

R e t a i n i n g   D i s t i n c t i o n ;  
Restructuring a Small Town



Retaining Distinction; Restructuring a Small Town  
by Rachel Malchow

Thesis submitted to the Faculty of the Virginia Polytechnic Institute and  
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degree of Master of Architecture

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# Dedication

I know that if it wasn't for all my experiences and encounters with distinguished individuals, I wouldn't have been able to develop this work as it is. Thank you to all. Committee, Colleagues, Friends, and Family.

You know who you are.



# Abstract

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This urban thesis proposes the restructuring of a small railroad town that concentrates on vertical growth, publicly shared urban spaces, and the distinction between town and country. A new organization of building types reflects the modern lifestyle of the town which focuses on the integration of school and community activities. Boundaries are used as barriers to prevent horizontal sprawl.



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# Preface

Around cities all over the United States, suburbs are popping up like dandelions. Cities like Indianapolis, Indiana are growing in the wrong direction; horizontally. Indianapolis is guilty of the philosophy that "bigger is better". In the late 1800s and early 1900s, cities all over the United States were annexing surrounding suburbs to increase their city size. Today, Indianapolis is the 12th largest city in the U.S. with a population of 791,926. On the other hand, San Francisco hasn't altered its boundaries in the last 80 years and has the population of 739,426 ranking it 14th in the nation. These two cities are close in population, but are at opposite ends of the spectrum when it comes to density. Indianapolis with 372 sq miles of land has a density of 2,169 persons/sq mile, while San Francisco has 47 sq miles of land and a density of 15,834 person/ sq mile. Because San Francisco has retained its boundaries, there is a will to keep near the city center. When one thinks of both Indianapolis and San Francisco, San Francisco is better known. By restricting the urge to annex to it's boundaries in the past 80 years, San Francisco has been building on top of itself. On becoming dense it has retained culture and made a more pleasant place to live. The horizontal growth or sprawl around cities such as Indianapolis is encroaching and, in many cases, devouring small towns. One example is Brownsburg, IN, where one can't get away from developments, but will run into the old downtown. The old downtown reminds us that this area use to be a small distinct town of its own instead of a sprawling suburb of Indianapolis it has become today. Much of the land surrounding cities is being purchased by developers. So when a family wants to build a house in a certain school district, they have no choice, but to buy into a subdivision, pick one of the given house plans, and select from limited customizations. There is a similar trend to leave the city and these suburbs and move to rural small towns making the potential of this effect in rural areas greater. In my proposal, I have investigated a small town in the middle of the country that is of an approachable scale to propose a solution to this problem.



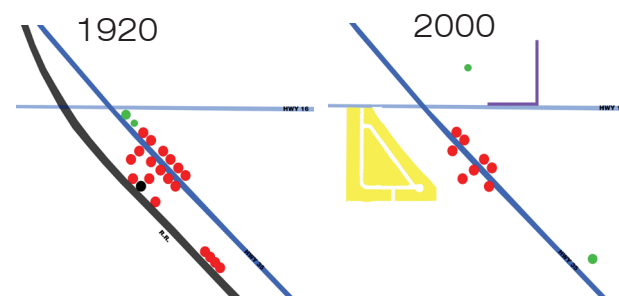
Development in Christiansburg, VA

I believe architects must solve the problem of mass developments. The development business prevents our privilege as architects to design the homes of society; by appearing to the public that they have what they want; when in fact they have very little concern for their needs. My response to this problem is to create boundaries for the town so that residents want to be inside the dense urban living instead of outside in subdivisions. I know I could never eliminate the existence of developments, but I hope that once the residents experience a type of living that share common spaces and their basic needs are easily accessible, they will uncover a new found quality of life and reject subdivision life.

