REHABILITATION
OF THE
BUTTE MINERS UNION HALL
BUTTE, MONTANA

jon hopwood
spring, 1980
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ADAPTIVE REUSE OF THE BUTTE MINERS UNION HALL

by

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A professional paper submitted in partial fulfillment of the requirements for the degree of

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INTRODUCTION
INTRODUCTION

This thesis involves an issue that is relatively recent in concept within our built environment; one that is gaining in recognition and importance. That specific issue is what should be done with historic structures which were so well designed and constructed that they have outlived their original functions. Traditionally the answer has been to demolish old, rundown, vacant buildings, regardless of what historic character they possessed, and build new contemporary buildings. That tradition is slowly being replaced by the idea of rehabilitation and adaptive reuse of these fine old structures. This idea is spreading beyond the profession of architecture and is now accepted by many lay persons as a viable solution to the problem.

Possibly the first form of rehabilitation involved a preservation attitude. A building which was the residence of a historic person, or which served a function important in history, was restored to the historic period for which it was known and became a museum of that period. This is, of course, an essential operation in preserving relics of some historical event, but it can be overdone. Too many museums can be built and, as a result, lose the attribute of being unique. Also a museum is not the appropriate choice for all buildings. A building that was once actively used can lose its vitality and become stagnant when permanently unchanged.

The next step in the evolution was adaptively reusing historic structures, largely for commercial endeavors. Unfortunately, too often in this process insensitive design destroyed the interior character and replaced it with the current trends and fads of modern commercialism. This enhanced the vitality of the building but the historic character was lost.

Through sensitive design and the choice of an appropriate function for a historic building, both vitality and historic character can be retained. By rehabilitating a building for a public function, the vitality of usage by people from the community is established and the influence of commercialism is removed. The scope of this thesis will be to explore the possibility illustrated in the preceding paragraphs, and from them the following statement is established.
THESIS STATEMENT

THROUGH THE ADAPTION OF AN APPROPRIATE CIVIC FUNCTION AND SENSITIVE REDEVELOPMENT OF AN OUTSTANDING EXAMPLE OF HISTORIC ARCHITECTURE, THE RESULTING ARCHITECTURAL FORM WILL SERVE AS A Viable CIVIC SPACE AND ALSO MAINTAIN THE CONTINUITY OF EXPERIENCE FOR THE MEMBERS OF THE COMMUNITY.

THESIS TOPIC

TO DEMONSTRATE THE PRECEDING STATEMENT, MY PROBLEM WILL BE THE ADAPTIVE REUSE OF THE BUTTE MINER'S UNION HALL [FORMERLY THE SILVER BOW CLUB] LOCATED IN BUTTE, MONTANA, FOR CIVIC USE AS A PUBLIC LIBRARY.
The first part of the statement establishes the premise that the chosen new function must be appropriate and the redesign be sensitive. These two items, when handled correctly, will insure that the impact of the redevelopment will have a minimal effect on the integrity of the historic character of the building. The choice of a civic function, more specifically a public library, will insure that the building will be in active use by members of the community while the historic character can be preserved without the necessity to return a profit. The second part of the statement deals with preserving the continuity of experience and involves people using and enjoying a building within its contemporary period while it is maintained for the enjoyment of present and future generations. It deals with the premise of the building becoming a living "history lesson", recalling a past culture and lifestyle which will, hopefully, instill a sense of interest and civic pride in the unique history and character that the community possesses while providing a service to its users.

I feel the choice of a public library is appropriate for the Silver Bow Club due to the similarities of spacial organization that the building possesses and those required in contemporary library planning. The Silver Bow Club contains a number of larger open spaces and spaces which could be opened up for accommodation of stacks and reading areas. It also has smaller, more enclosed spaces needed to house private offices and work areas. The building possesses a feeling of monumentality which is appropriate for a public building such as a library. Monumentality was a quality possessed by the original Butte Public Library, a symbol of civic pride and wealth for a small western city struggling for recognition as a growing and progressive city. That monumentality was lost when the building was destroyed by fire in the early nineteen sixties and was replaced by a more contemporary design for that period. By returning the library to a monumental building, the original symbolism established for the Butte Public Library would be re-established and the continuity of experience of symbolism will be maintained.

Although adaptive reuse and rehabilitation is gaining in popularity as an alternative to demolition of historic buildings and costly new construction, it is not universally accepted by everyone. So far in my writing I have only given very subjective reasons why this particular building should be saved and why the Public Library should be housed there, as an alternative to a new facility. It also seems necessary to justify a project of this type from a pragmatic viewpoint. Other issues such as practicality of city planning, economics, energy, and historical significance should be addressed.

To adequately serve the literary needs of Butte Silver Bow residents, the Library should double its present size, either by an expansion of the present building or by moving to a larger building. If the choice for a new facility were made, the most logical place for it within the city would be in its
present district, Uptown Butte. Most governmental functions of Butte-Silver Bow are located together on the northwest corner of the C.B.D. The existing Butte Public Library is located two blocks south of the local government buildings. The Silver Bow Club building occupies a corner of the governmental area, east of the courthouse and south of the jail. This suggests that it is the most advantageous site in the Uptown Area for the new library, as it would locate all governmental activities in one area, and would reinforce the northwest corner of the C.B.D. as a true civic center.

Due to recent large, devastating fires in Uptown Butte, ample land exists for new construction in addition to 700,000 square feet of unoccupied useable floor space. A precedent should be established to find uses and occupancies for the vacant spaces before any major new construction is considered. Local government can take a step in this direction by setting an example of adaptive reuse for its new library; possibly a chain reaction would be started. This has happened in many of other cities around the country.

Several economic advantages for adaptive reuse, especially by local government, can be cited. In my research I have encountered several studies on the cost of rehabilitation versus new construction. No uniform pattern of construction cost saving can be established but, evaluated on an individual case basis, savings of 25% to 33% have been achieved. These savings can be attributed to shorter construction periods, shorter construction loans at lower interest rates, and less local neighborhood opposition to new construction.

Other attractive economic incentives for a local government to undertake a rehabilitation project would be funding in the form of preservation grants and loans, thus lessening some of the burden upon the taxpayers of Butte-Silver Bow. Finally, in a strong labor town such as Butte, the fact that most of the construction cost is labor intensive is very attractive, with the prospect of benefiting the local economy in the form of wages to the members of local labor organizations.

In view of the changing public consciousness toward energy conservation, the destruction, or even vacancy, of a viable old building can be considered wasteful in terms of energy: production of new materials, construction, demolition and maintenance. If a historic structure can support a new use, then the destruction of the building produces energy waste in the form of the energy expended to produce the building's materials and its construction, the energy expended in the destruction of the building, and finally the energy expended to produce new materials for new construction. Also, studies on twelve inch thick masonry walls, such as that of the Silver Bow Club, have shown that with proper insulation extremely good heat gain and loss cycles can be achieved. Those walls would retain and store heat from the sun by day and release it at night when it is needed.

