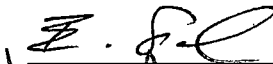
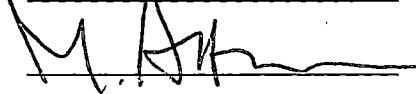


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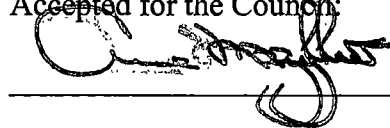
I am submitting herewith a thesis written by John Blythe Bailey entitled "School: A Community Center." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Architecture, with a major in Architecture.


George Dodds, Major Professor

We have read this thesis
And recommend its acceptance:

Accepted for the Council:



Interim Vice Provost and
Dean of the Graduate School

SCHOOL: A COMMUNITY CENTER

ST: 1000

A Thesis
Presented for the
Master of Architecture
Degree
The University of Tennessee, Knoxville

ST: 1000

John Blythe Bailey
August 2001

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Financially, I could not have continued my education if I had not had the opportunity to work in the Office of Student Life. I thank Susan Ratliff for the opportunity and especially for her friendliness in the office.

Finally, thank you to my family, for the continual support and encouragement.

ABSTRACT

This thesis proposes that a school should be a community center that creates opportunities for public gathering. In that sense the school is designed as a neighborhood and city public space.

The site has both residential and commercial districts nearby. The neighborhoods surrounding the site are in a state of flux in which higher income residents have begun to move into the poorer areas. Furthermore, the residents, predominately African-American, are beginning to be joined by a substantial Hispanic and white population. Not only is the proposed school at the heart of this cultural, racial, and economic diversity within the nearby neighborhoods, but also it is bordered on one side by Market Street, a major path into and out of downtown Chattanooga. So the site provides the opportunity for the school to be a public place for the city as well as the surrounding neighborhoods.

In addition to spaces primarily associated with the children of the school, there are several programmed spaces intended for equal use by the community and the students. These include a market, restaurant, and cafeteria, arts center, theater, and office and residential space.

In addition to encouraging student interaction with the community (and vice versa), an existing (and historic) YMCA building and adjacent field east of the site will provide space for structured athletics.

Finally, the open space, defined by the buildings, can be used as a public park, casual play area, or space for community events (outdoor concerts, graduation, weddings, etc.). The school will serve five hundred students aged Kindergarten through twelfth grade.

For the given site and the given circumstances, the conclusion of the design resulted from an influence of two design factors: one, connection to the community, and two, articulated open space. The final project utilized the varying degree of privacy of the four bordering streets to create a conceptual wall that defines the interior and exterior open spaces as outdoor rooms. At the same time, the permeability of the buildings, allow the interior public space to remain as public as possible. Also, the project uses two conceptual connectors, one a gridded street that extends in the east and west directions, and two a field that extends out of the open space of the interior to the neighborhood to the west.

TABLE OF CONTENTS

CHAPTER	PAGE
THESIS	1
BIBLIOGRAPHY	30
APPENDIX	33
VITA	47

LIST OF FIGURES

FIGURE	PAGE
1. Contemporary School	4
2. St. Quentin-en-Yvelines, Plan Diagram	8
3. St. Quentin-en-Yvelines	8
4. St. Quentin-en-Yvelines, Grouping Diagram	8
5. St. Quentin-en-Yvelines, Plan	8
6. Codex World Headquarters, Plan	9
7. Codex World Headquarters, Photograph	9
8. Perry Community Village	10
9. Monumentality versus Fabric	10
10. Public Realm Permeability	10
11. Hierarchy	11
12. Clarity of Circulation	11
13. Articulation of the Public Realm	11
14. Site Plan	17
15. Site Photographs 1	18
16. Site Photographs 2	19
17. Site Photographs 3	20
18. Site Arial Photograph 1	21
19. Initial Site Boundaries	22
20. Site Arial Photograph 2	23

Schools, those entities that teach our children to become part of the community, should be treated not in isolation, as is now so often the case, but in conjunction with the communities that they serve. The design of schools should follow two distinct yet interrelated strategies. First as the laboratory for children to assimilate with the greater community, the school should be a microcosm of that community. Second, as the place where the foundations of the community begin, the school should be the central public space of that community.

I have organized the thesis into three general parts: the problem, the solution, and the design analysis. Each of these parts contain two subcategories. The description of the problem describes first, the problem of society as a whole, and second, the problem with our schools. The thesis solution suggests that a school can solve the problem of isolation by first, its design as a microcosm of community, and second as the central public space of the surrounding community. And finally the design analysis contains a discussion of the chosen site and the program analyses.

THE PROBLEM

Individual and Collective: A Progression to Isolation

Community, "an interacting population of various kinds of individuals in a common location," (Webster's 267) is largely absent. We pass our time in fragmented existences rather than interactive experiences. We drive in isolation to and from work for, in some cases, hours a day. We spend the day at work and the night at home, with little overlap between the two. For Peter Calthorpe,

It is time to redefine the American Dream. We must make it more accessible to our diverse population: singles, the working poor, the elderly, and the pressed

middle-class families who can no longer afford the "Ozzie and Harriet" version of the good life. Certain traditional values- diversity, community, frugality, and human scale- should be the foundation of a new direction for both the American Dream and the American Metropolis. These values are not a retreat to nostalgia or imitation, but a recognition that certain qualities of culture and community are timeless. (Calthorpe 63)

Community is about people. To improve our society we must provide a built environment that encourages the interaction of people. Community is comprised of parts. Occupationally, for example, doctors, lawyers, brick masons, civic leaders, painters, educators, and bankers interact. Communities- groups of children, adolescents, adults, and the elderly; African American, Hispanic, Asian, and Caucasian; women and men; the Christian, the Jewish, the Muslim, and the Atheist- not only coexist with but also benefit from each other.

In the 20th century we have witnessed a change in society from one that is largely about the collective to one which is largely about the individual. Televisions and VCRs have replaced or at least competed with plays and cinemas. First the mall and, more recently, the internet have replaced the market. Cars have replaced feet. We build our homes on single-family lots in isolated developments rather than along public streets near community parks. We conduct business on cell phones and organize our work on strict schedules of off the clock and on the clock. Perhaps business, as an example of one of life's activities, should be approached not as an isolated necessity of life, but more as an integral part of our day that bleeds into other social activities.

Philip Slater also laments society's present condition of isolated individuality over integrated community.

It is easy to produce examples of the many ways in

which Americans attempt to minimize, circumvent, or deny the interdependence upon which all human societies are based. We seek a private house, a private means of transportation, a private garden, a private laundry, self-service stores, and do-it-yourself skills of every kind. An enormous technology seems to have set itself the task of making it unnecessary for one human being ever to ask anything of another in the course of going about his daily business. Even within the family Americans are unique in their feeling that each member should have a separate room, and even a separate telephone, television, and car, when economically possible. (Slater 30)

The built environment reflects (and in many respects causes) this isolation. Progressively we have lost the public realm. The street, for example, once the place for spontaneous public interaction, now belongs to the car and only to the car. No longer is the street a social place. In fact when we see pedestrians on our roads we automatically suspect car trouble. We have lost other public spaces as well. Open space between buildings, formerly plazas, squares, or open-air markets, is now used for parking, not interacting. Because of the car, the public spaces that remain are also isolated. Many of our public parks are accessible only by car, making their boundaries strict and impermeable. The public space cannot bleed into surrounding neighborhoods; the car and its roads isolate it from the rest of society. Public interaction that might occur in the park, can only occur in the park, nowhere else, because elsewhere we are in our cars, secluded from our surroundings.

We treat our parks in the same way that we treat our schools. Like our public parks, too many schools are stand-alone schools that are designed without regard to the communities that they serve.

The Contemporary School: A Pathology

Images of schools in the minds of most are filled with setback buildings, chain-link fences, and alternating periods

of activity and inactivity. Much like our parks, schools are isolated.

The authors of *Suburban Nation* likewise criticize the isolation of our schools. In the book, one sees an image of a typical contemporary school. (Fig. 1)



Fig 1: Contemporary School
Source: Duany

The building pictured here is not, as it may appear, a refugee relocation center or a storage depot, although it could be considered a storage bin of sorts: it's the place where we store our children while earning the money to pay for their cars. (Duany 121)

The school pictured, like so many others, suffers from numerous ailments. First, many of our schools, like this one, are accessible only by car. The school sits on a seven-lane artery that is at best unpleasant to walk beside or across. In most cases the first experience of the school is the surface parking lots and circular drive-way/drop-off at which we deposit and withdraw our children daily. Perhaps there is a large field in front of the main entrance, with trees and maybe a student-maintained flower garden. But the field is bordered by the large street on the outside and the circular drive on the inside so that the students are permitted to go there only under strict supervision (it is doubtful that children would want to be in this field anyway). Since no one walks to the school, the field is purely visual, lacking in any kind of social or recreational use. Maybe the school is surrounded on the other three sides by a pedestrian-friendly neighborhood. But the chain link fence around the school-grounds makes the presence of the surrounding homes merely coincidental. The playgrounds are set behind the school buildings and are most often enclosed by fencing. Even if not fenced, there is a strong sense of "we shouldn't be here" for anyone using the facilities after hours.

THE SOLUTION

So our schools, like much of the rest of society, suffer from isolation. To prevent the isolation of our schools, children, and communities, schools should be designed with two major considerations. First a school should be a microcosm of community and second it should be a center for the community.

Microcosm of Community

A school models the community in two interrelated ways, social and physical. First, socially, schools act as communities by the way that different activities and different people interact. Like the surrounding population, different people play different roles; the community is established by the interactions of these people and these roles. Second, the school can be perceived physically as a community. Since Thomas Jefferson's designs for the University of Virginia in the early nineteenth century, schools have been academic villages, model communities for learning. Just like a class models the surrounding environment to learn lessons about ecology, so should the school model the surrounding community to learn lessons about human interaction.

