A REPOSITORY FOR MEMORY:
LINKING PAST TO PRESENT THROUGH
PHYSICAL EXPERIENCES

by

Suzanna Helene Schueth
B.A.
Wellesley College, 1994

submitted to the Department of Architecture in partial fulfillment of the
requirements for the Degree of Master of Architecture at the
Massachusetts Institute of Technology
February 1998

Signature of Author

Suzanna Helene Schueth
Department of Architecture
February, 1998

Certified by

Hasan - Uddin Khan
Visiting Associate Professor
Thesis Advisor

Accepted by

Roy Strickland
Chairman
Department Committee on Graduate Students

© Suzanna H. Schueth, 1998. All rights reserved. The author hereby grants to M.I.T. permission to reproduce and to distribute publicly paper and electronic copies of this thesis document in whole or in part.
Readers:

Jan Wampler
Professor of Architecture
M.I.T.

Pamela Hawkes
Architect
Beha Associates

fig. 1 sketch of interior window
A REPOSITORY FOR MEMORY:
LINKING PAST TO PRESENT THROUGH PHYSICAL EXPERIENCES

by

SUZANNA H. SCHUETH

Submitted to the Department of Architecture on January 16, 1998
in partial fulfillment of the requirements for the Degree of
Master of Architecture

ABSTRACT

This thesis explores the relationship of historic architecture and contemporary interventions by engaging the memory of the past through architectural experiences. It is about exploring a site rich with memories of the past, and physically linking it to the present. By introducing the new program that enhances public use the site is transformed from a defensive fort to a civic space. A new path links the town to the site, a journey that reveals the past and present and adds a 20th century layer to the space.

The intent is to revitalize a historic monument and connect it to the town both physically and programmatically in order to give it contemporary significance. Through the contextualization at two scales, the site and the building, both past and present are continuously juxtaposed. This fort is A Repository for Memory that also serves the community as a learning tool about culture and history over time. Sustaining the past by giving it a re-use and continuity for the future became one of the goals of this thesis design project.

This thesis presents an architectural design for a library building and auxiliary facilities to act as a new civic focus for the town. An integral part of this work is the design of spaces, uses, and materials which are carefully considered. The design not only intensifies the fort’s use but also reflects the principles and attitudes established to address the interaction of old and new forms in the new intervention.

Thesis Supervisor: Hasan-Uddin Khan
Title: Visiting Associate Professor of Architecture
DEDICATION

This thesis book is dedicated in memory of my father, Manfred Heinz Schueth.

My memories of your strength and endurance have guided me throughout my pursuit of an education and life long profession.
Methodology

This thesis site has been part of my memory since 1982 when I first moved to this town. Having spent some of my most formative years there I grew an attraction to both town but more specifically to its symbol. It was a representation of all the best memories I had experienced in my youth that were connected to this town. My journey began when I was twelve years old. Never having lost the connections to my friends and the town I have revisited the site many times since I have left the country. My journey through architecture has rekindled some of my lost memories and interests linked to this site. I remember attending plays and festivals on Fort Eppstein and always regretting having to go home. It wasn’t until the summer of 1997 that I had the chance to revisit the site I hadn’t seen in three years. Knowing that this was one project that would truly capture my undivided attention and that would allow me to do an in-depth investigation of the history of the site, I knew that it was one more stepping stone along my journey.

In June of 1997 I spent a month in Germany. My travels took me to Switzerland, the Alps, and through northern Italy. My goal was to visit historic site that had undergone re-use. The projects that sparked interest in me were two forts in Bellinzona, Switzerland. These had undergone significant changes within the last 30 years. Castel Montebello by Campi & Pessina and Castel Grande by Galfatti were the inspiration for this thesis project.

Two weeks I spent visiting my site out of which I spent one week at a friends home in town. This allowed me to spend as much time as was necessary to become familiar with the site and actually measure many of the remaining walls. At the same time I meet with Berthold Picard, the historian most familiar with the site, to discuss the history and its current situation. His knowledge was insightful and most instructive. I further talked to Herbert Engelhard, a local architect and the owner of a construction company, about his renovations on the site. He also help tremendously by finding documentation of the site.

My journey through the town and site left me with many readings and lots of thoughts on how to continue on this journey. My personal interest in history and historic buildings had a chance to unfold. The historic background was a driving force in the design process, allowing me to become very familiar with the site. I myself had an experience on this site that I may not experience again. After having researched the history of the site I felt a strange sense of comfort and protection when on the fort as though it was the only truly safe place to be. I believe it was an experience that exhibited the power of knowledge and the effect it can have.

Now having gone through the design process I realize that I have just started on this journey even though I thought it had come to an end. From now on this site has many more memories associated with it than before, partly due to my own growth into a profession that knows no boundaries. May this journey flourish and continue to generate new memories as time goes on.
TABLE OF CONTENTS

Abstract.............................................. 3
Dedication........................................... 5
Methodology.......................................... 7

Chapter One
General Attitude..................................... 11

1.1 Past
   Restoration vs. Preservation
   Memory
   Transformation
1.2 Preservation in Europe & Germany

Chapter Two
History............................................. 23

2.1 Town and Region
2.2 Fort
   Buildings and Open Spaces

Chapter Three
Site Analysis....................................... 47

3.1 Building Context
3.2 Current Uses

Chapter Four
Approaches & Attitudes......................... 55

4.1 Site and Role
4.2 Buildings and Open Spaces
   Layering
   Access and Movement
4.3 Program Elements

Chapter Five
Design Synthesis.................................. 69

5.1 Conceptual Idea
5.2 Principles
5.3 Applications
5.4 The Journey
5.5 Experiences
Ending only to begin again

Acknowledgements.............................. 105
Endnotes........................................... 107
Illustration Sources............................ 109
Bibliography...................................... 111
CHAPTER ONE

GENERAL ATTITUDE
fig. 2 adaptive re-use Cologne, Germany
1.1 Past

The development of places and people over time can only be understood through an awareness of the past. It is through cognizance of the past that we are able to sense the continuity of time. Architecture is a vehicle in connecting past to present through a built continuum. Contemporary architecture can address both past and present, evoking memories and an awareness of the past while being firmly rooted in the present and providing lessons for the future.

Historic buildings add a cultural richness to any environment. They are living reminders of the past, how life and the current beliefs at the time manifest themselves in the form of architecture. It is through these buildings that we understand our heritage and the passage of time. History is physically present and can be understood through visual comparisons.

Restoration vs. Preservation

Traditionally, historic buildings have been under the supervision of preservationists and restorationists. The two approaches have similar goals in that they seek to guard against deterioration in favor of maintaining the original structure.

fig. 3 additive historic fabric in Geneva, Switzerland
Both restoration and preservation of architecture focus on maintaining or regaining the built image and quality of the past. The question of authenticity and which period to restore a building back to becomes a crucial one. The interpretation and perception of the past are the guiding factors in the attitude toward the past and in making decisions for new interventions.

"The very process of preservation - slowing down deterioration or guarding against accident - changes the look and feel, if not the form and substance, of protected sites and artifacts."  

Preservation addresses the past as isolated from the present, whereas our perception of the past is closely connected to the present. It is this connection that gets lost and a single moment in time is celebrated while at the same time the existing context is neglected.

Memory

Knowledge of the past will engage memory when confronted with artifacts. The physical presence of historic buildings is linked to notions and ideas in the viewers mind. It is previous education and knowledge that guide the memory of the individual. Not all memory is the same, it depends on the experiences of the different viewers. For being intangible, memory is a powerful tool when experienced. The connection of knowledge and past experiences with actual current visual images creates a unique experience at the time.

fig. 4 Castel Montebello, Bellinzona, Switzerland
Transformation

The environment we live in today consists of a rich fabric of historic, modern and contemporary architecture. It is their juxtaposition that allows us, as the users and viewers, to appreciate the passage of time. Historic buildings need not remain frozen fragments in our built environment, instead they should continue to live and transform as need be. Accepting the need to keep and re-use historic buildings, the notion of transforming a site or building as a means of adaptation into the contemporary context is one approach. It is through transformation that the present becomes part of a historic site. Most transformations that take place are linked to use. Inherently transformations address issues of past and present.

"... the basic tenets of all restoration work, seeking an appropriate balance between the overall purpose and the object in question, and asserts the principle 'preservation means transformation'. A change in purpose triggers off such a mechanism of modification as to lead to the attainment of architectural values even in those elements that were previously devoid of them, ..." ²

DEFINITIONS:
1. conservation: guarding or protecting, to keep, to save
2. insertion: to put in or thrust, the act of setting or placing in or among other things
3. preservation: keeping safe of decay or destruction
4. re-habilitation: bringing back into use
5. renovation: to make anew, to replace worn and broken parts
6. restoration: a putting or bringing back into a former or unimpaired state of condition, repair
7. re-use: using the space as it was once used, an interruption of space use
8. adaptive re-use: changing the original use to a new one
9. re-vitalization: to bring back to the state of use ³
1.2 Preservation in Germany

In the history of preservation Italy was the first empire to first address the issues surrounding historic buildings and monuments and how these could be treated over time. An example of someone who confronted the issue is Cosimo I of the Medici family in the 16th century. The Palazzo Vecchio, in Florence, was outdated and the notion of tearing it down seemed appealing, however, the decision to leave it as a symbol of power and duration of power was the deciding one. The reasons for keeping or tearing down monuments and historic buildings changed throughout the ages, but a common theme throughout the 16th century up until the 19th century was the visual reminder of power and history.

