REHABILITATION OF THE METALS BANK BUILDING BUTTE, MONTANA
THE REHABILITATION OF THE METALS BANK BUILDING 
IN BUTTE MONTANA

by 
RANDY AGOSTO FREECK

Submitted to the School of Architecture 
as partial fulfillment of the 
requirements for the degree of 
Bachelor of Architecture

at 
MONTANA STATE UNIVERSITY 
Bozeman, Montana

December 14, 1978
Advisor:

John DeHaas, Jr.
Montana State University
School of Architecture

Advisor:

George S. McClure, Jr.
Director, School of Architecture
I wish to dedicate this thesis and express my sincere appreciation to my academic tutor and colleagues at XYZ University, who have been an encouragement throughout my life and have beautifully supported my desire to obtain this goal.

There have been many individuals who have contributed to the writing of this thesis. The one individual to whom I owe the debt is Professor John Doe, who helped me along the way and was always there for advice and encouragement. I would also like to thank other members of the School of Architecture, who served as my judges and helped as my research mentors, including Professors Jane Smith and Robert Johnson, among others.

ACKNOWLEDGMENTS
Acknowledgments:

I wish to dedicate this thesis and express my sincere appreciation to my parents, Ervin and Delores Freeck, who have been an encouragement throughout my life and have invariably supported my desire to obtain this goal.

There have been many individuals who have contributed to the writing of this thesis. The one individual to whom I owe the most is Professor John DeHaas who kept me going and who was always there for advice and encouragement. I would also like to thank other members of the School of Architecture who served on my juries and served as my resource people, including Professors George McClure, Bill Semple, Hugo Eck and Guiton Stubbs.
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THESIS PROPOSAL

RANDY AGOSTO FREECK

Architecture 555 and 556
March through December 1978

School of Architecture
Montana State University

March 28, 1978
To: Professor Ilmar Reinvald, Director  
Professor David Wessel, Thesis Coordinator  
School of Architecture  
Re: Undergraduate Thesis  
Spring and Fall Quarters, 1978  
Randy A. Freeck  

Preamble:  
"Old buildings - like old People - are essential to a healthy and mature society in that they give a sense of balance and continuity with the past; but they must be valued at their true worth and not merely accepted on sufferance."  
George Stephen, from Remodeling Old Houses Without Losing Their Character.  

Thesis Statement:  
To realize and appreciate our old buildings is one thing, but to achieve an understanding success in the rehabilitation of old buildings is another, where the design coordination of different items can bring about a new charm that has been lost in our downtown city cores of modern date.  

Thesis Project:  
Study a specific building in downtown Butte and determine what can be done to rehabilitate the building to a new and viable use. The building I have picked is the Metals Bank Building which is located on the corner of Main and Park.
At this point in time I wish to leave all techniques - Restoration, Rehabilitation and Redesign - open for discovery, exploration and possible use. I also want to investigate the financial aspects of this project to better support my thesis.

**Methodology:**

**Phase I: (Spring Quarter)**

1. Research the various different methods and techniques of restoration, rehabilitation, and redesign for possible uses in my buildings.

2. Research the needs that are lacking in the downtown core of Butte and examine the possibilities for which the building can be put to a new viable use.

3. Study the financial aspects of the project to further substantiate the feasibility of the rehabilitation of the structure.

4. Work up a program for the various different functions that will be located within the building once the use for the building is substantiated upon completion of the research.

**Phase II: (Fall Quarter)**

1. Begin the design process of rehabilitating the building and the pulling together of the research material to better aide the design process of revitalizing this outstanding structure.
Preliminary Schedule:

Phase One: (Spring Quarter) Begins March 28, 1978.

April 4 - Meetings with Thesis Advisor
April 18
May 9
May 23
March 28 - April 17 - Pull information together from various sources
April 28 - Jury with Thesis Advisor and Resource People on progress so far.
May 22 - June 2 - Pulling information together for final presentation to Jury during final week.
June 5-9 - Final presentation to Jury during final week.

Phase Two: (Fall Quarter) Begins September 22, 1978.

September 29 - Meetings with Thesis Advisor
October 6
October 10
October 17
October 24
October 31
October 27 - Completion of book to be reviewed by Thesis Advisor and Resource People.
October 31 - Preliminary Jury with Thesis Advisor and Resource People on the design.
November 17 - December 8 - Begin the final presentation for the completion of the project.
December 11-14 - Final presentation to Jury during final week.

Thesis Advisor: Professor John DeHaas

Resource People and Consultants:

Professor Hugo Eck: Codes and Design
Professor George McClure: Structural
Professor Bill Sample: Design
School of Business - Marketing, Montana State University
Larry Gallagher: Consultant for downtown Butte
Don Peoples: City Director for Butte
Richard I. Shope Architects: Helena
Montana State University Library of Archives
Montana Historical Library, Helena
Presentation:

Periodic presentations to Thesis Advisor and Architectural Resource people to status of project.

Progress report at the end of Spring Quarter 1978 to include verbal presentation with support from notes, sketches and graphs.

Final thesis presentation with verbal defense of thesis with support of drawings, sketches, models and possible slides.

Emphasis of all presentations shall be directed to development and support of the thesis statement.
This Thesis Proposal is respectfully submitted for approval

Randy A. Freeck
Handy A. Freeck

John DeHaas, Thesis Advisor

David Wessel, Thesis Coordinator

George McClure, Director
School of Architecture
Montana State University
"The individual and the family are essential for a healthy nation. Variety is that they hold a sense of balance and continuity with the past, for they must be valued at their own death and not merely accepted on performance."

George Washington, from "Constitution of the United States of America."

PREAMBLE
Preamble:

"Old buildings - like old people - are essential to a healthy mature society in that they give a sense of balance and continuity with the past, but they must be valued at their true worth and not merely accepted on sufferance."

George Stephen, from
Remodeling Old Houses Without Losing Their Character
The thesis statement:

In addition to understanding our old buildings, it is important to continue to understand and maintain the original design of old buildings. In this manner, the design reconstruction of various different styles and eras should not be altered to the point that it in any way affects any parts of the structure.
Thesis Statement:

To realize and appreciate our old buildings is one thing, but to achieve an understanding success in the rehabilitation of old buildings is another, where the design coordination of various different items can bring about a new charm that has been lost in our downtown city cores of modern date.
METHODOLOGY

The project being undertaken within this thesis deals with the rehabilitation of the Nevada State Building located in Reno, Nevada. Not before any sort of rehabilitation can begin, much research and thought must be given to the overall concept to understand not only the project's needs but also the benefits within rehabilitation.

