Did Donnelly Have the Right Idea?

Robert Schimke

ONE OF Minnesota Territory's most widely advertised boom towns was Nininger, which John Nininger of Philadelphia platted in 1856 on the south bank of the Mississippi River some five miles upstream from Hastings. Nininger was best known as the home of another of its promoters from Philadelphia — Ignatius Donnelly, who later became nationally famous as a politician, orator, scientist of sorts, and author. Donnelly and his colleagues predicted that Nininger would mushroom into the New York of the West. In fact, the second (June 20, 1857) issue of the Emigrant Aid Journal, newspaper founded to publicize the virtues of Nininger, peered almost 3,000 years into the future and carried a fanciful account of how matters would be in this country in the year 4796. In that year, the story said, the census indicated "the population of New York amounts to 4,892,568 souls, that of Nininger to 4,981,947."

Actually, Nininger at its peak was a town of only 3,800 lots and of between 500 and 1,000 people. Building progressed promisingly until the financial panic of 1857 shattered the promoters' dreams. Thereafter Nininger gradually became a ghost town.

What if Nininger had prospered and developed into a major metropolitan center? Architectural students of the author at the University of Minnesota were challenged to cope with this question as a class project and to depict Nininger as a futuristic city of 4,000,000 in the year 4000. Some of the resulting models are pictured on the following pages. Earlier this year they were exhibited at the School of Architecture and Landscape Architecture at the university.

Two student groups dealt with the surrounding issues in the project that assumed the fulfillment of prophecy about Nininger. The first group consisted of eight students enrolled in the environmental studies class of Robert Schimke at the Minneapolis College of Art and Design. They asked: "Upon what basis was the original Nininger site selected, what were the selection criteria used, and how would the Nininger site be rated today as a potential location for a new city?" The students selected Nininger and two alternate locations to visit as case study sites. Using their own system of site selection, the students picked Nininger as the most promising site for an environmental design project on which "to explore man's relationship to his environment"

Members of the class were: James Notebaart, Dean Hanson, Charles Walberg, Charles Kernler, Al Eliason, Michael Compton, Vicky Roser, and Jeff Lapitz.

Mr. Schimke is a lecturer in the School of Architecture and Landscape Architecture at the University of Minnesota and an associate professor at the Minneapolis College of Art and Design. He is a registered architect practicing and consulting in Minnesota.
and existing social structures and work toward developing a community in which human life could flourish in a healthy relationship with the earth."

Following a semester of research, the group one students prepared an exhibition of their accomplishments and approaches at the Minneapolis College of Art and Design. They also put together a booklet which recorded their investigation.

The second group consisted of nineteen students in Mr. Schimke's grade one design class at the University of Minnesota. Questions they sought answers for were: "Upon what basis dared a man like Donnelly make such a prophecy?" "If he had specific criteria, what were they?" "How had he planned to implement such an idea?" "What physical form would it take if it materialized, and how might it function?" Using the basic research of the first group, and supplementing it with further research of their own, the students of the second group proceeded to attempt to understand Nininger's origin, growth, and projection needs and then to translate their own alternative ideas into physical products. There was an effort first to establish Donnelly's objectives for Nininger, then through directed analysis to qualify them, and finally to evaluate their influence on the growth pattern of Nininger.

Following a quarter of preparation, the students put together an exhibition which attempted to show not only the past and present physical condition of the site but also included eighteen alternative ideas about what physical and social form Nininger might take by 4000 A.D., assuming a population of 4,000,000 inhabitants distributed throughout the entire township of Nininger. As can be seen in the following pages, the students' concepts of Nininger in 4000 varied considerably, but practically all emphasized that human living environment would be highly valued. Each idea was arrived at through careful study of growth stages through 4000 and by relating world population and expected growth patterns as well as social, political, economic, and technological evolution.

It is perhaps too early to attempt to establish any consensus among the young designers, but their very placing of priorities in their conceptions gives clear evidence of what they hold to be important, feasible, and desirable. One powerful and haunting reality is that we must maintain a constant historical posture concerning our evolving civilization, and maybe Donnelly's imaginings are finally coming to pass. The Metropolitan Council predicts that Nininger Township will have a population of some 40,000 by the year 2000 which falls precisely on the population growth pattern curve predicted by Donnelly. Moreover, the township's town board and planning commission has published a Development Guide Plan in preparation for expected growth. Perhaps Donnelly had the right idea after all.