German literature addressed the issues of treatment of historic buildings, some of the first authors were Nietzsche and Goethe. Others later and in the discussion. In every region the issues were treated differently, the region of interest for this thesis is Hessen. Regional preservation was first addressed in Hessen in 1779.

Friedrich II, Count of Hessen: <Laws applying to monuments and historic artifacts in the region> (1779) wrote:

Our interest lies in the preservation of monuments and historic artifact in our region. We have therefore drawn up these regulations:

1. When in need of repair churches, chapels, schools and other such insti-
tutions are to be handled with care. All monuments made of metal, stone or wood, including gravestone and wood tablets with engraved insignias and painted writing are not to be broken, demolished, holed, covered up or in any other way harmed or altered.

2. In case of emergency when surrounding buildings are taken down and the above mentioned monuments and artifacts need moving, or adjusting then this needs to be accomplished with the greatest care. If objects are moved they require secure conditions for safekeeping while in transition. Special care should be given to church pews so that no damage is done.

3. If buildings are torn down and foundation stones, altars and tower pieces as well as coins, writings and other monuments are found, then a written document shall be composed with the findings listed and sent to the governing body.

4. We offer at the same time to cabinetmakers, masons, and carpenters a fine for damaging a monument of wood or stone, on which a seal or writing is visible.

5. In case a monument is located at a location that is damp and exposed to the elements more than anticipated and is impacting the artifact negatively such as the writing or painting, then the governing body should be contacted. A sketch of the object is also required.
hen ist.

5.

Truege es sich zu, dass irgendein Monument, weil es an einem dampfigten oder feuchten Ort befindlich oder der Witterung zu stark ausgesetzt waere oder auch durch das Altertum an der Schrift, Malerei und sonst Schaden litte; So soll darueber an die Regierung Bericht erstattet und allenfalls noch zeitig eine Abzeichnung davon gemacht werden.²

These laws clearly prohibit damage to historic artifacts including buildings, they do not however suggest a way of preserving them other than handling them with care. The recognition that artifacts need particular care is first and foremost of important.

The first Preservation Law in Hessen was passed in 1818 and reads as follows:

Ludwig X., Grossherzog von Hessen und bei Rhein:
Denkmalschutzgesetz (1818)

In Erwaegung, dass die noch vorhandenen Denkmaeler der Baukunst zu den wichtigsten und interessantesten Urkunden der Geschichte gehoen, indem sich aus ihnen auf die frueheren Sitten, Geistesbildung und den buergerlichen Zustand der Nation schliessen laesst, und daher die Erhaltung derselben hochst wuenschenswerth ist, verorden Wir Folgendes:
1. Unser Ober-Baukolleg wird beauftragt, alle in dem Grossherzogthum Hessen befindlichen Ueberreste alter Baukunst, welche in Hinsicht auf Geschichte oder Kunst verdienen erhalten zu werden, in ein genaues Verzeichnis bringen zu lassen, wobei der gegenwaertige Zustand zu beschreiben und die in ihnen befindlichen alten Kunstwerke, als Gemaelde,
2. All those with knowledge of the history of the region are required to aid in the identification of artifacts. Those individuals are to be further instructed with information found in the archives to expand their knowledge.

3. The most outstanding artifacts that are heavily damaged are to be recorded and drawn side by side and further brought to a museum.

4. Our building official is asked to collect the information of such artifacts and to read those records to the proper authorities for approval. They are also asked to contact the different offices dealing with particular artifacts and to inquire about the proper preservation and restauration. Further they are required to advise us as to which course of action to follow.

5. If there should be a case in which a building is in need of repair or change, or even demolishing it should be known and approved by the proper authorities.

6. In case historic artifacts are found during excavations or other circumstances then our authorities are required to make sure that the objects are properly treated. These objects too are to be submitted into the museum collection.

7. All the public offices are required to submit the information of the historic artifacts as well as to oversee that these objects are given the proper care. Finally they are to assess if the information submitted corresponds to the actual truth.
This law gives explicit directions for those who interact with historic artifacts, as well as informing public officials of their duties. No longer is the public told how not to treat certain materials, instead a more general description is given. What is not yet being discussed is the actual treatment of artifact that are either in need of repair or those that are in need of change. Further, ownership of these historic artifacts appears to be state owned, no private ownership is excepted.

Just prior to the publishing of the laws the issues were raised in France under Robespierres around 1795. The monuments of the past became weapons used in the revolution against those in favor of the old ruling powers. The grand monuments were symbols of power and in France these stood not for the power of the people but instead the power of the monarchy. In the time of war chaos reigned and the notion of preservation was lost, and intentional destruction swept the cities.

Back in Germany around the turn of the 18th century preservation was an even greater issue than before partially due to the damage accrued from the Thirty Years War. The first national monument was declared to be Marienburg in West Prussia. This cathedral was chosen to be preserved in 1804 when it was originally scheduled for demolition. This project proved to draw all faculties within the realm of preservation and architecture. An important issue related to use was brought into discussion, one that remains an issue for many projects even today. In the process of preparing for restoration, the buildings history was carefully studied especially in the area of the original use. The notion at the time was that a national monument was not only a witness to the past but also an indication of the direction of the future. This addressing of the future became part of preservation as of the 1820’s. Of course the future had been part of the original notions of preservation, but it wasn’t until the 1820’s that the future was specifically planned and directly addressed.
Schinkel agrees that history will inform the present and future, however, it is a history not manipulated and one that is taken seriously that will do such a thing accurately. For him restoration never meant a modern rebuilding of something old but instead it required a very delicate and careful approach.

The historicism of the 19th century produced both preservation and restoration at the same time. They are two very different notions. Preservation strives to maintain existing structures whereas restoration looks at rebuilding not existing structures. Previous centuries were not aware of these issues, in the past when a building was in need of repair then this was done in the current style and method. What was sacrificed then was a stylistic unity but a certain artistic harmony was kept. Each project today has to address these issues, whenever a historic artifact is in question then the approach and attitude of the architect are crucial.
CHAPTER TWO

HISTORY
2.1 Town and Region

Hessen is one of Germany’s eight states. Located centrally it borders Nordrhein-Westfalen and Rheinlandpfalz to the west and Baden-Wuerttemberg and Bavaria toward the south. The southern part of Hessen, between Frankfurt and Wiesbaden is located in the Taunus mountain chain. This green mountain area, the Lorsbachtal, is especially beautiful in Eppstein, where a large valley is formed and three hills come together at this point and form a lush green scenic area. The Schwarzbach river cuts through the valley giving life to towns that settled along side. The area has been considered a vacation region since the 1800’s. The industry in the region consists mostly of furniture companies as well as leather dying factories.

Eppstein is a small town of around 3,000 inhabitants. Four adjoining towns form the next largest community of around 12,000 inhabitants. The town is nestled in the valley at a point where three mountain ranges come together. The rolling hills make for a picturesque setting of a fort raised high on a hill. The village and the fort received their city rights as of 1318. The town was declared a Luftkurort or a “health region” and was heavily visited. After the Thirty Years War in the early 19th century, the town of Eppstein became a pilgrimage destination for the Romantics. At the time Eppstein had numerous hotels and resorts,
catering to tourism. Its vicinity to both Frankfurt and Wiesbaden is ideal for day trippers. It wasn't until 1877 that the railroad connecting Eppstein to Frankfurt and Wiesbaden was built. This too, made travel to Eppstein popular for day hikers, which there are many of in Germany. Today Eppstein again enjoys a healthy amount of tourism, approximately 6000 visitors a year, nothing compared to what it once knew, but it mostly attracts day trippers and hikers that pass through the town especially on weekends. The town now only has around three hotels that service the area and a growing number of restaurants.

As a bedroom community to both Frankfurt and Wiesbaden the town has grown considerably over the last ten years. More young professional families are building homes in the area and the local older generation continues to flourish. Eppstein is growing around the outskirts, especially toward the north and northwest. A regional elementary-middle- and high school was built in the newer settlement. This has been further reason to build and move near the school for young families. The center of town with the oldest buildings undergoes little change. Many of the buildings have commercial facilities on street level, while above they serve residential functions. The bakery, the drugstore, the stationary store, the market, the clothing store, the restaurants and bars all enjoy a central location, wrapping around the fort along the main street.

There are two main access roads into Eppstein, one leading from the adjoining towns in the west, the other from the east. Both roads move
into the heart of town and join at the old town square, just below the fort. The town square is surrounded by what used to be the town hall, (now the local newspaper company), a 15th century protestant church, and numerous town houses with shops. The large open space over the years has been reduced to a road and a parking lot on either side of it. A number of town festivals are celebrated yearly, however, in the town square and the roads are blocked. The pedestrian access to the fort begins at the town square as well. A narrow stair leads up a long and narrow winding path.