Sociology of Community:

If a school is a microcosm of community, then it is an *interacting population of various kinds of individuals in a common location.*

Teachers interact with students, students with parents, parents with teachers. Schools are composed not just of interacting people, but also interacting activities and interacting subjects. History interacts with English, Math with Science, and ideally, these academic subjects relate and interact with practical, real-world problems. Students must

balance their different activities, work, study, and play.

My uncommon upbringing on the campus of a boarding school allows me a special perspective on the role of the school as a community, where different parts come together, an interacting population of various kinds of individuals in a common location.

I grew up on the campus of McCallie School, a school whose essence as a community was perhaps as important and valuable as its curriculum. Teachers lived in dormitory apartments or in on-campus housing and all members of the school community, administrators, faculty, families, and students learned, played, and socialized together. My family ate meals every night in the dining hall with the students and other families. As a child I played together with the teachers, their children, and the students themselves. In the evenings of warm days after dinner and before the student's study hall, on-campus teachers, their children, and various students would play games of wiffle ball together. Snow days provided the climate for further community living: faculty kids would join together in friendly snowball fights against the students of a particular dormitory. Younger faculty, children, and students would sled down the many ridge-side hills of the campus until dark, when faculty families would invite everyone over for hot chocolate and movies. Dorm faculty would chaperone weekend trips to entertainment events. Scholastic endeavors also were encouraged as avenues for community interaction. I often would follow my father through the halls of the dorm during study hall as he checked for unruly would-be studiers and assisted the more diligent students with their academic questions. As I grew older, I attended the school, and the community-enhancing events continued, with me as a different kind of participant.

McCallie is an enclave that models the idea of a community as an interacting population of various individuals. The people on the campus lived different lives and participated in different activities. The students, teachers, and other employees came from different places and backgrounds (cultural, social, and economic backgrounds). Each 'citizen' of the community had his or her own daily schedule. Some students contributed to the school newspaper or literary magazine, others played football. Some students held afternoon jobs, while others picked up younger siblings at other schools across the city. Some students gave speeches to the school community, while others served on the Dean's Committee. Teachers maintained different roles as well. Faculty spouses often became involved in the community of the school, conversing with students in the dining hall or offering to wash a student's clothes as reward for a successful school deed. The school is a community.

The life of the community of McCallie lasts every day and all of each day. Thus the school, the place of education, has an essential quality of perpetuity. Learning does not occur only at certain times of the day and certain months of the year. Learning, not restricted to just classrooms, occurs also in the faculty apartments, the dining hall, the quadrangles, and the athletic fields. In school we learn to learn, so that we can continue to educate ourselves throughout our lives. And this education is not just academic; it is social, political, and cultural. We are learning to live. When schools are communities we learn to break down the boundaries between school and life, so that learning is living and living is learning, and as a result both are more fulfilling.

The Citizen's Guide for Planning Schools as Centers of Community echoes this idea.

The research on learning calls for dissolving some of the traditional barriers between the school and life and school and community. Finally, studies make it clear that students achieve best in environments where lifelong learning is a community value, where everyone is a learner, and where the school facility is central to the life and learning of the community, accessible not only during traditional school hours but at night and on weekends too. (U.S. Department of Education)

Physicality of Community

If schools are models of communities, then they must socially resemble communities and also physically resemble communities. Leon Krier thought of the school at St. Quentin-en-Yvelines, France as a mini-city. (Fig. 2-5) "The school will be composed like a city with small and big buildings according to their importance." (Architectural Design 58) In considering schools as model cities, or microcosms of community, they should embody design principles such as hierarchy, fabric versus monument, public versus private. Schools, like cities, require articulated systems of circulation. Krier's design of the school in France illustrates these community design principles. Rather than a single building, the school is composed as a whole of cohesive parts. The different buildings, their different sizes, placement, materials, and methods of

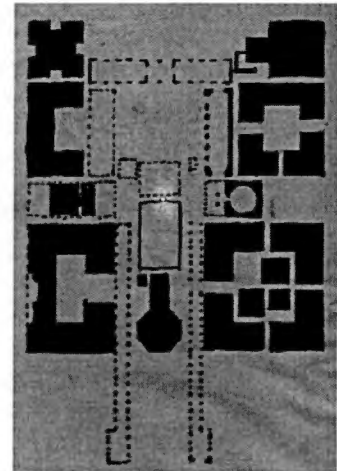


Fig 2: St. Quentin-en-Yvelines, Plan

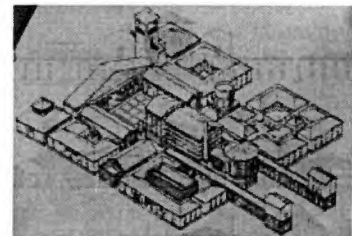


Fig 3: St. Quentin-en-Yvelines
Source: Architectural Design, 1982, v. 52, p.58-69

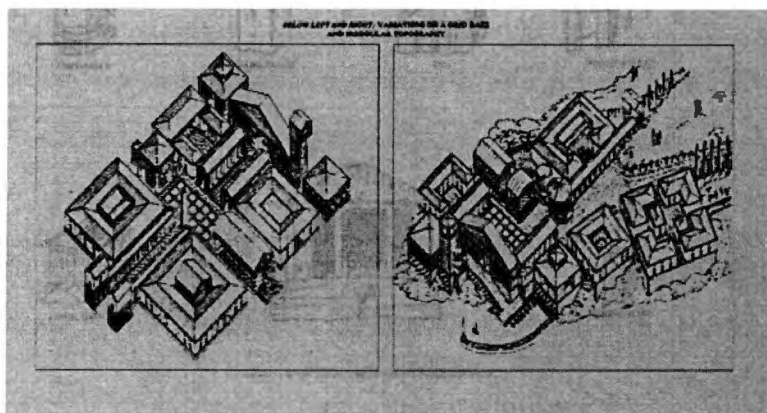


Fig 4: St. Quentin-en-Yvelines, Grouping Diagram
Source: Source: Architectural Design, 1982, v. 52, p.58-69

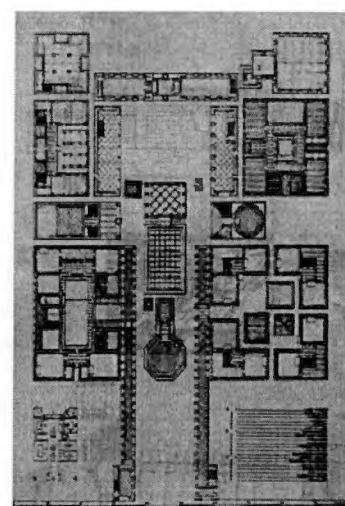


Fig 5: St. Quentin-en-Yvelines, Plan
Source: Architectural Design, 1982, v. 52, p.58-69

construction illustrate a clear hierarchy of the parts. The adherence to the grid articulates the relationship of the parts to the whole as well as the clear definition of the public realm.

The architecture of Fred Koetter and Susie Kim also illustrates city design principles. Codex World Headquarters, in suburban Boston, was thought of as a “a form of urban development, (grounded) in a similar physical and social understanding that (they) were developing in the city.” (Plattus 57) The complex of buildings “served as urbanistic seeds, gathering around themselves the elements and activities of a true comprehensive community in compact form.” (Plattus 57) Like Krier, Koetter and Kim attempted to build a “town-like aggregation of little buildings,” (Plattus 60), but unlike Krier, they did so with one continuous structure rather than a group of cohesive parts. Despite the difference, Koetter and Kim, like Krier, in the use of community design principles established a clear system of hierarchy and circulation and arranged the buildings in such a way as to establish well-articulated public space. (Fig. 6-7)

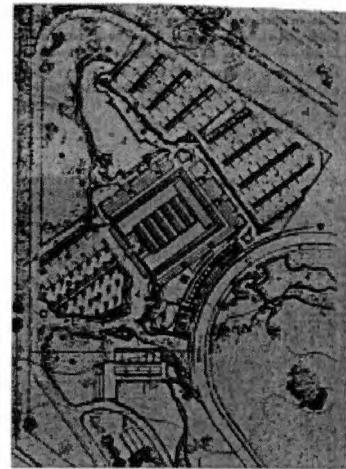


Fig 6: Codex World Headquarters,
Plan
Source: Plattus

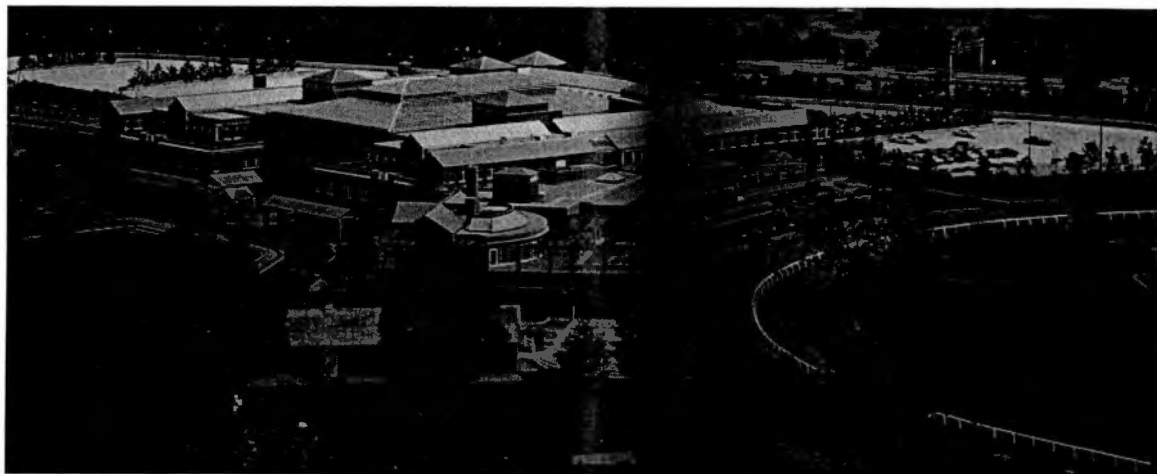


Fig 7: Codex World Headquarters, Photograph
Source: Plattus

Another example of city design principles at work in a single structure is the work of Ralph Johnson at the Perry Community Education Village in Perry, Ohio. At the village, Johnson organized the different parts to read as a rich composite of separate yet obviously related parts. The high school and physical fitness spaces are separated from the elementary and middle schools by the topography of the site, but a central datum-walkway links all of the parts together. A hierarchy of spaces is established through form, placement, and scale. The library, art, and music spaces of each school (primary, middle, and high school) are contained in similarly shaped fan-like structures. Towers that also signify the ends of the datum-walkway mark the entrances of each part of the campus. (Fig. 8)

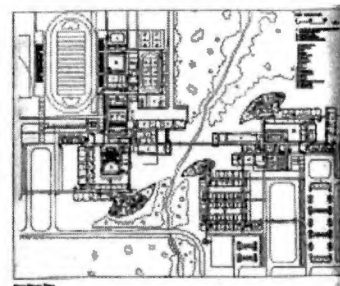


Fig 8: Perry Community Village

In designing a school as a microcosm of community, I will consider the following architectural issues.