Addressing the issue of why this parti-
cular building should be saved, one must turn to its significance within the historical development of Butte. To provide a context for this significance, a brief explanation of the history of Butte and the development of its character is included here.
HISTORY OF BUTTE
In the summer of 1864, four men, namely Budd Parker, D. Allison and Joseph and James Ester, while crossing western Montana in search of new gold fields came to a spot on a creek which they described as "a bend of a stream which forms a perfect figure of a gracefully curved Indian bow, and, from the mountain peaks which surround the valley, the glistening waters of the silver bow etched in a shimmering sheen upon a dark ground of fuzzy grass, form a striking feature of the landscape." The small creek was dubbed Silver Bow. The four prospectors then established a camp precisely at this spot and began practicing their chosen occupation. When news of their successful placer panning spread, many prospectors established camps along the creek and farther to the east where the creek meandered across the flat of a narrow valley. The northwest boundary of this valley was established by a lone, steep-sided, hill with a flat top, known as a butte.

These events marked the beginning of mining activity in the Butte-Silver Bow districts and the birth of a city that would eventually become one of the most colorful of western cities. In the winter of 1864 a store was built in Butte and a new town began. Placer activity continued but declined in 1867 due to shallow diggings and remoteness from a good water source. In 1875 William Farlin discovered a silver lead in his Travona mine. He began to extract the silver and, in order to treat the raw ore, established the Dexter mill. Soon after other quartz silver mines were developed and mills constructed, sparking a rebirth of mining activity in Butte and stimulating new growth. For a short time Butte held the distinction of being Montana's primary Silver District. An influx of miners and a boom in building occurred, not unlike other boom towns of Western Montana. Population rose and it appeared as though a permanent city had established itself. Unfortunately, the nationwide Panic of 1893 threatened to devastate Butte in the west. Population fell sharply and Butte almost perished. Salvation appeared in the form of a red metal which was first discovered as being present in the Butte hill in 1882. As silver production fell, emphasis was shifted to the extraction of copper from the mountain. As a result, Butte was saved for the second time within three decades.

Originally the red metal extracted from Butte had to be hauled to the railyards of Salt Lake City for shipment to distant points such as Newar, Baltimore, and even Wales and Germany to be processed. A few very shrewd entreprenuers such as W. A. Clark and Marcus Daly foresaw the potential of mining production on the Butte Hill, complete from extraction of the ore to processing of it on the spot. They invested their money not only in mining interests but also constructed concentrators and smelters for refining the ore. This aspect of complete production of copper
metal established Butte as a major mining center in the west and insured the permanency of the city.

Butte experienced an era of rapid population growth. It grew from a marginal placer town in 1864 to a town with a population of 50,000 in 1885 to a major western city of 65,000 people by 1900. Many of those who came to work in the underground were immigrants from Europe and Asia, thus creating a "melting pot" of citizens who desperately clung to their individual cultures and customs. They traditionally worked, played, and fought with each other, and in doing so, established the unique character for which Butte became famous.

Typical of a western mining town, remote from the "civilization" of the east, and devoid of any organized law and order agency, Butte was a rough city, infamous for its saloons, gambling dens, and brothels. Not only the immigrant came to Butte to earn his fortune, but also the wealthy from the east, attracted by the seemingly endless riches the Butte Hill had to offer. Just as the immigrants fought to preserve their cultures, the rich sought to maintain the lifestyles they had enjoyed in the east. They brought with them a desire for culture and the arts. Adjacent to the saloons, dens of sin, and meager shanties of the working class, arose magnificent mansions, elegant theatres, splendid lodge halls, and huge commercial buildings. Both worlds coexisted in close proximity to one another on the side of a mountain from which both drew their existence.

As the population reached 65,000 in 1900, Butte established itself as a major Western City. In spite of its size it still possessed the characteristics of a small boom town. The best word to describe its character at that period is contrast. It possessed the best and the worst of the world, the rich and the poor, the beautiful and the ugly. Beautiful cathedrals and churches existed near the cribs where morphine-addicted women sold themselves to support their drug habits. It was a place where the rich became richer or joined the ranks of the poor through bad investments, liquor or drug addiction. It also was a place where the poor became poorer by squandering their earnings in the saloons, gambling dens, brothels, and burlesque theatres. But it was also a place for the poor to raise themselves beyond the poverty level by either shrewdness or through pure luck. It was a place of ugly mine waste dumps, slag piles, and smoke filled air surrounded by beautiful, tree covered, mountains. George Wesley Davis, in his 1921 book Sketches of Butte, describes his first impression of Butte as "horror by day, a joy by night."

To some degree Butte is still like that today. The same contrasts have survived throughout the years, giving it a sense of uniqueness found nowhere else. The copper king has been replaced by the wealthy company executive, but the poor hard rock miners are still there. The large, beautiful churches and fraternal halls still stand along with the bars, brothels, and gambling halls. Now it is the ugliness of a huge open pit mine that contrasts with the same tree covered, snow capped mountains.
HISTORY OF THE SILVER BOW CLUB
REAR ELEVATION

Note - Measurements of the rough of the different elements are taken from the roof of the Fourth Floor to the ground level on Floor above.
The character of Butte seems to be timeless. Little has changed since its early heyday of the 1900's including the urban fabric. Much of the architecture erected in the period from 1905 to 1920 still stands today, serving as Butte's most viable commercial building. Each of these buildings, the famous and infamous alike, has contributed individually to the uniqueness of Butte and deserves to be saved to keep that tradition alive.

The Silver Bow Club serves as an excellent example. The tradition of the private men's social club traveled west with the eastern wealthy men who came to profit from the riches in the west. The Silver Bow Club was the first of its kind to be organized in Butte but was preceded by the Pioneer Club and the Rocky Mountain Club in Helena. On October 22, 1882, Copper King W. A. Clark and A. W. Barnard, M. J. Connell, and M. R. Brownlee organized the institution, patterned after the men's clubs of the east. At first the club was satisfied with modest quarters on the fourth floor of the Lewisohn Building, corner of Granite and Hamilton Streets in Butte's business district. At this location the club had the distinction of entertaining such notable people as J. P. Morgan and Henry H. Rogers of Standard Oil. As membership and personal wealth of the members grew, along with envy of the Montana Club's grand new building in Helena, a desire for their own club building arose. In 1905 the members secured property on Granite and Alaska Streets, just east of the Silver Bow County Courthouse, and engaged the newly established design firm of J. G. Link and C. S. Haire, both members of the club, to design the club's new headquarters. The design was completed and plans were approved in May of 1906. Construction began that same year and was expected to be completed by February 1, 1907. Due to several strikes among the craft unions, the building was not ready for occupancy until January 1, 1908 at a final cost of $150,000.