2.2 Fort
The founding of the fort dates from 1122. It belonged to the Reich and was granted to nobles as a private residence. The family that was chosen for this fort was a wealthy regional noble family connected to the archbishop in Mainz. In 1124 Kaiser Heinrich V. gave the eastern half of the fort as a present to the bishopry in Mainz. Gerhard von Hainhausen was endowed with the Eppstein castle as well as a number of villages and farms in the area somewhere between 1180-1190. His family became well known in the 13th century and four of the family members went on to become archbishops of Mainz and electoral princes. It was through their help that the electorate gained significant power and the imperial arch-chancellors began to play an important role.
fig 14. site drawing
fig. 15 site in the 12th & 13th century
fig. 16 site in the 14th & 15th, 16th & 17th century
fig. 17 site in the 18th & 19th century
The fort sits high on the Bienberg, an extension of the Rossert hill. On three sides the hill naturally falls off while on the forth side a man-made ditch from the 12th century protects the fort. The original access to the site crosses the ditch via a masonry bridge with a smaller attached drawbridge.

From 1122 to about 1507 the fort was used as a residence. The fort experienced its major growth in the 15th century due to further land growth and territorial gains. At the time of Gottfried the IX (1466-1522) the families power was on the decline partly due to a split within it around 1433. Half of Eppstein-Koenigstein moved to the nearby castle Koenigstein, the remaining half, Eppstein-Muenzenberg, stayed in Eppstein. Gottfried the IX spent little time at the fort Eppstein and more in Mainz. He sold his western half in 1492 to count Wilhelm II of Hessen. The eastern half belonging to Eppstein-Muenzenberg remained a fiefdom. From 1507 onward it was used as an administrative seat, no longer as a residence. Once fire arms were commonly used in the 15th century the fort became obsolete as a defensive fort and began to decline in importance. Nearby hillsides above those of the fort itself, allowed access to fire firepower without any obstruction.

Once Gottfried IX died, the eastern half of the fort was handed over to the childless Eberhard IV of Eppstein-Koenigstein. Since 1535 the Epp-
stein family has been extinct. The count of Stolberg inherited the fort which went through a series of changes once again. By 1581 Kurmainz took back its part and from 1581-1802 the eastern half remained in the hands of Kurmainz. The church had enough funds to maintain that half of the fort appropriately.

The western half of the fort continued in the ownership of Hessen and was used as the administrative headquarters for Eppstein. In 1567 the state Hessen was divided up and the fort was handed over the rulers of Hessen-Marburg. The ownership belonged to Count Ludwig until 1604, when it was inherited to Count Moritz of Hessen-Kassel. Under his rule the fort underwent a number of improvements and expansions, around 1616. In the Thirty Year War Hessen-Kassel fought alongside the protestants and was able to conquer the catholic owners of the western half of the fort. Shortly thereafter Hessen-Kassel was beaten by the Spaniards in a fight at Eppstein, and part of the property went to Hessen-Darmstadt and the eastern half again to Kurmainz. In 1631 the Swedes conquered the fort and handed the ownership over to the family count of Stolberg. The ownership changes go on for a few more years until, finally, the fort belonged to Nassau in 1806. At this time the state of disrepair of the buildings in the western half had progressed. On June 17, 1803 the government decided to tear down of the western half of the fort, which since the fort remains more or less the way it stands today. The western half remained as ruins, while in the eastern half the buildings were maintained and kept in better condition.

fig. 20 view of inner courtyard (1839, Heimatmuseum, Eppstein)
The fort Eppstein experienced definite periods of growth. Documents indicate that the 12th and 13th century were the first building phase the fort experienced. In the 14th and 15th century expansions took place radially around the already existing buildings. This growth period was the largest and most expansive one the fort ever experienced. Smaller additions were made in the 16th and 17th century, but these centered mostly around accommodating two families as owners and adding necessary amenities, such as a secondary kitchen. From the 18th century onward the fort had seen its glory days and was on a steady decline. The most recent additions have served the public compared to those made prior which served the individual owners. Now that the fort belongs to the town of Eppstein, it is responsible for all the upkeep and the modifications. Its needs have changed along with its function. What was once a private residence and changed to administrative uses, is now in the 20th century a public place.

2.2. Buildings and Open Spaces
Among the oldest parts of the fort are the keep (tower), and the remaining Palas (residence) walls fragments. The keep, considered the final and safest place for refuge in case of attack, had few openings and used for guarding the surrounding areas. The tower sits on an older square base in the ground which is estimated to date back to before the 1100's. What remains today is a tower from the 14th century. Its original height of 33m is now only 24.5m. From images of the past the tower appears to have had a steep pitched roof. Further they depict the tower anchored
by the buildings on either side. The keep had a total of six floors and was originally only accessible from the residences and the defensive walls. A prison was located in the lower levels: in the ground and below ground level. The very top housed two floors of apartments for tower watchmen, with a spiral staircase connecting it to the lower levels. Today the spiral stair leading up the tower pierces the flat roof and has an octagonal sheet-metal structure enclosing it. The area surrounding it is now a lookout area, from which the valley and into the surrounding hillsides can be viewed.

The Palas building, formerly attached to the keep, just south of the keep, was the primary residence where later administrators sat. What visitors see today was built in the second half of 14th century. This replaced an older building probably dating back to the 12th century. The plan drawings dating back to 1926 indicate the foundation of a 16m x 12m building. The building consisted of four floors toward the southern two thirds of the building and an extra fifth floor toward the tower. The lowest level was probably used as stalls areas for animals, chicken, cows, and pigs along with some hay storage. Prior to being used as a stall, the space was used as a writing room and office until 1749. Hay storage had been a former bathroom facility until the latrine tower was built and there was more need for hay storage than a bathroom. The second floor had two rooms one was considered a woman’s room with access to the latrine tower, along with a hallway and the staircase.
On the third floor was a meeting hall, a room for servants, a kitchen with some storage area as well as an administrative space. From this floor too, one had access to the latrine tower as well as the keep, in case of threat. This floor also offered an access ramp leading to the chapel in the courtyard. Once the chapel and walkway were torn down, what used to be a door leading to the ramp was converted to a window, along with a small room that used to be the hallway. The largest hall was located on the fourth floor, measuring 7,5m x 12m, the exterior walls of this building being between 2,4 and 2,5m in thickness. This floor also had access to the latrine tower adjacent.

The latrine tower connecting the keep and the Palas building was added in the early 17th century. It was linked to the second, third and fourth floor of the Palas, primarily the living quarters as well as the great hall on the fourth floor. The tower had two latrines with one large shaft to the north, leading downward, in the vicinity of the newer kitchen building.

The castle chapel stood roughly from the 15th century until 1577 when the multi-story building was torn down. It was attached to the south courtyard wall forming an entry just beyond the main gate into the courtyard. It served as the protestant church on the site while a catholic church coexisted in the western half of the complex.

From the 12th until the 15th century only one gate, the east gate, allowed
access into the fort. The east gate consisted of a masonry structure with a wooden draw-bridge for carriages as well as pedestrians. In the 14th century, once the town had been granted city status the need for a second access was necessary. This coincided with the development of the outer ring walls and the separation of the fort from the town. The west gate connects the town square to the fort through a narrow winding pathway which with stairs make ascension challenging.

The gate house adjacent to the west gate dates back to 1592. In the 18th century this building was added to and was modified to what is visible today. The building was built as part of the fortified wall overlooking the heart of town. Caretakers live in the building today after a major renovation took place in 1986. The west gate is the main entry to the site and the gate-house provides the main check point for visitors.

The lower south ward was built in the 15th century as further protection against the enemies. Within this ward one major domestic building, the long stable existed. This lower masonry structure has a traditional post and beam structure resting on top as living quarters on the upper floors and stables on the ground level. Two towers flanked the building, one to the east, the wine press tower from 1592, and one to the west, the beggar boy tower. The Langer Stall, stalls, was originally inhabited by the manager of the estate. In 1751 the long stall burnt to the ground in a lightning storm. The wine press tower had severe cracks as a result from the fire and was therefore unsafe and
The church forms an edge along the courtyard, with its apse facing traditionally east and the entry door facing west. It was probably built in the early half of the 14th century. It was first mentioned in old writings in 1409 as measuring 8m x 12m. In the 15th century an armory was added to the building on the top floor. By the late 15th century a large kitchen was added in the rear, beyond the apse. Due to the fact that the fort was owned by two owners since 1492, the church always belonged to the community spaces used by both owners. By 1577 the church was already in shambles due to the Reformation and both owners used the newer protestant chapel on the site. The catholic church then in 1600 had bought back the eastern half and returned the building to its function. The building also survived a fire in 1736 when it lost its top, third floor. It was used as a church until 1903, when a new catholic church was built in town. It stood vacant until 1908 when the museum for Eppstein was founded in it, but it wasn’t until 1925 that the museum actually moved into the building. Today the museum is undergoing major renovations and will expand into the upper gallery floor.