- *Monumentality versus Fabric.* Since this is a school that is also a community center, the places of public interaction are hierarchically important. Thus the public spaces, for example, will be recognizable as monuments set against the context of the fabric that is created by the more service-oriented spaces (classrooms, offices, and etc.). (Fig. 9)
- *Permeability of the Public Realm or Public versus Semi-Public versus Semi-Private versus Private.* To encourage the use of the interactive spaces, the transition from the private to the public should be gradual yet clear. The school will have gradated transitions from public to private in much the same way that street, sidewalk, yard, porch/stoop, front door, and entry-way of a city building gradually transmit the public to the private. (Fig. 10)

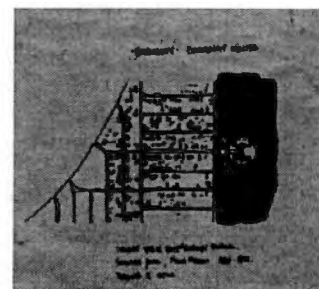


Fig 9: Monumentality versus Fabric
Source: Author

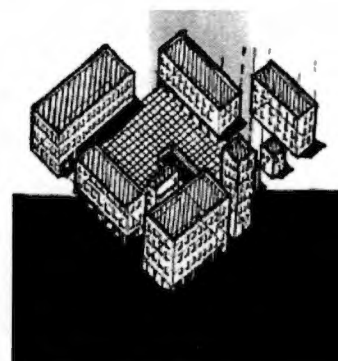


Fig 10: Public Realm Permeability
Source: Author

- *Hierarchy.* Along the same lines of monumentality and fabric, yet less black and white, each space in the school has different importance to the community and the school. The community public spaces will be among the most important in terms of the greater community. But what these most public spaces do for the community is the same as what the internal public spaces of the school do for the school. So within the part of the school that will read as 'for the students', such spaces as student lounges and hallways (or more aptly, living streets) are comparable to the public space provided for the community. Furthermore, there is a system of importance established between spaces that are strictly defined by use and spaces that are more versatile. Traditional classrooms, locker rooms, and offices, for example, vary in importance compared to lecture halls, intercurricular learning space, exterior laboratories, and performance halls. (Fig. 11)

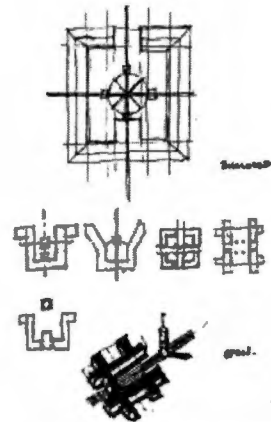


Fig 11: Hierarchy
Source: Author

- *Clarity of Circulation.* A school, or any structure, (like a city) that is friendly to people, is easy to use and easy to navigate. The system of the buildings should be clear enough so that written signs are unnecessary. (Fig. 12)

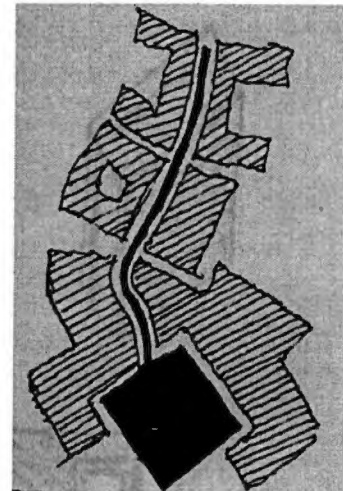


Fig 12: Clarity of Circulation
Source: Author

- *Articulation of the Public Realm.* (Fig. 13) As with any town or city the public space should be the first consideration, not the last. As is so often the case in contemporary development, the public realm is what is left over after the buildings have been built. The public realm so often consists almost entirely of surface parking lots. Contrary to this approach, a public realm that is to be used (and for a community which is an



Fig 13: Articulation of the Public Realm
Source: Author

interacting population, the public realm must be used) should be considered before the buildings, not after. The system of public spaces should be well defined and articulated so that in a way it can be read as the figure and the buildings as the ground.

The School as Community Center

At McCallie the school itself is a community, yet isolated from its surroundings. Despite its value as a lifetime learning community, it does not have any real effect on the greater community in which it is located. The campus is literally gated from the surrounding neighborhoods, and even if it were not, it is economically separated, because the neighborhoods surrounding the campus do not contain citizens who could afford the tuition. Another school designed as a community, Vanderbilt University, situated in urban Nashville, also fails to make significant gestures to the surrounding community. In fact, the center of the campus, a beautiful mixture of brick buildings and antique trees blended in the spirit of Jefferson's academical village, feels like Middle Tennessee countryside rather than urban Nashville. The high school at which I taught in San Antonio, Saint Mary's Hall, much like McCallie and Vanderbilt, is pastoral; filled with the long, undulating branches of Texas Live Oaks and an occasional fox or deer visiting from the neighboring wild-life refuge. But there are two gated entrances to the school, and the school's community, the teachers, parents, and students, have little relation to each other socially other than within the boundaries of the campus. Even the students who live in the surrounding neighborhood maintain two separate lives, the life of home and the life of school, and there is only a coincidental integration of the two. Likewise the structures previously analyzed, the schools at Perry and St. Quentin-en-Yvelines

and the Codex Headquarters, make minimal contributions to their surroundings.

Schools should not only be designed as mini-communities, as McCallie, Vanderbilt, and Saint Mary's Hall were, but they should effect the greater, surrounding community as much as the inner community of the school. Dewey also believed in the role of school as community center. William Stanley, a student of Dewey's thought, says,

scientific inquiry is not enough; in Dewey's opinion, the roots of a vital democracy can be securely planted only in the intimate, face-to-face associations of the local community. (Boydston 1970, 270)

Dewey meant democracy as more than just a political system. For Dewey, democracy is a

style of social interaction or communication in which A) the consciously shared interests of participants are numerous and varied, and B) the participants have a full and free interplay with other groups and their interests. (Boydston 1970, 262)

Dewey's notion of democracy parallels my notion of community. McCallie, for example, is a place in which the roots of community (for Dewey, democracy) can be securely placed in the individuals because of the daily, intimate, face-to-face associations with other individuals in the school. (Recall the definition of community, "an interacting population of various kinds of individuals in a common location".) As a student, my intimate associations with teachers, fellow students, families of teachers, family pets, and parents of students, as well as with the other miscellaneous employees of the school taught me the roots of a vital community. Through the school I was prepared not only with scientific inquiry, but also with the skills necessary to contribute more than just academically to the larger community. The school would have been even more

successful if its students were involved in the surrounding community in a real as well as a microcosmic way.

The idea of a school as more than just a place for academic instruction, but most importantly as a community cohesive has been done before. Jane Addams in 1889 started Hull House as a way to help different people in a neighborhood coexist happily and also as a place to reinforce the democracy of American society. Hull House, while not a school in the sense of high school or elementary school, was a social project in which immigrants from the surrounding neighborhoods lived amongst the more established families who taught them the skills of a democratic country. Hull House hoped, much like my proposed school hopes,

to restore communication between different parts of society and thereby mend the broken social ties between people, to foster a sense of mutual need and benefit, and to overcome the social distinction between the rich and the poor, or the native-born and the foreign-born. (Chambless 6-9)

The firm of Perkins and Will designed several schools as not only schools for the students, but public spaces for the community. The high school in Fort Collins, Colorado, surrounded by a new suburban development was popular because "the people who bought the houses liked the idea of living near a high school, a park, and a neighborhood shopping center." (Brubaker 127)

Steven Bingler, whose firm Concordia Architects specializes in educational facility design, uses school design opportunities to promote the idea of the school as a community center. "Educators and architects are now challenging the traditional concept of the freestanding school as a

mere container for learning.” (Bingler 111) He proposes not only building schools as public facilities for the use of the children and the community, but also designing schools that reach out into the community to integrate the activities of the students with those of their surroundings. He proposes shared facilities. A school next to a city museum, library, or athletic facility should share those facilities with the greater population. The Interdistrict Downtown School in Minneapolis, Minnesota, for example, because of the strict site constraints of the urban setting shares the surrounding facilities provided by the YMCA, the local arts center, St. Thomas University, the County Government Center, and a department store. (Hammel 114) Not only does the shared-facility arrangement solve the practical problems of the site’s size, but it also encourages the interaction of the children with the surrounding population.

The issues discussed in regards to the school as a microcosm of community also apply to the school as the community center. In the context of the surrounding population, there should be a gradual distinction between public, semi-public, and private. As a community center that is hierarchically more important than the surrounding fabric of homes and businesses, there should be a consideration of the issue of monumentality versus fabric. Also there should be a clear articulation of the public realm of the school as well as its system of circulation as it relates to the circulation of the surroundings.