In setting up the framework for this project it seemed obvious to divide the project into two different phases.

The first phase would deal mainly with the research of the various different methods and techniques of restoration, rehabilitation, and renovation that will certainly be projects. Once the definitions of rehabilitation were understood an estimation of costs is needed to understand the expenses and uncertainties that the city may face in terms to the building. The next step that needs to be conceived is the financial needs of the project that would help substantiate the feasibility of the rehabilitation of the building. The final aspect of Nevada one will be to write up the program for the various different functions that will be taking place in the building once the designated use is made for the building and substantiate this completion of the project.

Once we will be the design phase of the project, which will bring together all the material gathered in Phase One into one coherent statement. The final statement will substantiate all of the research, philosophy, and some feelings and conclusions that result in the final design.
Methodology:

The project being undertaken within this thesis deals with the rehabilitation of the Metals Bank Building located in Butte, Montana. But before any sort of rehabilitation can occur, much research and thought must be given to the overall project to understand all the parts that are involved within rehabilitation.

In setting up the framework for this project it seemed logical to divide the project into two different phases.

The first phase will deal primarily with the research of the various different methods and techniques of restoration, rehabilitation, and redesign that will pertain to my project. Once the definitions of rehabilitation are understood an examination of Butte is needed to understand the problems and possibilities that the city core has to offer to my building. The next area that needs to be examined is the financial aspects of the project that would help substantiate the feasibility of the rehabilitation of my building. The final aspect of Phase One will be to write up the program for the various different functions that will be located within the building once the designated use or uses for the building are substantiated upon completion of the research.

Phase Two will be the design phase of the project, which will bring together all the material gathered in Phase One into one coherent statement. The final statement will substantiate all of the research, philosophy, deep inner feelings and determination that resulted in the final design.
PHASE ONE: RESEARCH
DEFINITIONS
Before the actual research can begin, a basic understanding of the definitions that will play an important role throughout the project needs to be understood. So the best place to begin is with -

What is Preservation?

Preservation is a means of keeping a building in its existing form while at the same time taking measures to prevent further deterioration of the structure.

But there are different phases of preservation that play an important role in determining just what is to be done to the structure. These phases are known as the Three R's of Preservation:

1. Restoration
2. Rehabilitation
3. Redesign

1. **Restoration** - being returning a building as much as possible to its original appearance and condition, and is a technique used mainly on buildings of outstanding historical or architectural interest.

2. **Rehabilitation** - means literally "making habitable or useful again."

3. **Redesign** - here the original structure is often so altered as to be indistinguishable from a new building.
ADVANTAGES OF REHABILITATION
Part II - Advantages of Rehabilitation

We can let a building die of natural cause and abandon it at the tremendous cost of a great loss of opportunity.

Older buildings help give a community its character. They also help to provide residents with a historical perspective which helps them understand where they are going by seeing tangible evidence of where they have been. In a rapidly changing urban environment, such a depth of vision becomes increasingly meaningful.

There are also other advantages of rehabilitation that reach out to the human aspects that make the public become involved in the various stages of preservation. Some of these points are as follows:

1. Some old buildings are representatives of a particular period of our history and should be saved for our future generations.

2. Restoring old buildings can restore a scale and character to a neighborhood which enhances the quality of living within the neighborhood.

3. Rehabilitation often increases the value of the property and starts a chain reaction through the neighborhood.

4. Old buildings, ripe for conversion or renovation, are a challenge and an opportunity with unpredictable rewards.

5. Rehabilitation offers positive benefits in social terms in bringing people together to work out a solution to save a particular building or an entire neighborhood.

We can carefully restore a building or an entire neighborhood to its original condition and forbid any change in the environment. But this
method can be unjust, expensive, unrealistic, and in the long run self-defeating, since restoration alone does not guarantee economic viability.

So this bring about a whole new set of criteria that will pertain to the various different stages of preservation and at what point the building becomes economically feasible or out of reach for the purposes of the project.

There are basic economic viewpoints that help in the justification of preservation and some are as follows:

1. It is often less expensive to use what is already there than to start over with a new building.

2. Preservation gives a community useful tools for stabilizing its economy and often makes it competitive with regional shopping centers that are appearing throughout the suburban landscape of our country.

3. Tourism quite often increases in a designated historical area and brings the third largest business into your community.

4. Older buildings develop character and their ambience or historical associations can be used for valuable publicity for drawing the public to these redeveloped areas.

5. Old buildings that are being adapted often can continue functioning during the conversion process, which is a welcome relief to any landlord.

6. The production of new materials used in new construction consumes far more energy than that of older materials, such as brick, wood, glass and stone.

7. The recent federal adaptive use study noted that "the thick
load-bearing masonry walls which characterize older structures delay heat loss and gain and conserve energy more effectively than the glass curtain walls and highly fenestrated shells, and that is very important in the energy conscious viewpoint our country is in at this time.

Developers and architects who work with older buildings indicate that costs of rehabilitating a basically sound structure can be competitive with new construction. A good way to substantiate this statement is to cite specific examples of past projects. These economic examples of past projects will aid in making some basic decisions:

1. Larimer Square in Denver, Colorado, where the costs were running at two-thirds the new construction cost in 1973.

2. Trolley Square in Salt Lake City, Utah was created in 1969 into shops from old trolley storage areas; costs were running about $20 a square foot to renovate.

3. Pioneer Square Historic District in Seattle, Washington, during the last four years of exterior restoration and interior renovation of 21 buildings from the 1890's, has run from $18 to $22 a square foot; about two-thirds the average new construction costs. This renovation project included the introduction of air conditioning, seismic safety systems, and a complete sprinkler system.

4. Baltimore's old City Hall, taking into account 12 percent inflation, restoration in 1975-76 would be $29.50 per square foot, opposed to new construction, ran from $40 per square foot for a city office building to $60 to $100 per square feet for new City Hall construction.