Suburbs have 'privatized' society through entertainment, backyards, and air-conditioning. Our homes can sustain all of our entertainments needs, so it isn't necessary to travel out into the community. Our backyards conveniently contain the nature required and places us away from society, while the comforts of air-conditioning has forced us to retreat indoors. When individuals don't interact with their environment, they lose concern and responsibility for their town and therefore it weakens the sense of community. There is great potential and varieties in the urban experience. Urban life enables sharing of recreation such as cinemas, window shopping, and a place for pick up games. Many urban experiences are ones that cannot be obtained in ones home.

Small rural towns must become progressive in their planning to prevent the loss of control of their surroundings to developments. Small towns can become the new avant-garde environments. Right now many small towns have had little change or if there is change it is to the commercial elements going out of business or railroads being removed.

Many small towns need to be restructured for the future. Their original structure came from necessity, by way of railroads, rivers, etc, but now like the town of Royal Center the railroad has been removed. By restructuring the towns, town's people can choose how they want their town to be by implementing codes, so developers won't gain control of something the townspeople should have the right to oversee.



I was raised outside of a small town. When I studied abroad in Riva San Vitale, Switzerland for a semester, I experienced a different kind of small town living; a denser one. Density isn't a concept for those who live in my little town. Here everyone knows where their property lines are, if you have your driver's license, you would drive the 500 feet to the bank, and you find any excuse to leave even if just for dinner. In Switzerland, public walkways venture through private courtyards. We walked everywhere, and took advantage of what the town has to offer, such as cafes, lake front vistas, and shortcuts through intimates spaces of the town. My experience abroad was influenced by not having access to a car, but I think this was only the instigator to have the opportunity to really 'see' a town. If I was bored, I would go for a walk and I would find something new everyday. When I was young I would go for walks, but that was because I had no other option. When I got older and wasn't retrained to limits of the town, I would find any excuse to the place I called home. I cannot see my future in this town, but will return home to see family and friends. I am a good example of the trend commonly known as "brain drain". Brain drain is an emigration of educated and talented individuals to other jurisdictions, due to the lack of opportunity where they are living. Many small towns like Royal Center have this problem. Many who leave to be educated can't return due the lack of opportunity of available careers relating to their education. If there are available careers then it is the lack of quality of life offered.

Fortunately we are in a time that people are gaining more choices with where they can live and work. Thanks to the computer and the internet, more people have the opportunity to live where they choose. With the increase in technology the number of people with the option of residency will only increase. But if we don't have the option of our residence then shouldn't we make our environment the place we wish it to be?



# Experiences

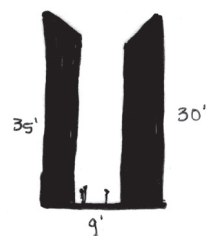
## Barcelona, Spain

- Wide open streets
- Chamfered street corners



## Sienna, Italy

- Tight narrow streets
- Mostly pedestrian use only
- Occasional Piazza



## Malchow, Germany

- Midsize streets
- Fairly open due to low-rise buildings



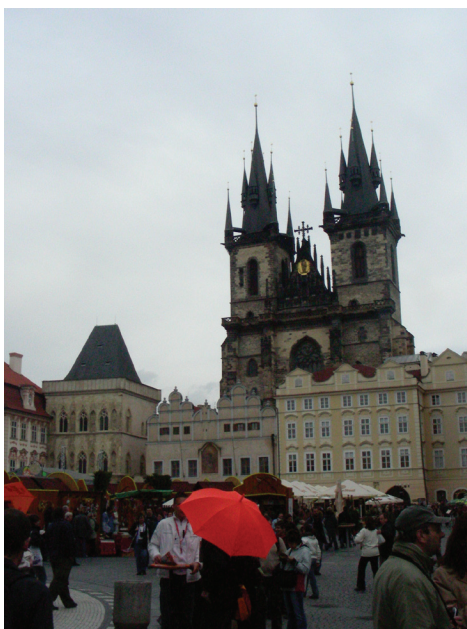


From Left to Right:  
Venice, Italy,  
Sienna, Italy , and  
Verona, Italy

Life is visible in cities because people must share common spaces in everyday life, instead of retreating indoors or in backyards as suburbanites do.