DESIGN ANALYSIS

The Site

The site for this thesis is approximately two miles south of downtown Chattanooga, Tennessee. The site, amongst three residential neighborhoods, (Rustville, Fort Nagley,

and Jefferson Heights) has surroundings that are capable of supporting a community (a population of interacting individuals). Downtown businesses (City Center), industrial plants, and commercial and recreational venues are within a ten-minute walk of the proposed site. The area in its current state has affordable housing for poorer members of the community as well as large historic homes either currently occupied by middle-class citizens or potentially attractive to families with a middle to upper-class income. Main Street, the northern boundary of the site, has been a site of crime and prostitution for years. But the south-side development project, including the Chattanooga Choo Choo, Southside Restaurant, and St. John's Restaurant/ Apartments, on or close to Market Street, has begun to push onto and across Main. Several older buildings directly across Main Street from the site have been converted to townhouses aimed at middle to upper class incomes. The area is primed for community establishment. It has the infrastructure for a diverse group of people to live together. A school will provide the place for these groups to interact. (For images of the streetscapes surrounding the site consult Fig. 14-17. For additional site images, refer to Fig. 18-20.))

Program Analyses

To be the source of cohesion of the entire community, the school should serve a wide range of the children, grades Kindergarten through 12th grade. The school must provide space for traditional academic learning- math, science, art, and others- and should contain spaces that are open to the community. Athletic/recreational facilities, theater/performance halls, and public parks can belong both to the school and the community. Since the school will serve a variety of needs, from the young child to the voting-age teenager, it contains a variety of programmatic requirements. The school is planned for a service of 250 students.