The building adjoining the church houses the bakery and laundry facilities. Built in the 14th and 15th century the building largely remains...
as it was. A large chimney abuts what used to be the church apse. This was used for both baking and cooking. The space adjacent to the bakery was the laundry facility. This was used as the sacristy by the catholic church from 1813 onward. On the upper floor the sexton had his living quarters consisting of a hallway and two rooms, one that had a balcony overlooking the ditch at one point. These living quarters changed hands several times up until the 19th century. The fire of 1736 which destroyed the roof of the church also destroyed this roof.

Attached to the church and laundry facility is the Juchhe building. It was a tall building with a room at the very top which is partly the reason for its name, "Juchhe" being an expression linked to the sensation of being up high. The footprint of the building was a relatively large one, measuring 9m x 14m second only to the Palas building. It served as the residence for the civil servant for Kurmainz. The building was closely linked to the adjacent wine press house, occasionally blending together. The offices of the civil servant were located in the wine press house. Most of this was lost in the tearing down process of 1823. A large portion of the masonry was reused in the building of the mill where today the aluminum foil factory stands.

The small courtyard that is formed by the church, the bakery and laundry facility, the Jucche building and the wine press house is called the Mainz Hof and still retains part of its original regional paving of Bach-
katzen (rounded stones from the local steam). To mark the entry into this courtyard a two storey gate-house was erected in 1600, but was also torn down in 1823 along with some of the other buildings. Today the wrought iron fence is a reminder of the once more substantial entry gate.

The outside staircase was built in 1624 and connected the courtyard to the upper floor of the living quarters above the laundry facility, while also connecting to the Juchhe building. Only the lower level of the staircase remains today, the 1823 demolishing also took down the upper floors and staircase. The staircase now has a roof which it may not have had originally.

Today the Mainzer Keller is used as the headquarters by the Eppstein town guard league. On festive occasions the cellar is open to the public as a bar, otherwise the league holds meetings in the space. The space has a barrel vault ceiling with a number of steps leading down into it.

A later addition to the courtyard was called the Kemenate, or kitchen. This was built around 1500 containing living quarters above and a large kitchen area on the ground level. When built this was a five storey structure, with a basement. This building was built when the division of ownership of the fort occurred and the owners of the eastern half maintained possession of the kitchen and laundry facilities. The need for a new kitchen was necessary and this grew into a large building incorporating the north wall along the courtyard. The window openings in the north
wall suggest that this was a large dominating structure, measuring roughly 9.8m x 10.6m.

For a long time the kitchen building stood separate from the keep, until the 1616, when a stair hall was added in between and connected the Palas to the kitchen and apartments above. This allowed for full access to all floors in both buildings, except the lower level in each case. What remains of this today is simply the lowest level, measuring 6.4m x 4.5m. What changed with this stair hall was the access to the keep. Prior to this the only access was from a lower level, with the new stair hall access was from within the building, more precisely the top floor. The basement which has a nice barrel vault ceiling underneath the kitchen was used mainly for storage. Three small windows face into the courtyard allowing some natural light to enter. The chimney tied all the floors together. Each of the four floors above the kitchen had an open fireplace, a large and a smaller room, and a hallway. Today the north wall is missing the entire fifth floor facade. Most of the building was torn down in the demolition of 1823, what remained is what visitors see today. These remains were renovated both inside and outside and a new roof was added in the 1960-70's. The space today contains a modern kitchen area with seating arrangements.

Just beyond the kitchen is the well, located along the north wall. Its date of origin is unknown, but estimated to be well before 1492. Its depth today reaches down to 25m, but is estimated to have been deeper...
in the past. Within the 25m length several different shapes were discovered, ranging from a rectangle to an ellipse, indicating different building periods. The first 6.5 m was fully surrounded by masonry, while the rest seems to be carved out of rock. Today the well is surrounded by a masonry half wall and was covered by a roof in the past.

The courtyard as we experience it today is very different from what it once was. Once it was paved with small stone pavers, and it extended from the Mainzer Keller to the Palas wall. In the north south direction it abutted the south wall with the chapel and the Kemante, or kitchen along the north wall. The walls that remain are not true to their original height; none of the buildings or walls that remain are the height they once were, with exception of the gate house that has been maintained over the years. The open area today appears much larger than it must have in the past, the absence of the chapel and gate house make a difference in terms of volume and square feet. The buildings surrounding the courtyard are significantly lower today than they were up until 1823.

The latest additions to the fort were made in the 20th century, mainly to accommodate theatre performances. Since 1913 theatre performances have been taking place on the fort, with the exception of the years of the First and Second World Wars. These plays have been performed in several areas of the courtyard. The area adjacent to the church, the Mainz Hof, or courtyard, was used as the stage area until the platform stage
fig. 34  view of courtyard facing west to stage during a performance
fig. 35  plan by Franz Burkhard, 1926
was built in the 1950's. This new stage was built along the west wall of the courtyard, abutting the remains of the Palas wall. The stage consists of two areas, each with a set of steps leading from one to the next level. At the time of the Palas demolition the building was infilled with its own mass, filling up the interior so that the present ground level is actually the second floor. The new set of stages were arranged such that they increased in height reaching up to the second level of the Palas floor.

The most recent addition to the site has been a set of bath rooms in the location of the former Langer Stall added in 1976 enabling the fort to act as a public space with the needed amenities. The old masonry base still remained and was simply re-used.
CHAPTER THREE

SITE ANALYSIS
fig. 37 town of Eppstein
3.1 Building Context

In 1997 the fort only vaguely resembles what it once was. Images from the past offer a point of comparison. Currently what exists in predominately good condition are the wards, which have been maintained and receive the least amount of use compared to a buildings. The outermost wards, the wall defining the edges of the fort, have undergone repairs since the ownership changed and the town owned the fort. The west entry guard- house has undergone a full renovation started in 1986, which is why this building is currently in the best condition. The church is also in reasonable repair, undergoing a substantial renovation since 1997. The buildings attached to the church, the kitchen and laundry facility, as well as part of the Juchhe building, still exist but they are in an older renovated condition. None of these buildings exist in their original state especially their height. The old kitchen building in the courtyard has been renovated within the last twenty years and is in good condition. Wall fragments remain of the Palas facing both town and inner courtyard and the south wall is in reasonable condition.

The town and fort are inseparable entities. The walls define the beginning and the end of the fort. The southern most ward forms the wall of a small parking lot between the church and a residence, this still contains the remains of an old stair leading from the fort into town. This is one of the most impressive views that visitors experience as they

fig. 38 north ward at play ground area
move through the town. The 15m high wall is impressive against the church and an open space that allows a full view of the wall. Another view is from the old town square. The view incorporates the old town hall in the foreground with the walls and a lookout area with the gate house in the background. The ever present tower is visible from everywhere in town due to its sheer height. There is one more view from the north that allows a large part of the fort to be seen. The north elevation of the kitchen and apartment building dominate this view. The massive wall with its window openings along with the tower define the larger area of the open space in that part of town. The lower walls in the foreground effect only the adjacent play ground area. The ditch that curves around the eastern half of the fort is a tall and narrow space even today. It provides views of the east wall with the laundry facility and living quarters above. The steep walls evoke a sense of power and dominate the viewer. This space defines the slack between town and fort, although this is not the only location where this happens it is the best defined separation. Between the wall that wraps around the west and the houses is the pedestrian access path. It reads similarly to the ditch on the east. On three sides the fort is an untouched object that stands by itself except for the south wall. While it too stands alone several residences abut the wall and nestle into it at a number of points where the distinction between fort and town begins to blur.

3.2 Current Uses

Today the buildings on the site are used by different groups of people.
The gate-house function remains and is inhabited by a family that lives there year around as caretakers of the fort. The Mainz Keller, cellar, is used by the town guard league as their meeting place. The church has been used as the museum since 1925, and will continue to do so. The second floor apartment above the old laundry facility has been used by the fort historian. The two other structures, the keep, and the Kemanate, or kitchen, are still in use as well. The keep is mainly used by tourists who climb to the top for a spectacular view. Tourists, however, do not have access to the kitchen which is used for meetings of the Eppsteiner Burg Verein, or fort association. It can also be rented for special events - birthday parties, anniversaries, weddings, etc. Whenever the theatre performances take place the building is either part of the stage set or it acts as the back of house for the actors.

The open spaces are currently mostly green areas that need little maintenance, and are open to the public. One exception is the ward to the west of the Palas which is a garden area for the caretakers use. The remaining areas have no particular current use; their primary function in the past was to create layers of defense to prevent entry into the fort by the enemy. The room-like dimensions of the spaces allowed for a better overview from above when the enemy became trapped in the individual spaces. The tall walls surrounding the spaces were patrolled by the defenders of the fort. With these needs being obsolete
the wards are left with no current function.

fig. 41 view from keep down to ward and town square
CHAPTER FOUR

APPROACHES & ATTITUDES
fig. 42 entry by Campi & Pessina, at Castel Montebello, Bellinzona, Italy
4.1 Site and Role

Having lived in Eppstein and having experienced it as a visitor on several occasions between 1986-1994 has given me insight into the local perspective. The town’s identity is unquestionably linked to the visual image of the fort. The fort is the trademark symbol of the town and can be found on stationary, apparel, and other souvenirs. Pride is also a strong part of the local sentiment. The sense of belonging to the town and its history can be felt by those living there. This strong sense of connection to the fort results in approximately six celebratory occasions in the courtyard on the site each year. These occasions are really the only driving force that motivate locals to use the fort, which is generally visited from April to November by tourists.