Housing Division in Blacksburg, Virginia



Prague, Cech Republic

Plaza full of activity

To give life to a square the proportions need to be appropriate and it must be accessible in multiple directions



Paris, France

Passages through buildings



Venice, Italy

These images are spaces and elements that influenced my work.

Open air arcades

View into a residential courtyard



Chur, Switzerland

Axis and Arc



Paris, France



Warwick, England

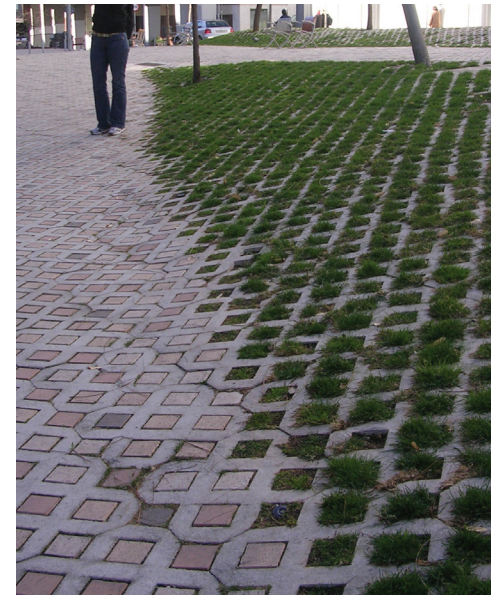
Secluded Path



Malchow, Germany

Visible Energy Source

Multiple use floor covering



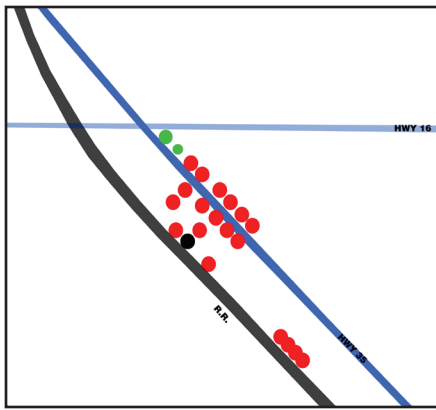
Barcelona, Spain



# Analysis

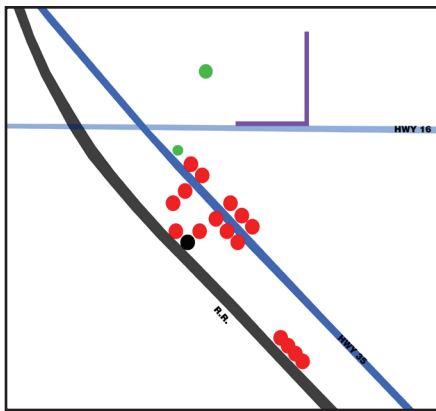


As a citizen of the community of Royal Center, Indiana, I have been witness to and participated in the way of life and traditions of the town. The town holds its sense of community through the school system. Many parades, festivals are created through the school. With a town population of 817 and a school system that comprises a total enrollment of 1028, there is a big impact on the town when the students participate in local events. While growing up in this community, I had a sense of pride in my school and its accomplishments both in academics and sports. I have fond memories of performing flags while dressed in a costume for the Halloween parade. The parade would stop at the fire station, where we would perform and children would get their costumes judged. After it ended we would trick or treat at the houses as we walked back to the high school. This is just one example of a seasonal event that shaped my life. The school has such a positive influence over the town. With a majority of the students coming from the surrounding rural areas the school keeps the town young. I can even recall in 1997 when our football team made it to the state championship game to be played in Indianapolis, a large sign was placed on the outskirts of the town that read, "The last person to leave, please shut off the lights." This in itself can signify what the school means to the town. They become one with no separation. But the organization of the town does not reflect this new way of life. Its structure is based upon the railroad that once traveled through. Most of the Midwest is comprised of a grid, and it is bisected by the railroad to link up major cities. Many small towns like Royal Center were created along this transportation route. Today the railroad ties are gone, so the organization of the town now is irrelevant. Businesses are gone and buildings are vacant along the railroad route. Most of the activity now surrounds the partially inhabited downtown and the park.