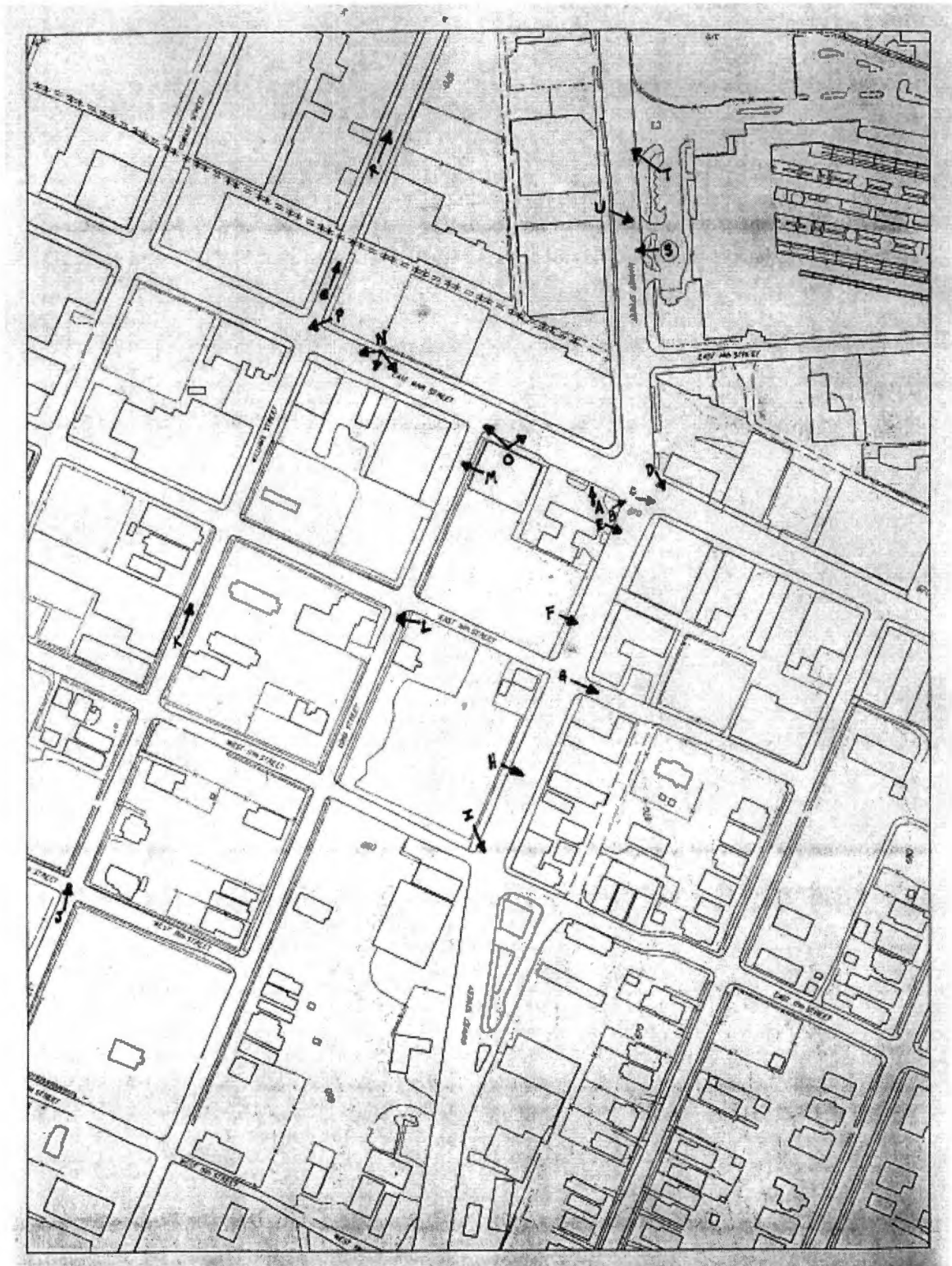


Fig 14: Site Plan
Source: Hamilton County GIS



A



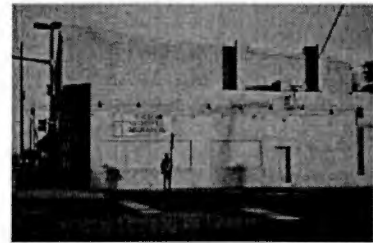
B



C



D



E



F



G



J



I

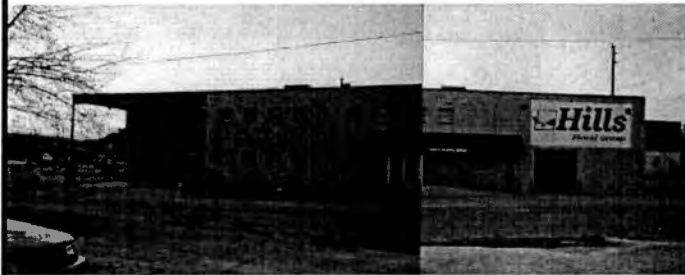
Fig 15: Site Photographs I



L



K



M



Q



N



R



O

Fig 16: Site Photographs 2
Source: Author



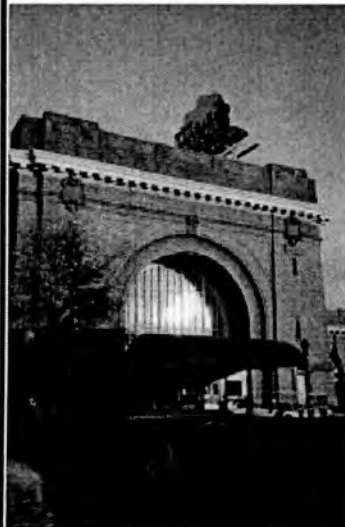
P



S



T



U

Fig 17: Site Photographs 3
Source: Author

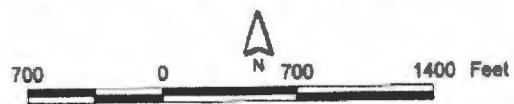


Fig 18: Site Arial Photograph 1

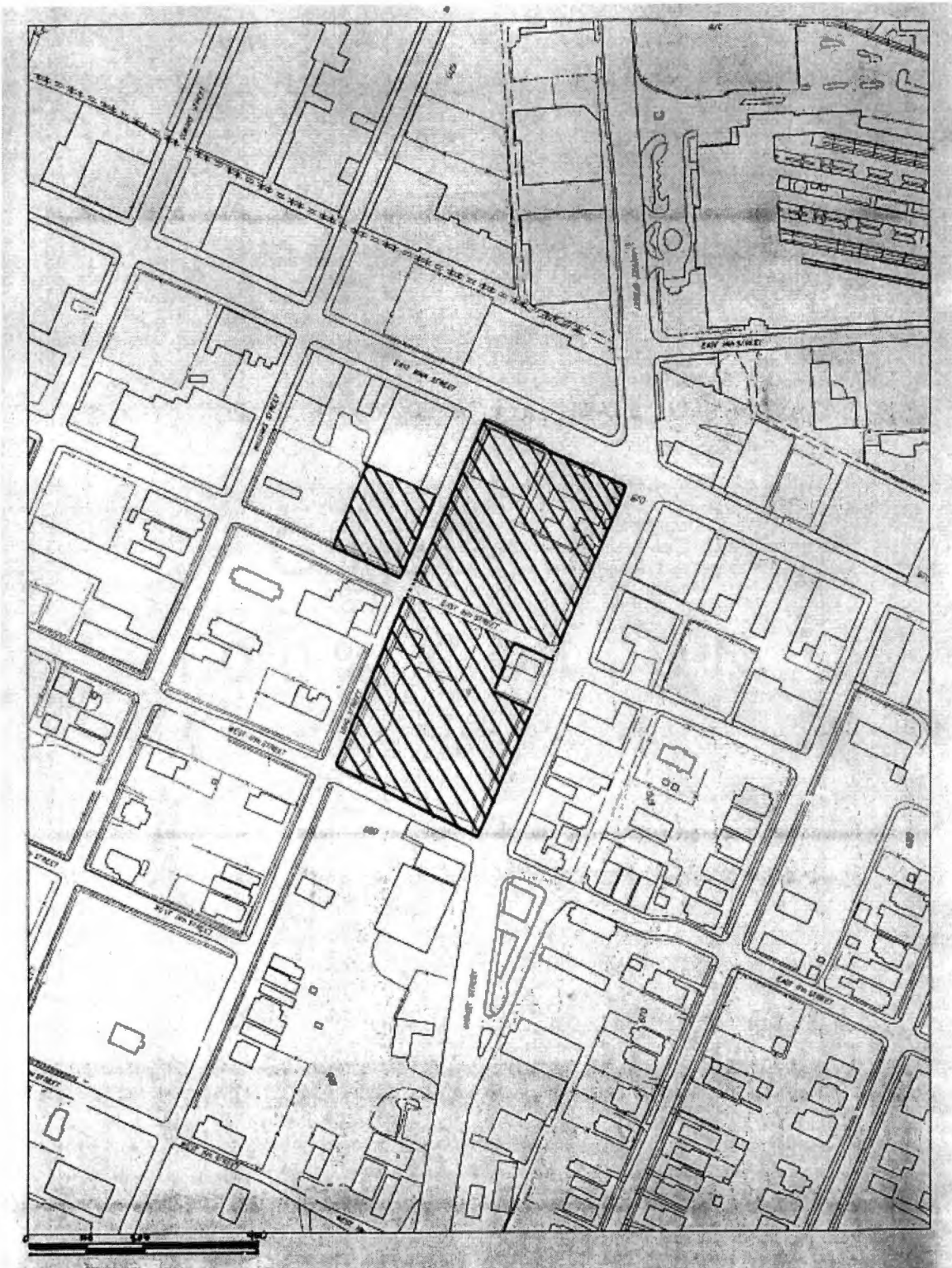


Fig 19: Initial Site Boundaries



Fig 20: Site Aerial Photograph 2

Hard boundaries between the types of spaces proposed should be minimized. Many of the spaces mentioned above and those described below are included in one single space. An entry space on one side of the site might also contain a transit station and community garden, for example. By no means should all of these spaces stand alone, they should each interrelate and in many cases overlap with each other.

Classrooms-To accommodate changing needs, classrooms should be flexible. In some cases movable walls allow classrooms to be transformed from single-sized to double-sized spaces.

Laboratories-The laboratories used for experiments with a variety of subjects (such as chemistry, biology, materials science, physics, mechanics, and environmental science), share an instruction space for discussion of experiments and lessons learned. The variety of experiments conducted in these spaces requires extensive storage of such things as chemicals, building materials, hardware, and tools. Sinks, drains, and safety/emergency equipment are provided throughout.

Exterior Laboratory Including Garden- The garden, the most obvious type of exterior laboratory allows students to learn botany, ecology, and maybe biology. The students, in conjunction with the surrounding community, will learn to produce crops that can be used and/or sold in the school market. In addition to the garden, other exterior laboratories include:

- *public art surfaces* (such as sculpting areas complete with sculpting material (foam, clay, sand), and painting surfaces; in conjunction with the community creative arts center).
- *outdoor physics space* (space where students and their classes can learn about speed, gravity,

friction, and mathematics; in conjunction with the laboratories).

- *meteorological laboratory space* (where students and/or community members can track and predict weather and other ecological occurrences in conjunction with the laboratories).

Library- The students and the community are encouraged to use the city library approximately three quarters of a mile north of the site, so there is not only not a need for a full service library on site, but in fact there should not be one. Dewey believes in a "reciprocal relationship between the school and the wider society." (Chambless 147) And Binger agrees that school and community should mix in such a way that the school uses the facilities of the community and vice versa. Thus the school library will contain a minimum of collections. Instead the library will provide more space for computer-based research and cooperative learning and less space for the storage of books. Periodicals, a large portion of the collection, will attract casual learning and help keep the children and the community informed about issues related to the school, the community, the city, the region, the nation, and the world. Program of the library:

Faculty/Residential Lounge- Lounge space for the teachers to write tests, prepare lessons, or discuss contemporary education reform can be a place for the faculty to interact with those non-employees living on the school grounds.

Entry Space- The school, as a public center, will have gradual transmission from the public realm of the community to the private realm of the traditional school. As such, in each place where the school meets the community, there should be space (rather than a door) that provides the place

for this gradation to occur.

Cafeteria/Restaurant-The cafeteria/restaurant will serve the daily needs of the students as well as maintain three meal-a-day service for the families of the community. The restaurant must have a secondary kitchen and classroom for community cooking classes, and should be adjacent and open to the school/community park.

Gathering/Park Space- This space includes entry spaces, recreational spaces, and transitional spaces. The public park can and should contain space that can be used for the following lifetime recreational activities:

- *Mountain Biking*- A small mountain bike course, a sport suited for the young and the middle-aged, would have the added effect of attracting a middle-class white population to the currently minority-populated area.
- *Frisbee Golf*- This social sport, suited for almost any landscape, can be added without actually adding any space to the program and is suitable for everyone in the community.
- *Field Recreation*-A large, open field included in the park will provide space for such events as Ultimate Frisbee, touch football, Wiffle ball, Bocci, Kite-Flying, or other informal recreation. The field can contain or share space with the formal sports facilities.
- *Chess, Checkers*, and other games of the mind- Park benches and tables provide the space for reading, studying, conversing and games.
- *Running*- Like the mountain bike course and the Frisbee golf course, a cross-country running course can be added to the site without actually

adding square footage to the program. The running course ideally will link the school to the surrounding neighborhoods and can be used informally by the community, for interscholastic competition, or for city-sponsored or business-sponsored races.

- *Fishing*- A small pond can be provided for fishing. The pond can also be used for boating (kayaking, canoeing) and/or diving practice.
- *Playground*-Traditional play devices-monkey bars, swing sets, and jungle gyms- attract pre-school ages, children from other communities, and the children of the school.

Community Rental/Loan Office- Space for the loan and/or rental of recreational supplies can be provided at the school. Community members can borrow or rent such items as Frisbees, checkerboards, fishing poles, Wiffle bats, or Bocci sets.

Community Center for the Creative Arts-This center will contain space for various creative arts: performing arts such as dance and music, visual arts such as painting and sculpture, and other creative endeavors such as meditative exercise, creative writing and journalism. The center will house both the creative arts department for the students as well as provide a community space for night and weekend classes, exhibits and performances, as well as periodic community and city arts festivals.

Printing Press-A community newsletter and school newsletter as well as possible literary magazine and student comics can be printed on the small printing press and printing workspace provided on the school-grounds.

Performance, Indoor and Outdoor- The performance hall can house the needs of the school's drama, music, and dance programs as well as maintain the practice and performance space for community performance clubs like dance, puppetry, drama, or music. An adjacent exterior space can be included in the gathering space/park. Public bathrooms serve the people visiting the gallery, the performance hall, and the park.

Gymnasium- The importance of sports in contemporary society and especially the widespread popularity of basketball, a sport played by young and old, black and white, poor and rich, as an athletic endeavor, enriches the body, and as a spectator event, enriches the community. The empty YMCA building one block east of the site can house practice facilities and less formal basketball events while the on-site gymnasium periodically showcases the community and the school to the larger city. In addition to the YMCA and the exterior courts on the site, the gym provides playing space for practice and inter-scholastic competition.

Health Center- The health center, like so many of the other on-campus facilities, should serve the community at large as well as the school.

Residences- For the school to be a living community that is active at all times of the day, there must be some residences on the school grounds. The eyes supplied by these people will add to the safety of the school grounds and their after-hours presence will encourage use of the spaces. Teachers as well as the community's elderly will be encouraged to live on campus. Space will be provided for families and singles at an average of 1000 square feet per residence.

Market, Post Office, and Laundromat- While non-traditional elements of a school, certainly, these are necessities of community living. All citizens use postal services, buy groceries, and wash clothes. These activities should be incorporated into the social experience of the school. Not only can the market, for example, be a place for the community members to spontaneously interact, but it can also be a place for the children to seek employment and reach out (as Bingler advises) to the surrounding community. Food grown in the school/community garden (maintained by members of the community, residents of the school, and the students) can be bought and sold at the market.

Printing Press- A community newsletter and school newsletter as well as possible literary magazine and student comics can be printed on the small printing press and printing workspace provided on the school-grounds.

Transit Station- The site of the school is only a few blocks from the current beginning of the Chattanooga Electric Shuttle. The route of the shuttle can be expanded to the school to link the surrounding city to the school and the school to the surrounding city.