David Lang, St. Paul: (Illustration on next page.) Realizing that I have no more knowledge to go on than anyone else in planning this structure, I accepted the idea that whatever man can envision man can ultimately produce. Nininger in my mind should be as compact as possible to exploit fully the assets of short travel times. It should also provide highly individualized dwelling quarters and all the services the people would demand. All this should be accomplished within one structure that is not an imposing blight upon the land. These criteria led me to develop a plan whereby, since people would work only two days a week at the most, each individual would have the option of a private dwelling as a supplement to his family-oriented place which would provide eating, sleeping, hygiene, and family entertainment facilities.

To make room for approximately 700,000 dwelling units for the 4,000,000 people, I laid out a base for the structure on the original 1½- by-2½-mile Nininger site. I then built a bridge across the river primarily to serve Nininger's main livelihood of commerce. I cut an open swath down the center of the structure to emphasize its verticality. This area also provides a centralized community space, with most of the transportation to other regions of the structure originating there.

In the main structure I tried to optimize the surface area to provide as much prime space as possible for the private dwellings. This effort, of course, was more fully exploited on the southern exposure because the northern exposure would not get the favorable light or be shielded from the northern winds. The more or less rounded configuration of the southern side
was a response to the fact that the sun travels in a circular path and that for all parts of the southern side to get exposure the surface could not block any of the sun for the entire three-quarters of a mile height of the structure. A reader's first response to this type of high-density environment might well be disgust, but the fact is it would be much more efficient for the dweller than other types, provide just as much privacy for him, put the resources of a community of 4,000,000 at his doorstep, and make him a part of a total community instead of his being an individual fighting the total community.

Dan Robert McGahey, Edina, Minnesota:
The projection and development of the settlement of Nininger led to the concept of a closed-system environment simulator (a possibility not too remote when present environment contamination trends are examined). A closed dome is erected over the entire township, covering and preserving an eco-system on the ground. To reduce the impact of the projected 4,000,000 inhabitants, residential complexes are suspended from the superstructure of the dome. This particular settlement is projected as a residential living complex containing all of the service-related activities. Other such domes would provide for industry, agriculture, and other economic concerns as well as other residential complexes.

Greg Peter Hallback, Cloquet, Minnesota:
This projection of Nininger is intended to show a complete city—complete with many socioeconomic situations encountered in a city of 4,000,000 today. That is not to say that the socioeconomic conditions will not change, but in this projection I assumed the basics will stay the same. Essentially, the complex is divided into two parts: living and economic-entertainment sections. The living section (the frontal louvered strips) affords each family unit either a view of the western plains or the Mississippi River. The two economic-entertainment sections are located below the living section. All power for the complex comes from the sun.

William A. Magnuson, Shoreview, Minnesota:
Nininger will continue to develop as a suburb until the middle of the twenty-first century when it will become a city by itself. After this transition, large, high-density surface units will be erected until about the thirtieth century when the ground will be completely covered, thus necessitating structures with the main body above the ground. This concept would develop until the basic unit would be a mushroomlike ellipsoid supported by a cylindrical column up to 2,000 feet long. There would be 1,500 of these units, each containing 2,800 people. All surface structures would be gone, and open space would predominate on the ground.

Gregg Lossing, Minneapolis:
The concept for Nininger in the year 4000 is to concentrate the population into a single megastucture, leaving the bulk of the land in its natural state. Before, the ground formed the base for all construction. In Nininger, a tripod structure would become the base from which all construction springs. It would be part of the landscape, like a mountain, and the forest would grow over it, fully integrating it with the surroundings.
David Krejci, Inver Grove, Minnesota:
Basing my concepts on staged growth, I was concerned about providing an optimum of light, open space, circulation, and proximity to all community functions. Every unit in this high-rise complex has a private court and entry and is no more than a short walk from large park and recreation areas, commercial centers, and professional office complexes located on and around the connecting platforms.

MODEL BY DAVID KREJCI

Bruce E. MacMaster, Minneapolis:
Nininger would be a totally enclosed space bringing in natural elements to the interior of the structure. All of today's necessities for existence would be under one roof, with the industrial section located in the lower portion and residential areas in the upper portion of the city. The industrial section would be the primary connection to other mass cities. Mass transit, other than vehicular, would be provided to other cities as well as inside Nininger. Cities like this would be built up vertically in mass proportion so outside areas could be used for recreational and agricultural purposes. To live in such a densely populated area, people must change their views drastically on society and standards in order to fit into such a well-knit, complex environment.

MODEL BY BRUCE E. MACMASTER