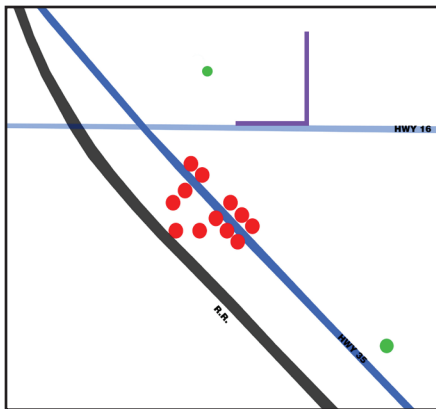
1920

The height of town's history. Businesses and school were placed along railroad or parallel highway. Black dot indicates railroad depot. Red dots are businesses and green are schools. Railroad carried grain, cattle, and passengers between Indianapolis and Chicago.



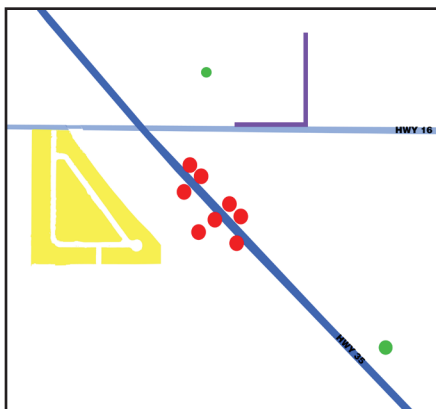
1940

The purple lines indicate the location of the park stone wall that was created in 1936. The high school followed in 1942 when it was relocated near the park. Due to the war and the depression businesses closed and the railroad no longer stopped in Royal Center, The depot was retained so that an express truck service would take passengers to a nearby town to catch the train



1970

High school relocated again to the south of town and elementary school took the space of the old high school. More businesses have left such as the canning factory along the railroad and the train depot was completely removed in 1955.



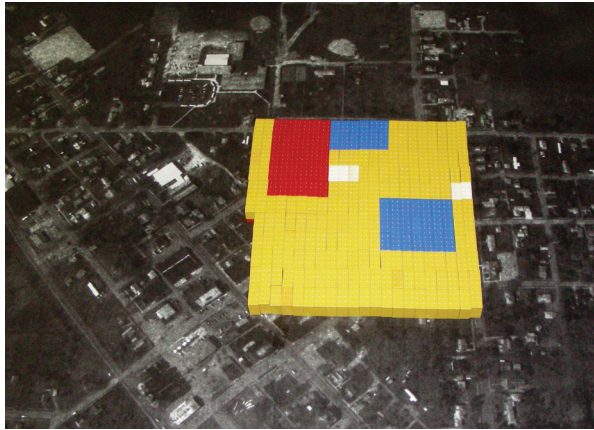
2000

More business have left and railroad tracks have been permanently removed. A larger platted division is created in 1990.