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Appendix

Space	Area	Number	Total Area
Interior Classroom	850	20	17000
Exterior Classroom	850	4	3400
Laboratory	1000	3	3000
Exterior Laboratory	2000	1	2000
Student Lounge	1500	2	3000
Computer Facility	1000	3	3000
Library	3000	1	3000
Offices	200	10	2000
Group Offices	500	3	1500
Faculty/Residential Lounge	1500	1	1500
Administrative Office	400	2	800
Faculty Service Space	1000	1	1000
Entry Space	N/A		
Cafeteria/Restaurant	10000	1	10000
Gathering Park Space	5000+	1	5000
Community Rental/Loan Office	3000	1	3000
Community Arts Center	3000	1	3000
Exterior Learning	2100	1	2100
Gym	20000	1	20000
Exterior Playing Court	4000	1	4000
Playing Fields	15000	1	15000
Locker Room	2000	2	4000
Health Center	4000	1	4000
Performance, indoor and outdoor	30000	1	30000
Residences	1000	15	15000
Market/Grocery/Post Office	4000	1	3000
Printing Press	1000	1	1000
Transit Station	200	1	200
TOTAL			148500

Laboratory Program

Space	Area	Number	Total
Storage	200	3	200
Group Work Stations	300	3	300
Individual Work Stations	300	3	300
Safety	100	3	100
Mechanical	100	3	100
Instructional Space	800	1	800
Total			3800

Library Program

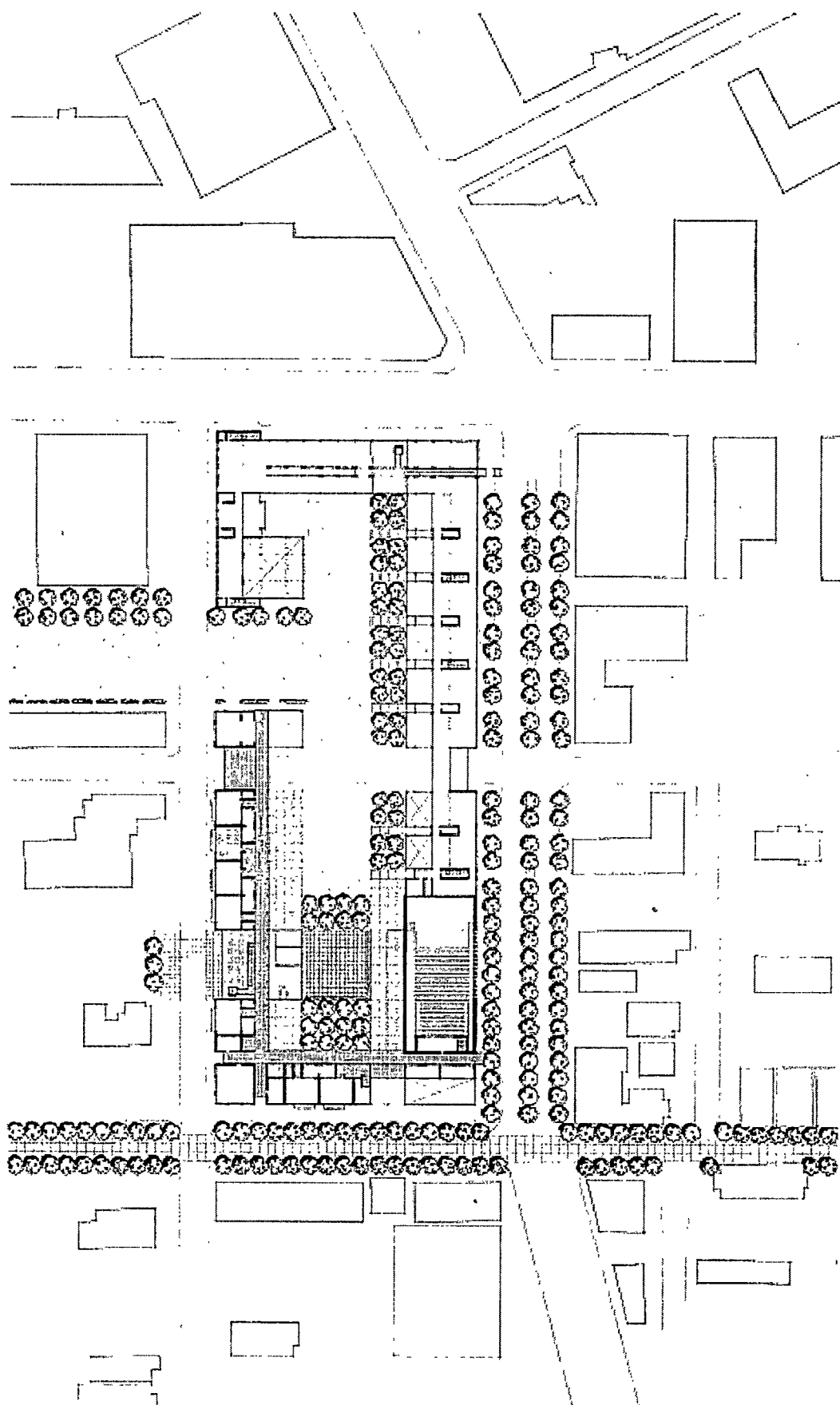
Space	Area
Stacks	210
Office(s)	500
Media Center	1000
Reading/Study Space	1000
Bathrooms	100
Technology Service and Storage	190
Total	3000

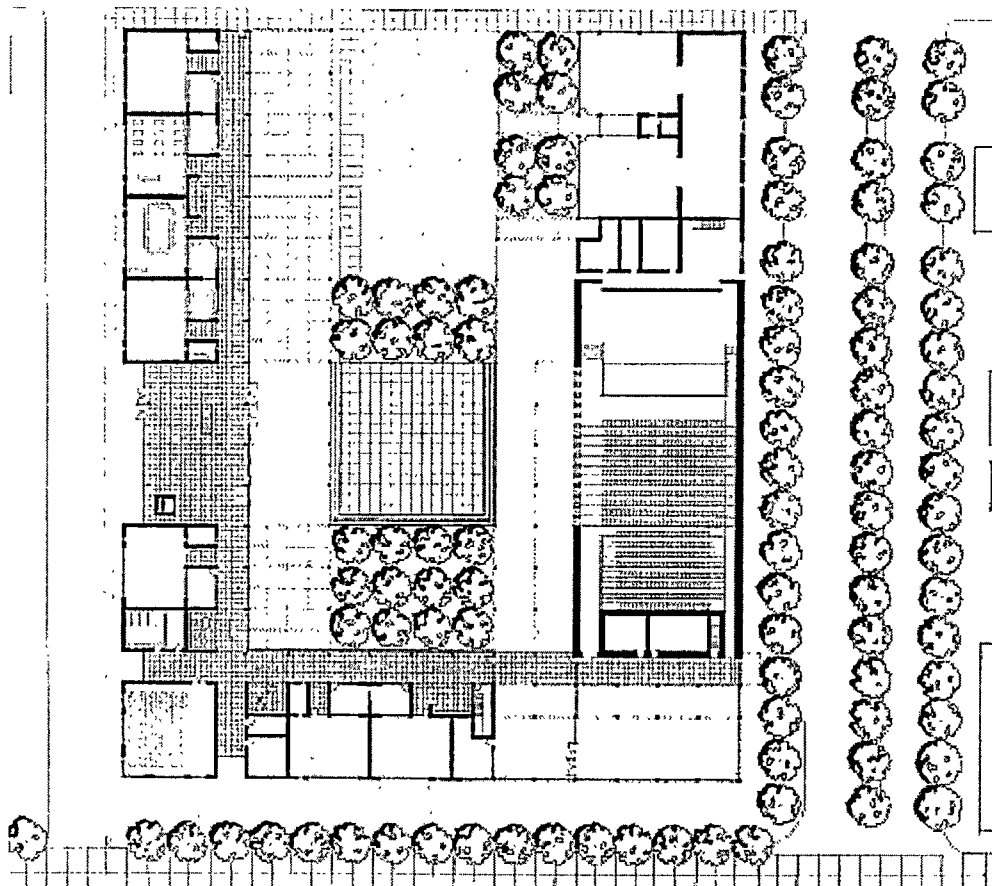
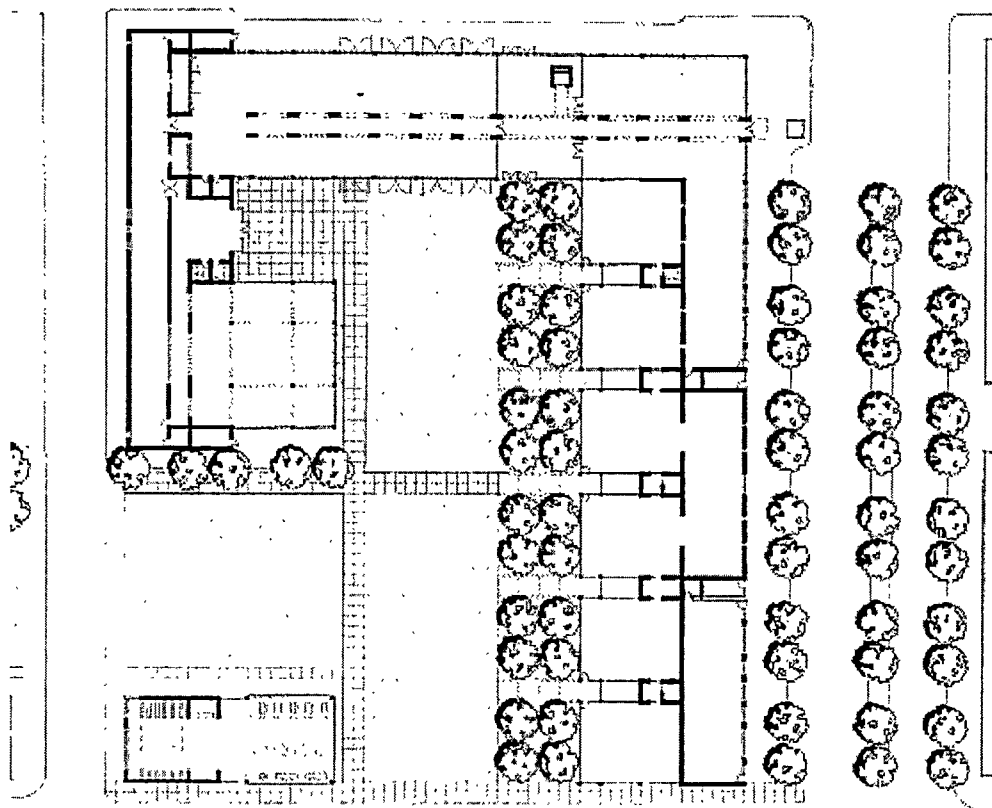
Community Center for the Creative Arts Program

