists and soil engineers recommended dynamiting the mesa down to bedrock before building. Reluctant to heed their warning, staff and workers continued to use pickaxes on the mesa. Although Soleri still denies any geological problem with the basaltic mesa, and his associates disclaim it is a "non-issue" and "an old chestnut," without dynamiting the mesa down to bedrock, buildings appear to have not settled properly. The effects of porous volcanic rock upon Arcosanti's structures cannot be underestimated and will be discussed at length; however, what should be noted is the tolerance for varying differences of opinion and an open-minded attitude among staff members who openly disagreed with my perceptions but provided support while researching and writing this paper.

As a former staff member, workshop participant and visitor, I have not personally experienced or observed any censorship of ideas or gender discrimination. As in Plato's ideal world, women and men

participate in activities for which they are best suited. Arcosanti's women are not exempt from tough jobs but are encouraged to take an equal place with men. For example, when I worked on the project, a ninety-five pound Rhode Island School of Design graduate was a crane operator. Physical strength, mental capacity and spiritual growth are not measured by gender. Soleri has always been an equal-opportunity employer; however, one former student has claimed that "no participatory democracy [existed] at Arcosanti" and furthermore, "Fascistic rules governed." Soleri concedes that he has "no power and only authority."¹⁶

Seeking a consensus may not be one of Soleri's strengths, but the arcological concept allows for potential citizens to enter productively into the decision-making community through repeated participation—coming back year after year to participate. During my association the degree of decision-making was to be proportional to the intensity of involvement and amount of responsibility.¹⁷ The level of participation apparently has held true for some; Roger Tomalty, Mary Hoadley and Doug Lee are intimately involved in the direction of Arcosanti as current or former board members. On the other hand, the reclusive Ivan Pinter, who has resided at Cosanti for nearly three decades, and conscientiously photographs and records activities, appears to be outside Arcosanti's decision-making process. His vital participation resides with the original Cosanti bells and photographic documentation.

By levelling Soleri's community with more equitable Spartan-like living spaces based on longevity, Soleri hopes to eliminate the competitive spirit which comes from excessive privatization. Depending upon "family size" and tenure, some residents can reside in larger residences and become co-users. Still, the external appearance exhibits a sense of architectural unity and creates feelings of harmony and intimacy. Arcosanti reminds its visitors of children's playschool "Legos" blocks—repetitive patterns, modularized, standardized and interchangeable parts with no real (aesthetic) individuality. In a sense Soleri's designs reflect what historian Carl Becker called "an individualism of conformity"—a common bond not unusual for pioneering communities of the West.¹⁸ Although the interior floor plans of apart-

16. William Irwin Thompson, "The Individual as Institution" *Harper* (September 1972), 55-56. See Thompson's *Passages About Earth*, pp. 31-55.

17. Crawford, Sheri F. "Paolo Soleri and the Building of A Utopian Community," M.A. thesis, Arizona State University, September 1973, p. 53.

18. Quoted in Robert V. Hine, *Community on the American Frontier* (Norman, OK: University of Oklahoma, 1980). p. 120.

merits vary greatly in size and shape, the exterior harmonizes with the overall design.

As in More's *Utopia*, Arcosanti possesses lecture rooms, rehearsal rooms for concert performances, poetry readings, theatrical shows, and a library. Additionally, More's Utopian community featured residential areas of individualized design and geometrical shapes with unlocked doors. During my 1991 stay in the newer guest housing facilities, the receptionist did not dispense room keys but informed me that keys could be found in a small basket placed on a writing desk within the unlocked room. Other open facilities include a library, studios, gardens, orchards, vegetable plots and the aquaculture which provides "hands on" education as well as classroom activities for slide-lecture presentations and panel discussions. In the early Seventies, the octagonal building in basecamp served as a recreational area and casual dining area. The Laboratory Building is one of several communal buildings whose purposes have evolved; its multi-use function includes communal kitchen facilities.

Included in the development of Arcosanti, the Minds for History Institute (MHI), now in its fourth year of programs, promotes cultural events and activities. The 18 members of the MHI board of directors include a diverse collection of internationally known thinkers and writers such as Czeslaw Milosz, from the University of California, Berkeley; Bruno Zevi, University of Rome; the late John Cage and his prodigy Chou Wen-chung. The board includes three women: Mary Catherine Bateson, daughter of Margaret Mead and Gregory Bateson; Betty Friedan; and futurist Hazel Henderson. Lastly, the Board maintains its ethnic diversity with four minority members.