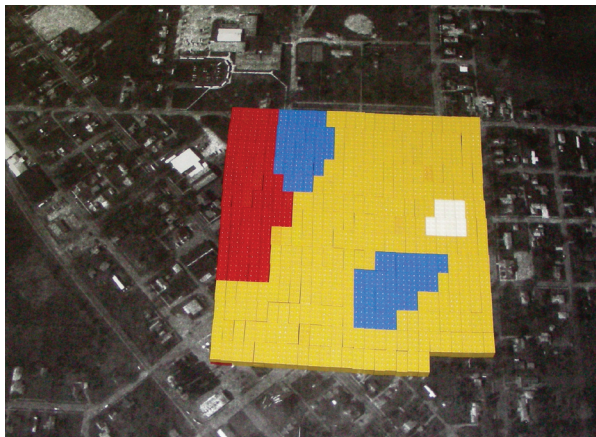
# Exploration



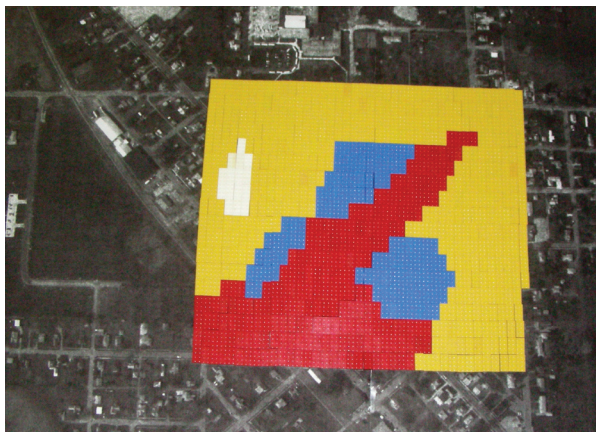
Existing buildings massed together in 3-stories



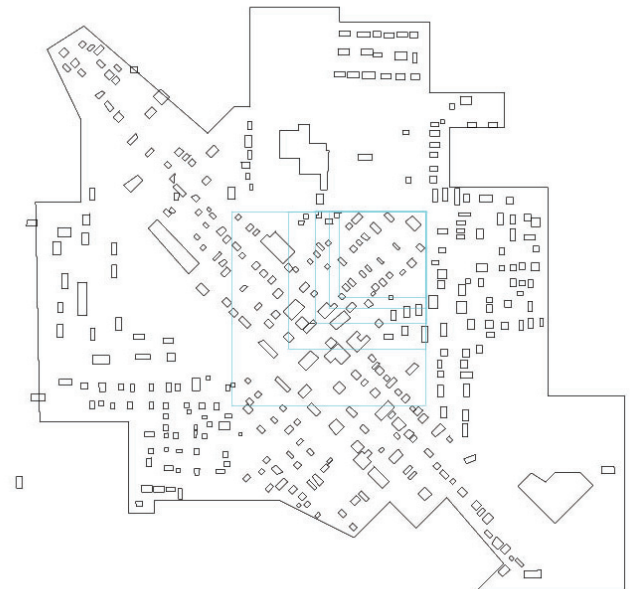
Existing buildings



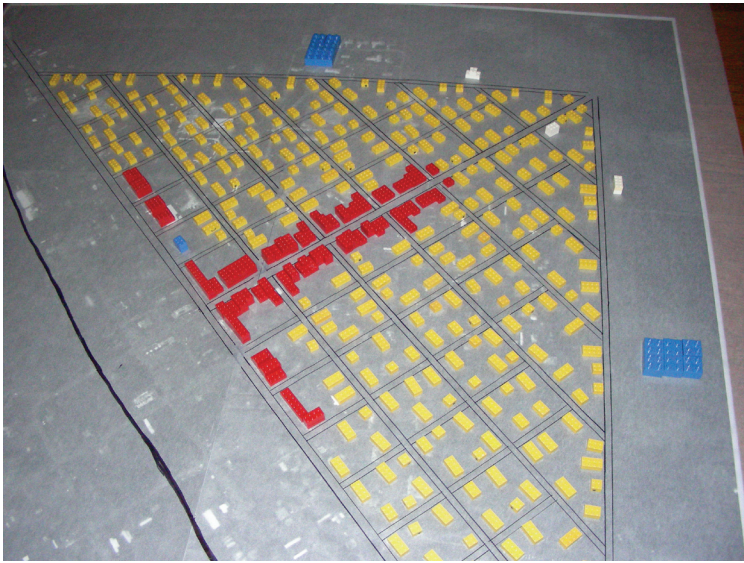
Existing buildings massed together in 2-stories



