MAZZOCCHIOO

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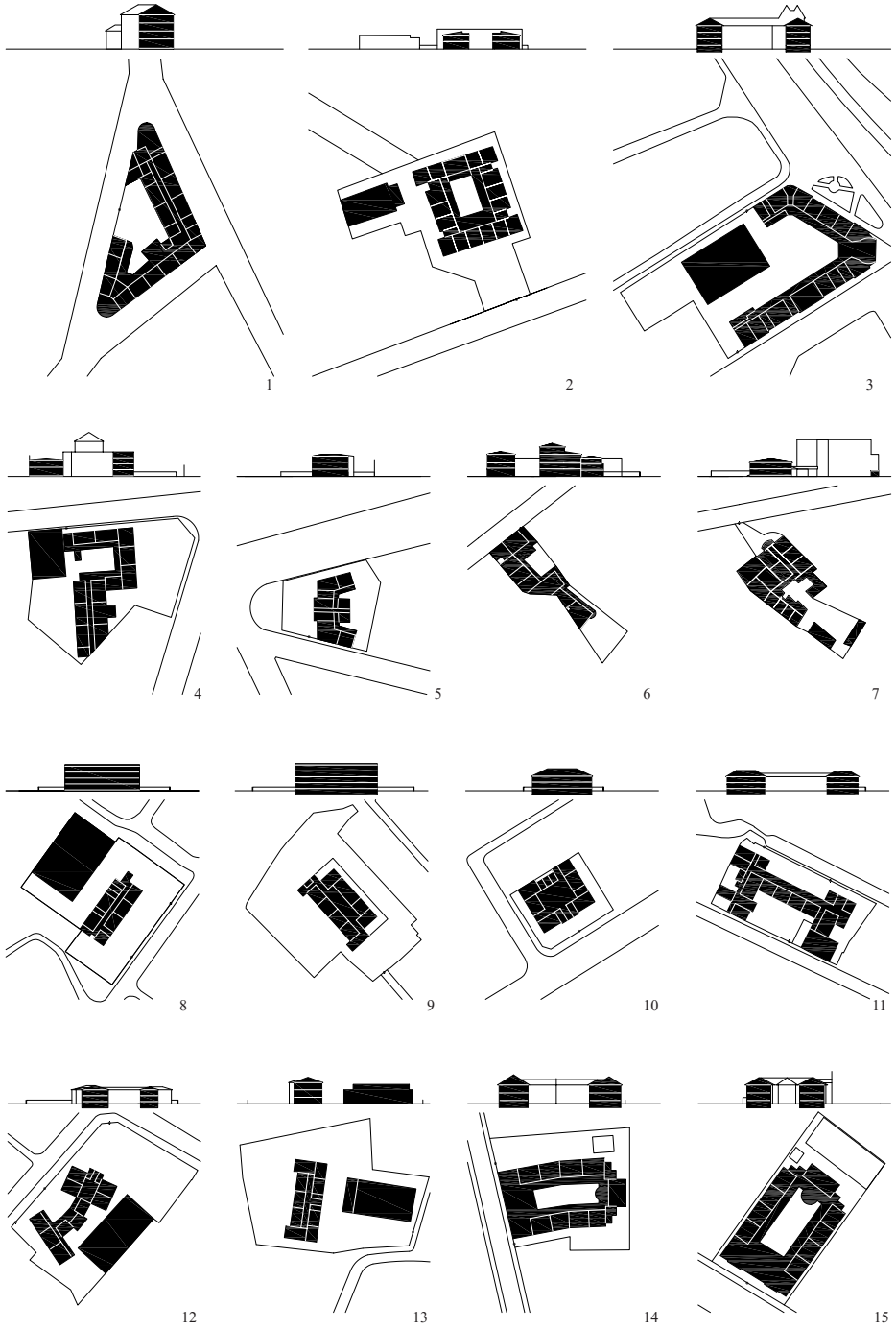
Mazzocchioo #6

Schools of Bucharest

Schools and high-schools are more present in the daily life and the collective mind than we realize. These are the places where children and teenagers go every day, often accompanied by their parents. The school is an institution; yet here we refer first to the building, to its architecture that gives rise to an institutional dimension and, through this, becomes a built landmark of the neighborhood and of the city. Radically, architecture is either private or public; the School is par excellence public, a place of the community, with symbolic charge and ideological determination. When architecture is masterfully designed and is truly an architectural built thought – the school grows into a fantastic place, which becomes the spatial framework of youth training, quietly giving character to the rooms where learning is transmitted. The school building and courtyard are loaded with memories as generations of students and teachers follow one another. The school becomes permanence of the city. And this occurs thanks to those deeply architectural things: type, orientation, materials, architectural scale, structure, light, architectural elements such as pedestal-body-eaves, windows-carpentry-window, windows-frames, entrance-door, staircase-railing-light, etc. Moreover, the school as an architectural program becomes a theme in itself, with its own history. The structuring elements of this program are primarily the typology, the classroom and the corridor. The typology concerns, first of all, the distribution and the relation to the major, noble exterior space: a school with an inner courtyard or a bar-shaped school with an adjoining courtyard, for example. The classroom and the corridor involve working with the size and architectural scale of the space - height, width, architectural definition of how light enters the classroom by drawing the window, interior framing, window sills and radiator masks, but also with elements of furniture such as student benches, chair, podium and blackboard.

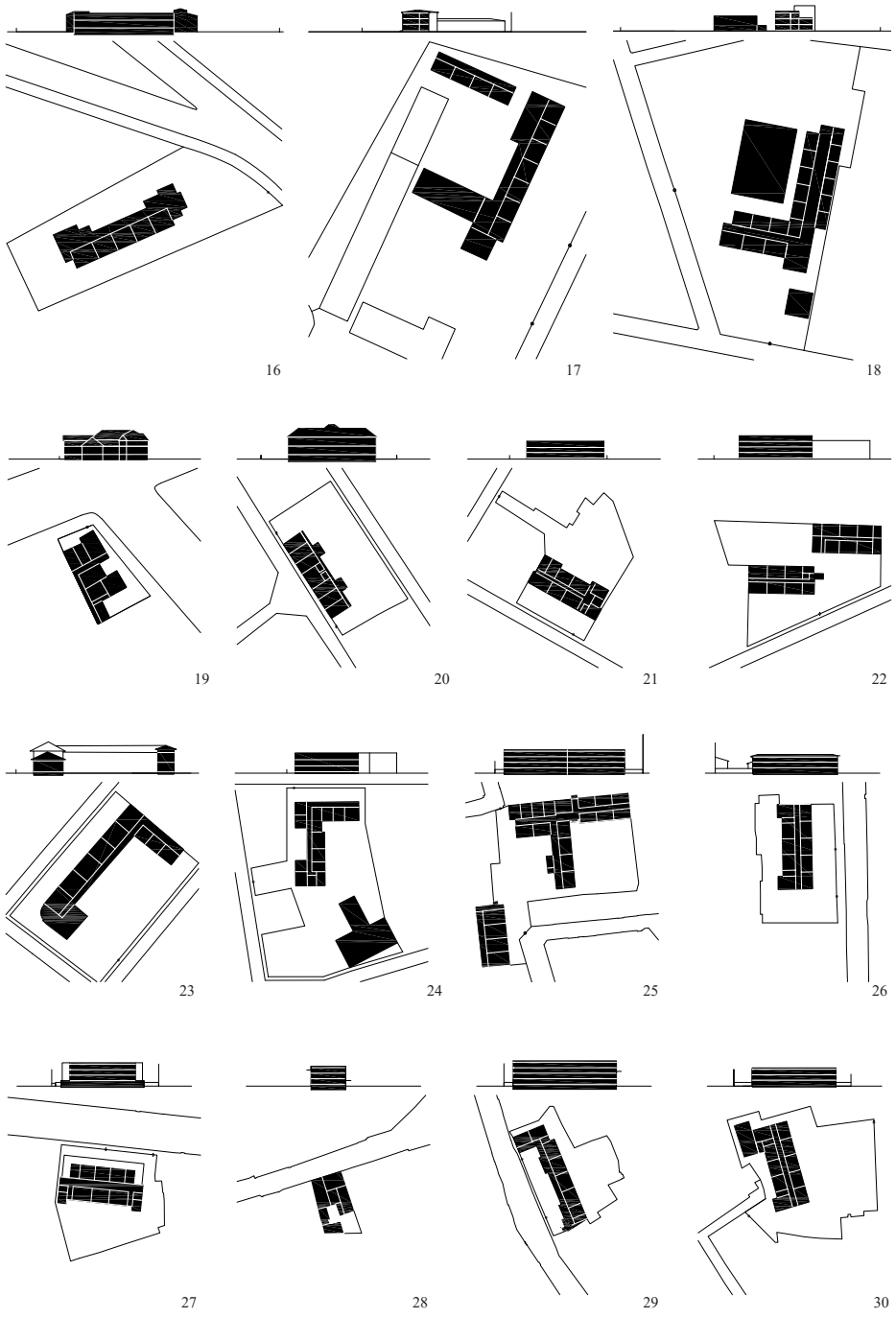


MZCH # 6 is based on the academic study conducted in the academic year 2019-2020 in the UAUIM 3rd year studio coordinated by Ștefan Simion, Emil Burbea, Cristi Borcan. Through survey, drawing, model and photographic documentary, the study focused on grasping the spatial, typological and ideological nature of nine high-schools inside the central ring of Bucharest, as well as the urban importance of these buildings in urban context: Cantemir Vodă, Gheorghe Lazăr, Gheorghe Șincai , Matei Basarab, Mihai Eminescu, Mihai Viteazul, Sfântul Sava, Central School, Miguel de Cervantes.

*

The academic debate of the workshop is enhanced by a broader image that emerges from the shared thoughts and ideas of a number of architects and professors close to this subject, as a response to the polemical questions of the editorial staff on this topic, through a short text and an image: Varudh Varavarn (founder of Vin Varavarn Architects, Thailand), Gilles Delalex and Yves Moreau (founders of MUOTO, Paris), Michael Meredith and Hilary Sample (founders of MOS, New York), Paola Aguirre Serrano (founder of Borderless, Chicago), Christine Fontaine (architect and professor at UC Louvain - LOCI Brussels), Eliza Yokina (founding member of the “De-a Arhitectura” Association, associate architect CUMULUS, Bucharest) and Laura Cristea (architect and editor-in-chief of PELINU publishing house); additionally, Cristi Borcan (founding member of studioBASAR, Bucharest) proposes a text about the nature and use of the high school courtyards.

1. A. D. Xenopol Economic College
2. George Coșbuc Bilingual National College
3. Iulia Hașdeu National College
4. Spiru Haret National College
5. Iancului School
6. Middle School no. 71
7. Hermes Economic College
8. Middle School no. 307
9. School no. 26
10. Ady Endre Theoretical High School
11. Saint Silvestru Middle School
12. Maica Domnului Middle School
13. Middle School no. 81
14. Middle School no. 95
15. Middle School no. 84
16. Petru Rareș Middle School (no. 100)
17. Mihai Bravu Technical College
18. Middle School no. 80
19. Middle School no. 11
20. Grigore Tocilescu Middle School
21. Luceafărul Middle School
22. Middle School no. 128
23. I. G. Duca Middle School (no. 146)
24. Middle School no. 10
25. Goethe German College
26. Elena Văcărescu Middle School
27. Virgil Madgearu Economic College
28. George Călinescu High School
29. Tudor Arghezi Middle School
30. Middle School no. 5
31. Ion Creangă National High School
32. Middle School no. 79
33. Theological Seminary
34. Middle School no. 97
35. Dinu Lipatti National College of Arts
36. Petru Rareș Theoretical High School
37. Ienăchiță Văcărescu Middle School
38. Sofia Capsali Choreography High School
39. Nicolae Kretzulescu Business High School
40. Mihai Ionescu Theoretical High School
41. Barbu Delavrancea School (no. 73)
42. Timpuri Noi Industrial School Group
43. Middle School no. 85
44. Nicolae Titulescu Middle School
45. Sfinții Voievozi Middle School
46. Cezar Boliac Middle School
47. Uruguay Middle School
48. National Theoretical High School
49. Hristo Botev Bulgarian Theoretical High School
50. George Enescu National College of Music
51. Vasile Alecsandri Middle School
52. Iosif Sava Middle School of Arts
53. Nicolae Tonitza High School of Arts
54. Middle School of Arts no. 3
55. Ion Socolescu College



The architecture of discipline

"[Architecture] is no longer made just to be seen (the palace glitter) or for the surveillance of outer space (fortress geometry), but to facilitate an interior control, articulated and detailed - to make visible those who are in; more generally speaking, architecture constitutes an operator for the transformation of individuals, that acts on those it shelters, beeing a means of control of their behavior, extending to them the effects of power, transforming them into an object of knowledge, modifing them."