In the Minds for History Institute, its contributors are the guiding mental energy at the top of the pyramid; however, they possess no decision-making power. The Director of the MHI, Mel Roman, psychologist and professor emeritus at Albert Einstein School of Medicine, also serves as Chairman of the Cosanti Foundation Board.¹⁹ MHI members collectively organize the programs and perform as a semi-formal recruiting network.

At the fourth MHI conference in October 1992, the Foundation featured Harvard scientist Stephen Jay Gould.²⁰ While in residence,

19. The Cosanti Foundation board consists of Paolo Soleri, President; Mary Hoadley, Treasurer; Doug Lee, long-time friend and architect; Art Allsworth, an attorney; Charles Benton, Chicago media specialist; Dino DeConcini, a Phoenix attorney; Tomiaki Tamura, a site maintenance supervisor.

20. Perhaps Professor Gould's exoneration of Teilhard's involvement in the Piltdown conspiracy brought him to Arcosanti's conference. See Gould's *The Panda's Thumb*, pp. 109-124.

participants explore Soleri's mind and each others'. A moderator guides the panel discussions and plenary sessions. The relationship between Soleri and MHI is vague; Soleri tries to play host but is inherently involved with the direction of the symposia. Soleri, MHI and the Cosanti Foundation have offered creative programs for the community and its visitors. Those who are citizens of this "company town" may have to trust the governing body to act in the best interest of the community, just as Plato's community learned to abide by the philosopher-ruler.

Under the auspices of the alumni program, former participants and visiting scholars can stay in touch with activities. The "Alumni Bulletin" contains information about what to bring to the annual reunion, and announcements of recent births of children, solicitation of donations, and the latest construction work. Sue Anaya, the former editor of the alumni newsletter, encouraged Arcosanti veterans to bring musical instruments, art, performances and any positive input to the annual July reunions. Her 1991 "Arcosanti Alumni Program" questionnaire and "Perception Survey" may provide Arcosanti with important feedback from former employees, staff members and participants. The success of the alumni program may be measured in terms of whether it can maintain not only open communication among those who hold the vision, but a stable core population over the years. Sadly, Ms. Anaya resigned in late 1991. Until recently, no one had volunteered to supervise this important task. The alumni news appears to have become a sporadic collaborative effort. Tenacious workers, who formerly held the revolutionary vision in their hearts, may have lost the premise upon which to remain active participants.

The alumni program and newsletter bring attention to the central focus of Arcosanti activities; that center used to be construction. While new programs and activities diversified Arcosanti, the center must continue to hold together the community's vision. A variety of attractive courses stimulates interest and probably increases the treasury, but one needs to ask whether a second generation of dedicated Arcosanti participants can return the community to its central objective of building. Martin Buber in *Paths in Utopia* emphasized that "a real community is when members have a common relation to the center . . ."²¹ The principal goal of continuous construction on the city has yielded to foundry activities, tours, horticultural experiments, MHI conferences, and seasonal community events.

Another program handled through resident staff is the Boston-

21. Quoted in Hine's *Community on the American Frontier*, p. 25.

based Elderhostel. Mary Hoadley, Treasurer of the Cosanti Foundation Board and a twenty-three-year veteran, organizes seminars and special events connected with the program. Her dual role as site manager and program director is demanding but rewarding. Elderhostel programs run about 26 weeks out of the year, but are expanding. One of the Elderhostel programs is merged with that of the workshop participants. Instruction ranges from environmental impact, city dwelling, ecological concerns, greenhouse technology to advanced piano master classes, climatology and Hopi basket weaving.

Lecture topics are arranged on the theme of "the urban laboratory," and discussions gravitate toward problems of greed, frugality, and public versus private ownership. Soleri rejects the neo-Lockean God-given right to private property. Calling property an egregious lie, he maintains that Arcosanti's minimum wage and equitable distribution of salaries encourages social justice.²² If Plato's *Republic* offered ancient Greeks a hopeful reminder of a city without greed and arrogance, Arcosanti offers its participants earned and accumulated square feet and living space through their workshop tenure or staff residency.

With diverse programs and eclectic curriculum topics, Arcosanti poured the cornerstone for the Teilhard Cloister in 1981. Twelve years later after the sacramental concrete ritual, no monument or cloister has been built. Like many of Soleri's other ideas, they have not come into existence. Perhaps a space for individual solitude interferes with required cooperative activities. Instead, the swimming pool underwent a complete renovation, and the base-camp's "Plywood City" housing was recently renovated into a 10-room bunkhouse. In addition to those repairs, continuing construction of the housing units in the East Crescent was planned for 1993 workshops. But new construction has stalled altogether as structures such as the East Crescent receive attention. Even Soleri admits that he would rather see the "project go entrepreneurial and greedy or turn into a silent ruin rather than . . . fall into the hands of an unhealthy alliance." Unfortunately, both fates may have arrived at Arcosanti's front door.