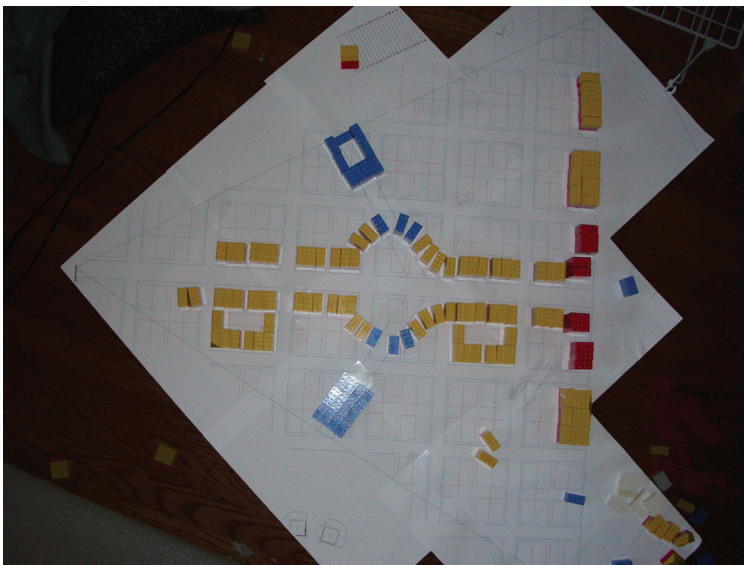
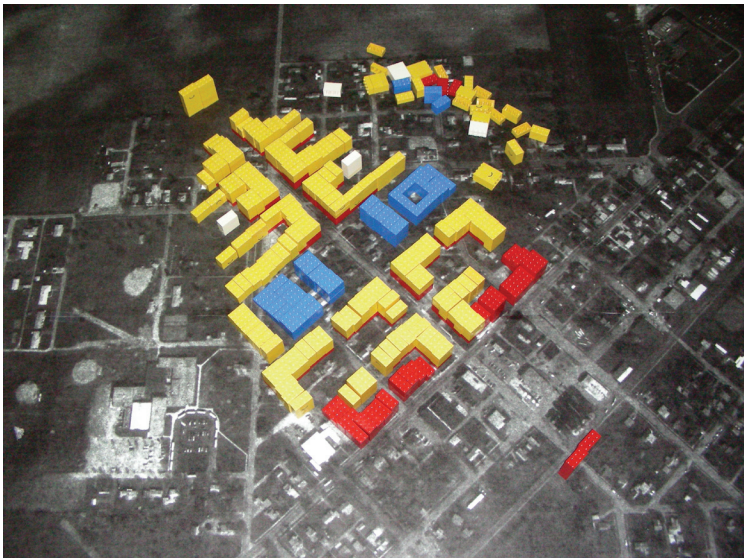
Existing buildings massed together in 1-story

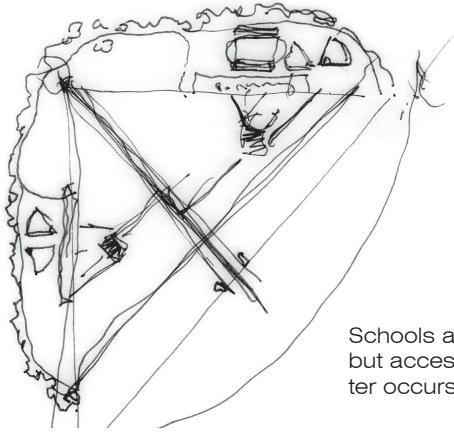


Laid out massing for existing town and massed together to gain a sense of possible density required.

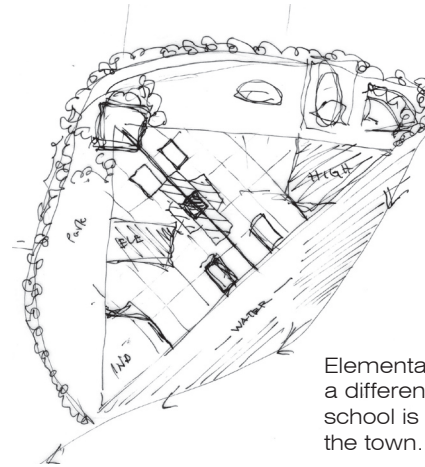


Preliminary organization of buildings. The first attempt mimicked existing town structure directly and wasn't dense enough. The second attempt analyzed buildings along the main axis, allowing the schools to make the town square. Two structures anchor the axis. The third attempt played with moving the schools outward along different axes. New buildings are introduced to form the town square.