(Michel Foucault – Discipline and Punish: The Birth of the Prison,1975 (A supraveghe şi a pedepsi: Naşterea închisorii, Piteşti: Paralela 45, 2005[1975], p.221)

Coincidentally, MZCH^6 is to be published in the year of the Pandemic, even though the academic study on which it is based was elaborated in the fall of 2019. Now, in rather complicated times, there is a lot of renewed interest about the School: Is it good for the school to bring students into common spaces and expose them to possible illnesses, or is it good for educational purposes to focus exclusively on new technologies and permit students to remain completely separated? In other words, is the school building a simple tool in the educational process, which can be surpassed in the age of the Internet, or is the school an institution carrying deeper values?

MZCH^6's approach was initially justified by the observation that the school, as a public project and architectural program, is a model that is fundamentally linked to the city and the community it serves. Viewed from the outside, the schools are often imposing, with elaborated facades that strengthen the power on which the institution is based on, and, at the same time, building the visible fronts of the city and punctuating the texture of its landmarks.

The school develops as a social and political program with the modernization of society, starting with the Eighteenth century. This intense modernization involved not only investing Reason with confidence for an optimal reform of the society, but also imagining new means for structuring the human crowds of the new age. Discipline gradually becomes the main ingredient for the construction

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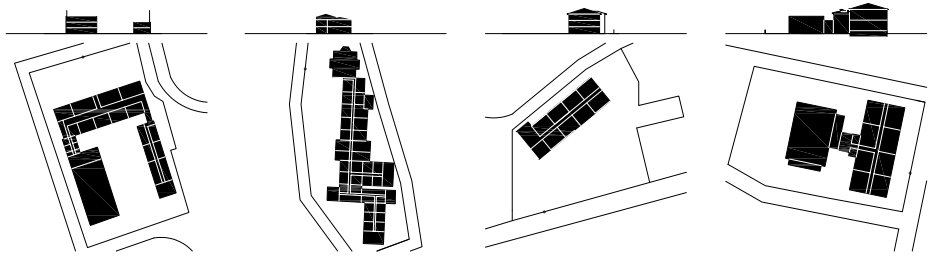
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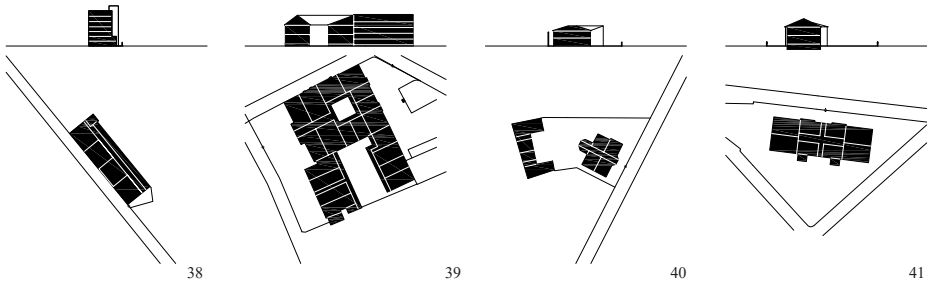
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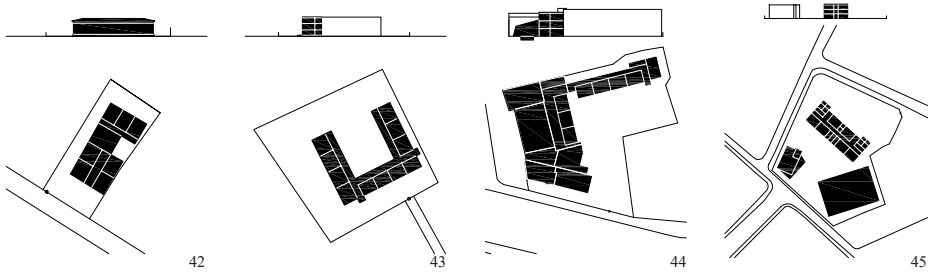
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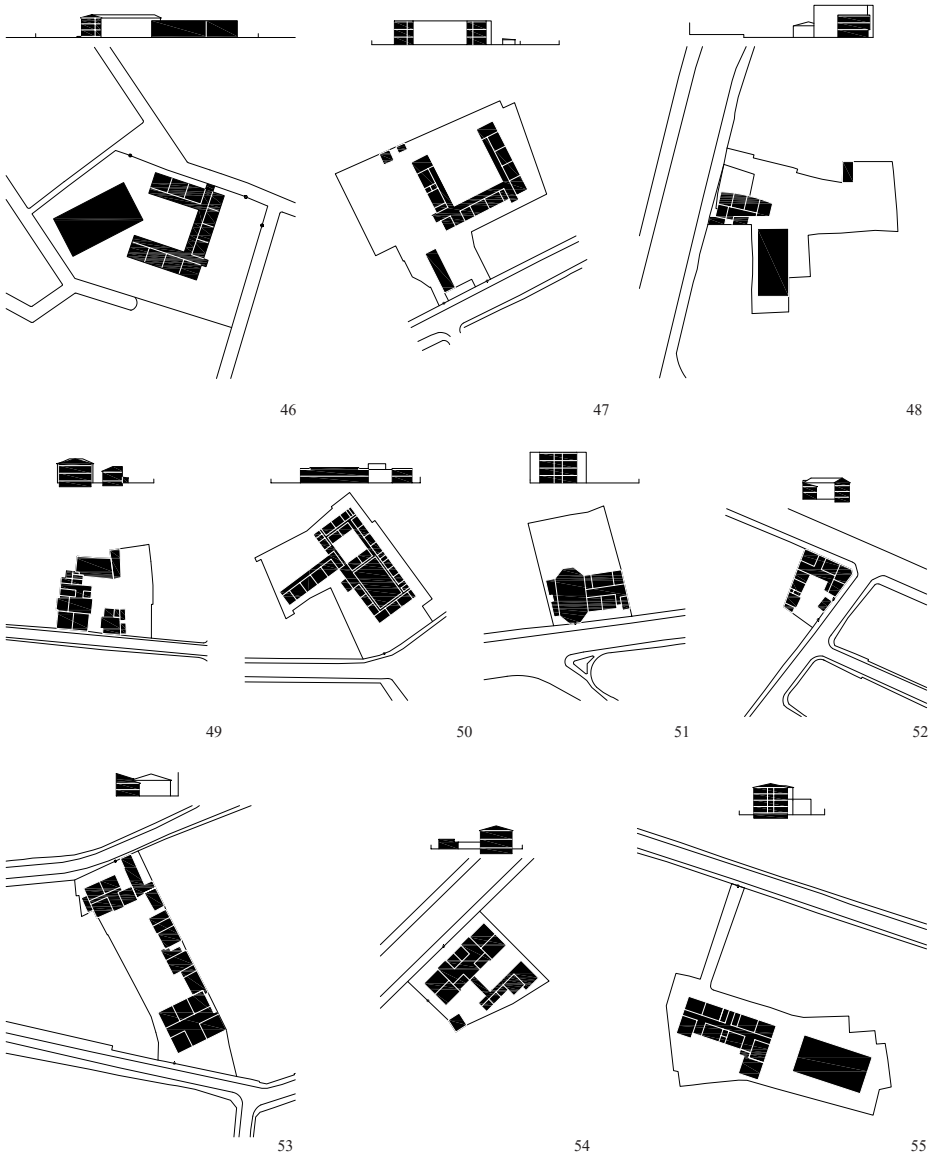
of the subject-citizen and the power relations to which he is subjected (rights and obligations). This new technology of power infiltrates all social relations, especially through the privileged model of the school, „ apparatus in which any objectification mechanism can function as a tool of enslavement and any increase in power opens the way to a possible knowledge „ (ibidem, p. 282). The school, initially based on the organizational model of the military barracks, with a series of classrooms firmly led by each teacher, is not only imagined as a tool through which students acquire knowledge, but as an instrument through which individual personalities can be subtly diverted to acknowledge and pursuit of the group interest.

This explains the State's interest in this privileged program. Important investments end up contributing not only to the education of as many individuals as possible, but also to the modernization of the city through the configuration and location of new constructions. The architecture of these buildings had to take into account the crucial importance that society and the public interest accorded them, both in terms of scale and architectural detail or by the location in the city. Thus, schools such as Gheorghe Lazăr, Dimitrie Cantemir, Mihai Viteazul, Iulia Haşdeu, Gheorghe Şincai or the Central School become important landmarks in the geographical and affective structure of Bucharest.

At the same time, the school can set up spaces with remarkable qualities by scale, light or proportion. Wide corridors are needed to distribute the large number of students, but they become spaces of the preliminary moments leading to the classroom, as well as spaces of normal encounter between students from different classes. The model of the cloister, a moment of detachment from the tumult of the secular life, is used here for the necessary separation between the space of knowledge and the urban environment. Classrooms can be judged in terms of the volume of fresh air needed for the healthy development of children, reaching heights and proportions that can no longer replicate the intimacy of the rooms from home. The institution of education, the guaranty of the student's training for living together in society, is omnipresent through these remarkable qualities of architecture.

