PROPOSAL FOR A SCHOOL OF ARCHITECTURE AND AN URBAN REHABILITATION IN THE CITY OF HERMANNSTADT, ROMANIA

A Thesis

Submitted to the Graduate School of the University of Notre Dame in Partial Fulfillment of the Requirements for the Degree of

Master of Architectural Design and Urbanism

by

Raluca Maria Manoliu, B.Arch, M.A.U.

________________________________________

John Stamper, Director
Graduate Program in Architecture
Notre Dame, Indiana
April 2005
To my parents, who represent the unique fixed point in an otherwise continuously rotating universe, and especially to my mother, who opened my eyes on architecture and showed me the beauty of an unknown world.
# TABLE OF CONTENTS

LIST OF FIGURES ........................................................................................................ vii

ACKNOWLEDGMENTS .................................................................................................. x

STATEMENT OF INTENT ........................................................................................... xi

CHAPTER I. HISTORIC BACKGROUND AND EVOLUTION OF
HERMANNSTADT IN THE EUROPEAN CULTURAL CONTEXT ......................... 1

1. Introduction ........................................................................................................... 1

2. The architecture of the medieval Hermannstadt ............................................. 9

2.1. The tower houses ......................................................................................... 11

3. The evolution of the urban space during the Gothic period ....................... 13

CHAPTER II. THE HISTORY AND EVOLUTION OF EDUCATION .......... 19

1. The evolution of education in Antiquity and the Middle Ages .................... 19

2. The first universities in continental Europe ................................................. 22

3. The first universities in England ..................................................................... 24

4. The forming of the American campus .......................................................... 25

5. The modern period ......................................................................................... 26

6. The contemporary period ............................................................................... 28

6.1. Characteristics of the contemporary higher education system ............... 30

6.1.1. Valuable orientations ............................................................................ 30
6.1.2. The university- a space for transmitting, receiving and valorizing information

CHAPTER III. UNIVERSITY TYPOLOGIES

1. The structure of superior education ensembles. Structures classified according to functional and constructive criteria

1.1. The linear type
1.2. The central type
1.3. The net type
1.4. The molecular –pavilion type
1.5. The ramified type

2. Structures classified according to esthetic and volumetric criteria

2.1. The environmental type
2.2. The composed precinct type
2.3. The undetermined type
2.4. The type adapted to the topography
2.5. The rhythmic type
2.6. The compact type

3. The typology of university spaces

3.1. Spaces that foster directly the educational process
3.2. The amphitheatre
3.3. The classroom
3.4. The seminar room
3.5. Laboratories and specialized rooms
3.6. Spaces which fulfill complementary functions – accumulation spaces.

3.7. Spaces for the university staff

3.8. Spaces for the administration and the management

4. The School of Architecture in the Romanian context

5. Superior education in Hermannstadt - “Lucian Blaga” University

CHAPTER IV. DESIGN PROJECT

1. Project description

1.1. Project for a School of architecture

1.2. Proposal for the Asylum cloister

2. SWOT analysis to support the building of a Faculty of Architecture in the historical center of Hermannstadt

3. The architectural program

CHAPTER V. Conservation / Restoration / rehabilitation

1. The debate

1.1. The city becomes concept

1.2. The concept of historical heritage

1.3. The concept of renovation and urban rehabilitation

1.4. Urban reconversion and revitalization

1.5. The evolution of rehabilitation and of urban reconversion

1.6. The role of the architect

2. The ensemble of the Asylum Church- a museum in motion; the memory of the city

2.1. Cinematic history
3. SWOT analysis ..................................................................................................85

BIBLIOGRAPHY ..................................................................................................87
LIST OF FIGURES

Figure 1.1. The map of Hermannstadt by Morando Visconti, 1699 ................................. 3
Figure 1.2. Villa Hermani around 1200 A.D. .................................................................... 5
Figure 1.3. Villa Hermani around 1240 ........................................................................... 5
Figure 1.4. The town of Hermannstadt around 1300 ........................................................ 5
Figure 1.5. 1380 - The town of Hermannstadt with the walls around the Lower City .... 5
Figure 1.6. 1480 – the city has a surface of 72 ha inside the walls ........................................ 6
Figure 1.7. Hermannstadt in 1630 .................................................................................... 6
Figure 1.8. Engraving by Wirsing of Nürnberg, done after a sketch by S. Sardi, showing
the city of Hermannstadt as it looked at the middle of the fifteenth century ....................... 7
Figure 1.9. Aerial view of the old city centre of Hermannstadt, showing its concentric
evolution. ......................................................................................................................... 15
Figure 1.10. The plan of Hermannstadt as it was in 1875. Map taken from the album of
Johann Böbel, Bruckenthal museum of History. .................................................................. 17

Figure 2.1. The Palatine School and the Palatine Academy – founded in 780 – school
presented in the manuscript discovered at the Saint Grall monastery in Switzerland in 818
A.D. ....................................................................................................................................... 21

Figure 3.1. Example of the central type - Cardross University, Cardross, Spain, St.
Peter’s College, Architects G. Gillespie, H. Kidd, A. Coia, 1966. ................................. 33
Figure 3.2. Example of the net type- Laughborough University, England, 19681 .......... 33
Figure 3.3. Example of the molecular –pavilion type- Sussex University, Sussex,
England, Architects B. Spence, B. Bonnington, D. Collins, 1963. Campus plan and
views. ................................................................................................................................. 34
Figure 3.4. Example of the ramified type - East England University, Norwich, England, Architect D. Lastdun, 1967.................................................................................................................35

Figure 3.5. Example of the environmental type - University of California State, Irvine, California, USA, Architects W. Pereira and comp., 1964.................................................................36

Figure 3.6. Example of the composed precinct type - Göteborg University, Göteborg, Sweden; Type- closed composed precinct; Architects – E. Erseus, B. Frening, J. Sjogrew. The building uses “shop-window” elements, amplifying the integration in the urban environment. ......................................................................................................................37

Figure 3.7. San Diego University, San Diego, California, USA, plan type open composed precinct; Architects R. Alexander and comp., 1974 .............................................................37

Figure 3.8. Example of the undetermined type - Hong-Kong Polytechnic University, Hong-Kong, China; Architect C. Wilson and comp., 1984.............................................................38

Figure 3.9. Example of the type adapted to the topography- Anahuac University, Mexico City, Mexico, Architect E. Cervantes and comp., 1984 .............................................................38

Figure 3.10. Example of the rhythmic type- Düsseldorf University, Germany, Architects G. Lippsmaier, K, Krass and comp., 1972.............................................................38

Figure 3.11. Example of the compact type - The University of Constantine, general plan, Architect Oscar Niemeier, 1972. .............................................................40

Figure 3.12. Example of the compact type- The university of Genova, Italy, the Beaux-Arts School; Architect I. Gardella, 1987-1990.................................41

Figure 3.13. Illumination on one side ........................................................................44

Figure 3.14. Bilateral indirect illumination....................................................................44

Figure 3.15. Bilateral illumination.............................................................................44

Figure 3.16. Main façade IMUAU .............................................................................49

Figure 3.17. Interior IMUAU.....................................................................................49

Figure 4.1. Plan of Hermannstadt from 1845, showing the layout of the lots before the demolitions..............................................................................................................54

Figure 4.2. Plan showing the site integration of the proposed school of Architecture......55

Figure 4.3. Three-dimensional model of the site, showing the integration of the proposed building..............................................................................................................55
Figure 4.4. Exterior perspective of the School of Architecture, showing one of the symmetrical courtyards, linked by porticoes underneath the building ..........................57

Figure 4. View of the portico ...........................................................................................................57

Figure 4.6. A different angle-view inside the portico ..............................................................58

Figure 4.7. Axonometric views showing the complex composition of the building and its stylistic features ...........................................................................................................58

Figure 4.8. Perspective views showing various details of the building .................................59

Figure 4.9. Picture showing examples of public buildings in Hermannstadt ......................60

Figure 4.10. “Ion Mincu” University of Architecture and Urbanism, Bucuresti ...............61

Figure 4.11. South-East elevation of the proposed School of Architecture in Hermannstadt .........................................................................................................................62

Figure 4.12. South-East and North-West street elevations, showing the hierarchy of the front and back facades of the School of Architecture ..................................................................63

Figure 5.1. Existing condition of the Asylum Church ................................................................82
ACKNOWLEDGMENTS

I would like to thank the following people who made the completion of this thesis possible:

Professor John Stamper, my advisor, for patient and thoughtful guidance.

Professors Robert Amico and Victor Deupi, my readers, for the diverse perspectives brought into my project.
STATEMENT OF INTENT

Since ancient times, the creation of new cities or their regeneration went hand in hand with the evolution of architecture. Both by pleasure, as well as by necessity, society leaves behind built marks which are trying to represent it the best way possible.

The aim of my thesis is to find a correct approach to the issue of urban revitalization through architectural means, in the context of a specific urban frame, of a particular history, culture and way of life.

The thesis is divided in two. The first part is concerned with the issues raised by the building of a new structure in the urban texture of an old, medieval city, namely a faculty of architecture that the town needs and requests.

The second part works with the concepts and controversies between conservation/reconstruction/renovation/rehabilitation/reconversion, about what each of them can offer, and what is the right answer for a particular problem, if there is such a thing as a uniquely right answer.

What unites the two parts is their role in revitalizing the life of the city, rebuilding a broken bridge between the community and a part of the city which, although central and of high importance by its role of linking the Upper Town with the Lower Town, has fallen in disgrace and oblivion.
Architecturally, the focus falls on the new proposed building. The aim is to reach harmony with the built context. Not to intrude manifesting an unnecessary originality, but also not to vanish into the fabric of the city, by imitating the old. The solutions is to come from a sound understanding of the city, of its rhythms, of its proportions, of its musical successions of historical periods and different architectural styles, of its topography, with the ascending and descending paths, all of which make the beauty and give the unique character of the town.

The new building will have to be integrated in the site by means of volume, profile or silhouette in the urban landscape; by the coherence with the environment; by the presence of History – allusive or direct signs of the past in the materials used, in textures or compositions; and by the dialogue between History and contemporary needs in terms of new needs, of the composition of spaces and new technologies.

The rehabilitation of the Asylum cloister intents to conclude the effort of reinventing life in an abandoned space in a successful way. The project of installing an innedit Museum of the City and an exhibition place for medieval objects of cult rescued from ruined churches and fortresses throughout Transylvania into the old, reinforced structure of the Asylum Church, and the creation of new studio spaces for the local artists combines the old with the new, history with contemporary art and architecture, presenting history through contemporary mediums, immerging the visitor in the past while keeping him in the present, through the means of technology.
CHAPTER I

HISTORIC BACKGROUND AND EVOLUTION OF HERMANNSTADT IN
THE EUROPEAN CULTURAL CONTEXT

1. Introduction

History tells us that the first Germans settled here, in the triangle made up by the
Roman camp at Caput Stenarul, the Dacian citadel at Tilisca and the Roman Cedonia, in
the middle of the 12th century.