My scheme intends to transform this static symbol of the past into a dynamic, active civic space. By choosing a civic function that can draw people from the surrounding area to the site and allow them to experience the site, the site will gain meaning to those who admire it. It will not only be rejuvenated as a symbol of the town but also embody the memory of both site and town as a living experience.

In order to be truly proud of this fort and feel a real sense of belonging, those who have these sentiments should spend time in the fort and experience it more often than maybe five times a year. A library function encourages a number of visits, bringing people up the hill and through the old and the new buildings.
Having investigated the historic development of the site over eight centuries, I came to the conclusion that the site's growth and changes over time were based on the needs of those times. Each owner made adjustments according to their requirements: it is this type of decision-making that should continue today. Now that the ownership of the fort has changed probably for the last time and the town has possession of it, the needs too have changed. The changes that have occurred over the course of time have taken the complex from a defensive residential fort to an administrative seat, to a public space. Over the history of the fort distinct periods of growth are visible generally due to a change in land growth, family splits, or divided ownership. The result has always been significant. By introducing the site to its public function, some changes were made such as the platform stages and the bathroom facilities. I believe that adding a 20th century layer to this site is crucial. An already richly layered site, consisting of few public oriented spaces, seems in need of a larger public gesture. A gesture that defines the entire site as a public space that belongs both to the community and visitors at large for the years to come.

The inherent history of the site has been the major attraction for visitors and locals. History and the development of the site over time can be experienced in the context of the contemporary environment. It is the ability to experience that enables one to learn about history on this site and to create new memories. A Repository for Memory is a place that has memories of its own and a place where new memories can be created. Learning through experiences is another form of education. The civic functions that encourages knowledge and the act of learning are: schools, libraries, and museums. History is generally learned through books, not experiences. The advantage to libraries is that books not only address history but also other topics. Most relevant to this site is the subject of history, which spans from the past to the future. A library will supplement the learning through experience with learning from books.

By introducing a library that specialized in the history and development of the region the site becomes more usable to both the towns' inhabitants and others. A goal is to cater to a variety of age groups as users, hopefully attracting people regularly to the site.

The library is a place where information of varying kinds is to be had. Further it requires repetitive visits which is part of the goal of drawing people to the site.
At a larger scale the location and relationship of the fort to the town is crucial. The old town square, while remaining open has been turned into parking. The loss of a gathering space, in the heart of town to parking has happened everywhere people shop. The remaining spaces for gathering are those that ring the parking lots and the sidewalks. Symbolically the loss of such spaces is crucial to the urban planning of such towns. By turning this fort into a civic space for the people of the town, it can take the place of the old town square, with a large courtyard space as well as an outer ward that can be accessible at all times. A place for gathering may it be morning or evening for young or old is important.

The symbol and identity of the town can then actually be associated with the public space for gathering as well. It only makes sense to consider a commonly used area as a place of identity. This fort has the space, the location, and the associated imagery inherent. Other civic functions in Eppstein are all located outside the center. The school is several kilometers out of town. The city hall containing the archives and other offices is located to the northeast (see the map), just outside the inner core. It seems only appropriate to return a civic function to the heart of town, where locals have to go anyway for their local shopping, especially if they live just beyond the inner town.

The role of this intervention is that of a Repository for Memory. A
new library as the intellectual heart and memory of society. By placing it on the oldest site in the town, the site becomes transformed into a symbol for memory both past and present. The towers that are visible from afar are already symbols of the past, but they can also become symbols of knowledge. Linking the historic site with knowledge of the past and further addressing the present as well as the future seems only appropriate. The fort can also become an image representing community as well as knowledge. This is the meaning the fort should symbolize instead of merely being a symbol of the town's past that isn’t used.

4.2 Buildings and Open Spaces

Having studied other examples of historic buildings and architects’ approaches to the sites and buildings themselves, I chose to address an additive approach. A goal in this thesis is to preserve the layers of history and time, to exhibit these and to add new layers of meaning and use to them, similar to Scarpa at Castelvecchio. The accrued damage to the site over time, has left its mark and what we see as a ruin today was once a palace. The year 1823 is not favorably looked upon since many memories of the past were irrevocably destroyed. Some traces of the past are missing in the story of the site, which is a mistake to be avoided in the future. Issues of restoring the memory of the past and giving the town a sense of continuity became for me an important objective.

In my project proposal existing buildings are treated only in terms of
use. Only one existing building figures into the proposed plan for the site. No exterior changes will be made on those buildings, except if they are in need of structural repair or stabilizing. Fragments of old buildings remain as precious ruins and mostly untouched. The objective is to clearly state and apply this attitude toward the old structures so that it is apparent to the visitor. This additive approach suggests insertions that distinguish clearly old form new.

In terms of all open spaces a similar treatment is employed. Here too, existing structures is retained with one exception. The north ward wall turns at the location of the church, at which point there once was an opening in the wall allowing access to the fort from below. This piece of wall was originally solid, but with the change of needs over time, the wall was opened up. At a later point this part of the wall was closed up again. I have proposed to open it up again for new use. This is the only proposed change to any existing fabric on the site. The southern ward, just beyond the wall, has also changed over time. I propose a similar treatment to what once existed there.

The approach to the main courtyard space is again additive. Here buildings and structures will be added that will not interfere with the existing walls and buildings. Again the objective is to show respect to the old existing structures and to clearly differentiate old and new.
Layering

Taking a number of sections through the site, it becomes obvious that the site is inhabited by a series of wall. It is wall, or vertical surfaces that form the spaces of this fort. The layering of walls, or the layers of defense, are the result of time and expansion. The walls define circulation spaces, wards, and buildings. The circulation spaces are generally narrow with taller walls, defining vertical spaces. A vertical hierarchy of spaces becomes evident, leading up the hillside and stepping up to the culminating point of the tower. This hierarchy points a spatial dominance or rank within the existing elements. The tower being the tallest and safest element when built. The next tallest structures were both of the residential buildings on either side of the tower. These three elements presented the solid, dense core of the complex. All this is done through layering the walls at varying heights.

The additive approach suggests a layering of materials and spaces. New layers can be added to old spaces, as well as layering new spaces with each other. Inherent in the layering approach is the juxtaposition of old and new, this results in layering of spaces and in layering of materials. As soon as new and old are layered the difference becomes apparent. Material layering as is an approach to defining spatial differences ranging from large to small. Further layering materials and space can create distinctions between surfaces that meet one another. When materials are layered their characteristics are juxtaposed and a material complexity can be achieved. Different materials suggest varying uses
and the interplay of material, space, and use is important in todays' space making. There is an obvious juxtaposition between the old masonry walls of the old that are the enclosure, the insulation, as well as the structure and the new materials where there is a different material for every function. This layering can occur at the building, the room, and the detail scale, Scarpa being the leading example.

Access and Movement

New access to the site seems important due to the change in use. The existing entries served to keep the enemy out while todays approach is to bring people into the site. The existing pedestrian access is not an easy access due to its severe slope and number of stairs. For the elderly this can be a real challenge, especially in bad weather. The east gate access route is predominately for vehicular access. While necessary for deliveries this access is not easily controllable. A new access to the site will also provide new experiences for the visitor.

In trying to connect the fort to the town square the new access route to the site should begin in the square. Considering the possible locations for the access to occur, one location seems favorable. The 17th century access leading from the south ward to the church below which was later infilled, makes for an appropriate new location for access. The original stairs that were carved into the rock still exist. The stairway leads from the area behind the church up the hillside, curving
and winding and up along outside the south ward wall. It reaches the top at a natural platform from which it moves through the wall and into the south ward. Cutting through the ward the path passes through another opening at the area just outside the Bettelbub tower. From this location onward the path takes the visitor to the left and through the main inner gate leading into the courtyard.

A alternate access mode is proposed, one that addresses modernity and the twentieth century impact on this site. An elevator and a small bridge connect the town square with the platform on the site above, adjacent to the stair. This becomes part of the new 20th century layer. The elevator is nestled into the corner of the hillside, creating an open area in front that leads to the town square. The parking lots on either side of the church encourage easy access to those arriving by car. Further it increases the possibility of visibility for tourists. The experience of vertical movement at this location enforces the actual connection between town and fort through the visual connection.

The area open to the public at all times is the series of wards surrounding the inner courtyard, including the restrooms. The main inner gate will be the control point at night and during the day for those wanting to visit the fort and pay the entry fee to see the museum. The path leads from the gate into the courtyard along the wall of the Mainzer Keller to the right. The two new means of access provide more desireable alternatives to the existing two routes.
4.3 Program Elements

LIBRARY

The primary building proposed on this site is a small community library. This library is to house the information regarding the history and development of the region. The information will range from large format folios to rare and archived books, as well as information on cd-rom. The books this building contains range from contemporary to historic. This building offers space for community functions on one floor, meeting space for lectures or gatherings along with a large lobby for small exhibitions.