Recently, many private schools have emerged in Romania, trying to reform the education system, promoting a much closer and more interactive relationship



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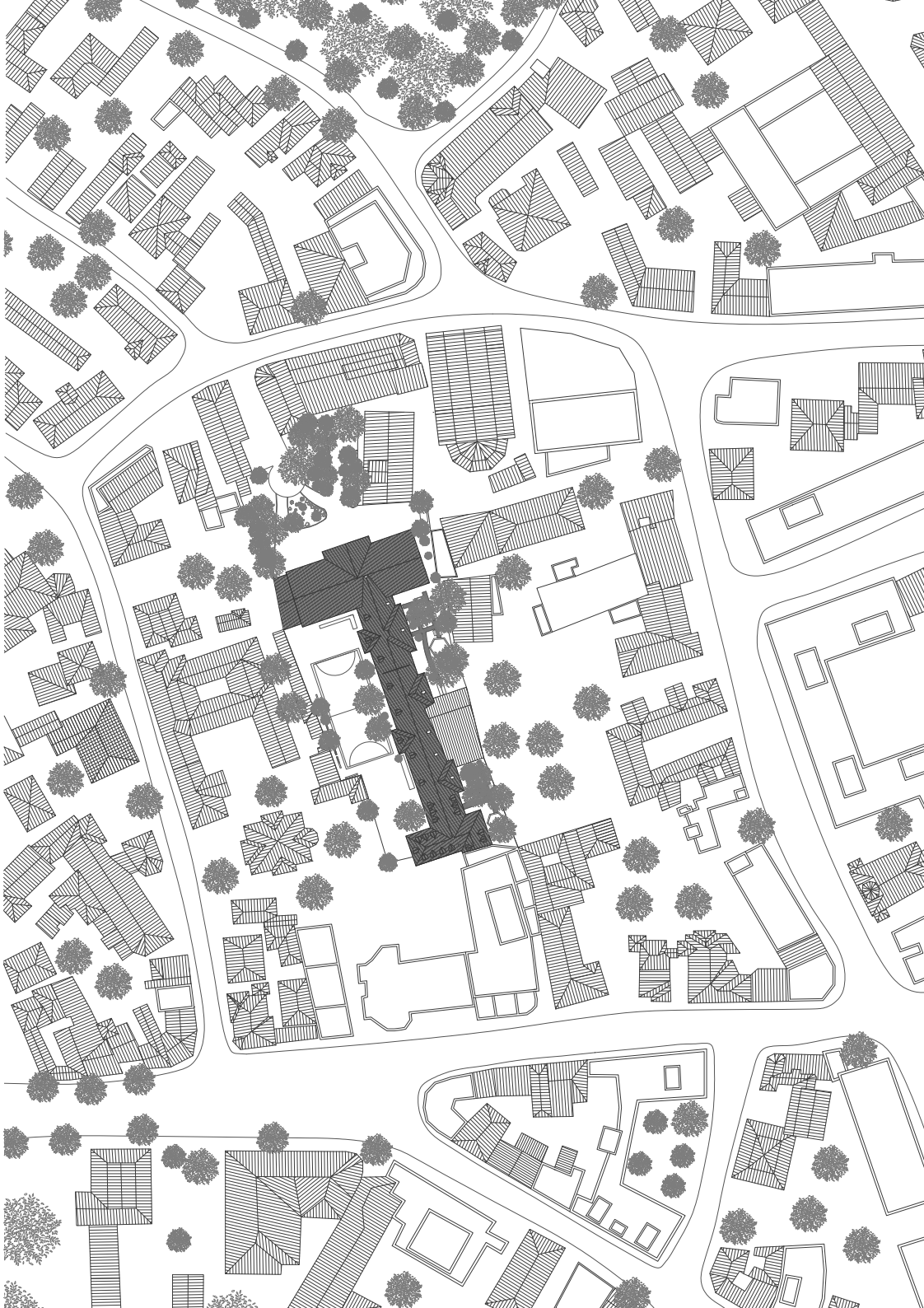
between student and knowledge (teacher). Concepts such as learning out of pleasure rather than obligation, stimulating curiosity, determining the applicability of data or interdisciplinary knowledge to the detriment of overly specialized subjects are stated. In many situations, these new educational concepts end up being practiced in pre-existing spaces: there are schools in elegant interwar villas, in which the living room is used for the communal dining room, in the bedrooms are the classrooms and the attic ends up as the gym; after the 2008 crisis, schools were opened in apartment buildings as well, the classrooms being arranged by dismantling the plasterboard partition walls; schools appeared also in office buildings, in which the plasterboard ceiling grid was kept, the walls between the classrooms being only temporary compartments; very often, the schoolyard have either disappeared as a necessity or have been replaced with teachers' parking.

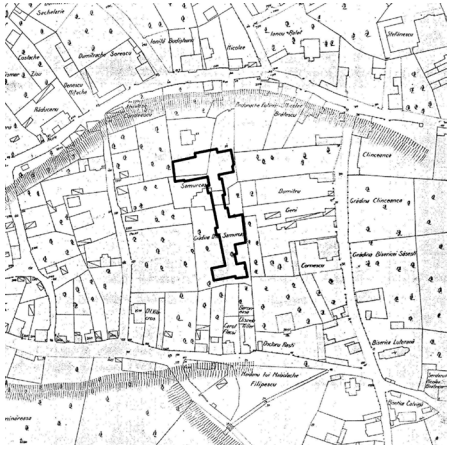
Without formulating a definite thesis, this study on schools in Bucharest implicitly contains some important questions: Aren't the qualities of architecture, described by scale, proportion or natural light, the necessary ingredients for imagining the space for school, whatever the educational scenario? Shouldn't the school yard, along with the corridors or other common areas, be the spaces needed for student interaction? Shouldn't the school be an affective landmark for the city or at least for its close neighborhood, which could state the just institutional value or public vocation of education? As rhetorical as these questions may seem, perhaps the society is already formulating some partial answers, completely detached from the capabilities of the architectural profession.

Thus, we hope MZCH^6 will work as a reminder of some of the ingredients the school needs, including those formulated with space. Querying the previous examples can be a good tool for understanding those conspicuous requirements, without which educational concepts can lose their essence. The school, understood as a common place, in which education cannot be summarized only at the level of knowledge acquired by students, must have a mold that correctly expresses the nature of the social relations it is responsible for. In the year of the Pandemic, in which the virtual world is proclaimed as the saving scenario, we propose a moment of reflection on the nature of space, as the valid common place for building society.

HIGH SCHOOLS

SFÂNTUL SAVA





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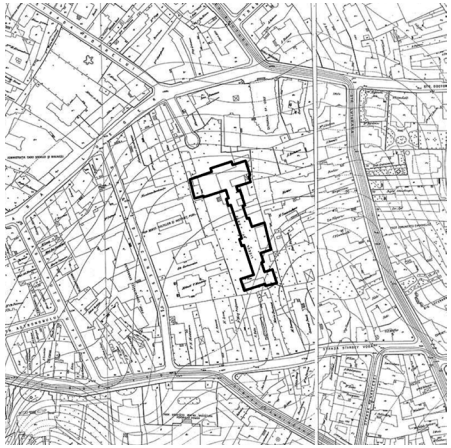

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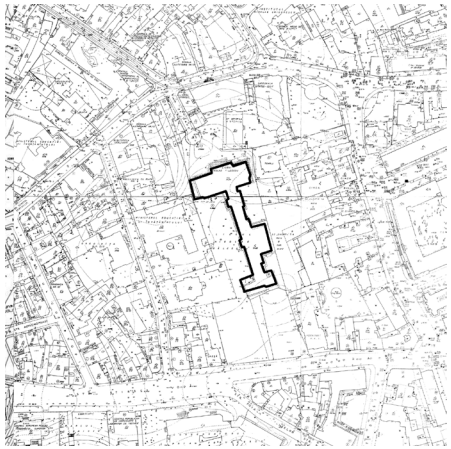


1995

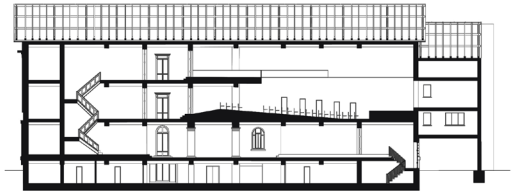
Sfântul Sava National College is one of the oldest and most prestigious educational institutions in Bucharest, founded in 1864. The building is located near General H.M. Berthelot and Știrbei Vodă streets, close to Saint Joseph Cathedral and Victoriei Street.

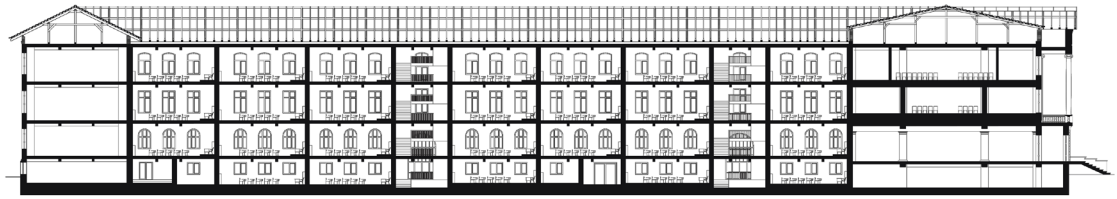
The initial U-shaped building was thought out to be small and perpedicular to the street leading towards it. A new section, where classes take place, was added in 1890, occupying a significant segment of the plot length. The old building was used as the administrative wing of the high school. Shortly after, the construction was finished in 1937, with the front part of the building being demolished and replaced by a new façade.

The main façade is monumental in its appearance and recreates faithfully façade elements of the University of Bucharest. Moreover, the imposing façade is successful in its attempt to mask the architecture behind it. Descending towards the high school coming from Berthelot street, we reach a circular cul-de-sac which emphasizes the inviting nature of the teachers' entrance. The strong transition is made by passing through the monumental stairs. The students' access, more domestic in nature, crosses a gangway, a far cry from the treatment of the teachers' entrance. This contrast between the two bodies is most evident when it comes to the interiors, their functions and the materials used. The front body is designated for the teachers' activities and it has ample spaces, such as the reception hallway, finished with marble, mosaic on the walls, accents and columns, while the body in the back is severely rationalized, with a purely functional approach, wood being the main material used.

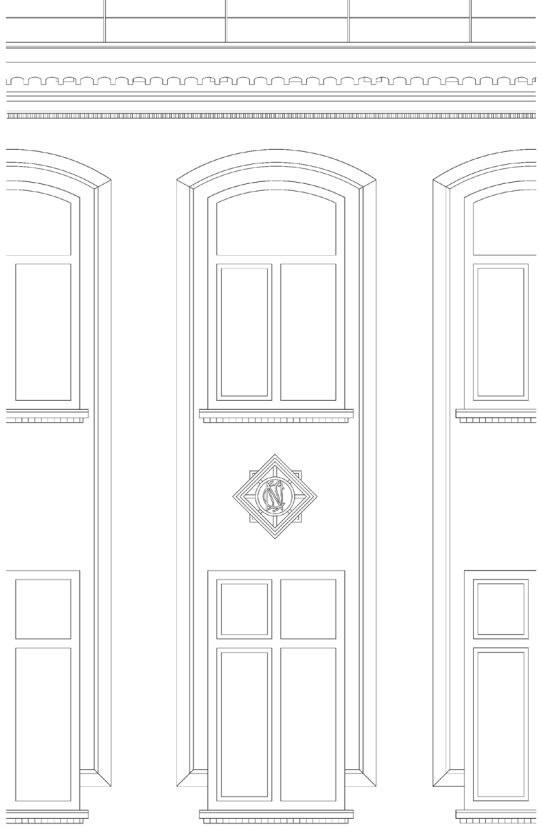
The building is a result of the needs imposed by the high school, evident when it comes to: the height of the classrooms, the large hallways, the recreational courtyards, the vegetation, the existence of spaces such as the library, the amphitheater, the small museum, etc. There was no consideration for the aesthetics of these elements combined.

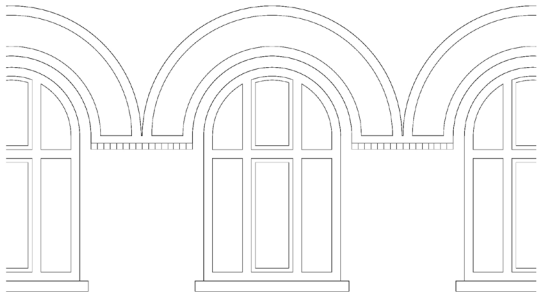
Saint Sava National College is atypical in its architecture, as its monumentality and apparent presence serve to mask the phased, incoherent architectural process. Although the two different bodies form one educational institution, they clash when it comes to the architecture.