Besides specific case examples of projects that are already
completed or on the verge of completion, there have been federal programs introduced that will help the developer, neighborhood action group or the private individual in undertaking a preservation project and justifying its economic value in today's society. These programs have been introduced in the federal system, state level, and the local city governments.

A specific Federal program introduced in 1976 was the Tax Reform Act of 1976 and aided preservation in the following ways:

1. It allows a five-year write-off of expenses incurred in the rehabilitation of commercial buildings that are historic landmarks.

2. An owner of a certified historic structure will not be allowed deduction for the costs of demolishing the building.

3. A developer of a new structure to be erected on a site of a demolished landmark will no longer be allowed accelerated depreciation which enabled him heretofore to quickly recover actual cash investment.

There are also federal and state funds available which are primarily set up for the restoration or renovation of exterior facades that may be in dire need of repair because of deterioration, building codes or neglect.

There are Special Improvement Districts that can be set up within a neighborhood or central business district that allows the individuals to set up goals and plans that will improve their streets, their parking situation and various other elements that will aid in revitalizing these improvement districts. The money involved comes from the people themselves within the districts and is worked out on a tax base of what the
revenue will be, once the stages of the project are completed and the increased revenue is brought into the community so that low cost loans will be issued for construction of the project.

Another economic factor that is favoring preservation is the availability of low interest loans. Some of the larger cities in America have been setting examples and showing what can be done within their own cities. San Francisco, Washington, Seattle and others are the ones showing America preservation is feasible and not just a museum piece to our society; but instead, a working element of today's and tomorrow's resources.

Once we have understood the definitions, economics, and feasibility of preservation we then need to ask ourselves just what makes a building worth saving and undertaking as a preservation project. The following list is then a good collection of background information in considering a building for preservation:

1. Is the building of historical or architectural importance: state, local, or a unique architectural example of a period?
2. The size of the structure and the disposition of its rooms.
3. The location of the structure: city or town, or county; availability of supporting or auxiliary facilities.

All of these definitions, examples, ideas and basic frameworks will be carried over into the next part of the thesis in formulating answers and possibilities in the research and analysis of the city of Butte and the Metals Bank Building.
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16

GRANDT — DEVELOPMENT OF BUTTE AND THE HUBBIE HAIK FORTUNA

Butte since the formation has played a very important role in
being a major city of eastern Montana. Butte has also developed into
the center hub for mining, farming livestock and timber products. The
area also has a central economic center for several large companies
surrounding the area called "Butte, Bell on earth."

Butte’s central business district has a strong historic flavor
and lots of historic buildings, making it the heart of the city. One of the
most notable buildings is the Old Court House, which is now a hotel.

Butte is known for its music with an active, well-developed and staffed
ballet, symphony and theater groups, coupled with golf and entertainment
with its restaurant, radio and television stations. Butte also offers interna-
tional opportunities for exciting living. These include the golf course,
the art scene, and museum scenes. Butte is home to numerous
world-class golf courses, like the Beloit Golf Course, which

At the heart of the Butte, Butte is surrounded by a beautiful
view of the Bitterroot Valley of Idaho, with its snow-capped peaks
flanking in every direction. Mountains and the valley are
in full force, and the city is always a welcome retreat in the

ANAOLYSIS OF BUTTE
Part III - Analysis of Butte and the Metals Bank Building

Butte since its formation has played a very important role in being a major city of western Montana. Butte has also developed into the central hub for mining, farming, livestock and timber interests. The town also is a central economic center for several large counties surrounding the often-called "richest hill on earth."

Butte's Central Business District has a strong historic flavor of late Victorian American character in its buildings. There is also a feeling of great heritage that has been well documented throughout the years and there seems to be a need for a new spirit to be created to equal that of the past.

Butte provides the public with modern well-equipped and staffed hospitals and medical clinics; sources of news and entertainment with its newspaper, radio and television stations. Butte also offers recreational opportunities which contribute to pleasant living. These include two golf courses, two ski areas, well developed; several service clubs, proximity to Yellowstone Park on the south and Glacier National Park on the north.

At the turn of the century, Butte was at its prime with a population close to 100,000, full of life, color and a deep heritage that showed up everywhere a person looked. Copper was King and the unions were in full force, and Standard Oil wanted to control it all. All of this prosperity, wealth, expansion developed Butte into a thriving
POPULATION STATISTICS FOR BUTTE
metropolis in the middle of a developing wilderness. But the old saying, "All good things must end" happened in Butte and brought a tremendous loss in population and a gradual and slow death to a once busy city core.

Times and ideas have changed pertaining to what the city core is, and has developed a trend towards their strip development to the outlying suburbs and away from the city core. But the people in Butte are reawakening and realizing what their city core has to offer.

Their first step was to evaluate what their problems are within the old city core and get them out into the open. The problems found in the old central business district were:

1) **City Government** - The city finds the CBD property demanding more services but contributing less tax revenue.

2) **Planning Board** - The Board believes that the land should be reserved safe from mining expansion from the Anaconda Company.

3) **Land Owners** - The CBD has a high percentage of absentee landlords who do not want to develop or invest towards long-term investments.

4) **Merchants** - Leaders of the merchants have expressed a "do nothing" attitude.

5) **Banks and Lending Institutions** - These people are reluctant to back long-term investments in the CBD area.

6) **Anaconda Company** - Open pit mining operation and the expansion of the pit into the existing city core lays as a threat.

After Butte had realized what the problems were within their central business district, they began a framework that they would have to
<table>
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<th>BUTTE CBD EXISTING LAND USE</th>
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<td>(GROSS FLOOR AREA IN SQ. FT.)</td>
<td>335,383</td>
<td>744,960</td>
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<td>527,736</td>
<td>593,401</td>
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<td>SPACE</td>
<td>HOTEL - MOTEL</td>
<td>OTHER LAND USES</td>
<td>RESIDENTIAL PARKING</td>
<td>OFF STREET SPACE</td>
<td>TOTAL FLOOR SPACE</td>
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</table>
follow through to complete any rehabilitation project undertaken within the city. Some of the basic considerations for the rehabilitation of the CBD were:

1) Poorly designed or buildings beyond repair should be demolished.