The first documentary evidence is “Prepositura Cibiensis”\(^1\), dating from 1192-
1196, which presents it as a German colony, Cibinum. It had a wooden chapel on the
present site of the Asylum Chapel, and was surrounded by a cemetery. Legend fills the
gaps of history by saying that these Germans were led by a man named Hermann, hence
the name of Hermansdorf – Hermann’s village- and later, as the settlement grew,
Hermannstadt – Hermann’s town.

Other documents attest the city as “Villa Hermani”, 1223; “Cibinium”, in “Cives
de Cibinio”, 1280; “Zbinium”, in “Universitati Saxonum de Zibinio”, 1308; Chybinio,
1317; Hermannstadt, 1407; Sibinu, Sibiu, 1482; Sibinum, 1515; Szibiu, 1808; Sziby,
1839; Nagy Szeben, Sibiu, 1854.

---

\(^1\) Fabini, Hermann, *Sibiul gotic*, Editura Tehnica, Bucuresti, 1982
Of great relevance are two letters from the middle of the fifteenth century, one from the bishop of Constantinople to the Council of Sibiu, and the other from the mayor of Sibiu to the mayor of Vienna, by this proving its strategic relations with the rest of the world.

Georg Reicherstoffer, general secretary at the court of Ferdinand I of Hapsburg, in his “Chorographia Transilvaniae”, presents the city of Hermannstadt as “one of the most renowned towns… fortified by two rows of walls, extended on a big surface of land, embellished and adorned with majestic buildings…”\(^2\)

The oldest representation of the city could be found in Saint Jacob’s chapel, in a medallion held by a man, probably the mayor of the city. The chapel collapsed in 1898, and the medallion was destroyed.

In the “Mondial Chronicle” of Sebastian Munster\(^3\) there is a comparison between Hermannstadt and Vienna, as far as the beauty and the size of both cities were concerned, and so was in “Das Alt’ und Neue Teutsche Dacia” (“The old and the new Germanic Dacia”) of Johannes Trösters, published in Nürnberg in 1666.

Traveling through Transylvania in 1564, Giovan Andrea Gromo, in a letter to the Doge of Venice, Cosimo Medici, describes the cities of South Transylvania, showing the strong development of the city of Hermannstadt and the intense economic life of the place.

Valuable information on the structure of the city can be found in the drawings of eighteenth and nineteenth centuries. In the engraving by Adam Wirsing, in 1780, one


could observe a clear difference between the upper and the lower town and the marking
of the house-tower of Thomas Altemberger (the old Town Hall).

Faithful representations of the city and its architecture are found in a painting by
Franz Neuhauser in 1808, as well as in an engraving from “Mapa della Transilvania” by
Giovanni Morando Visconti, of 1699, in another engraving by Samuel Sardi, from the
second quarter of the eighteenth century, in a lithography by Ludwig Rohbock, of 1864,
in a lithography by Fogarasi Miklos, of 1864-1865, and in a photo-type by Romulus and
Jonnas from the last quarter of the nineteenth century.

![Figure 1.1. The map of Hermannstadt by Morando Visconti, 1699](image)
Placed nowadays on two terraces of different heights – separating the city in the “Upper town” and the “Lower Town”, the beginnings of the place can be found on the superior terrace, on the site of the Asylum Chapel.

At the end of the twelfth century and the beginning of the next, the first fortified wall was built – the nucleus of the medieval city, right near the supposed wooden church, the actual Grivita Square.

In the thirteenth century, the second wall was built around the Small Place, with towers above the gates.

In 1366, two precincts of stone and brick were attested; a third one in the second half of the fourteenth century. The name given by the Turks, “The Red City”\(^4\), comes from the material the city was made of, that is brick.

At the end of the fourteenth century, when the fourth wall was completed, the fortifications of the city measured almost four kilometers in length, having three towers in the Upper Town and twenty-nine in the Lower one.

Affected by transformations in the eighteenth century, subject to demolition in the nineteenth, only fragments of the fortifications remained: a few towers and wall parts remind us of the lost glory of the “Red City”.

\(^4\) Tröster, Johannes, *Das Alt und Neue Teutsche Dacia*, Nürnberg, 1666.
Figure 1.2. Villa Hermani around 1200 A.D.

Figure 1.3. Villa Hermani around 1240

Figure 1.4. The town of Hermannstadt around 1300

Figure 1.5. 1380 - The town of Hermannstadt with the walls around the Lower City
One recalls the lines of the poet Radu Stanca who, inspired and fascinated by the spell of the town he lived in, wrote:

“I’m walking in Sibiu like the moon moving through fog,
Sliding in, rather than walking…”

Actually, one slides into more than eight hundred years of history and legend. History carved in stone, fortress walls, towers and bastions, stairways and passage tunnels, squares, houses with portals flanked by atlantes and caryatids or bearing on massive gates the ancient symbol of the sun.
Every stone, wall, and tower whisper a legend.

---

Figure 1.8. Engraving by Wirsing of Nürnberg, done after a sketch by S. Sardi, showing the city of Hermannstadt as it looked at the middle of the fifteenth century

Starting your trip in the train station square, you come across the little conspicuous church “The Cross Chapel”, with its mixture of history and legend: it holds inside it Petrus Lantregen’s sculpture “Crucifixion”, carved in stone in 1417.

Walking up the narrow street leading to the centre of the old town, you can see on the left side the Ursuline Church, massive and reinforced with buttresses, erected in 1478 by the Dominican order. In front of it, where the road branches out to the Big Square, in the little triangle of turf, there is the white-marble statue of Nicolaus Olahus. A son of this town, he lived from 1493 to 1562 and got to the high position of archbishop and regent of Hungary. He was a friend of Erasmus of Rotterdam. In his works he showed his pride of his Romanian origins, of the Basarabs.
Going on, on either branch of the road, you arrive in the Big Square, where are to be found some of the most representative monuments. It is dominated by the Bruckenthal Palace, which was built in the second half of the eighteenth century in the Austrian Baroque style and became a famous museum as early as in 1817.

The Town Council Tower, rebuilt as it is now since 1588, stands between the Big Square and the Small Square dividing and, at the same time, uniting them. The Jesuits erected the building of the Catholic Church from 1726 to 1728, in the Baroque style. The line of houses featuring Gothic and Renaissance elements was owned by outstanding citizens or housed important public institutions over the centuries. One of them is the so-called Haller House, built in the second half of the fifteenth century.

Further on, through the passage under the Town Council Tower and again through another arched passage, one arrives in the Huet Square, at the stately building of the Evangelical church. It was raised on the place of a Roman basilica, in stages, from the fourteenth century to 1520.

From the church tower one can enjoy the sight of the town as far as to its limits. It lies at your feet with its narrow and twisted streets, some of them still bearing names of the guilds of hundreds of years ago.

A little further one can see the steeples and the dome of the Orthodox cathedral, built in the Byzantine style between 1902 and 1904. In its vicinity, there is the set of buildings of the old town hall, raised in the fifteenth century in the Gothic style. Thomas Altemberger, a mayor of Hermannstadt from 1470 to 1496, built them.
2. The architecture of the medieval Hermannstadt

The civil architecture of Hermannstadt can be considered similar to the one of the big historical centers of Central and Occidental Europe, such as Greifswald, Torun, Wroclaw, Krakow, Lewoca, Metz or Ausburg.

The first stone houses which were built in the West, in the twelfth century, have two slopes roofs, with angles between 45-55 degrees, and recessing frontons. During the late Gothic, fifteenth century and the first quarter of the sixteenth, there was an architectural growth and the exterior aspect of the civil buildings shows a clear preference for slender, springing forms; high roofs crowned by florets and, towards the end of the period, big openings with rich framings. Regarding the vertical space disposition, most often we encounter the solution in which the storage rooms are placed on the first floor, for commercial or craftsmanship use, and the living rooms are at the upper floors.

The Gothic interior, as it appears in the representations of the time, appears to be quite dark, natural light coming only through small openings with stained glass. Room cover was done either by vaults, or by flat ceilings with apparent wooden beams.

In Hermannstadt, Gothic houses had a fairly simple planimetric structure. They were long rectangles, disposed either perpendicular on, or parallel to the street. Their width was rarely more than 7 meters, and was dictated by the roofing system. In the beginning, most houses had only one floor, but houses with a very high second floor or with two floors will soon appear.

In the second half of the fourteenth century there is an acme in the economic development of the city, and the merchant house appears, as a new type. There is a clear
relationship between this new type of house and the “storage right” (*jus stapuli*) that was given to the city of Hermannstadt in 1382. It meant the enlargement of this type of house, in order to create the possibility of keeping goods for a longer period of time. This type of house is different from the previous one because of the ampler program, of the greater number of rooms and of the higher value of the building. If craftsmen’s and framers’ houses had 3 to 5 rooms, in the merchant's house, the number rises to 8-15.

These houses normally had two up to three levels: basement, first floor and second floor. In the Lower town, there are no basements, due to the danger of inundation. Generally speaking, facades are parallel to the street and the houses have another perpendicular wing, creating a confined courtyard.

Towards the end of the fifteenth century, a third type of civil architecture emerges in Hermannstadt, the patrician house. Developed from the merchant’s house, this type of house is the architectural expression of the social changes that occurred in that period. Besides program enhancement, the patrician house is characterized by the use of a wide range of architectural forms, both in respect to the interior space, and to the architectural detail. Another characteristic is the predilection for forms taken from the architecture of aristocratic houses, expression of the aspiration of the urban patricians to the rights and attributes of the feudal nobility.

Characteristic to both houses and other civil buildings in Gothic Hermannstadt are the principles of linearity and of verticality. The first one is highly visible in religious buildings, where the principle is clearly expressed in the decomposition of the windows’ surface in bouquets of lines, while in civil architecture, it is present in the decorative ornamentation of windows and doors frames.
The verticality principle is present in Transylvania especially during the late Gothic. Starting with early Gothic style, and continuing as far as the end of the fifteenth century, houses show the vertical tendency by accentuating the angle of the sloping roofs. The most eloquent tendency is expressed by the patrician towers, during the late Gothic.

2.1. The tower houses

The preference of Gothic architecture for vertical forms, especially in its late stages, finds its expression in the towers that determine the specific silhouette of medieval cities. Although usually there are church or fortification towers, some medieval cities present another type: the tower house built by the patricians. Hermannstadt counts three tower houses: the old Town Hall tower (str.1 Mai no.2), the tower in the Haller house courtyard (Place of the Republic no.10), and the one that existed until 1830 in the Place of the Republic no. 13.