In announcing the completion of the building, the "Butte Miner" ran a half-page article describing its exterior and interior in infinite detail, along with the history of the organization and picture of the new building. The paper labeled the design as being "an adaption of the American Renaissance and art-nouveau styles." Also the paper mentions the Columbus sandstones used on the first floor, the heavy copper cornice which ends the building vertically, and the portico of Ludovici tile above the Alaska Street entrance.

Originally the basement level was occupied by the offices of the Butte Water Company, with a private entrance fronting on Granite Street. The remainder of that floor contained servants quarters, coal, boiler, and storage rooms.

As one ascended the steps from Granite Street and passed through the oak doors he/she was confronted by a vestibule area. The floor, walls, and six steps were of white marble with wall and ceiling panels of painted leather. After going up the six marble
steps and through another set of oak doors, the Main Hall was the first room encountered. It served as both a circulation point to all rooms on that floor as a lounging room. It had a large fireplace of flazed tile and terra cotta with a copper hood and a painting of an old English archery scene above it. The floors were oak and had woven rugs covering them.

This floor also contained the main office, ladies reception room of ivory and gold, mens room, reading room, and stranger's room. To the north of the hall was the grand dining room with its green and red grained woodwork, seven foot wainscoting and hand painted friezes. To the west of it was a smaller private dining room decorated with Japanese motif. Both dining rooms were serviced from a kitchen, cold storage area and serving pantry. A stairway in the kitchen led to the servant's quarters in the basement.

Access to the second floor was gained by the main stairway of quarter-sawn oak. As on the first floor, a large hall served for circulation and lounging, and extended out to the open balcony above the main entrance. This hall was decorated with green wood and Spanish leather, and also contained a large fireplace. It served as access to the library on the southeast corner, card room, on the west, and billiard room on the north. The bar room was in the northeast corner and could be reached from both card and billiard rooms. The bar had nine foot wainscoating with a hard painted border of grape vines above it. The oak back bar featured a hand carved inscription stating "If this be true as I do think, there are five reasons why we should drink. Good friends, good wine, and being dry, or lest we shall be bye and bye, or any other reason why." Above the bar, panels of leaded and stained glass were backed by 123 incandescent lights. This glass matched the stained glass windows in the west wall.

The third floor contained twenty two private apartments for members' use. All four floors were serviced by an automatic birdcage elevator adjacent to the stairway. George N. Smith of Butte was the contractor for the building. The decorations, furniture, and furnishings were from the W. A. French and Company of St. Paul. All of the friezes were painted by John Weberg of St. Paul.

The members of the Silver Bow Club enjoyed their building until 1932. The Depression destroyed many of the members financially, as it did other people nationwide. On December 1, 1932, the Silver Bow Club was sold at sheriff's sale to the Monida Trust Corporation for $52,000. Under the Monida Trust a few alterations occurred as functions changed, mainly to leased office space. The kitchen and dining room remained in operation retained the name of the Silver Bow Club Dining Room. This continued until 1940 when the Butte Miners Union, Local #1 purchased the building. Later that same year, as the independent Butte Local became part of the International Brotherhood of Steel Workers, the building was sold to the
International for $1.00.8

The Miner's Union has occupied the building since 1940, with an office on the first floor in the former reading room. The rest of the first and second floors have been subdivided and are rented as office space to other unions. The dining room and billiard rooms are used as meeting halls. The third floor apartments are now rented to private individuals.
ANALYSIS OF EXISTING BUILDING CONDITIONS
The exterior of the building stands much as it did after completion in 1908. Most of the windows on the south and west sides of the first floor have been removed and replaced with industrial glass block. The stability of the heavy copper cornice is questionable. The cornice will have to be reinforced. Some of the glass panels on the entrance canopy have been removed or broken. Two neon signs have been added, one attached to the entrance canopy bearing the name "Butte Miner's Union", and another cantilevering from the southeast corner of the building.

The space once used by the Butte Water Company in the basement has been divided into smaller office space and is now occupied by a CPA and an attorney. The remainder of the basement remains vacant. The building is still heated by the original coal fired, steam boiler which has been converted to natural gas. The boiler was cast by I. Kruger and Company of Butte in 1907 and bears that inscription. Although still operable, the boiler does not work efficiently and should be retired. The original main electrical control box is also still in service. It contains the old lever type switches with giant cartridge fuses and modern as well as antique electrical meters. The black box has the inscription "The Silver Bow Club, 1907" painted on it in gold lettering. The boiler room has a concrete floor and panjoist roof, thus isolating it from the rest of the building.
structure.

The entry vestibule is virtually unchanged. The marble steps and wall covering are still in good condition as are the leather wall and ceiling panels, which will need only mild restoration, such as cleaning. The heavy oak swinging doors are showing signs of age and will need extensive restoration. The main hall fireplace still retains its copper hood and the brick work appears to be in excellent shape. A trophy case has been added to the mantle, blocking from view the archery scene painted on the plaster above the mantle. The original entrance to the Reading Room was ten feet wide and was defined by wood on either side and triangular pediment above. This passageway has been infilled by a plaster wall up to a height of four feet. Above this partial partition is a narrow band of clear glass and a larger area of frosted glass completes the infill. The clear glass band is covered by a brass screen which was moved from the original Silver Bow Club office. The room is now entered through a doorway cut into the original Stranger's Room. The Reading Room is now occupied by the Butte Miner's Union. The original office is presently vacant. The glass has been replaced by modern glass panels. The original safe remains intact in this room. What was once a narrow corridor separating the rooms on the west side of the first floor and the main hall has been partitioned in several spots. This corridor originally had two ten foot entrances from the hall to it, but they have been infilled and now contain smaller three foot doors. All rooms on this side
have been stripped of their original decor and have been either painted or paneled. With the exception of a squeaky floor, the hall remains in excellent condition, retaining much of its character. The original chandeliers remain, as do the wooden ceiling beams. Surprisingly, the woodwork in this heavily used area is in good condition.

Possibly the worst destruction of historic character of the entire building occurred in the dining room. The kitchen and serving room have been removed, producing one large space. The seven foot wainscoting and ceiling trim has been painted a solid beige color. The structural columns have been stripped of their ornamental wood coverings. Some of the paintings on the south wall have been removed and placed on the walls where the kitchen once existed.

The large main hall on the second floor has been decreased by partition to provide for office space. The ten foot wide entrances to the library and card rooms have been infilled. Both these rooms have been paneled. The fireplace and brickwork in the lounge are in good condition. A linoleum tile floor has been added to the lounge and bar. Other than the new floor, the bar remains virtually unchanged. The billiard room woodwork is untouched but the plaster has been painted in shades of purple and maroon. A stage has been added on the east wall. The alcove fireplace is missing its copper hood.