2) Existing good buildings should be properly and expertly rehabilitated with some new buildings being introduced to fit in with the old and in a similar scale.

3) It is important to create and maintain new apartment and townhouse residences in the CBD to retain round-the-clock habitation and activity within the downtown city core.

4) A need for generous landscape treatment with the introduction of small "vest pocket" parks.

5) Certain alleys should become pedestrian ways with trees, shrubs and benches.

6) Certain vacant areas should become landscaped parking lots.

7) Various paving materials should be used to segregate various uses.

Since the formulation of the above criteria for the revitalization of the downtown, Butte has taken steps to save their downtown city core.

The first thing that was done was a designation of the central business district with set boundaries and an application for this assigned
area to become an Historical District and a part of the National Register of Historic Plans. Once this had been approved by city, state, and federal authorities, federal funds, tax incentives, various types of loans and national recognition would become available to the people involved with the revitalization of downtown Butte.

Another important issue that has been answered within the last year is an announcement from Anaconda Company on future expansion of the Berkeley Pit. In May, Anaconda announced that there would be no more western expansion towards the city core until at least after the year 2010, and then at that time a complete study of the pit would have to be re-examined as far as its feasibility and economic gains. So in the meantime the pit would expand eastward and exploration of possible new sites for mining would be conducted. This statement within itself relieved one of the problems of the city core: eventually falling into the arms of the Berkeley Pit. This statement alone sparked a response among concerned individuals just waiting for an assurance before carrying out plans in rehabilitating various structures throughout the city core.

Another plus factor for the rehabilitation of the CBD came from the Anaconda Company. They have announced a one-million dollar renovation project of the upper floors of the distinctive Hennessey Building. This alone can serve as a stimulus for other concerned landlords to begin the long awaited renovation projects of their own buildings.
ANALYSIS OF METALS BANK BUILDING

LOCATION

The location of the Metals Bank is in the middle of the Central Business District in Sulit, Portugal, and near the downtown area, with the main attractions being a hotel and

HISTORY OF THE BUILDING

The history of Sulit alone contains a wide variety of colorful history that has added to the charm and character of the town. But this colorful history also varies with its individual buildings located throughout the town. The Metals Bank building, for which this thesis is about, is at no exception.

Before the present Metals building was ever built, Sulit was an important role in the early day continuing of the mining copper mines. In 1975 the building that was the present Metals is the main building of a converted warehouses and office space, with occasional named historic attractions. What made the building unique was its ten puddings. The one off main street for the sugar, then and much more was cut off the windows for the use of the peepholes were cut out windows of the town and viewing to main building in town. These led up from the main entrance to a series of wide-type entry doors into a separate pumpkin with no iron gate on the entrance of the doors.

As time passed, Sulit, the Metals charged with the times, by then moved behind the addition of a more modern type of utility.
The Thesis Area: The Metals Bank Building

Location:

The location of the thesis area is in the middle of the Central Business District in Butte, Montana. Its exact location is on the corner of Park and Main, with the mailing address being 8 West Park.

History of the Building:

The City of Butte alone contains a wide variety of colorful history that has added to the charm and character of the town. But this colorful history also carries over to individual buildings located throughout the town. The Metals Bank Building, for which my thesis is about, is of no exception.

Before the present bank building was even built the site played an historic role in the early day character of the booming copper camp. In 1893 the Comique Theater was built on the present bank site and housed stage performances on the order of a combined vaudeville and burlesque shows, with occasional added feature attractions. What made the Comique unique was its two entrances: the one off Main Street for the common trade and another entrance off the alley for the use of the respectable more notable figures of the town who wished to see, but not to be seen. Steps led up from the alley entrance to a circle of stall-type boxes, each box a separate compartment with an iron bolt on the inside of the door.

As Vaudeville disappeared, the Comique changed with the times. It then turned toward the direction of a more refined type of variety
theater. But as the times changed again and the age of movies came alive, the Comique became the first motion picture theater of the city.

In 1906 we see the demolition of the Comique Theater and the introduction of the Metals Bank Building, which reflects the feelings of that era towards architecture with the introduction of the stately and impressive eight-story steel, brick and fireproof building. The building reflects the tri-part attitude with base, column, and capital which was one of many phases of the development of the skyscraper.

The building gained much of its charm and elegance from the noteworthy architect Cass Gilbert, whose office in New York did the design and supervision of the project. Cass Gilbert is one who designed other great buildings, such as the Woolworth Building in New York City, Minnesota State Capitol in St. Paul; and another fine example located again within the boundaries of our own state is the Montana Club in Helena.

The Metals Bank Building has had several names throughout its long history, the first of which was the State Savings Bank, which was owned by F. Augustus Heine, one of the Copper Kings who fought to control the Richest Hill on Earth. It is believed that after the Panic of 1907 and the failure of Heine's New York bank, he was able to pay back all the losses to his customers from his assets in the State Savings Bank in Butte.

After the death of Heine in 1914, the bank remained in the hands of the Heine family until 1918 when the interests of the deceased Marcus Daly, another Copper King, bought the bank and the new name became the Daly Bank and Trust.
The Daly Bank and Trust only lasted for eight years until in 1926, when it was again sold and became the Metals Bank and Trust Company. The Metals Bank remained in the building until last year when they moved in across the street into their new quarters.

So at present date the building is virtually vacant, with the exception of a few floors being occupied by several offices and a couple of shops found on the street level.

**Visual Description of the Building**

This eight-story steel, brick and stone fireproof building was designed by Cass Gilbert in 1906 for the State Savings Bank. A portion of the south end sits on the site of the old Theater Comique.

The north facade has one and one-half story dressed gray stone first floor with flat, engaged pilasters supporting a large stone pedestal for the upper brick floors. This first floor has three large circular arches in it. The west arch frames a copper-trimmed entry to the elevator lobby and the middle arch contains a quasi-Doric entry. In this arch are two un-fluted columns supporting a stone pediment with the words "Metals Bank" carved into the architecture. The east arch is a window area.

The brown brick walls above the stone first floor form three Tudor arches above the sixth floor. The arches have large stone keystones and slightly projecting brick trim framing the arches. The paired windows are recessed into the arches. They have corbeled stone sills and metal frames, while the brick panels between floors have metal trim.