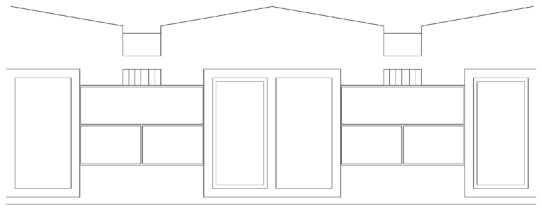


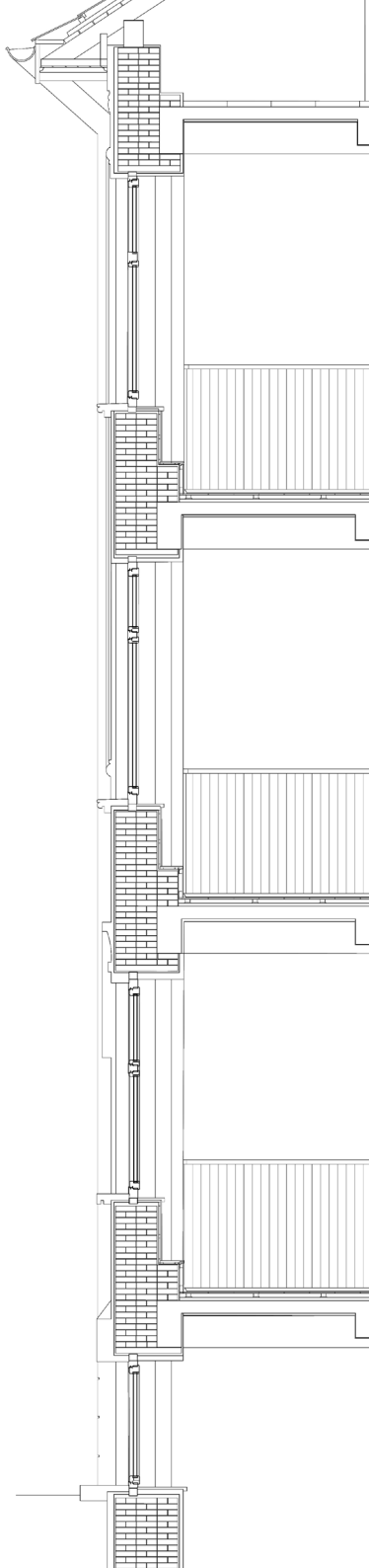


SF. SAVA

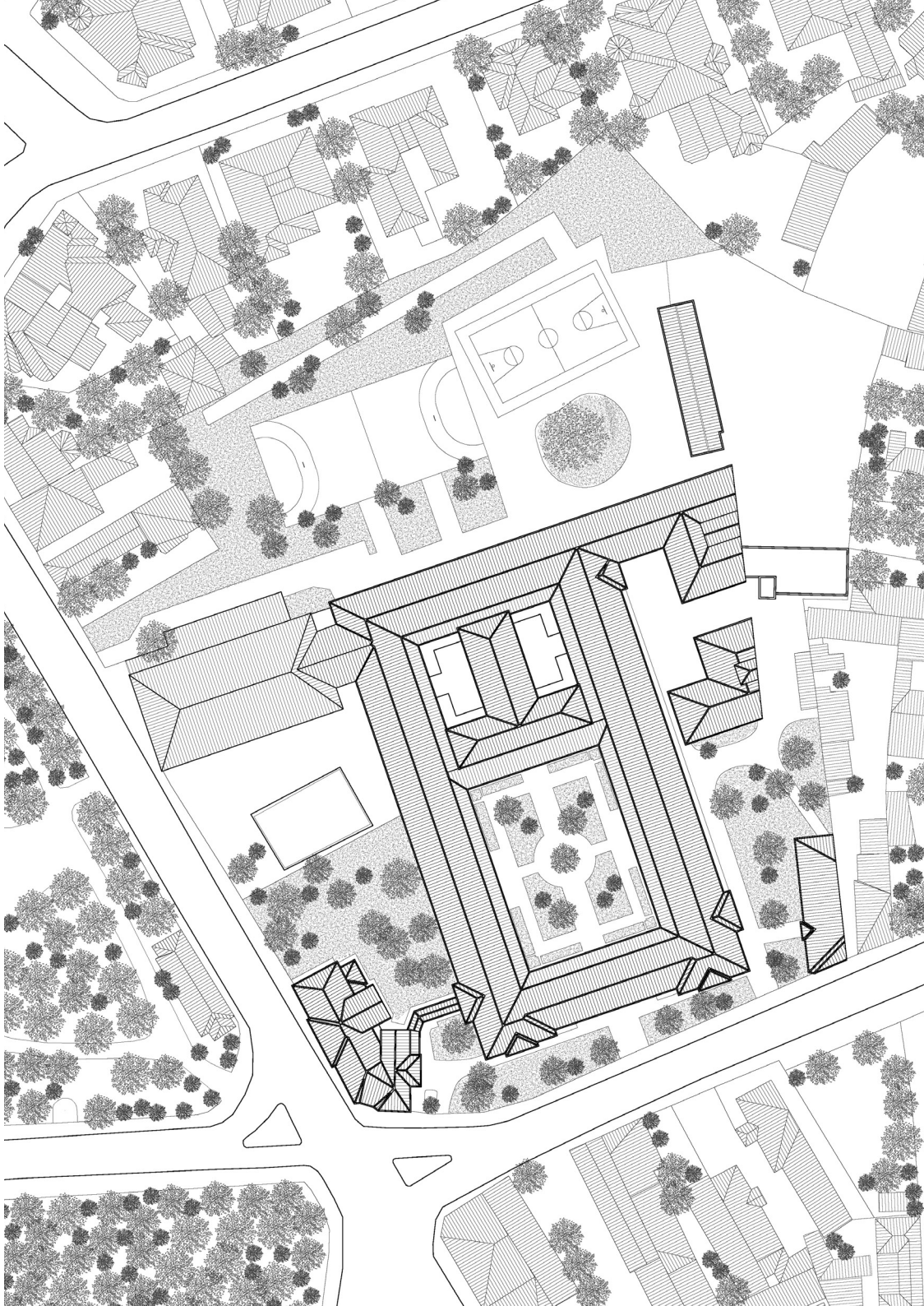


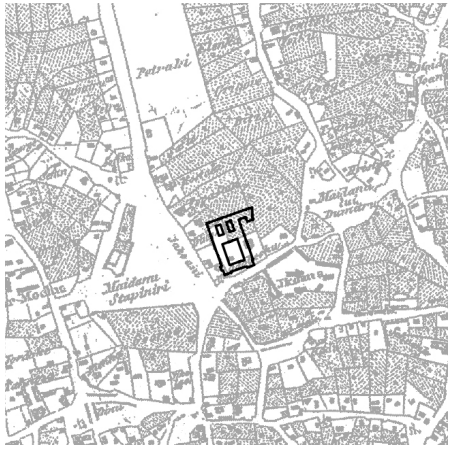






ȘCOALA CENTRALĂ





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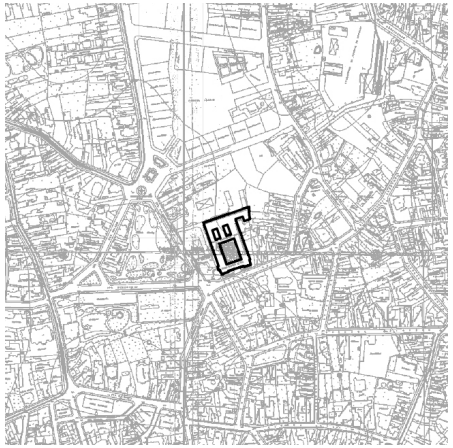

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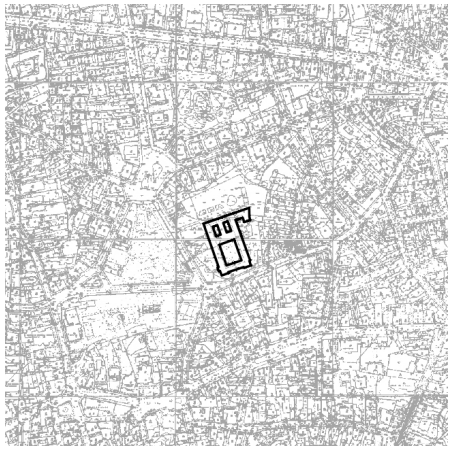


1995

Școala Centrală is the result of Romania's 19th century educational development plan. Designed by Ion Mincu, its construction started in 1889 and was finished in 1892. Several appendages have been gradually added to the initial building: the principal's and administrator's housing and the gym hall.

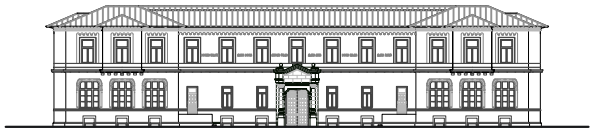
The School is located near Icoanei Garden Park, at the intersection of Jean Louis Calderon street and Icoanei Street.

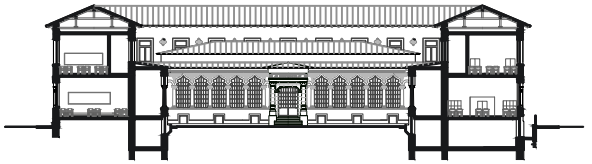
The rectangular layout is wrapped around an inner courtyard, bordered by a portico. The lack of a portico at the upper level brings more natural light in. The rigorous plan of the school is generated by the inner courtyard and the longitudinal symmetry axis, also emphasised by the main facade.

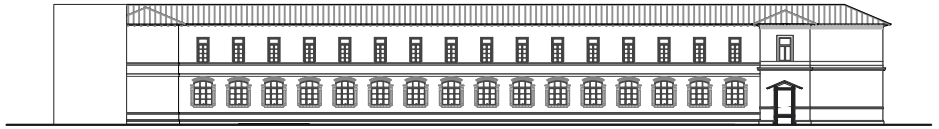
The building's structure consists of brick and lime mortar masonry with brick arches over the semi-basement and wooden floors at the upper levels. The main facade is gracefully treated with vegetal motiffs and polychrome ceramics decorations. Natural stone is used only for the entrance, to highlight its importance.

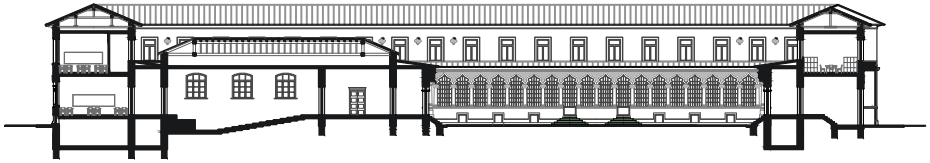
The inner courtyard, as a generator of space, can be found in Romanian architecture at inns and monastery ensembles. In these typologies, the courtyard is the most protected space and determines an order forthe spaces around it.

Școala Centrală was an opportunity to break with the strict specific of boarding schools and represents a significant moment in the search for a modern architecture based on national tradition.