The third floor apartments have been converted into fourteen private apartments, most-
ly occupied by elderly people. Evidence of heavy water damage from a leaky roof can be seen on this floor.

The building's stairway of quarter-sawn oak is showing signs of years of heavy use but is not beyond reasonable restoration. Next to the stairs in an enclosed shaft is the original open bird cage elevator by Otis. The elevator is still operable but should be replaced. Other exits include the Alaska street door, the rear door, and private office entrance off Granite Street.

The structure of the building consists of 12" masonry load bearing exterior walls with some load bearing interior walls in the basement. All footings for the building are concrete reinforced with two 12" cast iron I-beams. The interior sub-structure is a grid of 12" cast iron I-beams running horizontally in both directions supported by steel pipe columns concealed in the walls. The floor and ceiling joists are 2x16's, 16" on center. The roof structure is made of wood trusses built of 2x10's, placed 16" on center and resting on 36" wooden plate girders. The built-up roof has been replaced within the past year, eliminating the leakage problem on the third floor.

The structure is in very good condition and seems extremely stable. It would only need upgrading to meet building codes and energy standards, thus reducing to a minimum the portion of the budget needed for upgrading and stabilization of the structure. The greatest effort, time and money will need to be spent on restoration and preservation of the interior character.
EXISTING BUILDING
BASEMENT
EXISTING BUILDING
THIRD FLOOR

PRIVATE APARTMENTS
CONCRETE SLAB
12" I-BEAM REINFORCEMENT

STRUCTURAL ANALYSIS

BASEMENT
STRUCTURAL ANALYSIS
SECOND FLOOR
### BUILDING STATISTICS

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</table>
LOCATION ANALYSIS
SITE ANALYSIS

Legal Description: Blocks 16, 17, 18 original townsite.
Gross Square Footage: 12,285 square feet.
Location: The northwest corner of Granite and Alaska Street, Butte, Montana.

Context: The building is located east of the Silver Bow County Courthouse and immediately south of the County Jail. Across Alaska Street stands a two story building which currently houses an automobile dealership. Behind the dealership is the four story Sullivan Building (formerly Murray Building), an interesting brick structure which has a cantilevered walkway around the fourth floor.

Immediately across Granite Street is a vacant lot, the site of the former Lenox Hotel. To the west of this gap is the Carpenters Union Hall, a three story brick building of the same period as the Silver Bow Club. West of the Carpenters Union Hall building is a small wood framed duplex and the new Courthouse Grocery. To the east of the Lenox Hotel lot is the historic Butte Water Company building, built at the same time as the Silver Bow Club for the Independent Telephone Company. Beyond the Butte Water Company Building are other historic buildings such as the Hartford Insurance Building, and the Casey Block.

Conclusions: The Silver Bow Club exists in a historic district and is surrounded by many buildings which were built in the same time period. Nothing should be done which would destroy that fabric, and anything done to the exterior should enhance the fabric surrounding the building.

Views: The first floor views on all sides of the building are limited to traffic, parking, vacant lots, backs of buildings of adjacent blocks and alleys. The north and west side views are undesirable, while the south and east views can be considered marginal.

The upper floors rise above the street and tops of most surrounding buildings, providing more of a panorama of the valley to the south, the historic Central Business District to the east, and the historic mining district to the north.

Conclusions: View is very important for visual relief for the users of a library. The more desirable the view, the more pleasurable the experience of using the building. This seems to indicate that the functions where the most intense reading and studying would take place should be on the upper floors and those requiring less concentration should be on the lower floors. The functions that require little or no view could be located on the parking and alley sides of the building.

Nuisances: The nuisances surrounding the building can be broken down into three different categories: visual, audible, and olefactory.
Audible: The main audible nuisance is that of traffic from surrounding streets. Montana Street is one block away and is a major northwest traffic artery in the city but presents no major problems due to dissipation of sound over distance and by surrounding buildings. Granite Street is a secondary two lane east-west street carrying traffic from the center of the C.B.D. to Montana Street. This presents the most severe noise problem. Alaska Street presents little noise problem.

Conclusions: The most severe noise problem has been pinpointed as traffic noise from Granite Street. This suggests that consideration be given to attenuating functions placed on this side of building. Another consideration would be to place functions on this side of the building in which undesirable noise would have no effect upon the user of the function.

Visual: The visual distractions were covered under the section on views.

Olefactory: The undesirable olefactory problem that exists in the immediate surroundings is that from the diesel exhaust coming from the bus station on the next block to the south. Fortunately, this problem exists infrequently and only on very cold, clear days. It can be handled through filtration of the air introduced into the building for ventilation.

Circulation and Traffic Patterns: The building is one block from Montana Street, a major north-south arterial. It fronts on Granite Street, a secondary two-lane street carrying traffic from Montana Street to the center of the C.B.D. Alaska Street is a very infrequently used tertiary street which parallels the building.

Conclusions: Vehicular access to the building is adequate. Service to the rear can be handled by access from Alaska Street.

Pedestrian Movement: The building is located along a major pedestrian path from the governmental center to the C.B.D. and from the governmental center to parking lots to the north, making it convenient for the pedestrian to utilize the building.

Micro Climate:

Solar: The Granite Street side of the building is oriented to the south, providing good natural light to this side of the building while also introducing a heat gain problem. Special consideration will have to be given to some method of reducing the amount of sun allowed to come through these large windows on the south side of the building without interrupting the character of this facade. The mass of the courthouse to the west adequately shades the building from undesirable late afternoon sun, year round.

Wind: Prevailing storm winds in Butte are from the north and west. The mass of the courthouse to the west and the
jail to the north serve as protection from the cold winds in these two directions, thus alleviating much of the problem.

Other Characteristics:

Centennial Square Concept: The building is presently included in developmental plan produced by the Butte Silver Bow Planning Commission known as the Centennial Square Concept. This plan establishes a centralization of governmental functions focusing on the courthouse. The plan includes the Silver Bow Club as conversion to the public library, conversion of the old fire station on Quartz Street to an archives, conversion of the Christian Science Church on Montana Street to a performing arts center, and conversion of the house of the first mayor of Butte as a tourist information center.

Zoning: The building is zoned C-3-Central Commercial; imposing no restrictions.

Utilities: The building is currently serviced Metro-Sewer, electricity and natural gas by the Montana Power Company, and water by the Butte Water Company.

Isolation: The building is completely independent of surrounding structures. This is important to library planning in the event of fire in an adjacent building.

Proximity: The building is presently located five blocks from the nearest fire and police station, seven blocks from Butte High School, three blocks from Central High School, and is on the fringe of the C.B.D. The close proximity gives a variety of users good access to the building and allows a quick response time by police and fire personnel in case of emergency.
PROGRAMING
PROGRAMMING VARIABLES

The following is a summary of the elements which must be taken into account in the design of a library. They range from the philosophy of planning to the requirements the various mechanical and electrical systems need to provide.