The seventh floor is set apart by a corbeled stone string course with flat yellowish brick brackets. The paired windows have round arches
with stone springing stones. The walls are yellowish brick with dark brown trim bricks and the pilasters have dark brown diamond patterns on them. Above the recessed window bays of the seventh floor, the brick corbels are below the ornate projecting metal cornice. The parapet has a stone capping.

Ornate wrought iron balconies project from the outside windows of the seventh floor and a wrought iron false balcony wraps around to the east facade on the second floor.

The east facade is similar in design to the north facade except that the basement is above grade level, due to the sloping site, and it has four wrought iron balconies on the seventh floor.

The building is "L"-shaped, wrapping around behind the building to the west. The windows on the other walls (south and west) have a slight brick arch with stone sills.

Internally, the elevator lobby has marble walls and pink marble steps. The building has a wrought iron open stairway. The banking lobby features ornamental plaster dentils, columns and unique ball decorations. It has a huge polished steel vault in the rear. The upper floors have a single-loaded corridor with a hexagon tile on each floor. The walls are plaster with a marble kickboard; the woodwork and doors are varnished oak. The third floor has been modernized, while the other floors retain their original appearance.
Basic Advantages of the Building:

The Metals Bank cannot be renovated on pure pity, but instead, it should be renovated on sound, concrete advantages that will blend well with whatever use the building will take during the design phase. The points that make the building ripe for conversion are:

1) The building is sound and basically in good shape, pertaining to the structural elements of the building.
2) Two new elevators have been installed in the lobby area within the past five years.
3) The general layout of the existing floor plans of the various floors will allow easy and efficient renovation to occur.
4) Parking facilities are within easy accessibility to the building.
5) The Traffic and Mass Transit systems work well with the building, with streets working one way and two-lane system around the building, and with the bus system stopping in front of the building.
6) The interior walls are non-load bearing and will allow easy conversion to new uses.
7) There are relatively high ceilings which would allow the introduction of new mechanical and electrical systems.
Considerations to Bring Building Up to Codes:

There are many assets and advantages that the Metals Bank contains, but at the same time, there are basic issues and codes that need to be identified to make the building safe at today's standards. Certain things that will need to be changed and added are:

1) The introduction of a sprinkler system throughout the building which will bring the building up to fire codes and allow a reduction in insurance rates.

2) A reworking of the complete electrical systems with the updating of circuits and capacity of the circuits.

3) A new heating system with a boiler and possible new duct work are within the scope of the project and the possible introduction of air conditioning to the building.

4) Since Butte is located in Zone 3 of the earthquake map, provisions will need to be taken, with the introduction of cross bracing in the interior to meet these codes.

5) The windows located within the curtain wall in the interior corridors will have to be replaced to meet with the glass glazing requirements of Standard Building Codes (Sec 5406).

6) Some of the exterior windows should be reworked to cut down on heat losses; not so much to meet codes as to cut down on energy costs.

Of course not all codes pertaining to new building construction can pertain to existing buildings. But the codes for existing building codes can also be waived by the local building inspectors according to
Section 203 (i) for Historic buildings, for which the Metals Bank meets the requirements within the section. This would allow some things to be avoided but would have to be approved by city authorities.
Part 19: Program for the Building

One that the reader is completed or an understanding of the
various elements that are involved within a comprehensive project for the
new construction, a program must be developed that will bring all
this information together and can complete statements.

The program will also state the reasoning and thought behind the
allocation of the various different functions that will occupy each floor.
This can be substantiated by the current analysis of the building and
of the town.

The facilities that will occupy each of the floors are thought to
be the best possible used for the various spaces available, making them
more efficient and used to their utmost capability.

The following is the program for the various floors of the
Retail Tower:

Main Level Store

This area has several shops for the different stores that will
come from the one. Also, up to about 15%, the various shops that will
occupy this level are:

1. Toy Store
2. Gift Shop
3. Flower Shop
4. Video Store

Each of these shops will work well with the space available and
in the style of the proposed theme district.
PART IV: PROGRAM FOR THE BUILDING

Now that the research is completed on an understanding of the various elements that are involved within a rehabilitation project and have been comprehended, a program needs to be introduced that will bring all this information together into one coherent statement.

The program will also state the reasoning and thought behind the selection of the various different functions that will occupy each floor. This can be substantiated by the previous analysis of the building and of the town.

The facilities that will occupy each of the floors are thought to be the best possible uses for the various spaces available, making them more efficient and used to their utmost capability.

The following is the program for the various floors of the Metals Bank.

Main Level Shops

This area has rental space for five different shops that will range from 490 sq. ft. up to 2,460 sq. ft. The various shops that will occupy this level are:

1. Drug Store
2. Camera Shop
3. Book Store
4. Gift Shop
5. Florist Shop

Each of these shops will work well with the space available and to the needs of the downtown business district.
The advantages that this level has for the aforementioned occupants are as follows:

1) The shops have access from both the street and the corridor within the building which is serviced by two elevators and two stairways.

2) All of the shops have show windows which can receive visual contact from the individual on the street and the individual within the halls of the building.

3) Storage space is readily available just below the shops in the basement area.

Bank Level

Since the Metals Bank and Trust Company has moved their banking facility across the street, this leaves this floor open for a new enterprise to move in and take over. There are only a few businesses that can move into a space that was once a bank and not require such drastic changes in the layout of this floor.

The business that has been selected to take over this floor is a Land and Insurance Title Company, which has many of the same functions that a bank contains.

The counter space, vault, storage area, and office space are all elements that make up a land title insurance company.

To further substantiate this new business moving into this level would come from an analysis of the existing businesses presently within the city. Upon this examination, one will find that the present facilities are overcrowded for the space they are presently occupying. Also all the
companies presently in Butte are foreseeing expansion of the city and the need for a new facility to meet the needs of the public.

Second Floor:

This floor is presently divided up into nineteen private office spaces, with some having adjoining doors connecting the various offices.

This floor will continue as an area for general office space and will include offices that could accommodate the following enterprises:

1. Insurance Companies
2. Real Estate Offices
3. Private Companies
4. Accountants
5. Government Offices

All of these businesses would and will work well with the various other businesses to be located on the different floors of the building.