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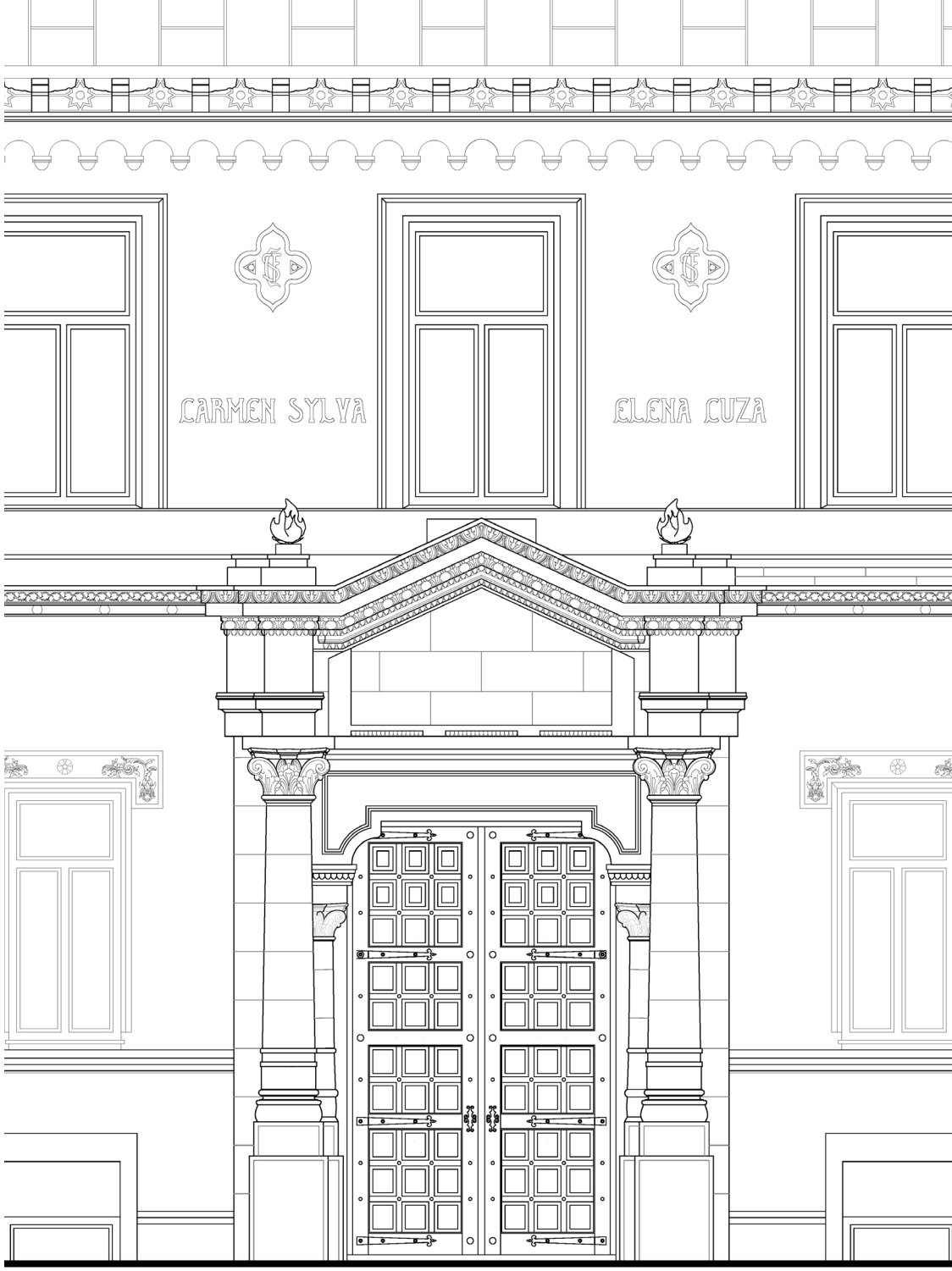
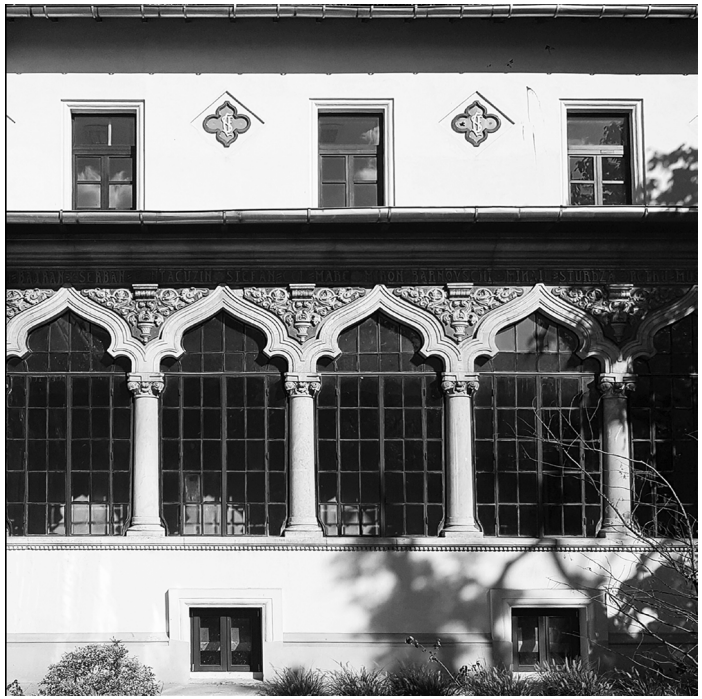
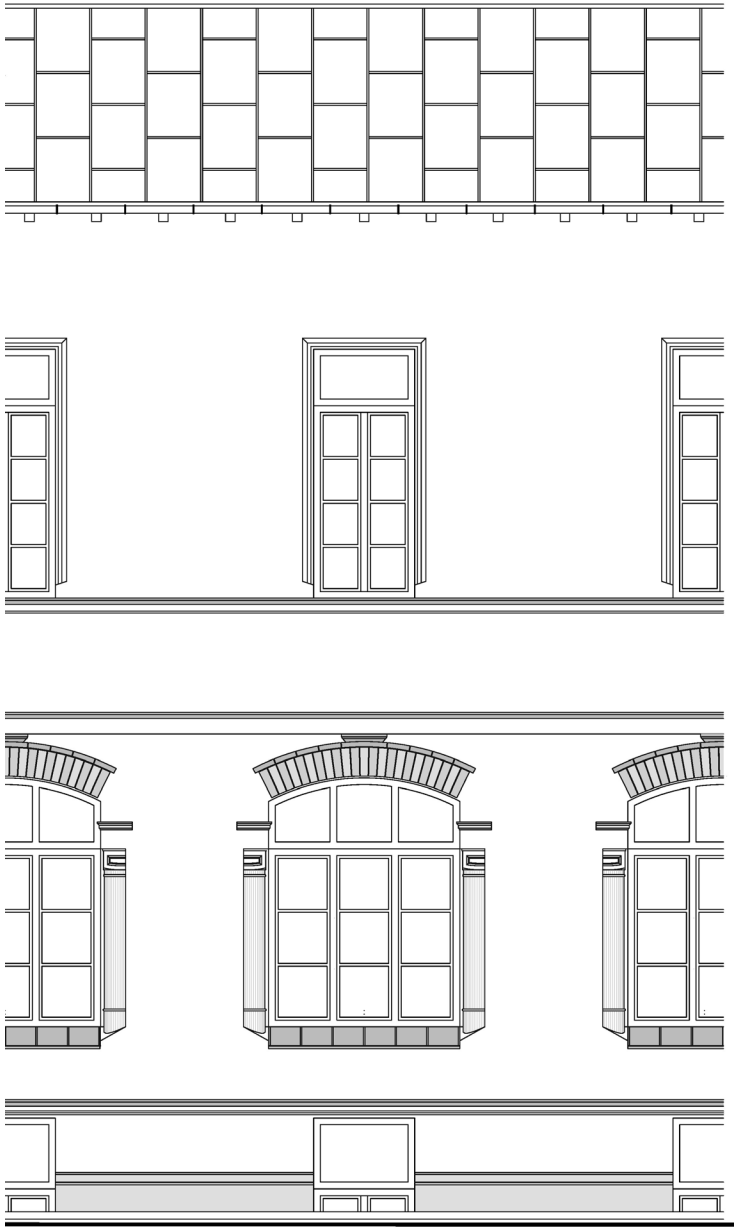
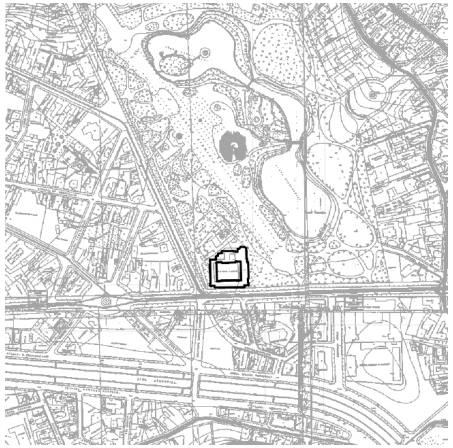

CARMEN SYLVA
ELENA CUZA





GHEORGHE LAZĂR

1852



1911

1995

Gheorghe Lazăr National College was built in 1890 by architect Filip Montoureanu, intented as a boys' school and eventually becoming a high school. The building was finished in 1931 by erecting the northern wing which stands out due to its height and layout.

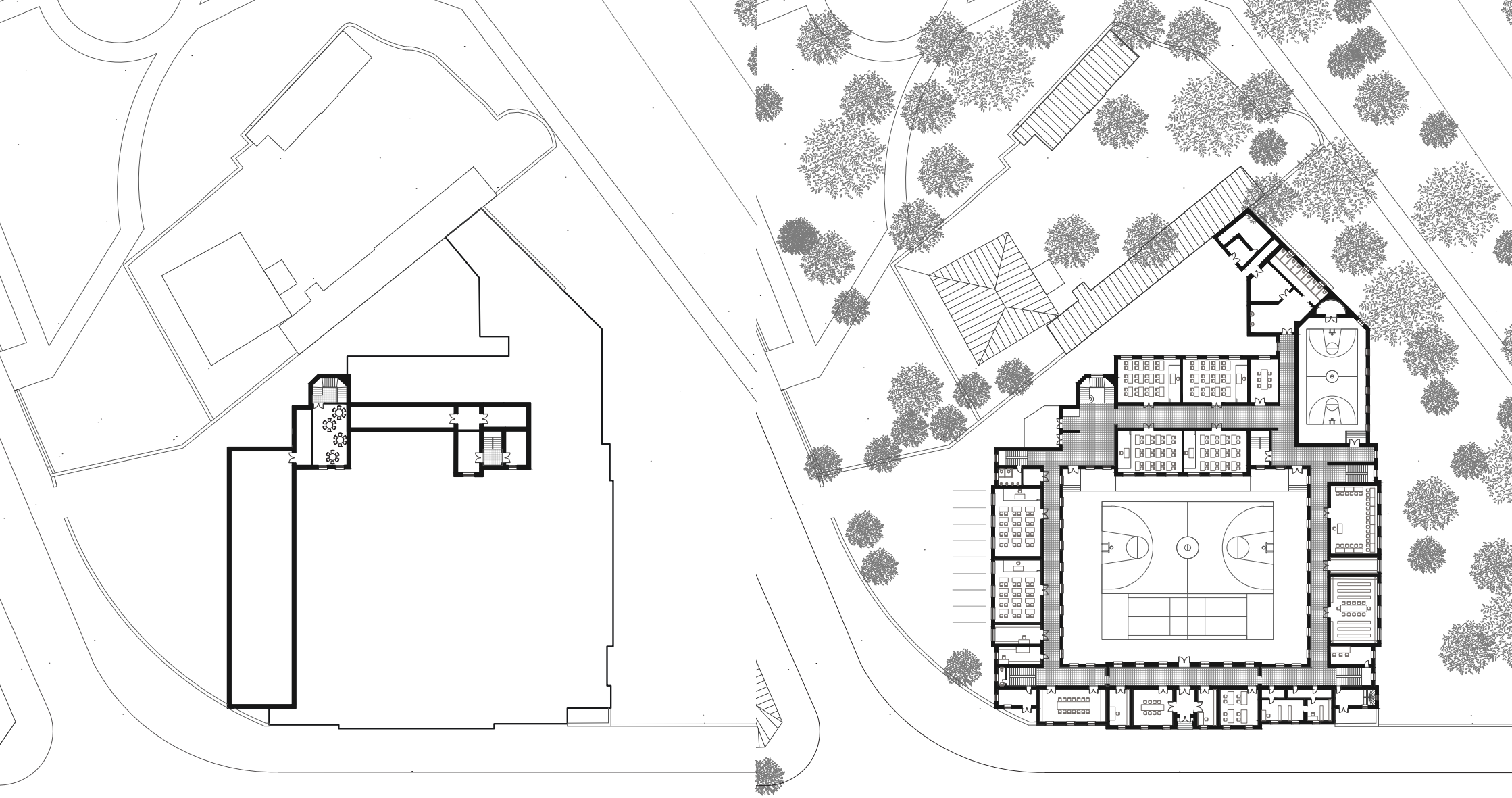
The high school is located at the intersection of Queen Elisabeth boulevard and Schitu Măgureanu street. The main wing faces Queen Elisabeth boulevard, while the other two perpendicular wings are linked by the last added section. Together, they form an inner courtyard. Moreover, the building is located in a corner of Cișmigiu Gardens but they cannot be accessed from the high school.