Planning: Historically three precedents were established in the 1880's for the planning of public libraries. The first type was the cathedral form which had a very high ceiling in the reading room with balconies of stacks along the walls. It was visually impressive but proved to be distracting to readers, created more work for staff members, was hard to keep properly lit, and was destructive for the volumes due to heat buildup in the upper levels. The next type was utilized by H. H. Richardson in his libraries. This consisted of a centralized reading room lined with alcoves of book stacks, often two tiers high and, in a few instances, three tiers high. The alcove system shared many of the same problems with the cathedral form, such as high ceilings, difficult vertical transportation of books, and poor lighting. This system, however, was more efficient from a departmentalization viewpoint and could possibly be appropriate for a contemporary solution. The third type proved to be the most popular and was used as the basis of library planning for years. This plan consisted of a series of rooms, each room housing a different department and private reading area. Although popular, this system was

From: AMERICAN BUILDINGS AND THEIR ARCHITECTS: vol. 3
an extravagant use of space and was extremely costly.

Currently the trend seems to involve a large open space with reading areas integrated among the stacks. Books are departmentalized and separated by the arrangement of the stacks. Children have a special area but are not separated from the adult section by permanent partitions but by the arrangement and location of the area itself. This format seems to be a simpler solution more easily understood by a large number of people. It also allows better surveillance of the entire facility by the circulation staff. The children have their own area but should feel apart of the whole facility and not hidden away in the basement.

The open plan format is the most acceptable to the Library Board and staff members. This format should be the one followed in the design as much as the existing structure will allow it. Some adaptation may occur in the favor of the preservation of some aspect of historic character.

In looking at the planning of more specific areas such as the stacks, research indicates that adequate space should be provided for movement of both users and book trucks. The arrangement of the stacks should be in some form of a linear, consecutive sequence that is easily understood. The existing column grid of the structure is 22' indicating that a three foot center to center shelf spacing should be used. This will average 10 volumes/sq. ft. and 7.14 volumes/lin. ft.
For reading areas, a variety of environments and work spaces should be provided, ranging from private carrels to multi-person tables. The illustrations provide standards for dimensions.

Illumination: Illumination is composed of both natural and artificial light sources. Natural lighting, although possessing disadvantages such as inflexibility in planning, heat gain, coldness, glare, and variations in intensity, must be provided for psychological reasons. Windows must exist because the human eye needs distant, visual relief periodically to prevent strain. Artificial light must exist to reinforce natural light and to allow the facility to be used after dark. The quality of artificial light is also more easily controlled than is natural light.

In the design of artificial light for libraries the quality of light is more important than the quantity. Quality of light is defined as being without glare, reflection, shadows on the working surface or great contrasts. Glare can be reduced by choosing non-reflective surfaces for furniture, walls, and floors. Great contrast is anything above a 5:1 ratio of reading surface to table top. Too much contrast is caused by direct sunlight with glare and reflections. Sunlight can be controlled by shading, glare and reflections eliminated by non-reflective surfaces. Shadows are caused by too much space between fixtures and by objects that obstruct the light. To prevent shadows a general rule of luminous ceilings is no more than 8-10 feet between fixtures.

It is generally more desirable to go from a lower intensity to a higher intensity, indicating that vestibule and lobby areas should be less intense than stack, reading, and work rooms. In general 30-35 fc are required for 70-80% of all reading tasks and is sufficient for stack areas. For general luminous ceilings, 70 fc is sufficient.

Noise: Distracting noise in a library come from sources both internal and external. External noise, such as traffic can be attenuated by the walls and windows. Internal noise can be reduced by choice of materials for floors and walls. Areas where a louder audible level is required can be attenuated by area zoning or by putting them under lower ceilings.

Noise produced by mechanical equipment is acceptable as background noise for masking undesirable sounds to a level of 30-35 db.

Environment: The minimum temperature level acceptable for humans is the optimum level for preserving books, indicating a general temperature of about 69 degrees + 3 degrees. A person's feet should be warmer than the head; this can be achieved by having floor level registers and higher cold air returns. The mechanical system used in a library should be one that will heat, cool, maintain an even level of 50% relative humidity and introduce three to four air changes per hour.

Electrical Systems: Electrical service should be designed for flexibility. It should
Fire Protection: A fire is more likely to start in loose papers surrounded entirely by oxygen than in a bound volume on a tightly packed shelf, therefore, the risk is not as great as it would seem. Books are destroyed more quickly by water than by smoke, making sprinkler systems inadvisable. An early warning smoke detector should be provided instead of sprinklers so a fire can be found and put out with a minimum amount of damage.

Structure: For 3' by 7' stacks, the floor load will be approximately 150 lbs./sq. ft.
FACILITY PROGRAM FOR THE BUTTE SILVER BOW
PUBLIC LIBRARY

General Criteria:

The Butte Silver Bow Public Library will be a facility that will serve the educational, informational, and literary needs of the entire County of Silver Bow. The population of Silver Bow County according to the 1970 Census was 41,981. Estimations of future population are for 46,500 in the 1980 census, and over 50,000 by 1990. In order to satisfy future the needs of the people of Butte Silver Bow, the Library Board has estimated a gross number of volumes needed as being 130,000.

As a point of organization the building program can be broken down into the following headings and sub-headings.

Library User Service Functions
1. Location of source process
2. Retrieval of source process
3. Communication of information process
4. Return of source process

Supportive Functions
Non-supportive functions

Special Conditions

The above outline is expanded as follows:

Reader Service Functions - Reader Service Functions are those functions which are directly related to the process whereby the library user finds what he/she needs. Included in this category would be librarian assistance, reading areas, the stacks, and card catalogues. These areas can be broken into the following four categories.

1. Location of service of information - In a public library this is done by the user by either researching a card catalogue or by browsing in displays. For card catalogues a standard of 1 sq. ft./1,000 cards is required.

2. Retrieval of the information - The retrieval process is carried out by the user in a public library. The process involves finding and retrieving the desired source from the storage stacks. Adequate space for circulation of users and book carts should be provided. The stacks should be arranged in an orderly and easily understandable, sequential manner.

3. Communication of the information - Users of the library who are doing extended research will check the books out for study at home. However, a substantial portion of the communication will take place on the premises of the library necessitating the inclusion of reading areas. These areas can be either designated larger areas or smaller areas intermingled with the stacks, using the stacks for visual separation. The ex-
clusion of noise and provision of adequate quality lighting in this area are primary considerations.

4. Return of the information - This function includes both return of books and other materials to the return desk and the return of the materials to their proper spot in the storage stacks. In a public library, the user returns the books to the control where, in turn, a staff member returns the book to storage.