The main part of the building is divided into two volumes separated by a light shaft. One four storey volume handles services and library staff needs, while the other five storey volume is dedicated to the books and computers. A third smaller volume is attached at the west end housing two floors of reading areas as well as a roof terrace.

Program

number of employees: 3
total number of users expected at peak time: 20
total number of books: aprox. 40,000
total square meters of stack area: 100
total square meters of sitting area: 45
total number of computer terminals: 9
total square meters of archive area: 30
total square meters of terrace: 23
square meters of each sitting area (old): 2.5
total square meters of service area (Circulation, offices, bathrooms, storage): 100
Total number of seats in community space: 20 +
total square meters: 300

BOOKSTORE

To define entry at the main inner gate I propose a bookstore along the south wall of the courtyard. This two story structure is connected to an elevator that connects to a footbridge in order to enter the library. The bookstore also is the first new building the visitors encounter and experience. The space inside has a large open floor plan to allow for various types of book displays and storage. The upper gallery wraps around half of the building toward the south wall. Connected to the bookstore leading to the elevator is a covered walkway.

Program

Total number of square meters: 35

CAFE

I propose a change in use of the Kemenate, kitchen, to bring further activity into the courtyard. The one storey building attached to the north wall is currently outfitted with a kitchen area and seating. The intent is to provide outside seating in the courtyard in the summer.
months. The remainder of the year seating is inside. This will allow access for the public to this building which it currently does not have.

**Program**

total number of square meters (interior): 104
CHAPTER FIVE

DESIGN SYNTHESIS
fig. 49 elevator design
5.1 Conceptual Idea for the Building

The driving conceptual idea was generated by the site section itself. The layering of the walls and their spatial definitions gave rise to the building concept. The sequence of layers from the bottom of the hill toward the keep define a series of vertical spaces. Breaking up the area of the palas into three segments, two large volumes and one narrow volume, more spatial layers are added. Their height is directly related to the existing fragments. The volume closest to the keep is the taller of the two masses while the middle volume is the tallest. The two larger volumes each relate to an existing fragment, leaving the central volume freestanding referring to the new structures and acting as a focus of light and vertical movement and composition. The volumes then suggest a programmatic division, the center volume defines a transition space between the other two masses.

The goal in defining the interior of the new building is to create a visual and an occasional physical connection between old and new. Therefore, the most desired areas within the building footprint are the northwest corner toward the keep and the southern facade. These volumes then become the primary spaces for the large program pieces. The library program lends itself to this concept since it can be broken down both functionally and programmatically into a volume strictly relating to books and another for the supporting facilities. The transition space between these volumes is a light shaft with bridges connecting the two.
In a material concept model of the site the material representation began to define the quality of the respective spaces. The darker mass adjacent to the keep is the denser, darker volume while the translucent masses are actually lighter both in spacial and in physical terms. This connects and contrasts the two larger masses as well as juxtaposing the whole new insertion with the existing structure.

5.2 Principles

A number of principles were developed to guide the design intervention after having studied some of Carlo Scarpa, Gottfried Boehm, Karland Josef Schattner’s work. Castelvecchio was the most inspiring work that helped to guided the framework for these principles.

Relationship to the old

The addition of a 20th century layer to the already layered historic site is of first and foremost of importance. Leaving a trace of time and history behind is as important now as it was in the previous centuries.

Maintaining the existing historic fabric while at the same time inserting a new element is also a primary concern. The preservation of the fragments narrative value is a large part of that concern.

A clear material distinction between old and new is necessary for an
immediate understanding of the site's history and buildings. In order for the visual experience to be a learning experience, this distinct separation is desirable.

Highlighting the interior of the old within the new allows for a creation of new spatial experiences. At the point where one can experience both old as well as new, an opportunity arises.

**Relationship to the physical existing structure**
Scale and volume of the old fragments determine the scale and volume of the new insertion. Considering the site and the fragments on the site, a new object needs to respect those precedents.

Creating a gap between old and new vertical surfaces enhances the clear separation. By pulling the new structure back and not letting it touch the old, unless it is done minimally out of structural necessity, no mistake about which is old or new can occur.

Vertical growth out of the ground suggests a connection to the ground that is more substantial than a resting on the ground. The notion of a landform moving up into space and engaging the middle zone is an exciting one. The interaction of the two zones and their materials allows for a richness in connections and articulations.

Horizontal surfaces of old and new too stay apart from each other leaving...
ing a gap between them. The accentuation of old and new through a physical separation is used in both horizontal and vertical surfaces. Keeping the structure thin and light further emphasizes the juxtaposition between existing and new. Physically the new enclosure is connected to the old structure only with glass and steel. In order to read the separation of old and new, no opaque material other than steel should touch the old fragments. Minimizing the surface area of connection along with the opacity makes for a greater contrast. The glass is seen as a continuation of the void, similar to Karl Josef Schattner’s use of glass in many of his projects.

Alternating heavy and light and solid and empty further distinguishes between existing and new. One is highlighted through the adjacent, creating a constant play of solid and void.

A relationship between punched openings in the existing structure and set back openings in the new structure is articulated. The inherent depth of the existing walls is compared to the recessed light shaft in the new design.

fig. 54 Carlo Scarpa, Gipsotheca Canoviana, Possagno, Italy
Design Elements/Physical/Experiential

The design elements related to the journey focus on movement. These elements are objects that can be physically experienced. Movement on the site is related to bridges, paths, and elevators. Bridges are steel objects that physically connect two locations but also address experiencing light. Bridges are inherently connected at two ends leaving the center in the air which enables one to experience light from all four sides.

Paths are similar to bridges in that they too connect different locations with one another but they specifically deal with views instead of light. The journey is about experiencing various moments along a given route where paths direct the views. These views connect the site and the town.

Elevators serve as the vertical circulation on the site also makes it handicapped accessible. These light steel structures are also related to view, similar to the paths. The stationary position of the user creates a different experience compared to the path where motion is a key factor.

Design elements related to the building are considered a kit of parts. These consist of physical building materials such as: steel, concrete, and glass. While these are building materials they can also be
experiential elements A steel structure addresses light, building mass versus the continuity of space and light due to thinner members. Concrete is experienced as a ground element, where mass is important. Glass is inherently used for views and spacial experiences related to the exterior environment.

5.3 Applications

The first design element generated was the elevator at the bottom of the hill. A 20th century technology as an outer layer, an introduction to the site. In building the elevator into the existing rock a heavy concrete foundation grows out of the ground into the middle zone. The man-made concrete as relating to ground and mass is juxtaposed to the natural rough mass of the rock. The concrete mass corresponds to the rock formation in that as the rock slopes upward the concrete rises higher as well. At the front of the elevator the concrete begins to taper off to allow an entry area, except to define the corners. This notion of materials growing out of each other continues as the elevator rises vertically, creating a sequence of layers.

A steel frame within the concrete base is the primary structural system. As the frame continues to rise within which steel screens cover all four surfaces. The screens consist of differently sized horizontal and vertical steel members. Larger members run vertically the length of the 17m high elevator. By doubling up the members to allow light to pass between them they are ultimately smaller than one larger member would
be. A series of smaller members run horizontally across the vertical members to frame views and a scale that a human body can relate to. The intent is to break down the four surfaces of the elevator in order for them to relate to the human scale.

By enclosing the screen on the exterior with two types of glass views can be directed. The areas to the east and south of the elevator look out into private residences while the west and north view are much more desirable. Clear glass is used to direct the visitors views to the town square and the rock and fort while the frosted glass encloses the remaining two view angles. The visitor should experience the ascension to the site in relation to the town square, the same happens in reverse when descending. This physical connection is an important one to understand.

The layering of materials allows for the juxtaposition of their characteristics. The heaviness of the concrete is opposed to the thinness of the steel structure. A comparison of the structural scale versus the secondary system of the screen is further visible. As the screen rises to the top of the structure the screen begins to fade away. Meaning that the screen only minimally reached the top of the elevator. This is a similar treatment of sky zone and the middle zone interacting with one another compared to the ground and middle zone interaction. The intention is for the entire structure to grow out of the ground and be anchored in the ground. As it rises the materials diminish and the top appears to be
the lightest part, closest to the sky.

The roof is a light fiberglass curve. It curves up toward the library building making a formal gesture, at the same time presenting a new roof form among the numerous towers and steeples. Its orientation is crucial establishing a relationship between the inner core of the site and the surrounding cliff and square.

The concrete foundation wraps around the four corners of the elevator clearly defining them. The alternation of solid and light is achieved by allowing the central part to be translucent. The rock and the concrete read as solids on either side of the entry, while the entry is light, leading the way.