The specific characteristics of the tower houses in Hermannstadt are as follows:

- They were built independently from the fortification structures, inside the perimeter enclosed by the walls of the city. Examples from the city have a rectangular or square plan and are built on three or four levels, the first two being covered by crossing arches or semi cylindrical vaults with ingresses.

- The towers in Hermannstadt do not have basements.

- On each floor there is only one room.
Functionally speaking, we can see the following use of the spaces: on the first floor, there are household rooms or a covered passage way; on the second floor, a room that corresponds to the “palas” in the aristocratic dungeons; on the upper levels, bedrooms and guestrooms.

The walls are in brick covered with white plaster, the doors and windows frames are made of stone or, in rooms of less importance, of wood.

Tower houses were frequent in Central Europe. An example that amazes by its resemblance to Hermannstadt’s old Town Hall tower is the tower house in the precinct of Wawel castle in Krakow. According to Szyszko-Bohusz\textsuperscript{6}, this tower, today incorporated in the sixteenth century castle, was built by Wladislaw Lokietek at the beginning of the fourteenth century. Like the Altemberg tower in Hermannstadt, the plan is also a square, it has an octagonal column in the middle and crossed-ribs vaults.

Recent research has shown that in the city of Prague, tower houses were extremely numerous during the Romanic and Gothic periods.

The exterior of Hermannstadt’s tower-houses is similar to those of Nürnberg\textsuperscript{7}. The most interesting case is the one of the Nassauer house. An important number of patrician tower houses are also to be found in Regensburg. Here, southern influences are obvious, through the Italian cities of San Gimiano, Bologna, Verona, which, at their turn, were influenced by Spain, in which we can find the so-called “tore-señoral”, in Barcelona and Seastao\textsuperscript{8}. But tower-houses can also be found further north, in Köln, Ausburg, Würzburg and Metz.

---


\textsuperscript{7} Bier, \textit{Nürnberg}, Nürnberg, 1926.

\textsuperscript{8} Vicente Lamperez y Romea, \textit{Las Ciudades Españolas}, Madrid, 1917.
Considered in the general European context, Hermannstadt’s tower houses present a late variation of a building type that was quite spread out in medieval Europe.

3. The evolution of the urban space during the Gothic period

The majority of streets and urban places formed during the Gothic period.

Grivita Square (the place around the Evangelical Church)

The most important object of the place is the church. Initially a Roman basilica, it was rebuilt in a gothic style starting with 1350. At the middle of the fifteenth century, the so-called “ferula” was added on the western side. The tower was raised higher in 1494, and the southern part, characterized by seven rectangular pinions, was finished in 1520. From the fortification of this precinct, all that remains is the Stairs’ Tower (Sagturm), near the parish house, which is placed north from the church.

The Small Square

The perimeter of the Small Place is determined towards the south, east and north by the houses raised on walls of the second fortification. In the Middle Age, the purpose of the place was commercial, but only craftsmen could sell their products there. The Big Place was for wood and grains transactions. The architecture of the place shows it. On the entire perimeter, there are arched porticoes opening on the place. The porticoes can be dated back to the fifteenth century, until the end of the sixteenth century, some of them being built in a Gothic style, and others, in a Renaissance one.
Independently from the perimeter of the place, in the second half of the fourteenth century, commercial halls were built, of which only the Butcher’s Hall, mentioned in 1370\textsuperscript{9}, is still kept in a form that is close enough to its original one.

*The Big Square*

During the late Gothic, the perimeter of this place looked almost the same as it does nowadays; small transformations occurred during the Baroque epoch, when the Romano-Catholic church was built on its northern side and the Brukenthal Palace on the western side. On the southern side, the most important building was the Hecht house, which dominated this side by its height. The second house in importance was the one of Ieronimus Schneider, later the Haller house.

The place, in its initial urban conception, was oriented towards the second fortification wall, so that the highest buildings of the city in the thirteenth century, the tower of the Evangelical Church and the Council Tower, were also the highest buildings of the Place, situation that changed only when the Romano-Catholic Church and the Bank were built.

\textsuperscript{9} Sigerus, *Chronik*
The city, urban unity

An important fact to remember is that Hermannstadt is not one of the cities developed on an ideal plan, as the majority of German colonies built in the rest of Central Europe. Ideal plan examples are the cities of Greifswald, Torun, Wroclaw, Krakow, Lewoca, and in Romania, Cluj and Bistrita.

Hermannstadt had a concentric evolution, ulterior lots being added to an initial nucleus. However, even in this situation we find elements from the ideal urban concept: for instance, in the Upper Town, two streets, Balcescu and General Magheru are opening into the Place of the Republic on the corners, in a way that is similar to ideal cities, in which the city place is a rectangle left free between two parallel streets.

Figure 1.9. Aerial view of the old city centre of Hermannstadt, showing its concentric evolution.
Still, in the northern part of the Place of the Republic, this principle was not observed, because of the previous existence of the old nucleus of the town, and the Avram Iancu and 1 Mai streets being directed towards this nucleus, could not continue onto this side of the place. This characteristic of Hermannstadt’s evolution had repercussions on the urban spatial conception of streets and places. It is interesting to see that, in time, the furnishing of the Place of the Republic took into account the orientation of the urban space towards its northern side, avoiding the placement of any buildings or urban objects on the north-south axis. On the contrary, in ideal cities, it is normal to place an object in the middle of a town square; for instance, in Cluj-Napoca and Bistrita, the main square houses the parish churches, and in Torum or Wroclaw, the town hall is placed in the square.

The plan of the historical city of Hermannstadt, based on the topographic elevation made in 1875, allows us to see its urban skeleton: the Balcescu street, 9 Mai, the Tower street and Karl Marx, that led to the main gates of the city, and in the center of the town, the three squares – Grivita, 6 Martie and Republicii.

The entire Gothic city has distinct boundaries made up of fortification walls. Formally speaking, this shows in the convexity of the exterior contour, obviously conditioned by the military technique of the time. Inside the confines, the lack of space determined extremely complex social and economic behaviors that reflected themselves in the architecture and the urban development of the towns. What resulted was a microcosm able to resist long periods of time isolated from the outer world, a cell with maximal autonomy from the environment.

In the fourth decade of the sixteenth century, when Hermannstadt was besieged by the Turks for seven years, this function of the city became obvious.
The issue of the limited living space, which led in the Gothic architecture, to a strong differentiation between city and natural environment, expressed, on the one hand, by density and complexity, and on the other hand, by lack of structure, is still interesting nowadays.

We might argue that the urban planning of the twentieth century demonstrated that extending the inhabitation on indefinite areas leads to the loss of control over the urban functions and over the architectural space, the result being a chaotic architectural
frame. Maybe it is time for a closer analysis of the dialectic relations between interior -
exterior, complex - simple, structured - amorphous, concave - convex, as they appear in
the medieval way of life. In any case, a good question would be if the tension resulting
from a limited, socially and economically controlled frame of life is not necessary for
obtaining complex forms of human existence, from the point of view of urbanity and
architecture.
A history of urbanism and of the architecture specific to higher education has not been written yet. In a *stricto senso* context, the history of higher education starts in the thirteenth century, when educational processes began to evolve.

1. The evolution of education in Antiquity and the Middle Ages

While the first references to education can be found in the Iliad and the Odyssey, the first built structures can be found in the valley of the Euphrates. Placed in the religious neighborhood, the school was to be built near the clay-tiles libraries.

In the Mediterranean civilizations, the enhancement of the social character of the educational phenomena required the building of large, specialized structures – the gymnasium and the palestra, which were unfolding around atriums, surrounded by porticoes and different rooms: study rooms, furnished with stone benches, perimetraly disposed, the library and the bath room (ablutio).

The gymnasium was the main building bordering the agora of the city – which underlines its important role in the social life of the community.

The philosophers of those civilizations decisively influenced the educational and pedagogical phenomenon: Democritus, Heraclites, Socrates (the “Heuristics”), considered to be the first pedagogic theoretician; Plato- continuator of Socrates, who
founded the Academy of Athens; Aristotle, founder of the Peripatetic school of Athens, etc.

The organized educational process was meant for a small number of students belonging to the free citizens’ social classes; the relationship teacher-student had a direct – personal character.

The religious spirit, dominant in the Middle Ages, decisively influenced education. In the social and economic context of the epoch, education diversifies its manifestations, and the relationship between professor and student alters, because of spiritual and physical constraints that appear, the result being the loss of the bilateral character of the dialogue, which practically becomes a monologue. The isolation in which the educational process took place, the small quantity of knowledge transmitted and the very slow rhythm in which it was assimilated by pupils led to an untrusting and despising reaction towards the students, considered as simple objects, lacking initiative and subjected to a process of education similar to animal training.

The instauration of the collective type of education – one professor and a group of students, inside monastery and city schools imposed a proper, specialized space as a functional necessity. Using the antiquity models of the gymnasium and of the Roman castrum, these schools developed themselves around atriums, surrounded by buildings with specialized spaces, thus amplifying the isolated character of the schools of that period.

The reconstitution of the manuscript discovered in the monastery Saint Grall in Switzerland shows a model of organization which is representative to the monastic community, structured and inspired by the regularity and the systematization of the
Roman castrum. The school presented in fig. 2.1. is organized on the principles of the ancient *gymnasium*, with rooms and open spaces disposed around atriums.\textsuperscript{10}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure21.png}
\caption{The Palatine School and the Palatine Academy – founded in 780 – school presented in the manuscript discovered at the Saint Grall monastery in Switzerland in 818 A.D.}
\end{figure}

2. The first universities in continental Europe

At the beginning of the thirteenth century, some monastery and Episcopal schools, by gaining independence from the local authorities, and being sustained by the papal power, regrouped and organized themselves in autonomous communities named Universitas. In time, these institutions expanded their domains of teaching, evolving from a strictly religious education to a more diverse one, forming the first universities of continental Europe\textsuperscript{11}: La Sorbonne – Paris- founded in 1214; the University of Salamanca, founded in 1230; the University of Bologna, 1270; the Prague University, 1340; Krakow University, 1270; Vienna University, 1365; Heidelberg University, 1364, etc.

The new universities evolved continuously, with the help of the great personalities of the time and the educative progressive ideas.

The Renaissance, which appeared in the context of an economic, social, and humanist-spiritual development, strongly influenced education by reconsidering the classical values and the new cultural orientations, as well as through the promoted educational strategies.