Third, Fourth, Fifth and Sixth Floors:

These floors will become the home for professional offices that will house:

1. Doctors' Offices
2. Law Offices
3. Dental Offices

There will be variety of spaces available to accommodate the desired amount of area that each of these offices will need for an efficient and economical framework. Considerations toward each of the needs and requirements for the various offices will be examined to accommodate their different functions.

Plus the way each of the floors are presently laid out, the new offices will work out well with circulation, room size, and comfort to
Seventh Floor:

The seventh floor will take on a whole new look and function, different from its original purpose. At the present time the downtown is lacking very much a place that serves meals in the afternoon and evenings. So the intent for this floor will be to create a Restaurant and lounge which will serve the need of the downtown city core. This will also serve as an entertainment stimulus to bring people back downtown in the evening hours. By doing this you will make the people of Butte again aware of their local heritage and also allow them to enjoy one of the most pleasant views of the city and outlying landscape, both during the daylight and evening hours.
PHASE TWO: DESIGN
PHASE II - DESIGN

It is at this point of time that all of the research and data that I have accumulated will be brought together into one complete coherent statement that will aid in the design for the revitalization of the Metals Bank Building. I need to establish my philosophy, my criteria, my basic goals and some of the basic reasoning behind some of the design decisions that will have to be made.

It is during this phase that the actual drafting and rendering will occur to bring all of this material together that can be understood in a graphic presentation for review by the architectural staff and the concerned individual.

But most importantly, this phase will be my contribution and will reflect my deep inner feelings that will be conveyed to you through my design.
The Philosophy that I will use throughout this design process will
will, in fact, even of an initial decision, will serve much to the
first step of the research primarily to the basic orientation of

This will first involve the definition and the word "restoration" on
the basis of the word and of the structure. The work will be completed
within the following will be related to the original levels of the building.

By both I mean that the work will again include the various levels from

Then a long site and emotional concept will rise out of this, which
which remains in the above definition through the structure of

Then the colors and through air would make it clear to afford some to be
integrated by necessary advice, along with necessary advice for the

Of course these different views must be carried out to

- a more inclusive and become visible during the various parts of

- the design taken as a whole and efficient at the various levels. The future

will have to be consistent constructed. The logic follows that these might then

be a rearrangement at the electronic causes, building code, the orientation
of a particular object and a scouting of keep on the internal positions.

But at the same time, any structure can emerge with the internal positions
should not be constrained, but rather be provided with the examination
into the design of each of the various. This will explain the use of the

The major issues are security that this would each the building and thus
Philosophy

The Philosophy that I will use throughout the design phase that will help in some of my design decisions will stem back to the very first stage of my research pertaining to the basic definitions of preservation.

This will first entail the use of the word "Restoration," in the sense of the word that all of the functions that will be occurring within the building will be related to the original uses of the building. By this I mean that shops will again occupy the street level floor. Then a Land Title and Insurance Company will take over the Bank level, which contains many of the same activities that a bank would encur. Then the floors two through six would again return to office space to be occupied by general offices, along with professional offices for the medical and legal professions.

Of course these different floors just can't be cleaned and re-painted and become viable working spaces again. To make these floors economically feasible and efficient to the renters, each of the floors will have to be somewhat re-worked. By this I mean that there would have to be a re-working of the electrical system, heating system, introduction of a sprinkler system and a re-working of some of the interior partitions. But at the same time, the character and charm that the building possesses should not be eliminated, but instead be re-introduced and re-worked into the design of each of the floors. This would employ the use of the word "Rehabilitation," meaning that this would make the building habitable.
again with various new elements being introduced; but at the same time, the elements that make the building unique should be kept. This would entail certain details that appear throughout the structure. Elements like the baseboards, the chair railings, the transom windows above the doors, the ceiling moldings, the window curtain walls along the corridors and the rich woodwork should, where applicable, be recreated back into the interiors of the various floors. By keeping each of these different elements, the charm and elegance will not be lost amongst a mixture of plaster and chrome, to be forgotten and laid to rest for others to not enjoy.

The final floor, or the seventh floor, will employ the definition of the word "Redesign." By this I mean the floor will have a whole new function that will alter its original purpose and function. The seventh floor will become a combination restaurant and lounge, which will house many different activities the floor once had as a floor occupied by general office space. But at the same time, the restaurant and lounge will retain the various different elements that I have mentioned in the above paragraph, setting the mood and character that will become a part of the restaurant's and lounge's theme. This floor will also serve as the catalyst for the other floors within the building, as a drawing card for various activities to occur within the old business district, for a time period past the standard working hours of the downtown area.
CRITERIA AND GOALS
Criteria and Goals

This section will entail a set of criteria and goals that will explain and verify my design decisions for each of the floors from the shops on the ground floor to the restaurant and lounge on the top floor. Incorporated within the criteria primarily on the professional office floors, actual estimated square footage requirements for the various different elements or spaces will be included to help in allocating the proper amount of space needed for these different activities.

A. Street Level Retail Shops

On this floor there are presently five divided spaces, ranging from 490 sq. ft. up to 2,460 sq. ft. and all of the assets and contributions have been listed in Phase I.

The shops that will occupy this floor and the area that they will contain will be as follows:

1. Drugstore - occupying 2,460 sq. ft.
2. Bookstore - occupying 602 sq. ft.
3. Gift Shop - occupying 602 sq. ft.
4. Camera Store - occupying 500 sq. ft.
5. Florist's Shop - occupying 1,015 sq. ft.

Each of the shops will fit comfortably into each of these spaces, allowing maximum visual contact of all merchandise to the customers walking along the street and to those within the building.

The next thing to do would be to take each of the shops selected to occupy each of these spaces and list the criteria and goals that will make up the shops.
1. Drug store - There are two types of drugstores, one being a small "dry store" which primarily handles prescriptions, sundries and cosmetics; and your large variety-type store which often is found to be a part of a chain which would include the elements of the above small store plus a luncheonette, film area, greeting cards and other various items. The type of store that will occupy the space will be of the large variety type of store. Some of the things that will be important to me in working out the space will be the following criteria:

a. Pertaining to the store front, it should remain simple, open and see-through.

b. The interior should be well organized and grouped or departmentalized.

c. The departments that will be requiring or using counter service space will be prescriptions, cosmetics, tobacco, film and radios.

d. The prescription department is usually located in the rear of the store.

e. The check-out counters are usually located at the front of the store.

f. The prescription and pharmacy work areas are elevated one or two steps above the main floor; it provides a better view and control of the entire store.