A bridge connects the elevator with the platform at the top of the site. The steel structure connecting from a very solid element, the rock, to the light steel frame elevator is a transition space. Open to the elements the bridge has a frame structure allowing light to fill the space. Similar horizontal and vertical steel members frame the views for the visitor. The horizontal roof members cast shadows along the footpath of the bridge to give a sense of progression. The side panels underneath the handrail do not meet the floor plate, the gap between the two surfaces further allows light to penetrate and creates a sense of the continuity of space.

Moving along the bookstore is the next new encounter. This two storey
structure is pulled 1m away from the south courtyard wall. This gap between old and new makes a clear distinction as to the relationship of these two objects.

The bookstore too, is built of a steel frame structure with a concrete foundation that grows up along only one surface. The gap between old and new is accentuated through the use of concrete on one side and the old stone wall on the other. Views as visitors pass underneath the gate are focused on the pathway instead of the interior of the bookstore. The concrete wall is treated similarly to the elevator screen enclosure as the wall moves up it becomes lighter and steps back. Light is let in at the top clerestory underneath the roof.

Toward the courtyard the surface is transparent allowing the visual connection between the store and the courtyard. This is also the facade where the entrance to the store is located. Again screens are used to create views as well as to draw attention to the open, transparent area. The surface parallel to the old south wall is entirely transparent. To see the old structure but not be part of it and only be part of the new is setting old and new apart. Keeping the old wall untouched shows the respect the new has for the old and clearly differentiating between them.

The interior of the bookstore is one large open space with a mezzanine stretching along three sides of it. This 2.5m wide walkway has just

fig. 60 view of site looking south
fig. 61 site plan
enough room for a book display and access and encourages users to look out above the south wall and to the rooftops beyond.

Attached to the bookstore is a passage leading to the elevator. It consists of a covered walkway that protrudes beyond the bookshop into the already narrow pathway. This skeleton of a steel structure is an example of the thin structural members growing out of the ground. Here the added element clearly reads as a 20th century addition compared to the solid masonry fragments from the previous centuries.

The second elevator on the site is attached to the bookstore via a passage and moves up to meet a bridge that reminds of the one that once existed. Both elevators are treated similarly with one exception, the base. While the concrete reaches up higher in the elevator that is embedded in the rock, the elevator in the courtyard has a much smaller concrete base. Due to its location in the courtyard, away from all the walls surfaces it stands as an object, touched only by a walkway on one side and a bridge on the other. Vertical access is treated as a unique experience, one that requires to be treated object like, similarly to the keep and its treatment. The keep consists of little more than vertical circulation. Height was associated with superiority, visibility, and safety. Today on this site it is related to technology, convenience, and visibility. Both have the aspect of visibility in common which is inevitably inherent in height since we don’t experience it all that often due to its effort in construction.
Similar to the previously experienced bridge this footbridge too, is dedicated to experiencing light. Without any roof structure this bridge hovers 7m above the courtyard, open to the elements with views of the town and path below as well as the courtyard to the right. The light steel vocabulary is once again the structural system, this time juxtaposed in texture and mass to the old masonry palas wall.

The main building intervention on the site is the library structure. This building marks the 20th century layer in terms of use and its ability to transform the site. It is an insertion that molds itself to the existing remains of the old palas, claiming most of its old footprint. A 1m wide gap exists between the old and the new structure where they abut, clearly respecting the old and stating its structural independence.

Considering the existing structure as a precedent, the new insertion takes clues from the old, most importantly in terms of scale and volume. The mostly existing south facade is incorporated in the new design and determines the floor height due to the existing window openings. The palas was a four storey structure of which only the facade of the lower three floors remain. The palas and the adjacent kitchen with living quarters were once the two largest elements on the site, covering roughly 300m$^2$, the largest number of square meters. The additive building process over several centuries resulted in a number of smaller additions to buildings. The area surrounding the courtyard considered the core of the site only covers a 1380m$^2$ area of which the courtyard itself is a space of
sidered the core of the site only covers a 1380m² area of which the courtyard itself is a space of 20mx16m covering 320m². In order to address the existing environment the scale of the new insertion has to be related to what exists.

The new design breaks the program down into different volumes as already discussed. The entry volume is considered the service volume while the book volume is the darker of the two closest to the keep. The central volume is the transition space that handles vertical movement as well as movement between the two adjacent volumes.

The main entry level to the library is on the third floor. The bridge that connects the building to the elevator continues into the building, through the existing 2,6m wall and over the 1m gap separating old from new. Once within the building, the circulation desk and lobby area are straight ahead. A relatively open space with an area for waiting or viewing is located to the right of the entry. The steel structure consist of a series of columns that is made up of four L shapes within which the light fixtures are housed. The objective is to light the columns at night so that the vertical members read from the distance. At the end of the space is a stair connecting the offices above and the service area below. Directly across the entry way is a bridge connecting the two volumes, leading to the stack area.

The internal elevator is located in the light shaft, connecting all floors

fig.65 exterior view at night
with each other. At the entry level the access to the elevator is located near the book stacks. The elevator is located at the center of the 2m wide light shaft, allowing room for a small gap between the floor slabs of the individual volumes and the elevator itself. This then means that a bridge connect the floors with the elevator entries. Again the elevator is an independent object that is only connected by to bridges on either side. Its thin steel structure is displayed and enclosed only by glass panels. The objective is to allow views all around the interior of the building.

Once having crossed the bridge into the book volume a set of computer terminals are located to the right. This is where the connection to the outside world take place on this site. The fact that users can sit within this historic site, inside a new building and at the same time connected to any where in the world via the internet. This contrast is a result of the addition of layers one ontop of the other, narrowing the gap between Eppstein and the rest of the world.

The book stacks on this third floor stretch to the back of the building where another stair case is located. On the other end toward the west the stacks end in a work space adjacent to a bridge leading between two existing piers. These piers formed the former enclosure of the building, now these are enclosed within the new structure. Just beyond the piers the reading area attaches via another bridge. By passing through the two markers the visitor emerges into a very open and light space. Filled with chairs and work spaces the volumes transparency allows for phenomenal views toward the west.

The level accessible by the courtyard is the second floor. This floor houses community functions, a large space for meetings, lectures, or exhibits. In the rear of the large space is a window opening large enough to pass through. It requires a bridge to span the 1m gap, which on the other side of the window is a set of stairs leading to the outside. This exterior space is covered by the reading rooms above, but open on all sides. It provides an area for smaller gatherings in good weather conditions.

The light shaft is a four storey atrium space that helps to define the two volumes on either side. It is a light zone in which vertical circulation is the primary focus. The bridge connection at the entry level crossing this space is of importance as well. The act of crossing over something to get to the books removes them from easy access defining them as precious. The density of the darker volume is contrasted by moving through the light shaft prior to entering into the book volume. The same is true when emerging out from the book volume and the light filled shaft is receiving those exiting the building. Its structure is a series of thin double columns that define the elevator zone and support the roof. The two elevations facing east and west are similar to the elevator facade treatment which has a layer steel screening layered with glass enclosure. The objective is to let light in and to create shadows as the sun moves.
FIRST FLOOR
1:200

fig. 66 plan
It has its own entry that can be used after library hours. This floor is level with the existing infill today on the site. I have chosen to treat this level as ground level meaning that it has a continuous floor slab from which the structure rises up. The elevator pierces the slab and rises from below. There is a separation between the new building and the existing remains that physically isolates the building. A bridge spans between old existing steps adjacent to the palas wall to the new interior, emphasizing the transition and creating an awareness.

There is one level below the community space. This floor is divided into the archive space on one side of the elevator and restrooms on the other. The archive space has the same layout as the book stacks above do. Both sides connect to the stair cases and are linked with a hallway along the elevator shaft. A series of walls ring the periphery of the space allowing the gap between old and new to reach from the ground to the sky.

The floors that were discussed were the first, second, and third all of which share the same floor height between volumes, however, varying by floor. The first floor has a 2,5m floor to ceiling height while the two floors above have a 3,5m ceiling height. These heights are derived from the existing window opening of the south palas wall.

At the fourth floor a floor shift begins to happen. The book volume has a lower floor to ceiling heights, 2,5m as compared to the service volume
fig. 67 plan
fig. 68 view to the west, reading areas

identical to the third floor with a series of book stacks, the computer terminals toward the east, and the bridges leading to the reading space out beyond the old piers. What distinguishes this floor from the others is that there is no bridge connection crossing the light shaft so that the service volume and the book volume remain separated with a link. Each of the volumes has a stair attached and is linked via a bridge to the central elevator.

The service volume at the fourth floor level houses office space for the library staff. These are only partially enclosed by the south palas wall since the wall remains end short, meaning that the enclosure of the space protrudes out beyond the ruins. This provides another opportunity for a distinction between old and new in terms of elevation.

A fifth floor exists in the book volume, due to the lower ceiling height another floor added didn’t create a huge separation of building forms. The layout of this top floor has three double loaded bookstacks, three computer terminals at the east end and a work area adjacent to the stairs. Instead of a reading room this floor has a terrace in its place. The remaining piers pierce through the roof surface and become voids at this level. The rooftop offers an area for outside reading and gathering.