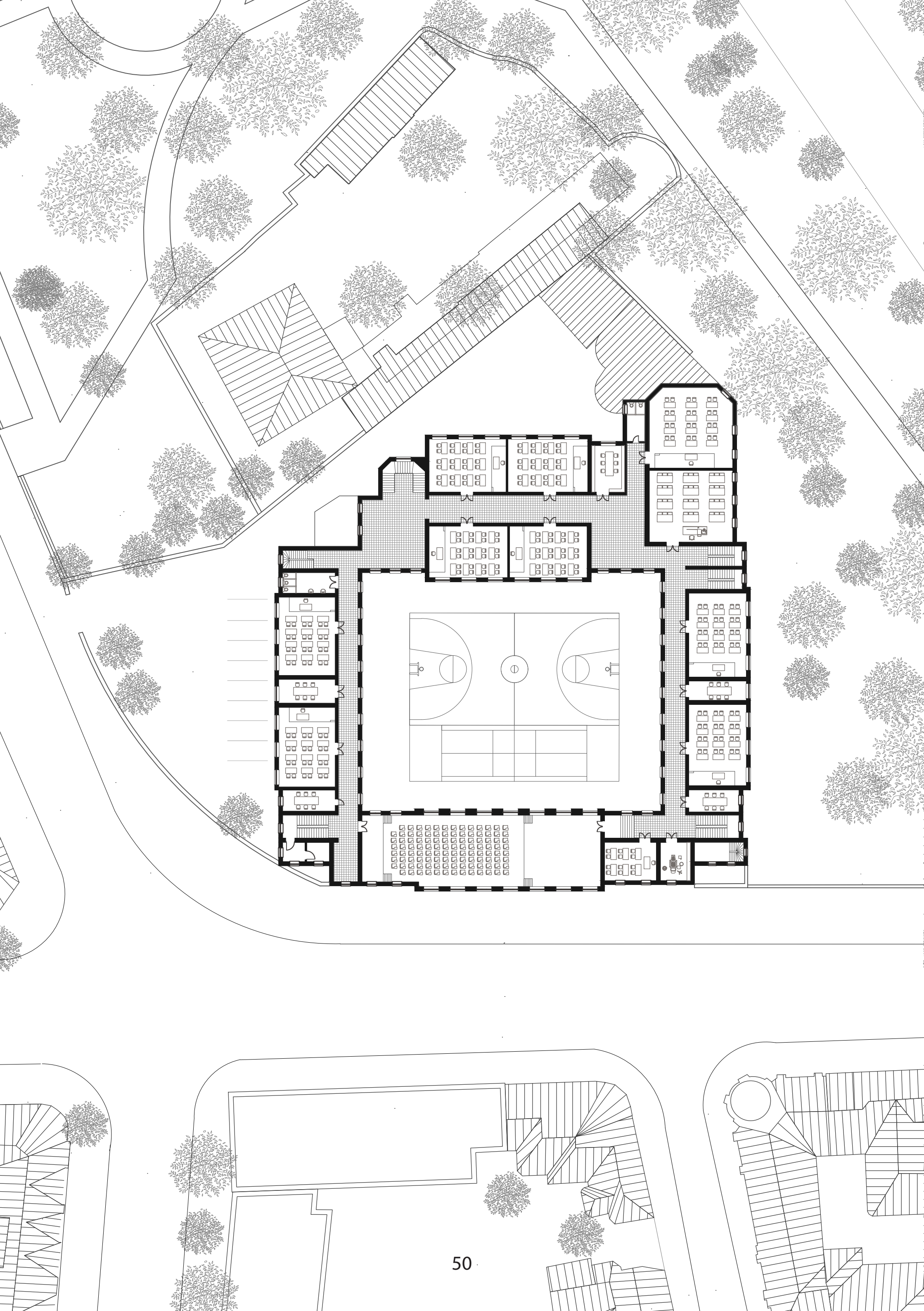
The inner courtyard typology can also be seen at The Central School, resembling monastery cloisters. Thus, a protected space in which pupils can carry out various activities is created.

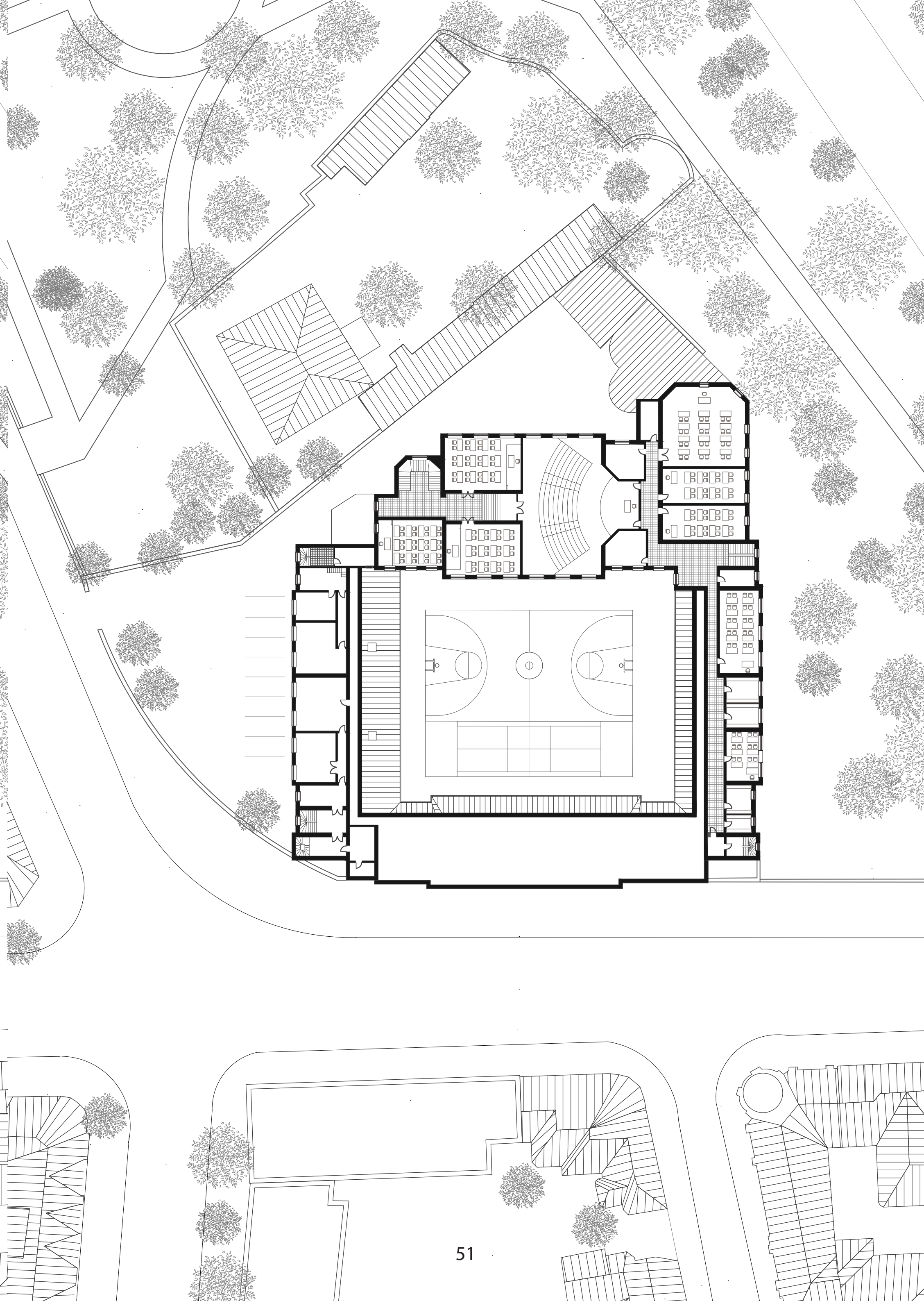
The layout is rectangular with equal parts of built and unbuilt spaces. The hallway faces the inner courtyard on its three old wings but runs across the middle of the two rows of classrooms in the new section.

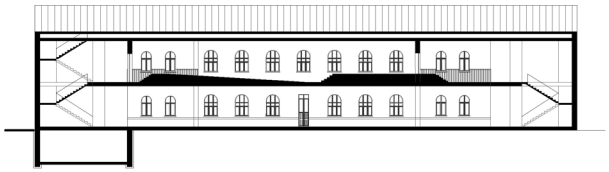
The construction is made of brick and lime mortar masonry on concrete foundations. Natural stone was used to make the frameworks and entablement of the main entrance, while stairwells and floorings were finished with Carrara marble. The ornamental repertoire is made up of pilasters and capitals, vegetal motiffs and glazed ceramics decorations.

What distinguishes Gheorghe Lazăr National College are its ciel blue ceramics, its high arches and its clock tower overlooking Cișmigiu Gardens. Its ecclectic architecture and monumentality make this building representative of the historical period in which it was built.

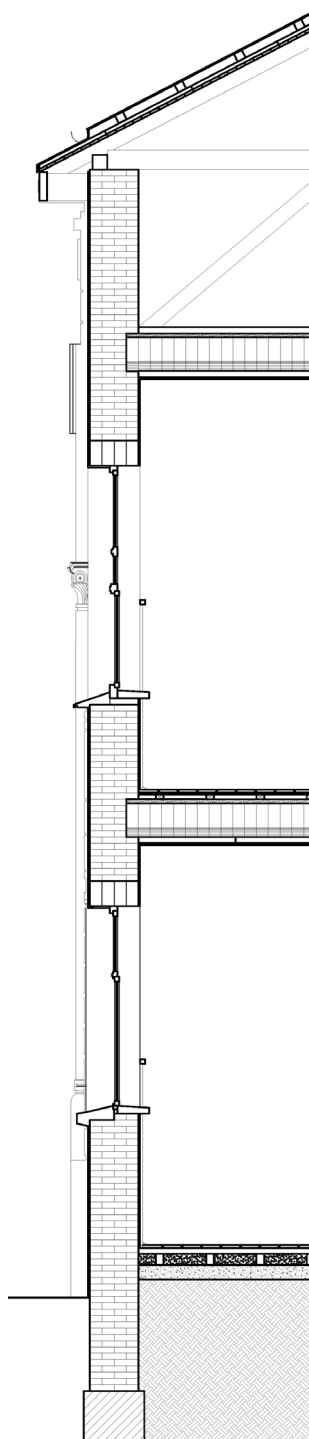




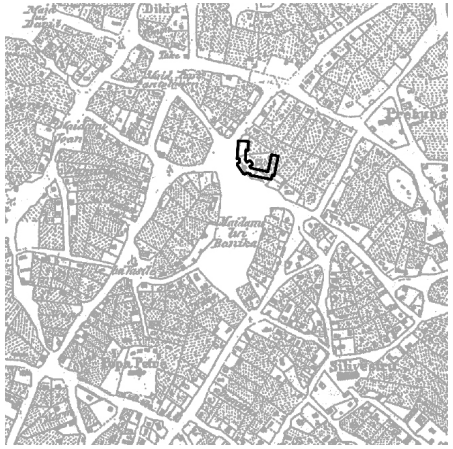




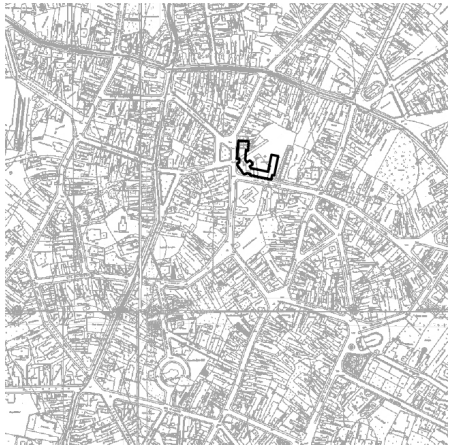
LICEVL LAZĂR
MINISTERUL EDUCAȚIEI ȘI CERCETĂRII
COLEGIUL NAȚIONAL
GHEORGHE LAZĂR
FONDAT ÎN ANUL 1860
BUCUREȘTI