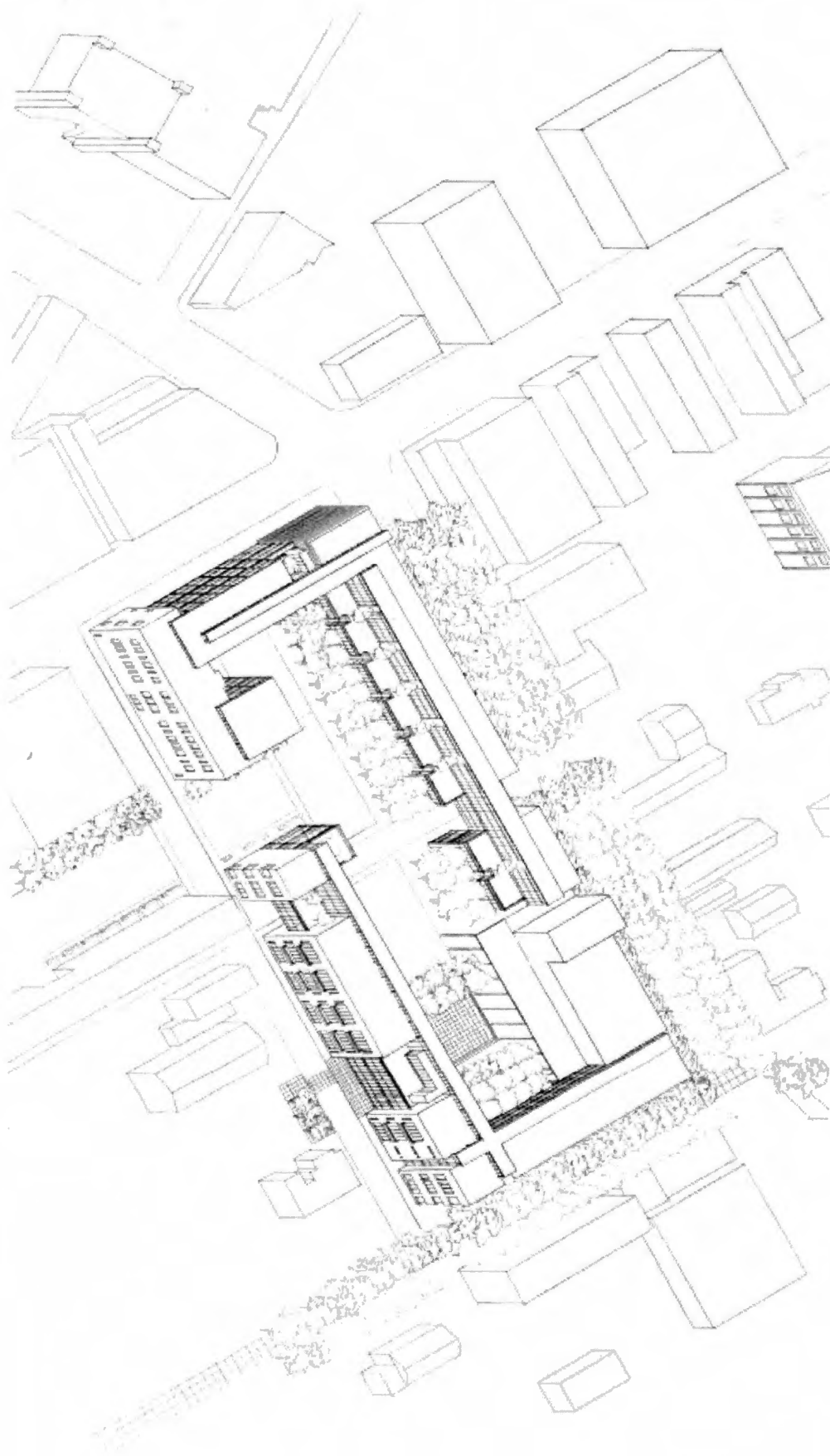
Space	Area
Gallery	2000
Performance Hall	20000
Studio Classrooms (2)	2000
Music Classroom	1000
Printing Press	1000
Conference Room	500
Office(s)	500
Total	27000

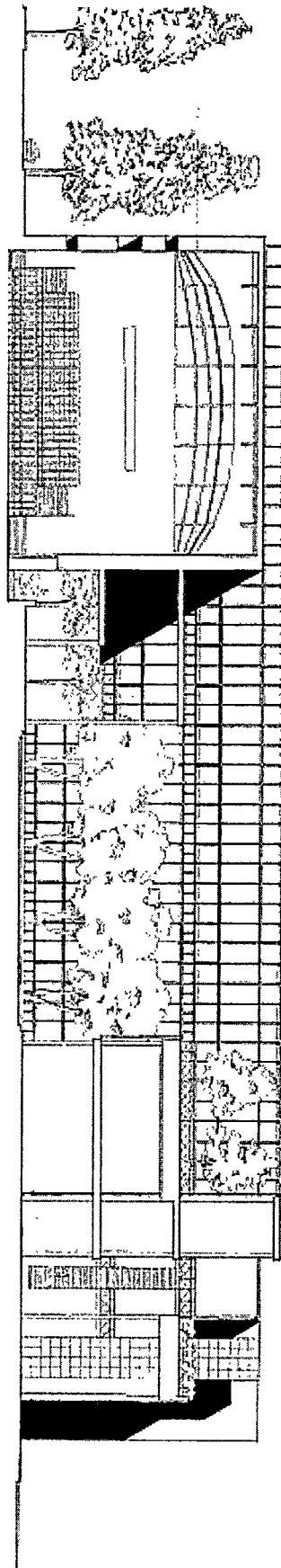
Gymnasium Program

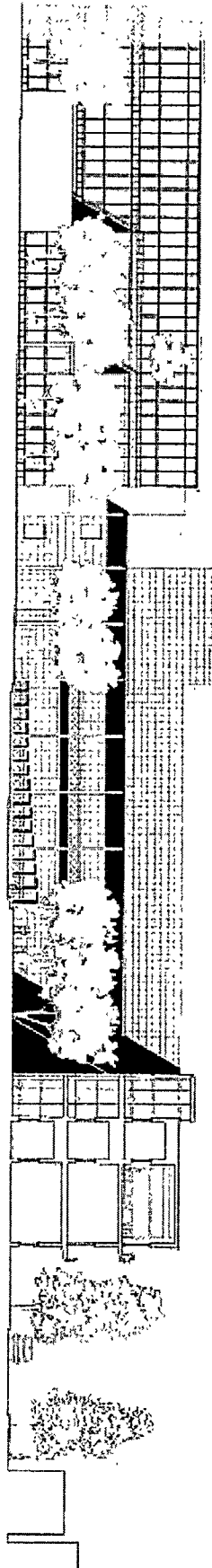
Space	Area	Quantity	Total Area
Locker Rooms	1250	2	2500
Public Bathrooms	200	2	400
Seating Capacity (1000 people)	3000	1	3000
Floor Space	7200	1	7200
Lobby/Concessions	1000	1	1000
Offices	200	2	400
Storage	200	1	200
Classrooms	800	2	1600
Exercise Facility	1000	1	1000
Total			17300