The Control Area - This area should be included as part of reader service but serves a variety of functions, making it impossible to categorize. It serves a point for checkout of materials, return of materials, information, and security. It needs good visibility to all parts of the library and should be readily identifiable by users. Due to its nature it is a noisy area and should be sound attenuated as much as possible.

Supportive Functions - Supportive functions are those areas that are indirectly related to location, retrieval, communication, and return processes. They include such things as comfort of users and staff, administrative offices, staff-work rooms, and storage spaces.

Non-Supportive Functions - Non-supportive functions are those that exist within the facility but do not relate directly or indirectly with the location, retrieval, communication, or return processes. These would include community meeting rooms and display areas.

Other Areas - Mechanical, custodial, delivery, service and vertical circulation.
SPACE RELATIONSHIPS

1. CIRCULATION
2. CARD CATALOG
3. REFERENCE
4. COMMON WORK AREA
5. TECH PROCESSING AREA
6. LARGE TYPE
7. FICTION STACKS
8. NON-FICTION STACKS
9. MONTANA ROOM
10. ARCHIVES
11. STAFF LOUNGE
12. CHILDREN'S AREA
13. MEDIA CENTER
14. READING ROOM
15. COMMUNITY ROOM
16. READING ROOM
17. LIBRARIAN'S OFFICE
18. SECRETARY
19. ADMINISTRATION
20. OVERFLOW STORAGE
21. CUSTODIAN
22. MECHANICAL
23. SERVICE ENTRANCE
AREA: CIRCULATION DESK

philosophy: The Circulation Desk is the main control point of the entire facility. Its functions include charging out of books and materials, return of books and materials, and as the informational center for the facility. It should be adjacent to the main entrance of the library but enough space should be allowed between the two for comfort of users. Visibility of a large area is desired as this is also the main security point of the building. Proximity to the Library Director's Office is desirable for interaction between the two.

REQUIREMENTS: Work stations for 2 staff members.
Storage for cards of charged out materials, money, general supplies, book trucks.
Shelving for 700 volumes - 200 reserve books, 500 sorting and reshelving.

ILLUMINATION: General illumination and feature lighting for displays.

ACOUSTICS: High noise area. Attenuation is required such as a lowered ceiling.

FLOOR TREATMENT: Carpet

VENTILATION: -

SPACE REQUIREMENTS: Two work stations @ 150 ft.²/station = 300 ft.²
700 volumes shelved @ 10 vol./ft.² = 70 ft.²
370 ft.²
**AREA:** CARD CATALOG

**philosophy:** The card catalog serves as the main informational source for the entire facility and must have a central location. It should be adjacent to the reference area and common work area. It should include work space for users copying withdrawn trays.

**REQUIREMENTS:** Cards for 150,000 volumes @ 2 cards/volume or 260,000 cards. Space for four card users.

**ILLUMINATION:** General illumination

**ACOUSTICS:** Simple treatment

**FLOOR TREATMENT:** Carpet

**VENTILATION:**

**SPACE REQUIREMENTS:** Assuming 17" deep trays @ 1000/cards/tray = 260 trays.

- 7 - 5' units @ 12 ft.²/unit = 80 ft.²
- Space for 4 people @ 30 ft.²/person = 120 ft.²

Total space required = 200 ft.²
AREA: READING ROOM

Philosophy: In this area current newspapers, periodicals, and paperback fiction are housed. A variety of seating areas ranging from casual to more serious study should be provided for. This area has been traditionally in the history of the Butte library, one of the more well used areas, particularly by the senior members of the community who congregate there to read the newspapers and to socialize. Due to its more informal nature it should be in a separate area. This area can also be used for display. It should be adjacent to the main entrance.

Requirements: Newspaper and magazine racks. Paperback carousels. Space for 20 people. Desk for one staff member.

Illumination: General illumination with feature lighting for displays.

Acoustics: More informal area necessitating separate area and simple acoustical treatment.

Floor Treatment: Carpet

Ventilation: Ventilate for cigarette smoking.

Space Requirements: Newspapers, magazine, paperbacks = 200 ft.\(^2\)
Seating for 20 @ 20 ft.\(^2\)/person = 400 ft.\(^2\)
1 staff desk @ 60 ft.\(^2\) = 60 ft.\(^2\)
Total = 660 ft.\(^2\)
AREA: NON FICTION STACKS

philosophy: This area will be the single largest collection in the facility. Integrated with the stacks will be seating for 40 people on both tables and chairs, and carrels. Approximately 50% of the entire collection will be housed in this area. The area should be flexible for easy arrangement.

REQUIREMENTS: 47,700 volumes
Seating for 40 people

ILLUMINATION: General illumination overall with capability of task lighting over seating areas.


FLOOR TREATMENT: Carpet

VENTILATION: -

SPACE REQUIREMENTS: 47,700 volumes @ 10 vol./ft.² = 4,770 ft.²
Seating for 40 @ 30 ft.²/person = 1,200 ft.²
5,970 ft.²
AREA: FICTION STACKS

philosophy: The Fiction stacks have the same requirements as the non-fiction.

REQUIREMENTS: 47,700 volumes
Seating for 40 people

ILLUMINATION: General illumination overall with capacity for task lighting over seating areas

ACOUSTICS: Simple treatment

FLOOR TREATMENT: Carpet

VENTILATION:

SPACE REQUIREMENTS: 47,700 volumes @ 10 vol./ft.² = 4,770 ft.²
Seating for 40 @ 30 ft.²/person = 1,200 ft.²
5,970 ft.²
AREA: LARGE TYPE SECTION

philosophy: This is a relatively new addition to the collection and will house a very small portion of the collection. It should be designed for those people who are visually impaired. Shelves must not be above or below eye level. It should be adjacent or in close proximity to the audio media center.

REQUIREMENTS: 2000 volumes
No seating.
Materials housed in separate area but not necessarily in separate room.
Proximity to media center.

ILLUMINATION: General illumination.


FLOOR TREATMENT: Carpet

VENTILATION: -

SPACE REQUIREMENTS: 2000 volumes @ 10 vol./ft.² = 200 ft.²
AREA: MONTANA AREA

philosophy: This area is concerned primarily with artifacts, documents, and references to local and state history. It does not need to be a different room but should occupy a unique area. Also displays of art could be shown in this room. Due to the storage of valuable materials in this room, it is a high security area, making visibility essential. This area needs to be adjacent to the reference area.

REQUIREMENTS: 3000 volumes
Seating for 12 people

ILLUMINATION: General illumination with feature display lighting

ACOUSTICS: Simple treatment

FLOOR TREATMENT: Carpet

VENTILATION: -

SPACE REQUIREMENTS: 3000 volumes @ 10 vol./ft.$^2$ = 300 ft.$^2$
Seating for 12 @ 30 ft.$^2$/person = 360 ft.$^2$
Total = 660 ft.$^2$
AREA: RARE BOOKS/SPECIAL COLLECTIONS/ARCHIVES

philosophy: This area is somewhat of a restricted access area. It is mainly concerned with the security of rare and valuable books, maps, photographs, drawings, documents, etc. It should be an enclosed, high security area. Seating area can overlap with seating in other areas.