By supporting the possibility of modeling the student during the course of an educational process which would correspond to his age and his nature, Comenius, in its work “Didactica Magna”, proposed the first unitary, functional and progressive system of educational organization, containing new elements which aimed at the concept of educational stages, of academic year, of holidays, collective education, individualized classes according to categories of age, number of students and educational level. These

elements promoted a new concept in the architectural plans of schools, including a space for recreational activities.

Collective education recognized by the relationship professor-group of students consolidated itself in concordance with the social and economic necessities and the new pedagogical theories of education promoted by J. Locke (1633-1704), an adept of the realist pedagogy and of useful education, by I.N. Pestalozzi (1746-1827), precursor of modern pedagogy, who pointed out the role of intuition in the process of instruction, the role of work and family, and of the exercises included in the principle of gradual development, or Fr. Herbart (1776-1841), representative of the German conservative doctrine, which sustained school’s adaptation to the requirements of the time.\(^\text{12}\)

The development of universities influenced the urban development of the respective cities, in the frame of interconnectivity relations which materialized into the building of facilities, including “student neighborhoods” (the Quartier Latin in Paris, mainly inhabited by the students of the Sorbonne University).

\(^\text{12}\) Tanasoiu, R., Arhitectura constructiilor scolare, Ed. Didactica si Pedagogica, Bucuresti, 1979
3. The foundation of the first universities in England

Although, chronologically speaking, the foundation of the first universities coincides with the apparition of the first universities in France, a number of particularities determined this process to be treated in a distinct chapter. The colleges of the Oxford University, founded in 1214, and of Cambridge University, founded in 1229, grew along the urban centers of the two towns in the vicinity of London.

Assuming the medieval monastic system of organization, the two universities developed around courtyards and gardens, forming unitary ensembles in time. Adopting as a base of organization the tutorship principle (this principle was followed by other higher education institutions in Europe and northern America, but they ended up by giving it up), they enjoyed a full autonomy in the organization of academic life, curriculum and administration. Advocates of an organizational stability, the two institutions refused the temptation of experiment, promoting a conservative attitude though open to the dialogue with academic institutions throughout the world. The Oxbridge model dominated the British university life until the second half of the nineteenth century, when the necessity of reducing the institutions’ isolation and the effects of the industrial revolution determined the choice of a new system, subordinated to the interests of the State (the University of London, built between 1828-1837, is the

---

13 Synthesizing the characteristics of the ensembles in which this principle finds its expression, Lewis Mumford describes Oxford and Cambridge universities as “processions of square or rectangular spaces”, developing around gardens and courtyards, forming groups of closed edifices in which vehicles or noise cannot break through but occasionally. The surface occupied by buildings does not line up strictly to circulation hallways, representing, historically speaking, the first typical shape of unitary ensemble or super bloc. (Lewis Mumford, Oxford et l’influence médiévale, in La Cité à travers l’histoire, Ed. Du Seuil, Paris, 1964).

first institution of higher education in England, besides the Oxbridge model, and shows the tendency of integration in the urban frame).

The Oxbridge model, modernized, stood the test of time, providing tradition, and a favorable atmosphere to study.

The university city, the university campus and the urban university constitute landmarks in the British organization of higher education.

4. The forming of the American campus

The American campus appeared under the influence of the elements of organization of higher education that were specific to English universities, presenting a spatial model developed around gardens and courtyards, with a quadrilateral shape.

The first model, represented by Harvard University – founded in 1636, was followed in the next century, by other prestigious institutions: Yale University – founded in 1701 and Princeton University – founded in 1770.

The proposed system aimed at creating optimal conditions of study for both students and professors, far from urban agglomerations, by building specific structures around gardens and courtyards.

The American campus (the initial term, Jard, was replaced by Campus after the building of Princeton University), imposed itself in the nineteenth century, following two trends in spatial organization: the neoclassic compositional model, represented by the example of the University of Virginia, architect Thomas Jefferson – founded 1856 (the ensemble is structured along a compositional axis, having as end of perspective the
library building, crowned by an impressive vault) and the landscape model, represented by the project designed for the Land Grand College, architect F.L. Olmsted, in 1862\textsuperscript{15}.

Overlooking the various influences that ruled over the placing of campuses outside or inside the city, their relation to the natural and urban environment and their spatial conception, the model has been assumed in making new universities, integrated in urban centers. The new urban campus, influenced by the example of the University of Berlin – founded in 1809-, proved to be efficient through the advantages offered by the process of urban integration (examples: New York University – founded in 1830), the system being borrowed and adapted to the particularities of other academic institutions.

5. The modern period

The Modern period in the evolution of higher education starts with the nineteenth century, in a favorable socio-economic context, determined by the industrial revolution, transforming the educational system, imposing the technical and applicative side and offering possibilities of access to education to a larger spectrum of population.

The most meaningful example for the beginning of this period is the University of London, founded in 1828.

The involvement of the State in the politics related to academic institutions, along with the loss of some college’s autonomy to different universities, in the context of an obvious amplification of urban development, led to the birth of new university centers (Nottingham, Leeds, Liverpool, New Castle, etc.), thus meeting the demand of new technical higher education (the humanist side being represented by the Oxbridge model).

The modernization of the new university centers imposed itself rapidly in the majority of European countries and in the United States in the beginning of the twentieth century.

The new needs related to social development, in accordance with a modern pedagogy, raised up the issue of new and complex infrastructure, which, urbanistically speaking, materialized on sites placed near the peripheries of big cities.

Starting from the traditional urban system of American campus planning, the strategies changed in order to meet the new needs-determined by the enhancement of the urbanization phenomenon and new theoretical views, and began using the urban plan. Through the Bauhaus, that led to functionalism and the International Style.

The examples of Florida Southern Lakeland College or the Illinois Institute of Technology are representative for the new, specific trend in the architecture of educational facilities, in which the new theories and conceptions of the time were materialized.
6. The contemporary period

After the Second World War, along with ample urban and architectural reconstruction works, the network of university centers expanded as well.

Economic reasons identified, at the beginning of the 1950’s, an attractive model in using the principle of stages in building educational ensembles. This model offered flexibility and mobility in the composition of the ensemble, by using interchangeable spatial elements as design practice had an indefinite character (the type and shape of the building being completed only for those parts that were to be immediately functional).

Starting from the example of the Sheffield University, which stressed its organic character and the direction of the development process, the Sixties are representative for the academic megastructures, ample compositions that include different specializations, corresponding to technical education, to the humanities and to the arts. The ensembles were subordinated to major compositional axes, insuring a high degree of furnishing the site, but nevertheless presented urban disadvantages. (Examples: the Free University of Berlin, Odense University or Bielefeld University).

The proposed spatial model was constrained to conventional patterns and was excluded a tine- fragmented achievement, which lately imposed the solution of urban universities and a new relation between the academic community and the urban one. This concept arose against the background of a growth in urban development, pointed out the advantages of integration process, including activities from the practical, applicative and artistic fields.
The university of Leeds, emblematic for its time, was offering a representative urban frame to the community, including study spaces similar to design studios, laboratories identical to the industrial ones and functional facilities that defined their personality by giving up modalities of expression with academic specificity (for instance, the plasticity of the facades)\textsuperscript{16}.

The development of higher education after the Sixties outlined, from an architectural perspective, two trends that were reflecting the European conception, oriented towards the improvement of new curricula, and focused on ensuring the necessary infrastructure and their relationship with the urban frame, as well as the North-American conception, oriented towards the improvement of study technology, marked by an obvious pragmatism, that was emphasizing on the practical and applicative side and, implicitly, the preoccupation to ensure a proper built environment.

Today, when science and university research influenced decisively the progress of contemporary society, the dynamics of the furbishments and of building new college and university facilities reminds of the prolific period of the Sixties.

The dynamics of the educational phenomena combines with urban growth, in the context of constraints of financial and economic nature that are targeting efficiency, and of a strong impact of science and technology.

Numerous ensembles dedicated to higher education, passing the test of time, prove their validity even today, but request a constant adaptation to new technological and functional needs, insuring comfort and the necessary infrastructure.

\textsuperscript{16} The University of Leeds, England, Architects Chamberlin, Powell and Bon, 1966. The conception of the ensemble has an obvious urban character.
6.1. Characteristics of the contemporary higher education system

6.1.1 Valuable orientations

The higher education institutions operate with educational, cultural, scientific and social values that belong to contemporary civilization. Present times define value as being a way through which an evolutionary process shapes itself. Using significant languages, one can point out the elements which define the architectural space created. The transmitted information will include significant aesthetic values that can be perceived according to parameters that depend of one’s artistic sensibility. The variety of the institutional frame specific to higher education, reflected in the architectural elements, show a wide conceptual spectrum, which includes elements with an elitist character (the Oxbridge model) and elements that are specific to more socially accessible institutions.

Universities define a privileged axiological space that influences the mental space through a system of values that can be approached at the level of a theoretical process or at the pragmatic level of the relationships between the participants to the educational process. Hence, the typology of the academic facilities show the theoretical component (aula, lecture and seminar rooms), the practical component (laboratories, design studios), and the creative and artistic component (art studios). The percentage of these facilities differs according to the type of the specific program of the building.

The values promoted in the university space are difficult to classify and, practically, unlimited.

The exchanges between students and professors, through different scholarship programs (Tempus, Erasmus, Socrates), the founding of universities at the level of the
European Union points out the universal character of higher education processes, realized through a communication based on philosophical concepts, at various levels – individual, of schools or of cultures.

The academic institutions, as an organic part and as a summum of values that defines a certain society, transmit, receive and asses the values which are specific to various fields. At the architectural level, this stresses the necessity and the dynamic re-adaptation processes and re-furnishing with the corresponding infrastructure, while a sociologic approach would point out the role of the universities in multiplying the contacts and insuring a cooperation spirit, imposed by today’s world.

6.1.2. The university- a space for transmitting, receiving and valorizing information

Nowadays, higher education is perceived as a complex process of transmitting, assimilating and valorizing information and distinguishes itself by its structural- organic dynamics, which also implies the necessity for flexibility in providing infrastructure, according to the parameters of the chosen model of space. This one is characterized by cognitive, social and psychological elements, being defined as a field in which ideas are analyzed and interdisciplinary and multidimensional judgments of valor are made.
CHAPTER III

UNIVERSITY TYPOLOGIES

1. The structure of higher education ensembles

The specific spatial model for academic institutions supposes the structuring of the composing parts into unitary ensembles, according to multiple criteria: the possibilities offered by the site (including the infrastructure elements), the profile and the specificity of the institution, the personality of the author.

Structures classified according to functional and constructive criteria

1.1 The linear type – example: Bath University, Germany

The development of the ensemble follows a magisterial path, with disadvantages that have to do with the functionality, the indefinable character of the precinct and the difficult relation between the various components.
1.2. The central type

The ensemble, reminding of the Medieval college organization (the Oxbridge model), defines the particularities specific to the precinct, allowing the execution to be done in phases.