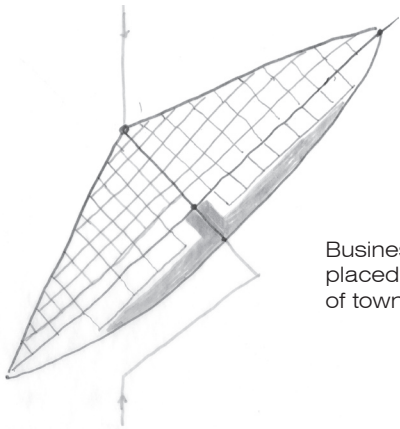




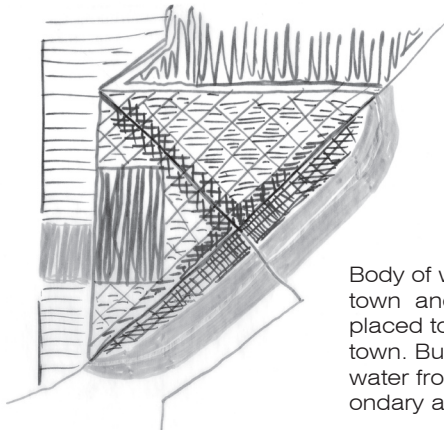
Schools are retained in grid, but access to the town center occurs within the grid.



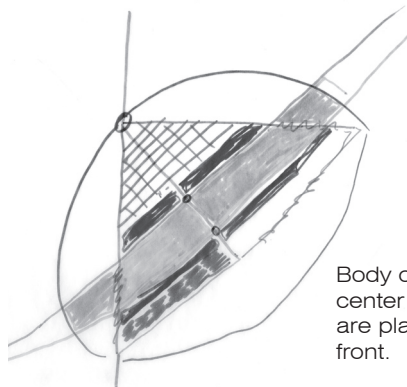
Elementary school is placed on a different axis while the high school is placed in the corner of the town.



Businesses are placed along edge of town.



Body of water anchors town and schools are placed to one side of town. Businesses line the water front and along secondary axes.



Body of water placed in center and businesses are placed along water front.

Structure studies showing different layouts for the placement of the schools.

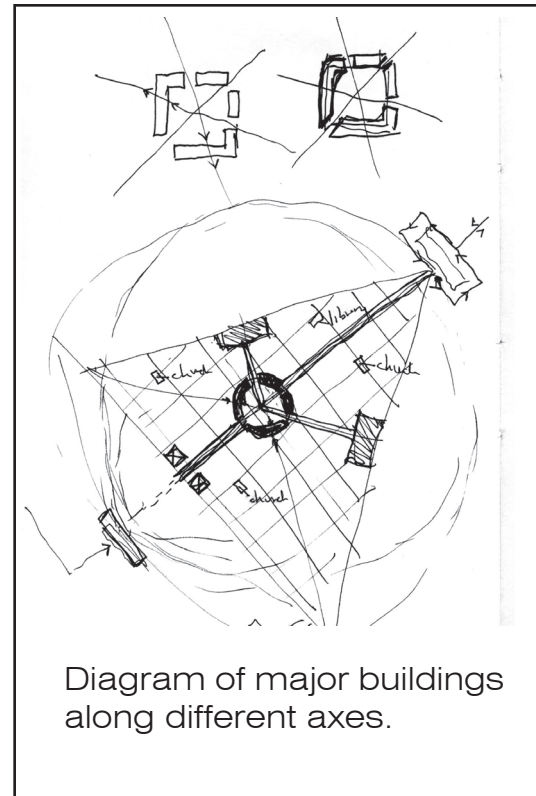


Diagram of major buildings along different axes.