REQUIREMENTS: 2500 volumes @ 10 ft./volume

ILLUMINATION: General illumination

ACOUSTICS: Simple treatment

FLOOR TREATMENT: Carpet

VENTILATION: -

SPACE REQUIREMENTS: 2500 volumes @ 10 ft./volume = 250 ft.
AREA: MEDIA CENTER

philosophy: This area contains storage and audio equipment for all nonprint materials. These include films, types, and records. Equipment should include 8 carrells; 2 with turntables. Three prong outlets would be needed for equipment. The use of headphones will avoid the sound isolation problem. Proximity to children's area and Reading Room is desirable. Also control of microfilm and storage of microfilm.

REQUIREMENTS: 8 carrells, 6 table/chairs
1 staff without permanent work station

ILLUMINATION: Task lighting

ACOUSTICS: Simple treatment with use of head phones

FLOOR TREATMENT: Carpet

VENTILATION: -

SPACE REQUIREMENTS: 8 carrells @ 45 ft.²/carrell = 360 ft.²
6 table/chair @ 35 ft.²/unit = 210 ft.²
Equipment storage = 420 ft.²
990 sq. ft.
**AREA: CHILDREN'S AREA**

**philosophy:** This area will house all of the books specifically written for children and other materials up to the juvenile level. A story telling space is necessary and adult supervision is necessary with work space for the supervisor. Consideration should be given to the scale of children in heights of counters and shelves, as well as furniture.

**REQUIREMENTS:**
- 1 staff with work station
- 10,000 volumes
- Seating for 24 children

**ILLUMINATION:** General illumination

**ACOUSTICS:** Lowered ceiling for scale and acoustical control

**FLOOR TREATMENT:** Carpet

**VENTILATION:** -

**SPACE REQUIREMENTS:**
- 1 staff work station @ 150 sq. ft./station = 150 ft.\(^2\)
- 10,000 @ 10 vol./ft.\(^2\) = 1000 ft.\(^2\)
- Seating for 24 @ 25 Ft.\(^2\)/child = 600 ft.\(^2\)
- Total = 1750 ft.\(^2\)
AREA: REFERENCE

philosophy: This area is concerned with the research and informational service of the library. The area should be conclusive to concentration and study. The area should be adjacent to the non-fiction area.

REQUIREMENTS:
- 5000 volumes
- Seating for 12
- 2 staff work stations

ILLUMINATION: General lighting

ACOUSTICS: High noise room, sound attenuation needed.

FLOOR TREATMENT: Carpet

VENTILATION: -

SPACE REQUIREMENTS:
- 5000 volumes @ 10 vol./ft.$^2$ = 500 ft.$^2$
- 2 work stations @ 150 ft.$^2$/station = 300 ft.$^2$
- Seating for 12 @ 30 ft.$^2$/person = 360 ft.$^2$
- Total = 1160 ft.$^2$
AREA: TECHNICAL PROCESSING AREA

philosophy: This area is generally for the ordering, receiving, and repair of books and materials. Due to the receiving function it should be located near a service entrance. This is a non-public area. It is a designated smoking area.

REQUIREMENTS: Staff work stations for 4 people
Shelving for 800 volumes
Storage space

ILLUMINATION: Task lighting

ACOUSTICS: Simple treatment

FLOOR TREATMENT: Carpet

VENTILATION: Ventilate for smoking

SPACE REQUIREMENTS: 4 staff work stations @ 150 ft.²/station = 600 ft.²
800 volumes @ 10 vol./ft.² = 80 ft.²
Storage = 50 ft.²

Total = 730 ft.²
AREA: COMMON WORK AREA

philosophy: This area is used by staff members from reference, childrens, circulation, secretary departments. The function of the work room would be for typing, display work, copying, layout work and general supply storage. It is an area not accessible to the public. It is also a designated smoking area.

REQUIREMENTS: Work stations for 4 staff members.
Shelving for 300 volumes.
Storage of equipment.

ILLUMINATION: Task lighting

ACOUSTICS: Simple treatment

FLOOR TREATMENT: Carpet

VENTILATION: Ventilate for smoking.

SPACE REQUIREMENTS: 4 work stations @ 150 ft.²/station = 600 ft.²
Shelving for 300 volumes @ 10 vol./ft.² = 30 ft.²
Storage = 200 ft.²
830 ft.²
AREA: ADMINISTRATION AREA

philosophy: This area includes an office for the library director and work space for a secretary/bookkeeper. The secretary should be accessible by both staff and public. Board meetings would be held in either the staff lounge or public meeting room. It is a designated smoking area.

REQUIREMENTS: Office for Director
Office for secretary/bookkeeper

ILLUMINATION: Task lighting

ACOUSTICS: Simple treatment

FLOOR TREATMENT: Carpet

VENTILATION: Ventilate for smoking.

SPACE REQUIREMENTS: Office of Director = 150 ft.²
Office of Secretary = 120 ft.²
270 ft.²
AREA: LIBRARIAN'S OFFICE

philosophy: An office for the head librarian should be provided as a place where he/she can conduct the business of running the library. It should be adjacent to the Common Work Room and circulation desk.

REQUIREMENTS: Space for 1 staff member

ILLUMINATION: Task lighting

ACOUSTICS: Simple treatment

FLOOR TREATMENT: Carpet

VENTILATION: Ventilate for smoking.

SPACE REQUIREMENTS: 1 office = 150 ft.²
**AREA:** STAFF LOUNGE

**philosophy:** This area is a private area for the staff where they can prepare and eat food, relax, and have a locker. It should be accessible to a restroom. It is a designated smoking area. It should be remote from the public.

**REQUIREMENTS:**
- 20 staff members
- Small kitchen
- 20 small lockers
- Restroom

**ILLUMINATION:** Task lighting

**ACOUSTICS:** Simple treatment

**FLOOR TREATMENT:** Carpet

**VENTILATION:** Ventilating for smoking.

**SPACE REQUIREMENTS:**
- 20 small lockers @ 1 ft.$^2$/locker = 20 ft.$^2$
- Small kitchen = 80 ft.$^2$
- Seating for 8 @ 30 ft.$^2$/person = 240 ft.$^2$
- Lounging for 4 @ 35 ft.$^2$/person = 140 ft.$^2$
- 2 restrooms @ 50 ft.$^2$ each = 100 ft.$^2$

*Optional*
**Area:** PUBLIC RESTROOMS

**Philosophy:** At least two public restrooms should be provided. They should meet handicap requirements. They should be located near the entrance lobby.