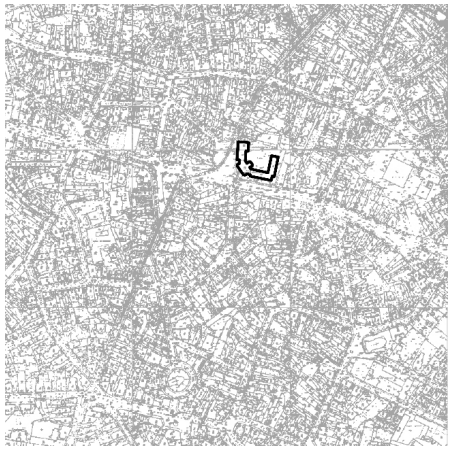
CANTEMIR VODĂ



1852



1911



1995

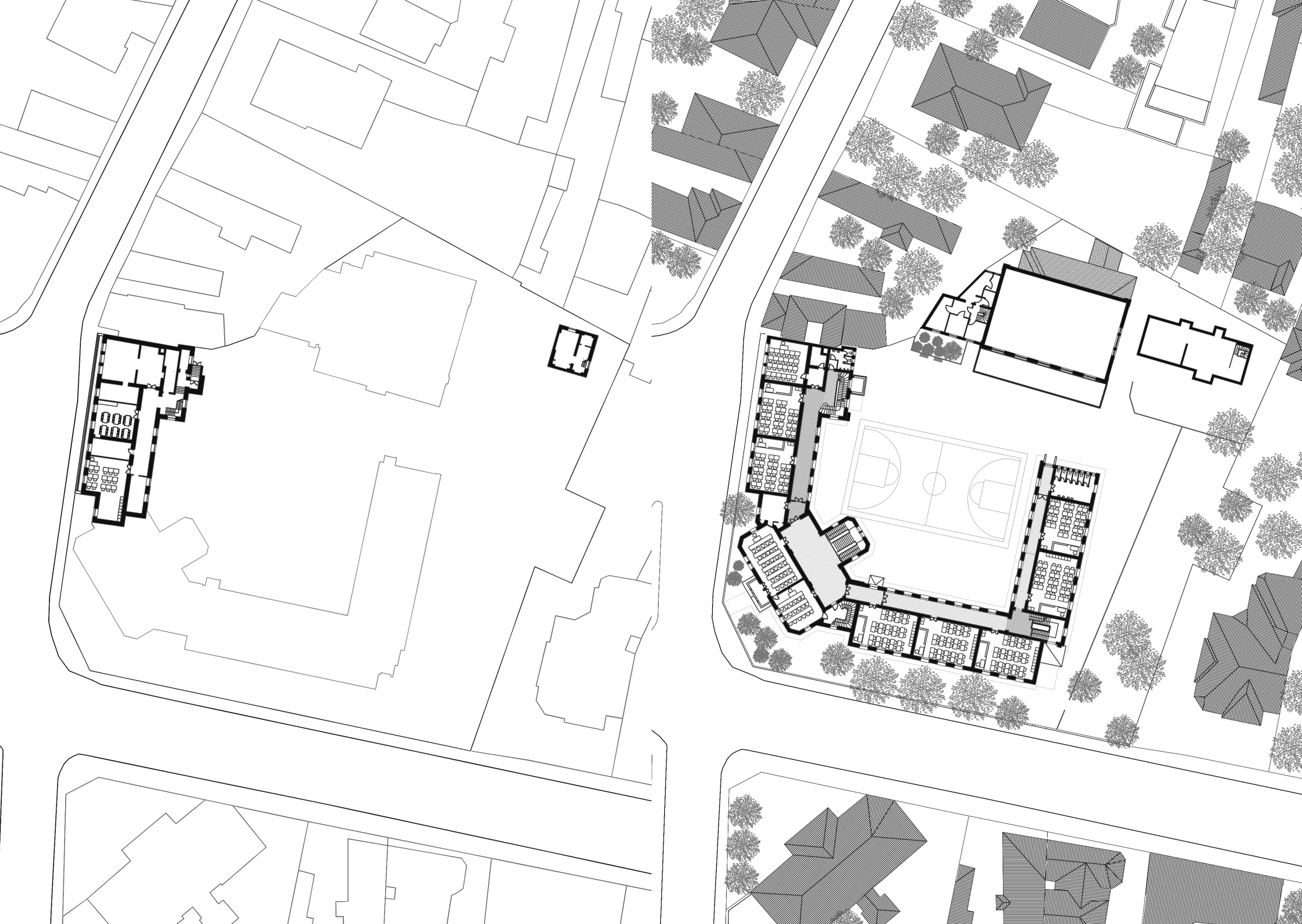
Cantemir Vodă National College was a part of the Ministry of Education's pre-war project, which implied the construction of educational centers with iconic and national character. With the relocation of classrooms outside private buildings begins the construction of new institutions, according to the new standards of that time -such as the central position in the neighbourhood, the accessibility from the new streets and boulevards, the rectangular layout of classrooms and their position in relation to a recreational common space that was set back from the main street.

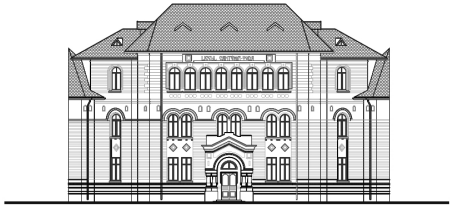
The construction of the building began in 1915-1916. The initial plot had smaller dimensions than the current one and also included the corner of the intersection, according to the original project. With the First World War the construction process stopped, therefore by 1915-1916 only the eastern and the Southern wings had been built. The central volume followed in 1923, designed by Virginia Haret, the Western wing being a later addition in response to the growing number of pupils. The high school acquired its current form only in 1935.

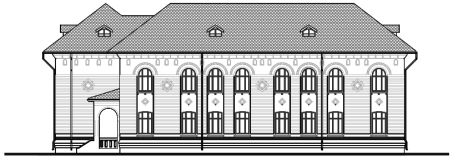
Occupying the north-eastern part of the intersection between Dacia Boulevard and Viitorului Street, the assembly marks its corner, assuming the Neo-Romanian style and accomplishing the desired representative role of the educational institutions of that time.

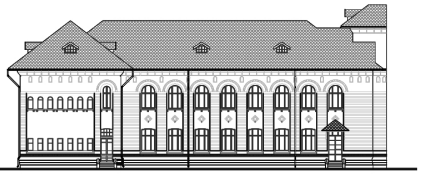
The building adjusts not only to the site conditions , but also to the urban context. The gradual building process aimed for the current architectural form as the initial project foresaw the seclusion from the boulevard. The building facing the Boulevard was designed to provide a continuous front on the alignment but the plan remained uncompleted due to the outbreak of the war. The yard was a result of the construction stages of the assembly. Additionally, the potential of the plot was fully reached through the well-chosen position of the gym hall.

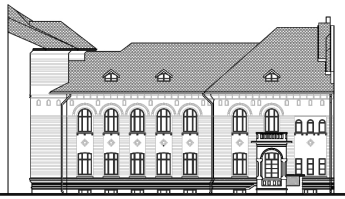
A defining element of the Cantemir Vodă National College is the unity of the three volumes, regarding not only the exterior appearance, but also the interior space. The layout is symmetrical to the central volume which assumes the representative role.