Figure 3.1. Example of the central type - Cardross University, Cardross, Spain, St. Peter’s College, Architects G. Gilesppie, H. Kidd, A. Coia, 1966.
1. playground; 2. common space; 3. reading space; 4. chapel; 5. hall; 6. pool; 7. Entrance; 8. restaurant; 9. kitchen; 10. library access.

1.3. The net type

Designed under the Oxbridge influence, the ensemble distinguishes itself by the density of the site coverage, by the atmosphere created inside the net, but presents the disadvantage of a compositional rigidity.

Figure 3.2. Example of the net type—Laughborough University, England, 1968
1. Existing residential zone; 2. Existing university zone; 3. The new university.
1.4. The molecular –pavilion type

The ensemble is subordinated to the urban environment, realizing an organic unity with the environment.

Figure 3.3. Example of the molecular –pavilion type- Sussex University, Sussex, England, Architects B. Spence, B. Bonnington, D. Collins, 1963. Campus plan and views.
1.5. *The ramified type*

The unitary ensemble distinguishes itself by the ramified planimetry, which favors the framing in the site and the valorization of the topography, obtaining a favorable atmosphere for study.

Figure 3.4. example of the ramified type - East England University, Norwich, England, Architect D. Lastdun, 1967.
2. Structures classified according to esthetic and volumetric criteria

2.1. The environmental type

Initially conceived on the base of environmental principles, the ensemble extended gradually its urban character.

Figure 3.5. Example of the environmental type - University of California Irvine, California, USA, Architects W. Pereira and comp., 1964
2.2. The composed precinct type

This conceptual model is the most frequently used because of the advantage offered by the multiple compositional directions which can cover different site solutions.

Figure 3.6. Example of the composed precinct type - Göteborg University, Göteborg, Sweden; Type- closed composed precinct; Architects – E. Erseus, B. Frening, J. Sjogrew. The building uses “shop-window” elements, amplifying the integration in the environment.

Figure 3.7. San Diego University, San Diego, California, USA, plan type open composed precinct; Architects R. Alexander and comp., 1974
2.3. The undetermined type

It is itself a vast flat composition, with a planimetry generated by rectangular compositional axes which suggest a certain degree of mobility.

Figure 3.8. Example of the undetermined type - Hong-Kong Polytechnic University, Hong Kong, China; Architect C. Wilson and comp., 1984

2.4. The type adapted to the topography

In this case, the ensemble is compositionally structured according to the respective site and its topography.

Figure 3.9. Example of the type adapted to the topography - Anahuac University, Mexico City, Mexico, Architect E. Cervantes and comp., 1984

2.5. The rhythmic type
This model resulted from the use of 2-3 types of similar constructions, included into a linear composition, disposed along a major pedestrian route; each type represents a certain functional category – lecture rooms, seminar rooms, laboratories – disposed quite at random.

This conception is illustrated by the Düsseldorf university, of Germany (architects G. Lippsmaier, K. Krass and comp., 1972), the Regensburg university, of Germany (architects E. Heinle and comp., 1967), Bielefeld university, of Germany (architects K. Köpke and comp., 1971), Bochum university, of Germany, (architects H. Hentrich and comp., 1966).

Building those academic ensembles rose new problems related to the distruption of the urban scale, their reintegration in the city being possible only by decomposing them into individual, specialized elements.

Figure 3.10. Example of the rhythmic type- Düsseldorf University, Germany, Architects G. Lippsmaier, K, Krass and comp., 1972
2.6. The compact type

This spatial model distinguishes itself by organic and functional flexibility, adaptated to the natural environment provided by the site against the background of an obvious symbolism which is imposed as a reference element. A good example is illustrated by the University of Constantine, Algeria.\textsuperscript{17}

Figure 3.11. Example of the compact type - The University of Constantine, general plan, Architect Oscar Niemeier, 1972.
1. Administrative pavilion, The Humanities School;
2. The Medical School;
3. The Technical Institute – Architecture, Civil Engineering, Industrial Chemistry, Physics, Electrical Engineering;
4. Social annexes;
5. Botanical park;
6. Lanseaping;
7. Industrial zone

\textsuperscript{17} Architectora R.S.R., nr. 2, 1983, p. 32
The building is well integrated in the urban environment and is defined by particularities which convey a historic continuity. The site imposed spatial model adapted to the local topography, with a careful design of the facades, subordinated to the functions asked by the curriculum.
3. The typology of the university spaces

3.1. Spaces that foster directly the educational process

These spaces differentiate themselves from one another by the type of transfer of information in the theoretical courses (amphitheatres, seminar rooms, classes), or according to the experimental processes that focus on the fundamental practice and complete theoretical education (laboratories, studios, specialized facilities).

3.2. The amphitheatre

The amphitheatre, as a representative space for the higher education, takes from the antiquity model (the Colosseum in Rome; Gr. “amphyteatron”) its oval-circular shape and the disposition of the tiers, realizing an adaptation of the architectural form to the new functional needs.

In the educational system, the amphitheatre model has been used starting with the unprecedented development of the education phenomenon during Renaissance; the amphitheatre was initially used for the anatomy classes (example: the anatomical theatre of the University of Padua, founded in 1594) or in the Écoles des Beaux-Arts, due to the good visibility they provided to each student. The model was subsequently taken and used by other disciplines, becoming in time an archetype for academic lectures.

The most common capacity of amphitheatres is of 500 seats, but there are examples in which it can exceed 1200 seats.

The seventies brought structural changes in the organization and in the pedagogy of higher education and, with that, the enhancement of the interactive professor-student
relationship. The architectural consequences were that big amphitheatres were given up (50-600 seats).

The amphitheatre is essential in the first cycles of contemporary higher education. In those cases in which the analytical program does not impose the existence of an amphitheatre, there still should be provided one, with a minimum capacity of 350 places, because it can serve to complementary activities, as it has a to its polyfunctional character seats.

Placing an amphitheatre in a university ensemble is determined by symbolic, functional and technical considerations.

3.3. Classrooms

The classroom represents a functional and pedagogical unit, specific to educational systems, insuring optimal conditions for the transmission of theoretical information. Classrooms should be sized according to the requirement of at least 1,8 square meter/student needed.

In our contemporary educational institutions, classrooms lose space in favor of more specialized facilities.

The shape of the classrooms is generally rectangular or square, varying in capacity. According to fire prevention regulations, a classroom should have two diametrically opposed accesses, opening in the adjacent hallway.

The illumination of the classrooms is realized, according to the chosen model, only on one side (for a space of 6,0-6,5 m in depth), indirect-bilateral (depth of 7,0-7,20m) and bilateral (depth of 8,0-10,00 m).

Optimal orientation for classroom is South–East.
Classrooms do not need special acoustical treatments.

Figure 3.13. Illumination on one side

Figure 3.14. Bilateral indirect illumination

Figure 3.15 Bilateral illumination
3.4. Seminar rooms

Seminar rooms are usually placed in the immediate vicinity of classrooms.

Seminar room illumination, ventilation and the acoustics are similar to the classroom requirements.

3.5. Laboratories and specialized facilities

Nowadays, independently of the study field of the educational institution, the studies show the decisive role of practice and experiment in forming the new specialists. The importance of these facilities extended both in the context of technical education, as well as in the economic, artistic and humanist faculties. The use of these facilities by students from different years of study is beneficial, favoring the social dialogue and the information exchange.

No matter the model for laboratories and other specialized facilities, there is a clear tendency in the architectural practice to separate theoretical functions from practical, applicative and research activities in independent buildings, due to their specific functional and formal requirements.

In pedagogical laboratories, the useful surface for one person is 2,5- 6,0 meters, while in research it ranges from 8,0 to 14,0 meters.

The illumination of laboratories is realized through façade windows, and ventilation is insured both by mobile windows and mechanical air conditioning.

The functional conditions and the profile of the laboratory impose the choice of the finishing materials, and the phonic isolation is realized through phonoabsorbent fake ceilings and through the appropriate dimensioning of the concrete slab.
Near laboratories there should be offices for professors. The studios are usually dimensioned for one group of students – 10 persons for the Art Schools, 30 persons for the technical, business and humanist faculties. The technical and functional parameters depend on the field of the school. In humanist and technical schools, a student needs 2,0 meters and approximately 4,5 meters in the artistic schools (Arts, architecture, music). The studios are usually in independent buildings as well, due to specific height requirements.

In the Arts schools there are special illumination needs- natural zenithal light, north orientation of the studios-, and phonic isolation measures in order to separate the studios from the rest of the building (acoustical treatments using sound absorbing panels).

3.6. Spaces which fulfill complementary functions – accumulation spaces

Contemporary higher education stresses the role of individual study, which takes place in the so-called “facilities of accumulation”. The most important of those facilities is the library.

The library includes a sector in which visual and audible information is kept (sound archives, video and slide library and the film archive) and one for the written documents (the library per se).

As the demand and supply of information boomed, the role of the library becomes decisive in ensuring the required level of knowledge for the future specialists.

The architectural program reserved for the library contains access facilities (public entrance hall, information desk, wardrobe, annexes, official meeting room, cafeteria and its annexes), a sector reserved to public facilities (reading rooms, audition rooms, screening rooms of various sizes and capacities, registration offices, books’
borrowing room, general and selective catalogue rooms, research offices, special collection rooms), storage and administrative facilities.

In order to insure a suitable atmosphere for study, the interior facilities will be provided in appropriate shapes and colors.

In the rooms for the storage of informational material, special requirements must be met to create a favorable microclimate.

The university library, as individual building, amplifies the urban integration phenomenon through the cooperation relations it establishes between itself and various other structures of the city.

3.7. Spaces for the academic staff

The activity of the university staff continues beyond the facilities that are directly destined to the educational process, in offices or department chairs. These are located in the immediate vicinity of the specialized rooms. The chair offices are dimensioned according to 3,5-4,0 sqm/professor, while the professor offices need approximately 1,50sqm/ professor.

3.8. Spaces for administration and management

The senate room, the office of the dean, the board of education office and the administration ensure the functioning and the distribution of the act of making decisions at the level of the institution, connecting it to the major informational channels. Their integration into the ensemble favors the permanent contact with the quotidian relations specific to a university milieu.
The interior ambiance of these facilities, realized through proper finishing materials and furniture, is relevant for the academic prestige.