**Requirements:** Men's and women's restrooms

**Illumination:** General illumination.

**Acoustics:** Sound attenuated.

**Floor Treatment:** Hard surface

**Ventilation:** Ventilate for offensive smells.

**Space Requirements:** 2 restrooms @ 200 ft.² each = 400 ft.²
AREA: COMMUNITY ROOM

philosophy: The community room will provide a public meeting space for the community. This area needs an exterior access or have the capability of being accessible while the library is closed. It should have a kitchen for serving of refreshments and audio-visual capabilities. It needs to be near public restrooms. Two exits are required.

REQUIREMENTS: Seating for 60 Podium space
Restrooms
Kitchen
Storage

ILLUMINATION: General lighting with feature lighting in podium area.

ACOUSTICS: Should be acoustically isolated from the rest of the building. Acoustics of the space itself should be conducive to speech clarity.

FLOOR TREATMENT: Carpet

VENTILATION: Ventilate for smoking

SPACE REQUIREMENTS: Seating for 60 @ 15 sq. ft./person = 900 ft.²
Podium space = 100 ft.²
Restrooms = 150 ft.²
Kitchen = 80 ft.²
Storage = 100 ft.²
1330 ft.²
AREA: OVERFLOW STORAGE

philosophy: Storage for little used or non-essential materials, seasonal materials and displays, and office materials.

REQUIREMENTS: 10,000 volumes
General storage

ILLUMINATION: General lighting

ACOUSTICS: None necessary

FLOOR TREATMENT: Hard surface

VENTILATION: -

SPACE REQUIREMENTS: 10,000 volumes @ 15 vol./ft.² = 667 ft.²
Storage

= 200 ft.²
867 ft.²
AREA: AFTER HOURS BOOK DROP

philosophy: This is a secondary drop for after hours return of books. It can be incorporated into the entry vestibule.

REQUIREMENTS:

ILLUMINATION: -
ACOUSTICS: -
FLOOR TREATMENT: -
VENTILATION: -
SPACE REQUIREMENTS: -
AREA: VERTICAL CIRCULATION

philosophy: The Vertical Circulation will include a stair for fire exit, elevator for handicap and elderly people, and a book lift for material circulation.

REQUIREMENTS: -

ILLUMINATION: General illumination.
ACOUSTICS: -
FLOOR TREATMENT: -
VENTILATION: -
SPACE REQUIREMENTS: -- as required.
AREA: MECHANICAL AREA

philosophy: Space for HVAC and electrical equipment. Special fire proof considerations.

requirements: Adequate space for equipment. Fire proof isolation from rest of building.

illuminacion: Task lighting

acoustics: -

floor treatment: -

ventilation: -

space requirements: 1200 ft.²
AREA: DISPLAY/MUSEUM FUNCTION

philosophy: This is a desired feature in a library, but a special exhibition space should not be designated. Exhibits can be intermingled in areas of the library such as the Entrance, Reading Room, and Montana Room. Feature lighting in these areas will be adequate for the exhibits.

REQUIREMENTS: -

ILLUMINATION: Feature lighting
ACOUSTICS: -
FLOOR TREATMENT: -
VENTILATION: -
SPACE REQUIREMENTS: -
PROGRAM TOTALS

Number of Square Feet: 26,017 sq. ft.

Number of Volumes: 130,000

Seating Capacity: 240

Number of Staff: 20
REHABILITATION
OF THE
BUTTE MINERS UNION HALL
BUTTE, MONTANA

PROPOSAL FOR THE BUTTE - SILVER BOW PUBLIC LIBRARY
SKETCHES: CHILDREN'S AREA

CIRCULATION DESK
SECOND FLOOR
SKETCH: ALCOVE FIREPLACE
SKETCH: LIGHTCOURT
FOOTNOTES

2 AIA Journal, June 1976, pages 26-28
3 Harry C. Freeman, Butte Above and Below Ground (Chicago; Henry O. Shepard Company, 1900), pages
4 George Wesley Davis, Sketches of Butte, (Cornhill Co., Boston, 1921) pages 8-17.
5 Ibid
6 Butte Miner, Sunday, December 22, 1907, page 22
7 Ibid
8 Information of sale of building is a matter of public record in the Silver Bow County Clerk and Recorder's Office.
10 The program for the building was adapted from the Facility Program for the Lewis and Clark Library, by Taylor and Holtz, Architects, Helena, Montana, 1976.
12 Program for the Lewis and Clark Library
16 Ibid, page 8.
17 Ibid, page 89.
19 Thompson, Planning and Design of Library Buildings, page 55.
21 Ibid, page 166.
23 Ibid, page 168.
BIBLIOGRAPHY


Butte Miner, Sunday, June 9, 1907, page 8.
Butte Miner, Sunday, December 22, 1907, page 22.
Butte Miner, Wednesday, January 1, 1908, page 6.


** Fitzgibbons, Ruth Miller, "HVAC for Restorations". Interiors, July, 1975.


APPENDIX

STANDARDS FOR DESIGN
7. Plan showing recommended minimum dimensions for reading alcoves in open access bookshelf areas.

7. Empfohlene Mindestabmessungen für Lesenischen in frei zugänglichen Regalbereichen.

(Diagrams 6-13 based on The Architects' Journal, Vol. 147, No. 12, 20 March 1968.)

8. Plan of one person reading table giving minimum dimensions for furniture and surrounding space.

8. Lesetisch für eine Person mit den Mindestabmessungen für Möblierung und umgebenden Raum.


10. Minimum dimensions for six-person reading tables.


11. Plan of open carrels at ends of stacks.

11. Offene carrels als Abschluß der Regalreihen.

12. Recommended vertical dimensions for tables in (A) adult libraries (B) school libraries.

12. Empfohlene Höhen für Tische in (A) Büchersälen für Erwachsene, (B) Schulbüchersälen.

13. Recommended vertical dimensions for tables with shelving.


From: LIBRARIES: ARCHITECTURE AND EQUIPMENT, Michael Brawe, page 149
4. Recommended shelf heights for different uses (A) book stacks, (B) public lending libraries and (C) children's libraries.

(Diagrams 2 and 4 based on The Architects' Journal, Vol. 147, number 12, March 1968.)

4. Empfohlene Regalhöhen bei Verwendung (A) im Magazin, (B) in öffentlichen Leihbüchereien und (C) in Kinderbüchereien.

(Diagramme 2 und 4 nach The Architects' Journal, Band 147, Nr. 12, März 1968.)

BRAWE, page 132

2. Plans of shelving layouts in open access areas.
A. Shelves around walls and free standing.
B. Shelves forming alcoves.

2. Regalgrundrisse in frei zugänglichen Bereichen.
A. An den Wänden angesetzte, frei stehende Regale.
B. Regale, die Lesenischen bilden.

BRAWE, page 132