There have been preliminary negotiations with the Japanese to buy (rescue?) the project.²⁴ Japanese interest in Soleri originated in the very early Sixties. During my tenure at Arcosanti, Doug Lee was

22. Plato, *Republic* 372 "greed damages societies." cf. Soleri, *Arcosanti: an Urban Laboratory*, pp. 52-53.

23. Paolo Soleri, *Arcosanti: an urban laboratory*, (Santa Barbara: VTI Press, 1983), p. 59.

24. Roger Tomalty, Interview at his Arcosanti residence. 30 May 1991.

Soleri's chief architect; he currently sits on the Cosanti Foundation Board. Japanese assistants have worked on the project since its inception at Cosanti. Above the front entrance to "Cat Cast," a residential structure in Scottsdale's Cosanti studios, a Japanese inscription appears: "He who works hard, learns well." Although the "work hard" philosophy built what exists, it remains to be seen if the student has learned well. Tamura Tomiaki, a Cosanti Foundation member who has been involved with the project, may help to foster that original philosophy; however, an envelope of intellectual participation will not be enough to accomplish concrete construction. If Arcosanti is sold, it will atrophy.

The "hands-on" learning through doing experience may be inadequate for educating future citizens unless Soleri teaches more about personal responsibility to the whole community. During the past several years, lovely buildings appear to have suffered from environmental damage, inferior craftsmanship, negligence and poor site maintenance. Although Soleri has consistently advocated a commitment to recycling, during my summer 1991 visit I found debris, discarded pipes, cans, and trash atop and around the structures. Below the mesa in the base-camp area, litter and refuse surrounded the partially dismantled structures in disrepair because of apparent abuse and neglect. The experimental greenhouse appeared overgrown and unused.

Bringing these problems to the attention of Arcosanti's twenty-two-year veteran construction supervisor and a Soleri Research Associate, Roger Tomalty, produced a rationalized denial. Tomalty and I checked on the base-camp where he insisted that he and the "workshoppers" perform periodic maintenance and essential tasks. In spite of a sincere desire to fulfill these duties, I found empty wine bottles, beer cans, overturned garbage cans, unsanitary bathrooms and construction parts strewn about the complex. A Soleri assistant apologized for the deteriorating conditions by explaining that "site maintenance has always been difficult and that they are developing organizational strategies to deal with maintenance more effectively."²⁵ Soleri's assistants have partially corrected the problems.

According to Arcosanti's annual announcement of workshop programs, any workshopper approved for an extended stay "is expected to share in site maintenance." Voluntary systematic cleaning may not accomplish as much as mandated personal responsibilities. Site maintenance supervisors should take ultimate responsibility for unsafe conditions, but participants must intensify their involvement.

25. Scott M. Davis, Letter to author, 13 January 1992.

It is imperative that Soleri's urban laboratory be clean, organized, and properly cared for in order to conduct its experiments. Maintenance has become a number one priority.

In summer 1991 a retaining wall of field stones was in the process of being rebuilt. The 1992 workshopers rebuilt the stone wall at the foot of the Foundry after a heavy rain caused a landslide. They made twenty 9' x 9' silt-cast panels for the "Energy Apron," a proposed greenhouse below the swimming pool. These tangential projects occupy workers but contributed little to the actual city.

The four-year-old Greenhouse housing and fifteen-year-old residential structures have suffered damage because of massive erosion and water retention in the basaltic rock. Windows and doors shut improperly or without sealing. Doors are propped open or kept closed with cinder blocks. Evidence of scaffolding and structural buttressing to reinforce the slope below the guest housing area indicates a fragile mesa's edge. In the "Greenhouse Housing" guest accommodations, external entrance doors open outward and windows open inward, interfering with curtains and causing general confusion. European-style bathrooms feature "low-water" use shower heads, but they spray beyond the door and waste water. Modularized guest units exhibit sub-standard plumbing, cabinetry work and unprotected electrical cords connecting the facilities to the site. Utilization of inferior materials and poor quality concrete may have contributed to the deterioration of interior and exterior walls, ceilings and floors.

Soleri designed Arcosanti on the principle of a functionally efficient organism. Should these apparently minor problems be overlooked, immediately corrected or reprioritized? The Cosanti Foundation Board might reexamine its responsibility in the minor matters and acknowledge significant unattended problems; moreover, to abandon Arcosanti to carelessness, environmental damage or privatization may be devastating to Arcosanti.