4. The School of Architecture in Romanian context. History and evolution

"Ion Mincu" University of Architecture and Urbanism in Bucharest is the oldest and most important academic institution in this field in Romania. Its foundation is closely linked to the rise of modern Romania, and the setting of its new institutional structure and culture. The first school of architecture was legally established in 1864, based on an Act issued by the first monarch of the newly founded state, Alexandru Ioan Cuza; however, due to lack of students, it never really functioned. The first Romanian architects studied mostly in Paris, at the École des Beaux-Arts (the first DPLG was Ion Mincu in 1883), and their enthusiastic undertaking was the true foundation of the school. Thus, on October 15, 1892, the Romanian Society of Architects set up a private school of architecture under its authority.

The educational program was very pragmatic and adapted to the local imperative of the moment, though the École des Beaux-Arts' model was obvious. The Education Reform in 1897 transformed the private school into the National School of Architecture within the School of Fine Arts (financed by the government), and in 1904 the School of Architecture became independent. In 1931 the School was renamed the Academy of Architecture and was granted whole academic rights, in relation to the regulations concerning the title of architect and practice of the profession which followed immediately.
Since then, though the political, ideological and social changes that tormented the whole Romanian society (wars, communism, post-communist transition) exerted pressures (sometimes damaging) upon the academic process and structure, the School managed to keep the status of a leading professional forum. Moreover, until the end of the Second World War, the School was one of the main educational nuclei in its field in the Balkan area.

From 1952 to 1997 it functioned under the name of "Ion Mincu" Institute of Architecture (IAIM). The recent change of name into IMUAU ("Ion Mincu" University of Architecture and Urbanism), corresponds to the new direction clearly taken by the School.
IMUAU has the following faculties:

- The School of Architecture – 6 years of study, including the thesis;
- The School on Interior Design – 5 years of study + thesis
- The School of Urbanism and Landscape Planning – 5 years + thesis; the School is subdivided in two sections, Urbanism and Landscape architecture;
- The College of Architecture and Urbanism – 3 years + thesis; there are five sections: Architecture/Cad, Urbanism, Interior Design- divided into Furniture, Restoration and Conservation;
- The graduate and Post- graduate School in architecture and urbanism.

The main departments of the university are:

- The basics of architectural design;
- Design synthesis
- The history and theory of architecture
- Restoration
- Urbanism and landscape planning
- Technical Sciences
- The study of Form and architectural ambient
There are four other Schools of Architecture in Romania, situated in the main university centers of the country: Timisoara in the West, Cluj in the centre and Iasi in the North-East. Although autonomous, all of them follow the same principles and general theoretical approach to architecture as the ones of the IMUAU.

5. Higher education in Hermannstadt - “Lucian Blaga” University

Higher education in Hermannstadt started in the eighteenth century (1786), with the Theological School. In 1855, the Law Academy was founded by the German community, and in 1887, the Academy moved to Budapest. The first university was founded in 1940, when the university operating in Cluj-Napoca got exiled, due to the Edict of Vienna, which was giving the north of Transylvania to Hungary. A quarter of century later, in 1969, the School of History was founded in Hermannstadt. In 1971, the School of Humanities was founded.

The dictatorial regime of the 1980’s succeeded in progressively abolishing the activity of the University. Only the School of Mechanical Engineering continued to operate.

After the December 1989 revolution, the Office for National Education declared, on 5th March 1990, the reopening of the University, with five faculties: Humanities, History and Law, Medicine, Textiles Technology, Engineering and Sciences. The university grew in 1991, when the School of Theology joined in. In the same year, the IT School was founded. Today, the University of Hermannstadt has a population of 10,018 students.
CHAPTER IV
DESIGN PROJECT

1. Project description

The primary goal of the project is to offer a correct approach to the issue of urban revitalization through architectural means, in the context of a specific urban frame, of a particular history, culture and way of life.

The thesis is divided in two. The first part is concerned with the issues raised by the building of a new structure in the urban texture of an old, medieval city, namely a School of architecture that the town needs and requests.

The second part works with the concepts and controversies between conservation/ reconstruction/ renovation/ rehabilitation/ reconversion, about what each of them can offer, and what is the right answer for a particular problem, if there is such a thing as only one right answer.

What unites the two parts is their role in revitalizing the life of the city, rebuilding a broken bridge between the community and a part of the town which, although central and of high importance by its role of linking the Upper Town with the Lower Town, has fallen in disgrace and oblivion.

While the first – the School of architecture attracts young people in a part of the city that is mainly inhabited by old residents, aiming to transform the students into future artists and architects that would have the visionary qualities of building sustainable and
beautiful worlds, the second – the asylum cloister – provides new places for the manifestations of cultural life in the city, by changing functions for the third time in the history of the ensemble. First a hospital, then a cloister and an asylum for the old people, now falling in ruins, the asylum Church will once again come to life in a mixed program – museum/ exhibition/ art studios.

1.1. Project for a School of architecture

Considering the recent growth of the academic population in Hermannstadt, due to the expansion of the new university, the project proposes a school of architecture the city needs, since it is the fifth main academic centre of Romania. The city provides the perfect frame for such an insertion, being extremely rich in history and culture. The students will be in close contact to the historic architectural styles, the city becoming an extension of their classrooms and studios.

The building will occupy an empty lot resulted from demolitions which occurred in the old city center in the end of the nineteenth century. The site is mainly surrounded by Hermannstadt’s specific type of housing, a variation of the atrium house typology. In the immediate vicinity of the site there are three public buildings: at the left, the Arts High School, built in the first decade of the nineteenth century; across the street, the Old Town Hall and the Bruckenthal museum.

Architecturally, the aim is to reach harmony with the building context, not to intrude manifesting an unnecessary originality, but also not to vanish into the fabric of the city, by imitating the old. The solution is to come from a sound understanding of the city, of its rhythms, of its proportions, of its musical successions of historical periods and
different architectural styles, of its topography, with the ascending and descending paths, all of which make the beauty and give the unique character of the town.

Figure 4.1. Plan of Hermannstadt from 1845, showing the layout of the lots before the demolitions.

The new building will have to be integrated in the site by means of volume, profile or silhouette in the urban landscape; by the coherence with the environment; by the presence of History – allusive or direct signs of the past in the materials used, in textures or compositions; and by the dialogue between History and contemporary needs in terms of new needs, of the composition of facilities and new technologies.
Figure 4.2. Plan showing the site integration of the proposed school of Architecture

Figure 4.3. Three-dimensional model of the site, showing the integration of the proposed building.
The School of Architecture proposed to be built in the city of Hermannstadt follows a number of principles considered essential:

- The meeting with the city has to be done within the university. The university will thus become a pole of urban crystallization;
- The university is a manifesto which conveys the importance of its existence;
- The confluence of academic and urban life inside the university’s structures;
- The library has to have a privileged place in the plan of the building;
- The amphitheatre has to remain a symbol;
- The new university needs comfortable and complex facilities; built space represents a specific human extension, and different programs need diverse ways to approach them.

The design process has been developed following the local public building typologies, following the tradition of the city, which combines the medieval frame with Baroque, Neoclassical, Art Nouveau, Art Deco and eclectic interventions. The internal courtyards [Figure 4.2.] featured by the houses and by the patrician tower houses transformed in semi-public facilities in the context of the School of Architecture, create protected piazzas for students which also allow the free passage to the local inhabitants. A series of porticoes make the transition between the street and these semi opened courtyards, offering diverse ways of circulating in the site.
Figure 4.4. Exterior perspective of the School of Architecture, showing one of the symmetrical courtyards, linked by porticoes underneath the building

Figure 4.5. View of the portico
Figure 4.6. A different angle-view inside the portico

Figure 4.7. Axonometric views showing the complex composition of the building and its stylistic features
The building features a combination of regionalist architecture, known under the name of “Neoromanian” style, and Neoclassicism, which is the main style of the existing public buildings in the city. The Neoromanian style was adopted by the city when building the Theological Seminary, at the beginning of the twentieth century. Hermannstadt is a wonderful composition of architectural layers, and all styles can be found living together as one unique organism. In the light of this reality of the city, the School of Architecture makes use of a combination of styles due to three main precedents:

1. The only institution of higher education that is not a Russian Constructivist building is the Theological Seminary;
2. The first School of Architecture in Romania, the School of Bucharest, is a pure example of Neoromanian style, being built during the architectural debate of the beginning of the century, when there was already a tendency towards globalization. Neoromanian architecture was born as a reaction against the early Modernism and was a manifest built in stone, in order to prove the validity and beauty of a national style, fighting for the survival of the notion of national identity;

3. The public buildings in the old center of Hermannstadt are, in their majority, transformed medieval houses, with new facades, mainly in the Neoclassical style, which was fit, by its rigor, to their new function.

![Figure 4.9. Picture showing examples of public buildings in Hermannstadt](image)
The materials used for the facades will be brick and white stone. Choosing brick is first of all a historical reference. The new School of Architecture will sit on the first wall of the city, which was built in red brick. In fact, as mentioned in the Introduction, Hermannstadt was called “The Red City”, due to the fact that not only its fortifications were built in brick, but also a big part of the buildings inside the walls.

Brick is also a material used by the Neo-Romanian style, in combination with white stone ornaments.
The hierarchy of the ornaments on the façade follows the hierarchy of the facilities inside the building. Both the library and the amphitheatre are announced by the grandeur of the windows on the central bay and the piano nobile.

Figure 4.11. South-East elevation of the proposed School of Architecture in Hermannstadt
The central part of the building reiterates the layout of the Art High School nearby. From this central nucleus grows the School of Architecture. Its main façade is lined up with the one of the high school, but adopts a richer appearance, in order to express its greater rank in the educational system. The back façade follows the same hierarchical principles, but with a simpler language. Both are symmetrical, due to main concept of the building, which is to refer to the high school and also to have the amphitheatre as a central piece in the building.

Figure 4.12. South-East and North-West street elevations, showing the hierarchy of the front and back facades of the School of Architecture
1.2. Proposal for the Asylum cloister

The rehabilitation of the Asylum cloister intents to conclude the effort of reinventing life in an abandoned space in a successful way. The project of installing an innedit Museum of the City and an exhibition place for medieval objects of cult rescued from ruined churches and fortresses throughout Transylvania into the old, reinforced structure of the Asylum Church, and the creation of new studio facilities for the local artists combines the old with the new, history with contemporary art and architecture, presenting history through contemporary mediums, immersing the visitor in the past while keeping him in the present, through the means of technology.