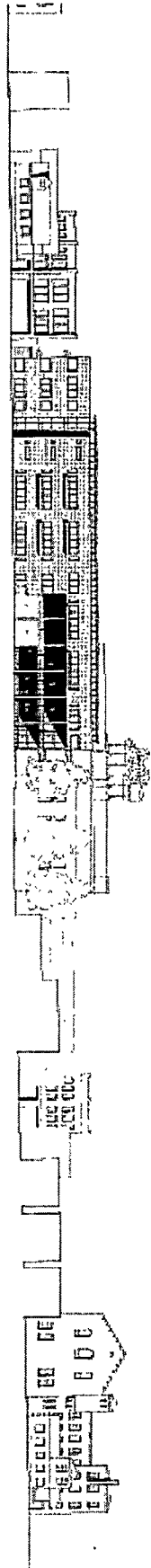


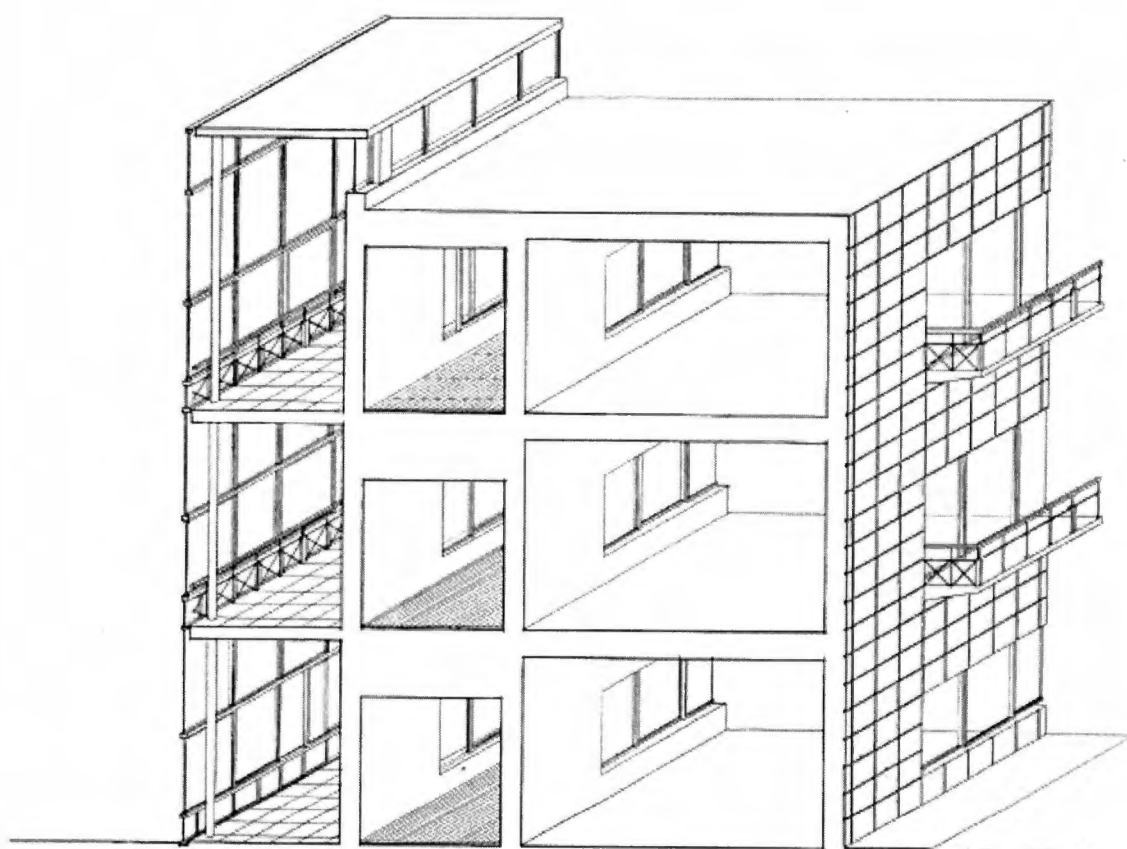


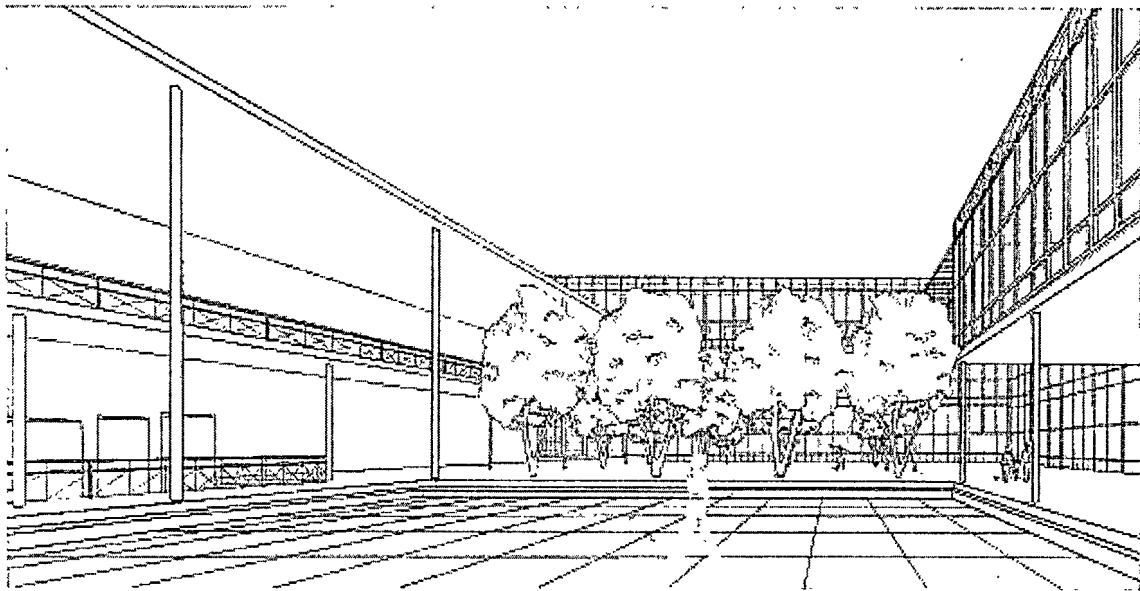


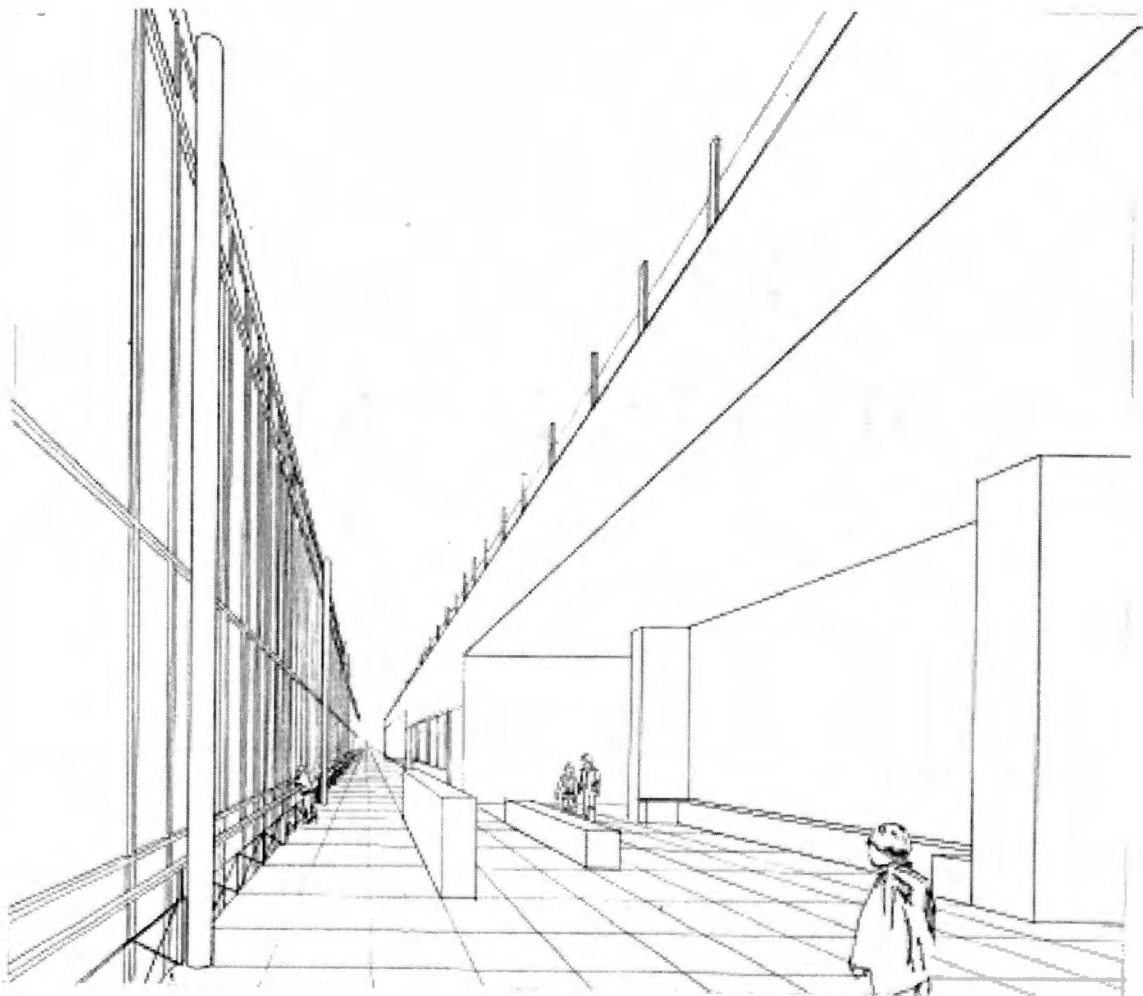


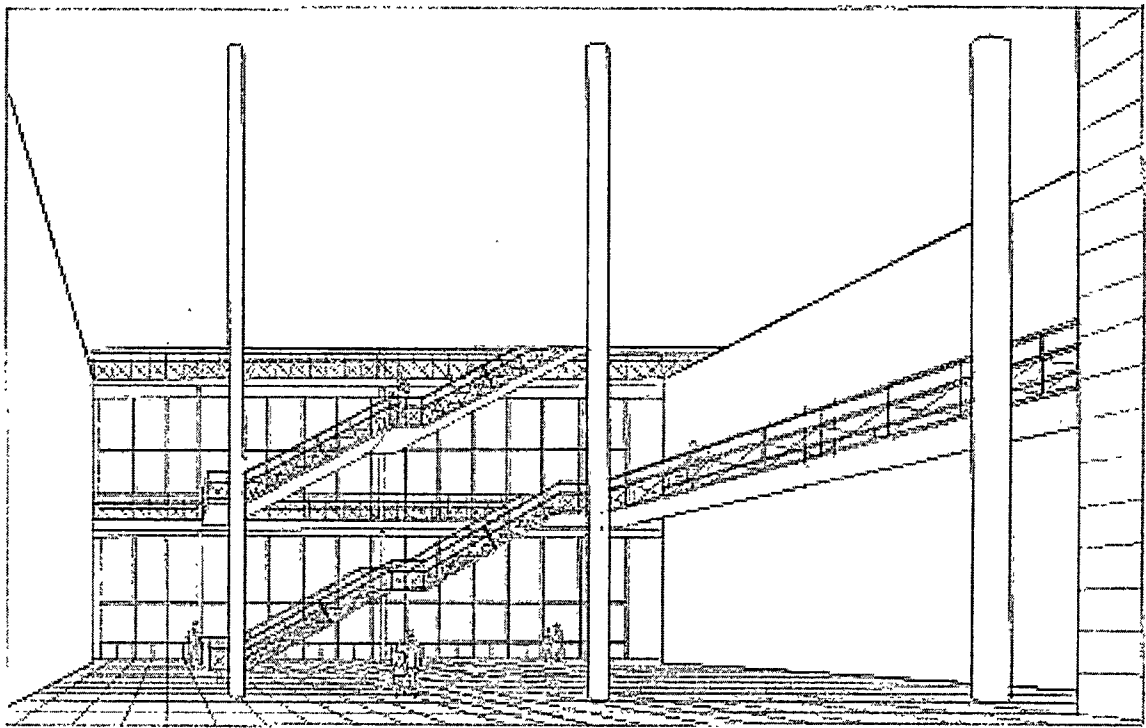












Vita

John Blythe Bailey was born in Chattanooga, Tennessee on October 1, 1971. After graduating from Vanderbilt University in May, 1994 with a double major in Mathematics and History, he taught high school mathematics at Saint Mary's Hall School in San Antonio, Texas. In addition to his undergraduate and graduate studies, he has taken courses in Landscaping, Engineering, and various crafts. Upon graduation from the University of Tennessee he will pursue an internship with the Nashville Civic Design Center.