Expedient solutions to complex engineering problems, cheap labor through student internship programs, and university sponsored workshops may have cost Soleri expertise. Although Soleri prefers an unfinished quality in his on-going Bauhaus compound, his frugality in the design itself may be misinterpreted as shoddiness and inferior craftsmanship. Soleri, as director and chief architect, and his site managers act irresponsibly when above ground electrical cords cascade down the mesa's edge, and electricians fail to insulate properly or potentially dangerous debris clutters the site. Because Arcosanti prides itself on "self-sustenance," up-keep is crucial for its survival. The history of Utopian communities shows that communities often fail because no one wants to clean the commode.

Soleri's vocal condemnation of obsolescence and waste is contradicted by the evidence found at Arcosanti. Soleri characterizes environmental efforts of others to solve critical urban problems as "patch-up jobs," yet he relies on similar solutions.²⁶ If entropic forces do not destroy Arcosanti, "patch-up jobs" can postpone new construction. With less than three per cent of the pre-city completed, ongoing experimental projects progress by renovation, not innovation. Small-scale projects such as the riverbed silt dig and restructured silt-cast sculpture workshops in 1992 involved participants; however, these sorts of activities will not build the city. The installation and repainting of handrails and trellises beautify, but the question remains as to whether or not Arcosanti is coming into existence.

This prototypical arcology, what Soleri often refers to as the "etherealization machine" and "Civitate Dei" whose time has not yet fully come, may never arrive for the millennium. The community should thus build the physical city and stop tinkering around with mini-projects. Arcosanti must return to its most significant project and deemphasize any activities which distract and impede progress. Lack of funds may delay its completion, but quick-fix solutions will not solve the problems; to sell the real estate and its structures to an enterprising Japanese corporation or any other organization may kill the very heart of Arcosanti. Reprioritizing goals, practicing greater civic responsibility and subordinating intellectual activities may improve the situation.

Teilhard's concept of the "Noosphere" as an enlightened, spiritually articulate envelope of the highest possible consciousness, exists at Arcosanti through its Minds For History program; but Arcosanti itself exhibits signs of anemia and inertia. The Noosphere's "Omega Point," a focus point to which the complexification of consciousness evolves and ultimately synthesizes, should create a convergence of matter into spirit. At this phase in Arcosanti's brief history, the "bridge between matter and spirit is matter becoming spirit" is just another example of Soleri's rhetoric. If he truly believes that construction of medieval cathedrals renewed spiritual vitality and that "there is no difference between the aim of the city and the aim of the Catholic (universal) Church," then the physical completion of Arcosanti must occur before the twenty-first century.²⁷

The promises of a millenarian renaissance in urban planning fade

26. Philip Arcidi, "Paolo Soleri's Arcology: Updating the Prognosis," *Progressive Architecture*, 3 (1991), 76-77.

27. Paolo Soleri, *The Bridge Between Matter and Spirit is Matter Becoming Spirit*, (New York: Dover, 1973), p. 252.

at Arcosanti while a well-funded project in Oracle, Arizona, receives an inordinate amount of attention for alleged scientific contributions through what appears to be falsified data. When Biosphere II opened, Roger Tomalty and some of the Arcosanti staff visited the site. It is doubtful that any of Biosphere II's activities could be useful to Arcosanti except fundraising. Although Biosphere II has been criticized as a "\$150 million dollar stunt," it has made an enormous profit. With an average income from gift shop sales of "\$4 million" and nearly "230,000 visitors in 1992," it continues to expand.²⁸ According to a September 25, 1993 ABC's Nightline television special on Biosphere II, a half-million visitors had paid \$12.95 each for a tour and spent twice that amount on gifts.

Whereas Biosphere II may have plans to buy the adjacent 3000 acres to develop as a recreational facility or a theme park and discussions exist to build a second Biosphere in Japan, Arcosanti's community struggles with its own integrity. Should Arcosanti imitate Biosphere II's successful approach to capturing the imagination of the world and securing formidable funding, the price of success may signify the demise of Arcosanti's unique cultural and intellectual values. Arcosanti should not sell its soul to entrepreneurs as a tourist attraction or continue to promote itself as a laboratory; its vulnerable condition opens it to external invaders with quick-fix solutions to financial difficulties. Construction delays and tangential activities impede the essential material progress needed to achieve its principal goal and ultimate potential. The Arcosanti community must look to itself if it truly expects to fulfill its purpose and recover the teleological vision embodied within one of the more radical urban designs of the twentieth century.

28. See "Biosphere or Biostunt" *Time* (March 1, 1993) and S. Bagley, "New Cracks in the Glass House" *Newsweek*, (March 1, 1993), 67.