2. Bookstore - In a bookstore each customer requires privacy, direct access to the books displayed and sufficient light for comfortable reading. Another factor to be considered is that all shelves should be within normal reaching distance and that any aisles should not be less than three feet wide, with main circulation aisles being around six feet.

3. Gift Shop - In gift shops, merchandise is seldom bought
without the element of touching, seeing and handling. In the arrangement of the various merchandise items, the objects can be arranged according to:

a. Material, color and texture
b. Function
c. In mixed groupings coordinated to probable use.

Areas of shelving with glass and mirrors to create reflections also aid in the appeal of the merchandise to the customers.

4. Camera Store - The camera store has much of the same criteria of that of a Gift shop. Although a lot of the merchandise will be handled by the customer, a control over the amount of handling should be had by the owner or salesman. This could be brought about by large amounts of glass enclosed showcases for maximum visibility but minimum amount of handling.

5. Florist Shop - The Florist shop combines selling and display areas for maximum use of space. The show windows are always open to display the entire shop's interior, which blends well with the space available and allotted for this shop. The use of mirrors and areas for natural growing vegetation serve as a natural background which reflects and creates a mood throughout the shop. Within the layout of the shop should be a desk area on the order of a stand-up type that would allow the writing of cards and at the same time become counter space for the cashier.

B. Bank Level - Land Title and Insurance Company

Many of the activities that occur within a bank blend very well with the needs and requirements of a Land Title Insurance company. These
would entail the counter space, vault, record storage area and general open space for the different working areas; so much of the interior will not have to be altered, but at the same time, changes will have to be made to accommodate the new business. One change would be in the scale of the ceiling with the relation of the worker on the floor. In this space there is a 24-foot ceiling that should be retained for the relationship between the large arched windows along the exterior wall and the ceiling. Something that can be done to bring the scale down to the human scale would be the introduction of planters, vegetation and small planter-type trees to break the openness to the ceiling for those working within the space. This also gives the space appeal and charm and a more human feeling.

C. Second Floor - General Office Space

This floor will primarily retain the same purpose for which it was originally designed. The floor will be divided into various types of office spaces that will range from single private offices to multiple office spaces.

The wide range of spaces available will blend well with the various different types of businesses that will be occupying these offices. Some of the businesses that will be moving in and occupying these offices will include Certified Public Accountants, Insurance Agencies, Real Estate Companies and private small business firms.

The interiors will retain the same character and style that the building contains now and has been mentioned in the previous sections of
Phase II. Of course the new life-supporting systems will have to be introduced to make the offices economical and adequate for today's standards and needs for rentable office space.

D. Third and Fourth Floors - Legal Offices

Rental space for legal offices pertaining to rental area per lawyer varies from 230 to 1,212 sq. ft., depending upon the type of law practice involved. But the median for the average lawyer and the average practice is approximately 484 sq. ft. per lawyer.

There are various divisions of rooms in all types of law firms, ranging from single man firms all the way up to four and five man firms, and even up to the larger more popular corporate firms. The type of firms that will occupy the various spaces available on these two floors will house firms ranging from the single man office up to the four man firm. These appear to be the most occurring type of firms found in Butte and the surrounding area. Plus firms of any larger size tend to become too stretched out within the limits of these two floors.

The basic requirements pertaining to the type of spaces needed and the actual square footage for these different firms will be shown in the following tables:

1. One Person Law Office: Basic Requirements -

<table>
<thead>
<tr>
<th>Category</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Reception Area</td>
<td>100</td>
</tr>
<tr>
<td>b. Secretarial Space</td>
<td>100</td>
</tr>
<tr>
<td>c. Lawyer's Office</td>
<td>150</td>
</tr>
<tr>
<td>d. File Area</td>
<td>50</td>
</tr>
<tr>
<td>e. Library Area</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total sq. ft.</strong></td>
<td><strong>450</strong></td>
</tr>
</tbody>
</table>
2. Two Person Law Office: Basic Requirements -

<table>
<thead>
<tr>
<th>Category</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Reception Area</td>
<td>150</td>
</tr>
<tr>
<td>b. Secretarial Space</td>
<td>250</td>
</tr>
<tr>
<td>(2 Secretaries)</td>
<td></td>
</tr>
<tr>
<td>c. Lawyers' Offices</td>
<td>300</td>
</tr>
<tr>
<td>(2 Lawyers - ea. 150 sq. ft.)</td>
<td></td>
</tr>
<tr>
<td>d. Library Area</td>
<td>200</td>
</tr>
<tr>
<td>e. File Area</td>
<td>150</td>
</tr>
</tbody>
</table>

Total sq. ft. 1,050

3. Three Person Law Office: Basic Requirements -

<table>
<thead>
<tr>
<th>Category</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Reception Area</td>
<td>200</td>
</tr>
<tr>
<td>b. Secretarial Space</td>
<td>300</td>
</tr>
<tr>
<td>(3 Secretaries - ea. 100 sq. ft.)</td>
<td></td>
</tr>
<tr>
<td>c. Lawyers' Offices</td>
<td>450</td>
</tr>
<tr>
<td>(3 Lawyers - ea. 150 sq. ft.)</td>
<td></td>
</tr>
<tr>
<td>d. Conference Area</td>
<td>200</td>
</tr>
<tr>
<td>e. Library Area</td>
<td>200</td>
</tr>
<tr>
<td>f. File Area</td>
<td>150</td>
</tr>
</tbody>
</table>

Total sq. ft. 1,500

4. Four Person Law Office: Basic Requirements -

<table>
<thead>
<tr>
<th>Category</th>
<th>Sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Reception Area</td>
<td>200</td>
</tr>
<tr>
<td>b. Secretarial Space</td>
<td>400</td>
</tr>
<tr>
<td>(3-4 Secretaries)</td>
<td></td>
</tr>
<tr>
<td>c. Lawyers' Offices</td>
<td>600</td>
</tr>
<tr>
<td>(4 Lawyers - ea. 150 sq. ft.)</td>
<td></td>
</tr>
<tr>
<td>d. Conference Area</td>
<td>200</td>
</tr>
<tr>
<td>e. Library Area</td>
<td>300</td>
</tr>
<tr>
<td>f. File Area</td>
<td>200</td>
</tr>
</tbody>
</table>

Total Sq. ft. 1,900
Certain ideas or aspects in the basic plan elements of law offices are advantageous to a firm's success. The most desirable orientation for offices and work rooms would be to the North. Another aspect is that outside exposure is desirable for offices and advantageous for large work areas, conference rooms and library. It is also important to keep secretaries close to their lawyers because of the close working situation that is required between a lawyer and his secretary.