Both service and book volume have flat roofs while the light shaft is treated similarly to the elevators. These curved roof establish a relationship between each other, facing down to the elevator at the foot of the
FIFTH FLOOR

fig. 69 plan
E-W SECTION
1:200

fig. 70 section
fig. 72 elevation
WEST ELEVATION
1:200

fig. 73 elevation
fig. 73 elevation
hill, while that elevator is facing up toward the other two.

The east and west elevations address two different conditions. The east elevation, a more opaque treatment, addresses the courtyard where as the west elevation relates to the town. Views are focused out toward the town in the west, allowing program such as reading spaces and stairs to occupy the elevation. The objective in keeping the enclosure transparent is to allow the ruin fragments to remain visible at least at night when the building is lit from within. The new structure supporting the reading areas becomes an unimposing foreground that respects the structure behind it. The existing structure on either side of the intervention frames the new and clearly distinguishes old and new.

The opacity of the east elevation is related to the program as well as to the quality of the interior courtyard. The building grows out of the ground and becomes lighter as it move upward. The concrete base only grows up as far as the first storey where the steel enclosure picks up in the stack area. The metal handrail relates to the steel enclosure used to enclose the stacks. The notion that the metal reaches its destination in the stacks is carried through on the exterior. The horizontal treatment of the elevation is similar to the vertical. The existing building is separated by a gap which is emphasized through an opaque treatment of the edges on either side of it. As the enclosure moves inward to the light shaft the treatment become lighter. The access within the building is expressed on the exterior by transparent openings.
fig. 77 roof plan
5.4 The Journey

The unifying element that connects the town with the fort and the library is a contemporary journey. A progression of events and experiences lead the visitor through the site. A metal strip placed in the paving and occasionally becoming a three dimensional freestanding handrail leads the way for the visitors. The journey begins at the town square, a metal strip leads the way into a narrow space between the rock and the church. The tall elevator marks the destination. At this point the handrail grows out of the ground and becomes a tactile element of the handrail. While waiting for the elevator the visitors becomes familiar with the handrail, allowing him/her to recognize it once they are inside the elevator. The Freedom Trail in Boston is a similar device that guides tourist around the city. A painted red stripe runs along the sidewalks leading the way.

The journey continues upwards in the elevator while the visitors views are focused on the rock and the town square. The experience of moving up along the hillside is a new one that allows the viewer to contemplate notions on past and present. This physical transition period being between the town and the fort and focusing on the rock itself allows for a different mind set on the behalf of the visitor. The speed at which this transition takes place is relatively fast compared to the old procession up the hillside which makes for a more immediate link between town and site.

The rail again leads the visitors across the footbridge to the platform.
fig. 79 plan
Once on the site the handrail again becomes part of the ground but continues to lead the way to the library. The journey moves through the south ward wall dating back to 1616. As the visitors progress through the site they are presented with fragments of the fort dating from the youngest to the old structures. One is aware that by moving through the site one is moving through time and experiences. Continuing through the south ward the path leads through an opening in another wall and into the forcourt. At this point the journey joins the old pedestrian access route. The number of path choices for the visitor are clear due to the guiding metal strip they can, however, still take other routes if they so wish. The visible arched opening into the courtyard becomes the focus.

The wall surrounding the courtyard is one of the oldest still visible on the site. The experience of moving through and up, all the while focusing on the surrounding walls, allows the visitor to think of the past. His or her knowledge of history can enrich the experience of moving through space but even if there is a lack of knowledge the journey itself evokes a memory of the past.

Once under the entry gate, the path continues between the bookstore and the adjacent Mainz cellar. Then the overhang from the covered pathway protrudes into the passage. Again the handrail grows out of the ground and guides the visitor alongside the bookstore toward a second elevator.
The experience waiting for the elevator is similar to the one already experienced before. The handrail continues into the elevator providing support and a sense of familiarity. Once on the bridge between the elevator and the library entry, the handrail continues and brings the visitor into the lobby. First the visitor must pass through the massively thick wall fragment into temporary darkness. Then upon entering the light fills the space. The different experiences along this path are offset by the continuity of the rail, the constant thread that connects all the pieces of site and program together. The journey across the footbridge is a unique experience in that the view looks back on the journey itself.

Within the building the handrail continues along the areas that are open to below. In the elevator inside the library the rail re-appears as well. The stacks are the final destination of this journey about books. The experiences along the path are a learning experience similar to the library experience itself. The book stacks as the final destination of the visitor remind of the purpose and symbol of the site. A place for learning, where the learning doesn’t only take place in the library, but also on the site itself.

The experience of traveling along the journey in reverse, from the library back down to the town changes due to the views. The sequence reverses but the handrail becomes once more the guide.
5.5 Experiences

Moving through the site and the buildings follows a sequence of experiences. These all relate back to the principles discussed previously. The experiences can be categorized:

- experiences related to the old structure
- experiences related to the design elements

Experiences related to the old structure

1) entry

The experience of entering the new building through the old structure is emphasized through the use of the bridge. Not only does the bridge connect old and new it spans the 1m gap that reaches down to the ground and up to the sky. This vertical connection of earth to sky is one that can only be experienced only while on the bridge. The spatial continuity as well as the continuity of light makes these bridge experiences unique especially after having just entered through a very dark, dense and confined space of the existing structure.

2) movement along tower wall

The stair between the tower and the book volume offers an unusual experience. While moving up and down the stairs the view is focused at the tower wall. A narrow gap between the treads and the wall allows for the vertical continuity of space and light. The view up toward the top of
the tower is humbling. The shear mass of masonry reaching up toward the sky can be viewed through a narrow opening. The awareness is heightened of one's own movement against such a static mass.

3) within the old windows
The four south wall window openings are similar to each other in experience, but all very unusual compared to the other experiences on the site. The unique character of experiencing the old openings is a highlight within this building. The 2,5m² spaces within the thick masonry wall have phenomenal views to the town. The windows are comfortably sized approximately 3m high x 2m wide for one individual at a time. These spaces offer a serene place for contemplation, reading, and viewing.

Experiences related to the design elements

1) bridges from new building to old windows
The movement from the new structure into the old remaining window openings requires a transition space that stands in contrast to the experience in the old space. This threshold inhabits the 1m space between the two structures allowing light to enter at the top and connecting earth to sky. By filling this space with light the spatial definition becomes clearer.
2) bridges to reading areas
Moving through two existing masonry piers into the reading area is a
different experience form moving into an old window opening. These
two frozen elements from the past frame the view of the town below. A
sense of pushing through the old to get to the new as though a threshold
exists in-between. Bridging from the new to the piers and then again
from the piers to the reading area in an intensified experience in which
the earth and sky connection is strong since it happens twice.

3) bridges from volume to volume
Another internal bridge experience is that of crossing from the lobby to
the book volume within the light shaft. The large three storey open area
allows views to the floors above and below. Views and the vast amount
of open space are the focus of this experience.

ENDING ONLY TO BEGIN AGAIN . . .
Having started the journey not knowing what it would bring, and finding
that this journey does not end only to continue on another journey . . .

Learning is a continuum in life which has a chance to be explored and
unfolded on this journey into the past and future. The past should never
be left behind but instead be part of the continuum that we partake in.
ACKNOWLEDGEMENTS

I would like to recognize those people who helped and guided me through this design process:

Hasan -Uddin Khan, my advisor whom I thank for his continuous support and guidance. Thanks to Jan Wampler and Pamela Hawkes, my readers who always provided good criticism.

Many thanks to those who aided in making my research possible, Bertold Piccard, Herbert and Rosi Engelhard, and Klaus Engelhard.

To my thesis colleagues who were a continuous source of inspiration and advice, Melanie Coo, Lana Yoon (whithout whom I couldn’t have done it) and all the others who offered help and kindness. Thanks to Kevin for always cheering me on and believing in me.

My mother, whose always been by my side, thank you for your support that has been with me throughout this journey.

To Ben, many thanks for being there when I needed you most, without whom I couldn’t have done what I did.
ENDNOTES

2 - Galfatti, Aurelio, Revistatecnica, Il Restauro Di Castelgrande, ADV: Lugano, 1992,
5 - Ibid, p. 32.
ILLUSTRATION SOURCES

fig. 2

Gottfried Boehm, Bonn Bad-Godesberg
fig. 5

fig. 7

fig. 8

fig. 9

M. Merian. “Eppstein”, 1817, Heimatmuseum Eppstein, Germany
fig. 10

fig. 11

Neubauer, Johann Friedrich. “Eppstein”, 1804, Heimatmuseum Eppstein, Germany.
fig. 18

Kraus, Georg Melchior. “Eppstein”, 1817, Heimatmuseum Eppstein, Germany.
fig. 19

“Ruine Eppstein”, 1839, Heimatmuseum, Eppstein, Germany.
fig. 20

fig. 21

fig. 23
fig. 27
fig. 29
Burkhard, Franz. Lageplan der Burg Eppstein. 1926
fig. 35
BIBLIOGRAPHY

General
Picard, Bertold. Eppstein Castle in the Taunus.

Case Studies
“Saarbruckener Schloss.” Detail April-Mai 1992: BI-BIV.
Scarpa, Carlo. Architecture and Urbanism (Special Edition)