The urban plan shows the relations made between the School of Architecture and the Asylum ensemble. It opens a circuit for the artistic life in the city, which works both ways: one side, it brings back life into an abandoned place, reinfusing it with all the vitality of creation in history; on the other, it opens the School of Architecture to the other arts, through the medium of the students of the Art High School and to the various artists that would rent a studio space in the cloister. Realizing such an urban link provokes the emergence of new poles of interests and attraction. A place once deserted will reach again the level of high importance it lost in the mists of history.
2. SWOT analysis to support the building of a School of Architecture in the historical center of Hermannstadt

Strengths:

- Geographic location -- huge potential of attraction; opportunities to experiment a new kind of academic life; opportunity to market a lifestyle;

- Quality of cultural life; the city is rich in cultural events- national theatre festival, international festival of documentary film, etc; the geographical environments of the city are among the richest in monuments of architecture, medieval castles and churches and ancient Dacian ruins;

- Hermannstadt is the site of an annual, two-weeks long architecture/restoration camp (late August);

- Accessibility- no need to commute; the students residences are also located in the center of the city;

- Talented/diverse potential School & staff;

- Access for various student populations -- urban, rural, young, mature;

- The high percentage of young people in the structure of the population;

- Diploma > Degree;

- The new community – numerous and diverse activities;

- Responsive School and staff, even in times of budget restraint

- International collaborative programs;

- Relative smallness, personal contacts with students are possible;
• Strong relation between architecture students, architecture professors, architects, urban planners and artists of various kinds (the proximity of the Art High school, the Bruckenthal Academy of Music and the proposed club for the Union of the Architects near the School, plus the restored Asylum complex into a museum/exhibition/work studio complex);

• Accredited programs.

Weaknesses:

• Funding shortage;

• National resistance to change;

• Our level of technology;

• Our politician’s mentality;

• Skepticism within University community regarding the future of education;

• Low professional opportunities after graduation;

• Reliance on government funding for the building of new university structures;

• Lack of strategic marketing plan; lack of understanding of competitive markets;

• Existing quality of student’s residences.
Opportunities:

- tremendous opportunities for interdisciplinary offerings;
- opportunity for growth;
- opportunities for regional support;

Threats:

- declining enrolment;
- declining funding;
- increasing student dissatisfaction;
- current state of our technology; capability for research;
- structure;
- difficulty with recruitment/retention of quality School.
3. The architectural program

1.1 Public facilities:

- Entry hall, distribution space, foyer, exhibition (1500 square meters)
- Amphitheatre (165 square meters)
- Library, internet access room, lecture room (650 square meters)
- Fast food (65 square meters)
- Recreation facilities – student club (200 square meters)
- Commercial facilities – art supply shop, bookstore (75 square meters)

Total = 2655 square meters

1.2. Didactic activity facilities

Architecture:

- studios- 30 students (4 sqm/student – 5 x 120 sqm = 600 sqm)
- diploma studios – 15 students (4 sqm/ student – 2 x 60 sqm = 120 sqm)
- seminar rooms – 30 students ( 1,4 sqm/ student – 4 x 40 sqm= 160 sqm)

Restoration:

- studios- 30 students (4 sqm/student – 4x120 sqm = 480 sqm)
- diploma studios – 15 students (4 sqm/ student – 2x60 sqm = 120 sqm)
- seminar and lectures rooms – 30 students (1,4 sqm/ st. – 4 x 40 sqm = 160 sqm)

Common studios and laboratories:

- drawing studio- 30 students (4 sqm/student – 1x120 sqm = 120 sqm)
• modeling studios – 15 students (5 sqm/ student – 2x75 sqm = 150 sqm)
• model shop – 15 students (5 sqm/ student – 2x75 sqm = 150 sqm)
• construction materials laboratory 15 students (5 sqm/ st – 1x75 sqm = 75 sqm)
• IT laboratory – 15 students (5 sqm/ student – 2x75 sqm = 150 sqm)
• review rooms - (2x 75 sqm)+ (1 x 60 sqm) = 210 sqm
• Specialized restoration laboratories – (2 x 60 sqm = 12- sqm)

Total 3170 sqm

1.3. Administrative and didactic facilities

• Dean’s office:
  - secretary’s offices (2 x 36 sqm = 72 sqm)
  - dean’s office (35 sqm)
  - administration ( 22 sqm)
  - accounting office (22 sqm)
  - council room (58 sqm)
  - projects archive (4x 25 sqm = 100 sqm)
  - administration archive (1x 25 sqm)
  - Xerox facility (1 x 85 sqm)

• School offices:
  - chairmen offices (4x20 sqm = 80 sqm)
  - professors offices (8x20 sqm = 160 sqm)
  - assistants offices (10 x 20 sqm = 200 sqm)
- library staff offices (2x18 sqm = 36 sqm)
- storage rooms (4 x 18 sqm = 72 sqm)

Total 1080 sqm

1.1. Service facilities: restrooms, fire stairs, circulations (170 sqm)

Total built area: 7000 square meters

Surfaces are estimative, measured on the plans.

Other functions: service court, underground parking, art galleries (on the old city wall).
CHAPTER V

CONSERVATION / RESTORATION / REHABILITATION

1. The debate

Since ancient times, the creation of new cities or their regeneration went hand in hand with the evolution of architecture. Society, shaken from its ground by wars, natural catastrophes, epidemics, totalitarian regimes and revolutions, always tried to progress, each generation trying to reach further, or even surpass the one that had preceded it. Both by pleasure, as well as by necessity, society leaves behind built marks which are trying to represent it the best way possible. Ethnologists have reconstructed this coherence between the image of the city (or village) and the structure and power of the society. To give a few examples, in Sicily, Christians kept the Greek temples, transforming them in Roman churches; In Cordoba, the mosque became a church, while in Constantinople, Santa Sophia became a mosque, and also stood as model for the new Blue Mosque.

Cities rebuilt themselves, and Babylon is the most characteristic example of all; every city has evolved on the ruins of its own memory. In Europe, every great era imprinted its own dominant style: Romanic and feudal, Gothic, Renaissance, Classicism, etc., each the outcome of ruling class ideology. The respect of the past and the notion of architectural heritage existed only inasmuch as it served a purpose, without any soul searching as to the building’s intrinsic or contextual value. Thus, Napoleon sold the
Abbey of Cluny, and the Christian of Ephesus used fragments of the temple of Artemis to build the church of Saint John. Cities were undergoing the same fate: destructions determined governments to reshape entire districts. Not so long ago Notre-Dame de Paris was closely surrounded by houses and the Louvre had no court.

The Baroque period had already stated rules of compositions issued directly from the philosophical systems of Descartes, Spinoza and Leibniz, or from the principle of absolute monarchy of “divine right”\(^\text{18}\). Thus emerged the “spirit of system” (d’Alembert). We therefore have the rules stated, but none of them makes reference to the relation between the new with the old. It was only about superposition. The logic of every system was autonomous in the big picture of History. The highest point of that era was reached in Paris by Haussmann, in 1853.

1.1. The city becomes concept

After the Industrial Revolution, the old city proved to be inadequate to the new exigencies. That was the first time the city was taken under consideration as concept (Burnham plan for Chicago, 1909).

In an intervention at the Architects of the French Built Environment Colloquia in June 1993, Francoise Choay places “the invention of the historical city and of urban heritage” around 1850. By the middle of the nineteenth century, those responsible for developing the town, many of them architects, began seeing it as an object, just as they were inventing town planning as a discipline. These architects questioned the coherence

of their projects in relation to existing fabric, even if their own architectural language was quite different.

In 1902, Auguste Perret constructed a building in Avenue Wagram in Paris, in the spirit of its “Art Nouveau” neighbors. Despite his “contemporary” convictions, Rietveld’s design for the Schroeder House in Utrecht (1924) still respects the geometry of its nineteenth century neighbors.

Speaking at a conference in 1924, Le Corbusier concluded that “capitals will have to completely transform themselves in their own midst (...) the only possible guide will be the geometrical spirit”\(^\text{19}\). His thinking was developed in the Charters of Athens (1941), where, under the heading “towns’ historical heritage”, was indicated that previous architectural values must be safeguarded, if warranted, and if their conservation did not condemn people to live in poor conditions. However, copying a past style, for aesthetic reasons, in a historical zone, “was not to be tolerated in any form”.

In the twenty first century, ideologies of the past remain Utopias. The time for major renovation has returned, the notion of heritage been upturned. Are buildings such as the Pompidou Center, The Sydney Opera or the Bilbao Museum a part of our heritage? What historical context must today’s projects respect?

Both historical heritage and architectural renewal are key elements that allow the opening of the old city to the contemporary one. Verona’s Banca Popolare by Carlo Scarpa, Mario Botta’s library for the Convent of the Capuchins in Lugano, and Ando’s Central Public Hall in Nakanoshima, while very different in architectural tendencies, have in common the refusal of going back to the past, thus a refusal of pastiche and of a deviated rewriting.

\(^{19}\) Le Corbusier, in *Almanach d’Architecture Moderne*, Ed. Altamira
of architecture. Their different approaches raise the question of contemporary architecture in ancient environments based on four items:

1. The integration in the site – volume, profile or silhouette in the urban landscape; the way it integrates itself in the urban frame (in conformity to it, in contrast, etc);

2. The coherence with the environment – a modest response to the idea of the extension of the past, or a bold intervention, that can sometimes lead to a rupture);

3. The presence of History – allusive or direct signs of the past in the materials used, in textures or compositions;

4. The affirmation of modernity – a dialogue with History in conjunction with the affirmation of a contemporary approach to design (specific needs to be answered in the composition of facilities, technologies, innovations); the refusal of the copy, pastiche and architectural parody.

We live in an age in which important urban renovations are predominating, and old urban centers and historical districts become the main point of discussion and debates about the fate of historical heritage; the issue of new, active architectural insertions in places of collective memory arises.

The present practices of restoration are torn apart by an important question: to restore means to invisibly fill the holes created by time, or, on the contrary, to stop the degradation, but expressing in a visible (legible) way this act, affirming it? In the last years, a new expression is preferred: the “hybrid”. Its sense is of extension, addition, subtraction, inclusion. No matter how different they would be in their formal or technical process, whether linked or independent from the contemporary trends, they sustain a common attitude, a synchronic dimension: the knowledge of the past, the composition of the present.

Amnesia is excluded. Old buildings must live in modern times.
To the programmatic changes correspond functional adaptations – in the case of buildings, and changes in the interior or urban courses of a district or town, indicating the new status. Architecture will express more or less clearly, in a subtle or contrasting way, this genetic mutation of the building / city, operating a hybridization that is related to the numerous ways of manipulation of the image of the site.

1.2. The concept of historical heritage

There is a new issue that is rising at an international level: historical heritage or architecture? Restoration or intervention? Architecture, as an art of sedimentation, inevitably translates a distance from reality. Among all the arts, its objects (products) are the only one that always allow transformation.