E. Fifth and Sixth Floors - Medical Offices

These two floors will be occupied by medical and dental offices which will range from the smallest form of practice to the average or two-person practice.

There are eight basic elements of a medical office and each has a specific purpose and requirement. These elements are as follows:

1. Receptionist Area - which serves as a control station and business office and will vary in size according to the size of the practice.

2. Waiting Room - again varying according to the size of the practice and should serve as a first impression to the patient, with a home-like appearance and a view to the outside.

3. Consultation Room - There should be one for each doctor and the furnishings should be tasteful and the room spacious.

4. Examination or Treatment Room - The number of rooms will depend upon the use of space and the amount of time available by each doctor. The rooms need to be efficient with adequate light and equipment needed for rapid and easy work.
5. **Laboratory Area** - the size will depend upon the nature of the practice and the amount of lab work needed at the office. The Lab should also contain sufficient counter space for the lab work and the Lab should be contiguous with toilet facilities.

6. **X-Ray Room** - This will depend upon the practice and its needs, and will have to meet all state and city codes.

7. and 8. **Utility and Service Areas** - will depend upon the needs and requirements of each practice.

The Dental Offices do require many of the same areas that are found in Medical Offices, but the total amount of area is much less and can be better understood in the following allocation of space requirements:

1. **Dental Office occupied by One Dentist - Basic Requirements:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Reception Area</td>
<td>150</td>
</tr>
<tr>
<td>(5 to 7 people)</td>
<td></td>
</tr>
<tr>
<td>b. Business Office</td>
<td>150</td>
</tr>
<tr>
<td>c. Consultation Area</td>
<td>150</td>
</tr>
<tr>
<td>(Doctor's Office)</td>
<td></td>
</tr>
<tr>
<td>d. Treatment Room</td>
<td>300</td>
</tr>
<tr>
<td>(2 rooms x 150 sq. ft.)</td>
<td></td>
</tr>
<tr>
<td><strong>Total Sq. Ft.</strong></td>
<td><strong>750</strong></td>
</tr>
</tbody>
</table>

F. *Seventh Floor - Restaurant and Lounge*

This is the final and probably the most important floor of the entire complex. The theme or concept of the entire floor will stem back to the rich and colorful history of Butte and will be reflected in each of the different areas that will be found throughout the restaurant and lounge.
The history of Butte revolves around the many different distinct heritages that became so much a part of the city. With each of these heritages being so well documented and photographed, the reflection of each of these heritages can become a part of the decor. The particular heritages that will become the backbone and dominant features of the restaurant and lounge will include:

1. Irish
2. Oriental
3. German
4. Finnish
5. Italian

The restaurant will allow itself to be divided into five different areas that will house artifacts of each of the above nationalities. Along with this visual history will come Menues typical of each of the nationalities, along with a staid menu.

Each of these separate heritage areas will be oriented to windows that offer the most spectacular views of the old city itself and the outlying mountains. This restaurant and lounge will be unique in a vast area surrounding Butte, making it the finest such facility located on the top floor of a high-rise building in the region.

The location of the various functions within the restaurant should allow easy and efficient work to occur. Productivity can be greatly reduced because of improper placing of these different areas, thus resulting in loss of profits and patronage.

The basic breakdown of the various space requirements that will be needed on this floor are as follows:
## Basic Requirements -

<table>
<thead>
<tr>
<th>Category</th>
<th>Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Dining Room (125 people capacity)</td>
<td>1,500</td>
</tr>
<tr>
<td>b. Bar Area (50 to 60 people capacity)</td>
<td>850</td>
</tr>
<tr>
<td>c. Kitchen &amp; Storage Area</td>
<td></td>
</tr>
<tr>
<td>(sufficient space for the type and amount of food served)</td>
<td></td>
</tr>
<tr>
<td>Total sq. ft.</td>
<td>3,350</td>
</tr>
</tbody>
</table>
In conclusion of my senior project, I was excited to see the results of my research and the different procedures that were implemented. I wanted to showcase the effectiveness of using the different rental tools available and decide on which of my own buildings could have been improved.

As far as the research phase of my project is concerned, I was extremely pleased with the solution. Of course, many other things could have been considered. I wish there were more efforts being put into trying to save energy at the town hall facility. However, I am thankful that an efficient system was created for my senior project.

All in all, I would want to extend the thanks of all of my colleagues in various different areas who contributed towards the success of my research and my senior project and were on the rest of my entire team.

SUMMARY
Upon completion of my thesis project, now I am able to sit back and review the different procedures and processes that I used throughout my thesis. By doing this I am able to see what worked well and also what else could have been included.

As far as the research phase of project is concerned and that was outlined in my methodology within this book, I wouldn't change any of the directions and attitudes that developed. One area that I wish could have added to the research would be an actual breakdown of costs for different rental floor areas to compare and aid in computing that of my own building. Since this information is not available at this time but is being done by the city of Butte, any further analyses of the updown area and its buildings should include this information.

As far as the design phase of my project is concerned, I am very much pleased with the solution. Of course, like any other thesis student, I wish there was just a few more weeks available to carry a few of the items a bit farther. Basically I feel that my design conveys all of my thoughts, feelings and emotions that I wanted to convey in my final project.

All in all, I would have to state the thesis portion of my education has developed in various different areas and will greatly influence and aid my actual thought and work for the rest of my profession.
3rd FLOOR PLAN
ONE TO THREE PERSON LAW OFFICES
6th FLOOR PLAN

MEDICAL & DENTAL OFFICES
FOOTNOTES

1. A.I.A. Journal, August 1974, p. 49


BIBLIOGRAPHY