The concept of historical heritage, along with the one of restoration, indicates an acknowledgement of what finds its roots in the “historical monument”. It represents the acknowledgement of an architecture that is interested in history or art in general: whatever the age the building belongs to, it takes again the image of a heritage left by our predecessors, upon which we are bound to watch, to maintain it and to capitalize it, in order to transmit its message to future generations.

In the beginning related only to historical monuments, the term of historical heritage extended first to the limits of urban insulae, then to the whole urban frame and to the landscape, going further to furniture, ethnology and arts in general, reaching even important buildings of the Modern era. Therefore, nowadays everything can enter the field of interest of historical heritage, and thus become immutable.
1.3. The concept of renovation and urban rehabilitation

The concepts of conservation, rehabilitation (in Italian, “recupero” = “recovery”) and restoration (“restauro”) have been many times used without making a clear distinction between them and their meanings. But a very clear distinction has to be established, in the context of urban planning. By definition, conservation is considered to be a process, a form of a particular social action on the urban environment, which allows keeping the existing urban structure in all its integrity.

Rehabilitation is also a process, but has the specific purpose to reanimate the built structure. This process involves the modification of the structure of those buildings that are in an undesirable state, in order to make them usable and functional again; as a process, it also has a beginning and an end.

Finally, restoration is a technical procedure used to repair the degradation of the buildings, and has as final purpose the stopping of the degradation process.

Conservation is thus a process which can include both rehabilitation and restoration; it is a continuous process without beginning, nor end; it is a process that can exist only if society attributes cultural and socio-economic values to the respective urban structures.

For the term of urban renovation, the dictionaries offer a variety of definitions:

- a change in good, modernization;
- to give a new form;
- the reconstruction of an area after the demolition of insalubrious buildings that could not be kept, no matter the efforts.
In these definitions, renovation has either the sense of rehabilitation, either of reconstruction.

The operations of rehabilitation are necessary when, given the mutations in the structure of population and of activities, the buildings are left to decay and find themselves in an advanced state of degradation, their disappearance being imminent. The operations of urban rehabilitation can be:

- the removal of all insalubrious buildings and urban structures that cannot be repaired;
- keeping the facades and building behind them as spaces with contemporary character and utilities;
- the interior and exterior furnishment of those buildings which have the character of a monument, so that they can receive the same or another function.

Urban rehabilitation refers to those operations which regard the readaptation of an urban ensemble which is functionally, spatially and socially degraded. The rehabilitation of old ensembles works backwards: the operation does not start from a living, but nonfunctional urban tissue, but from one that pretends to be functional, but which is dead. Rehabilitation is not only about buildings per se, but about its use, about the social relations and the activities it shelters.
1.4. Urban reconversion and revitalization

Nowadays, the notion of historical heritage is in a strong confrontation with terms like conservation and revitalization. During the last years, we have manipulated the theme of reconversion, especially in a juridical way. There are two accepted possibilities today: *the demolition* or *the conservation*. In the last case, in the past, the result was a pastiche and a restitution that was most of the times hazardous. Any contemporary addition was considered to be an affront or treason. If there has to be restitution, it has to be strongly sustained by an irrefutable archeological and historical documentation.

In the case of reconversion and of the changing of functions, the orientation is non-historic. But the historical city is yet very much enclosed in the concept of protected zone, of a district that has to be preserved as it was, leading to a reservation of historical monuments.

Applying the idea of mutation, reconversion and revitalization in the historical context, makes room for issues like historic traces, the value of the heritage, of limits, of “how to recompose around an existing building without recognized value”.

The issues raised by urban rehabilitation are related to the urban, social and real-estate dysfunctions. The solution would be a process of global and integrated revitalization of the patrimony, of the housing policy and an understanding of the social processes that occur in the affected districts.
1.5. The evolution of rehabilitation and of urban reconversion

The first forms of urban rehabilitation appeared after the Second World War, in France. Their main concern was resolving the housing crisis resulted after the bombardments, but also figuring out a housing program, that was insufficiently developed. The French urban renovation actions were proclaimed in the Malraux law in 1962, establishing the notions of safeguard district and supporting the restoration of the urban ensembles.

In the 1960’s, in the United States the urban revitalization politics extend from the historic center to the industrial districts. This tendency is also manifested in Europe, in the cases of Manchester in the United Kingdom, Genoa in Italy and Barcelona in Spain.

In 1975, in the “Declaration of Amsterdam”, the basic principles of urban conservation are set:

- the historical heritage contributes to the elaboration of a community conscience, being in the same time history and destiny;

- the architectural heritage is composed of all the edifices and urban structures that present a cultural or historical interest;

- historical heritage belongs to society, therefore its maintaining is a responsibility of the community;

- the conservation of the historical heritage has to be considered the main objective of urban planning;

- the recuperation of the degraded urban areas has to be done without substantial modifications in the social composition of the residents from the affected zones.

The urban reconstruction appears in 1950, concentrating physical changes, completed by the reconstruction and the extension of the old areas of the city.
Urban revitalization appears in 1960, being an extension of the reconstruction and having as purpose certain social objectives. In 1970, the notion of “Urban Renewal” springs out, and is orientated on the development of suburbs. In 1990, the concept of urban regeneration appears, in the form of a system of practices and politics. Between 1990 and 1996, there have been 33 projects of old centre rehabilitation in 11 states of the U.E.: for instance, the development of socially disfavored areas in Antwerp and Bilbao, the revitalization of the industrial zones in Bordeaux and numerous German cities.

1.6. The role of the architect

Conservation implies (involves) decision. The intervention over the existent is a complex act. In reality, the materiality of the existing hides the conceptual reality, often amputated by the transformations suffered. But the role of the architect is to reveal, to do so that the edifice, now mute, might tell its renewed story once again. As in the case of any other work of art, the reading and the interpretation cannot be final. This “revelation” work of the architect who, fulfilling his role, give or extends life, is about respecting the history of the place, the techniques and concepts, enriched by new ideas if needed, and about a priori establishing precise relations between the existing and the new creation. To repair, rehabilitate, reuse, re-functionalize – the interventions on the existing are of various natures and have different justifications. We are now in a time in which pastiche is preferred, instead of a respectful attitude versus the work of art or architecture, which implies the dissociation between the existing and the created.

The concept of historical heritage is not new; it appeared first in Rome, in the fifteenth century, in the form of gathering and collecting antiquities, and it represented
the first form of “historical monument”. Industrialization contributed to the acceleration and the generalization of a trend in protecting and conserving historical monuments and it supported the constitution of restoration as a discipline. The Service of the Historical Monuments, inspired by Guizot in 1830, invents the word “restoration”.

2. The ensemble of the Asylum Church- a museum in motion; the memory of the city

The project proposes to transform the Asylum Church into a virtual museum of the city, in which history would be presented continuously through images in motion (movies), on video screens. The museum would combine the old with the new, history with contemporary art and architecture – therefore history will to be presented through contemporary mediums, immerging the visitor in the past while keeping him in the present, through the means of technology.

Once clearly designated by function, primarily as repositories of discrete objects, museums are no longer constrained by familiar labels, allowing them to continually cross the line between traditional disciplines: the art museum doubles as civic emblem and as a front porch, and the museum of history serves as interpretative center. Museums carry unstated semiotic messages, whether of politics or ethnic heritage.

Today, the museum– world centers on the institution’s posture toward contents. Should the physical envelope provide a passive background for the ideas of artwork within, or should a museum (and its architect) emote or speak in its own architectural language?
Like other human institutions, museums are evolving. The new projects demonstrate the ability of museums to reinvigorate existing structures and the surrounding landscape with new meaning.

Figure 5.1. Existing condition of the Asylum Church
2.1. Cinematic history

In a movie ten years can go by in three seconds and a minute can be an eternity of emotion. That is why Einstein compared cinema to an accordion. Cinema has the power to compress or dilate time, just as architecture has the power to contract or dilate space. A small space can become a world with its nearness and distances, a large space can remain within our reach, scaled to our body. Architecture is also an illusionist art. By playing on rhythms, proportions, viewpoints and light treatment, it can transform spatial perception. Certain facilities invite us to move more than others. We perceive things while moving. Guiding movement is a science in itself, being able to maintain it, freeze it or make it run. Progression is all important: you can't give everything all at once. Perception in a time sequence is one of the common-places of our times – a product of cinema and the automobile. Vision by sequence transforms urban order and its traditional hierarchies. Merce Cunningham’s choreography is an illustration of this phenomenon: events, polycentrism, randomness, but always amidst movement and absolute life. Urban sequences are just the same: there are slack moments, events, rhythms, and randomness. The final purpose of the museum is to pick up the rhythm of the city, to reveal it, to re-introduce its silence, its repetition, its chiasms and counterpoints, so that the whole sequence would –again- take on meaning.

The capacity of major change introduced by a tiny cause is a theme of the world of tomorrow. We see it appearing everywhere. The most capable operators will be those who know to act along these lines. Sometimes by simply changing two words, a long sequence acquires full meaning. Just as by transforming two items in a sequence you can make it into a poem.
The city is not a problem of frame. With all the changes that occurred in the fifteenth century in the old cities, with the irreversible degradation of some places or the demolition of others, architects should also take care of the invisible part of the issue. Cities, as any other living organism, are subject to dying. On one side, we have a built environment that struggles not to expire; on the other, we have the artist, who can give it eternity.
3. SWOT analysis to support the rehabilitation of the Asylum Church and cloister in the old city of Hermannstadt

Strengths:

- Architectural and historical value of the built environment;
- The importance of the location of the site in the city;
- The specificity of the urban structure;
- The role of the place as a relation between the Upper and the Lower Towns;
- The place of the site at the confluence of compatible functions;
- The organic insertion into Hermannstadt’s cultural life;
- The coherence of the stylistic matrix;
- The identification of historic traditions compatible with the proposed functions – the Art High school, the Bruckenthal Museum, the History Museum, the House of Arts, the Ethnography Museum, the Bruckenthal High school;
- Very good accessibility, both by car and by foot;
- The high percentage of young artists in the structure of the population.
Weaknesses:

- The site of the Asylum is in a less visible part of the old town.

Opportunities:

- The importance of Hermannstadt as a cultural center in Transylvania and its place in the international tourist itinerary;

- The existence of an international project in this direction;

- Annual festivals of medieval art;

- Annual conferences on the issues of restoration and rehabilitation of old cities, as well as the Summer program in Architectural Restoration and Rehabilitation;

- The lack of an appropriate place to exhibit the medieval shrines rescued from decay from various churches and medieval forts in Transylvania.

Threats:

- Insufficient funding and commitment to the program from the municipality.
BIBLIOGRAPHY


Curinschi, Gh., *Centre istorice ale oraselor*, Bucuresti, 1976.


Tröster, Johannes, *Das Alt und Neue Teutsche Dacia*, Nürnberg, 1666.