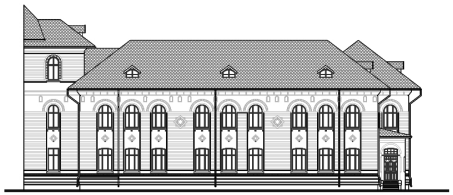


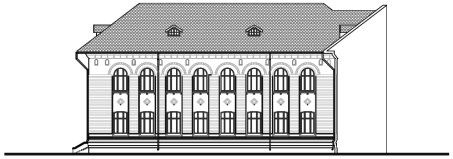


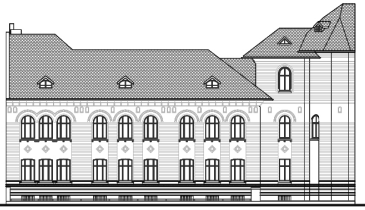


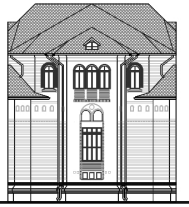


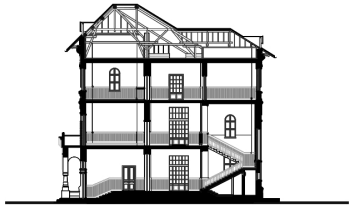


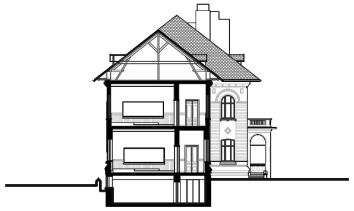


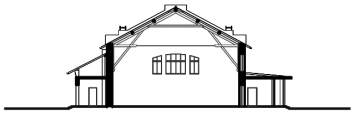


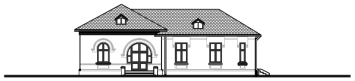




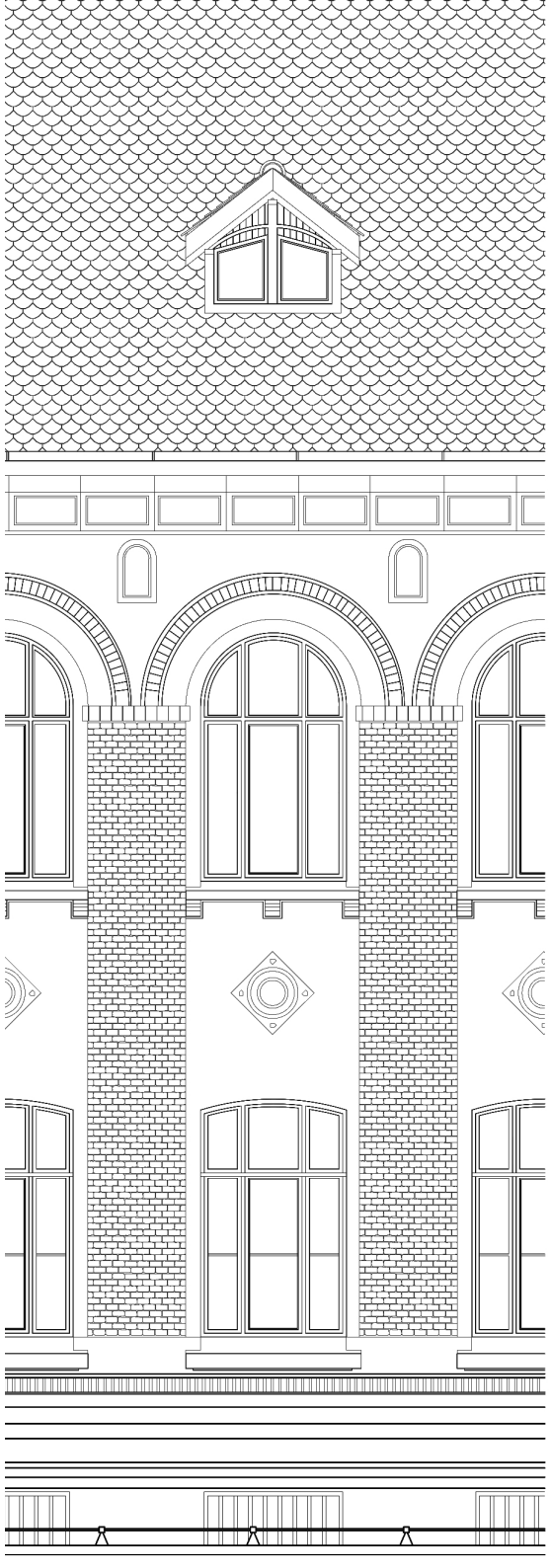


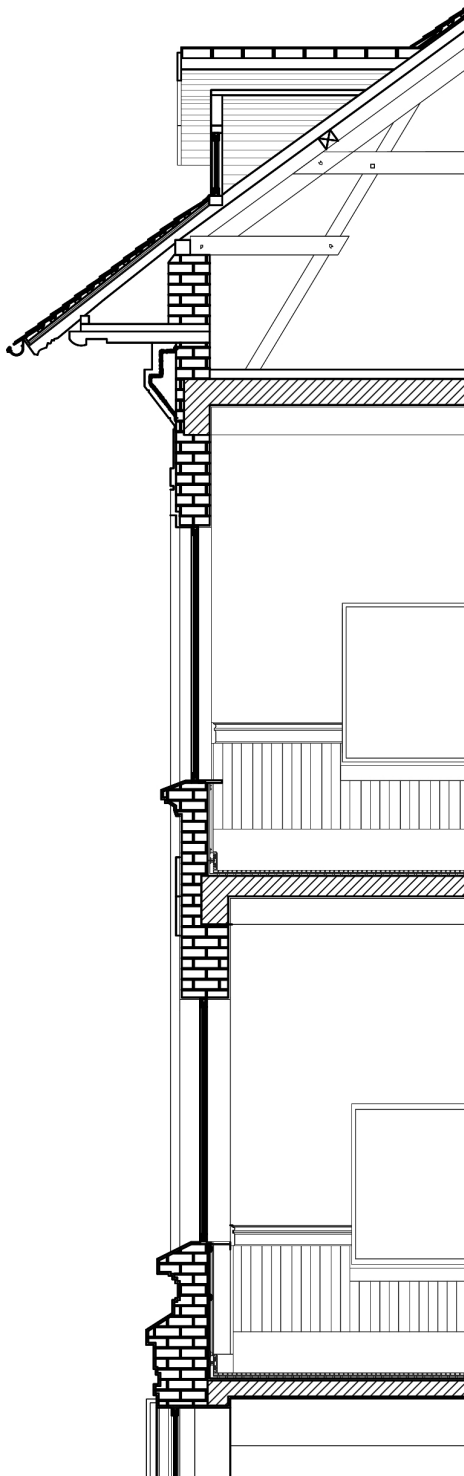




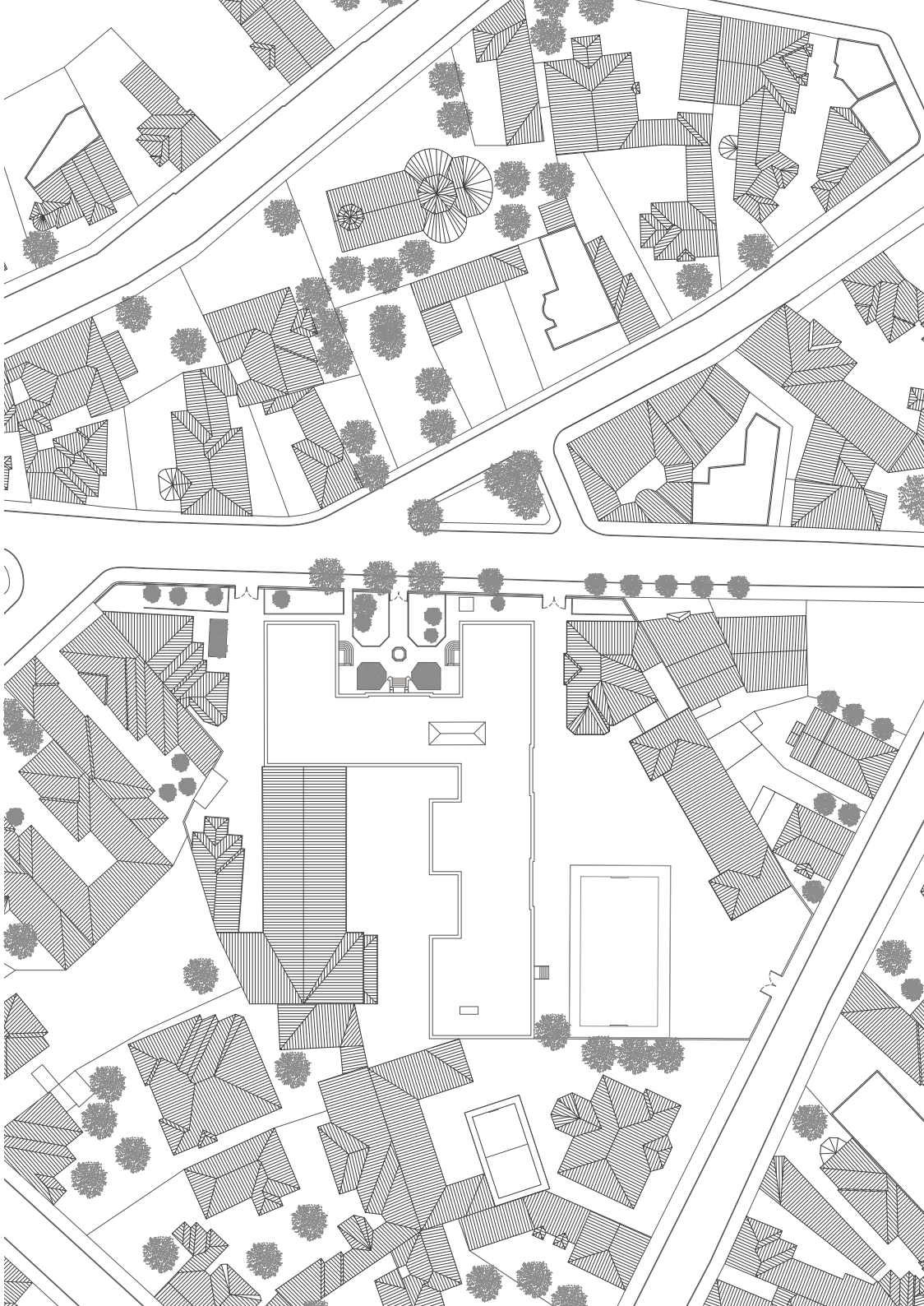


LICEUL CANTEMIR-VODĂ





MATEI BASARAB



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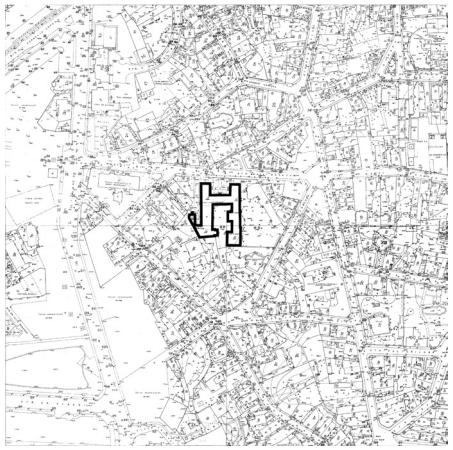


1995

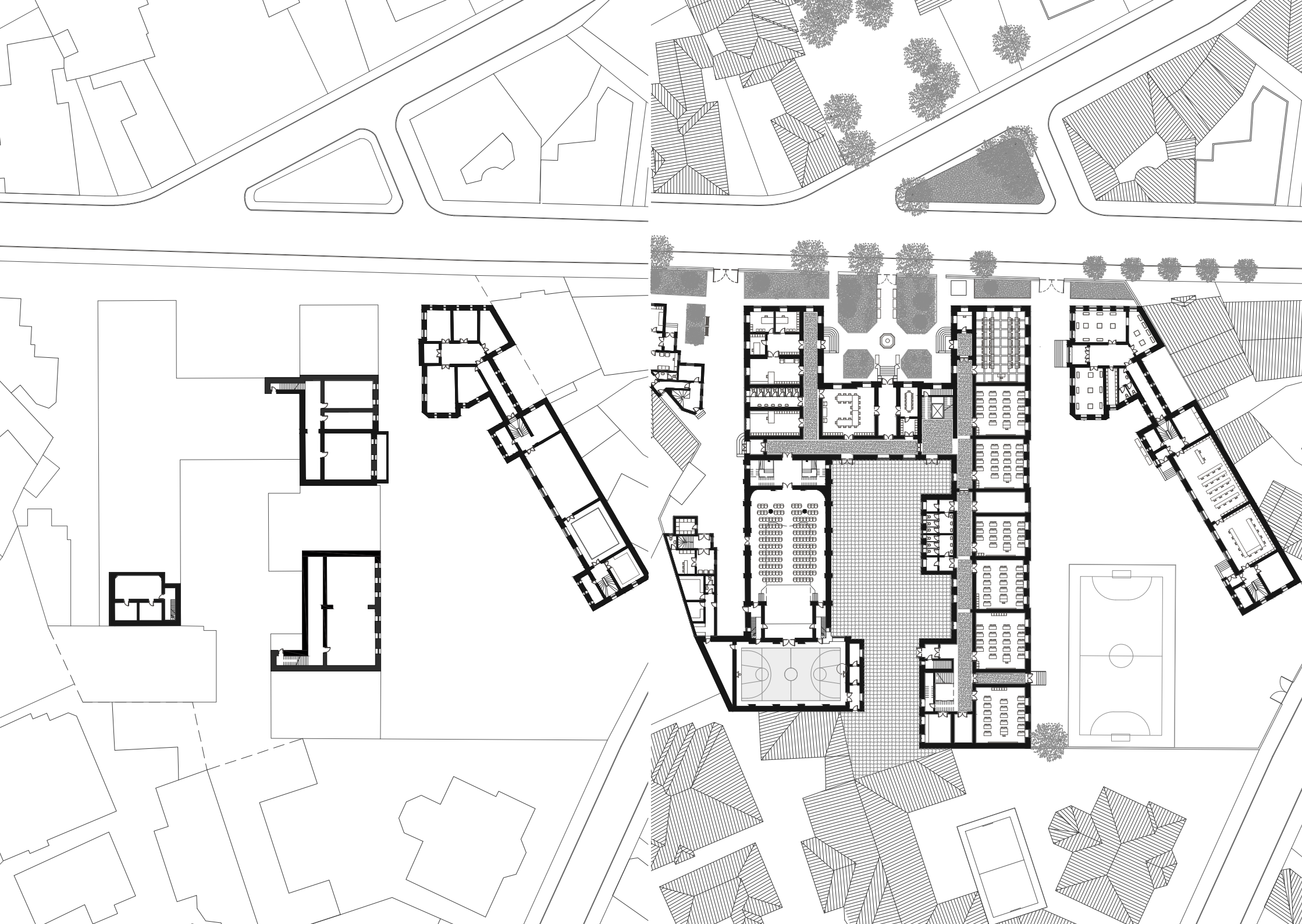
Matei Basarab High School was first mentioned in 1859, at which point the existing C-shaped building consisted of a ground floor and one upper level. The building's placement in relation to the alignment foresaw the urban renewal plan of Matei Basarab street in 1932. In the interwar period, the high school was subject to a series of modernisation and extension projects, such as the addition of two new buildings on the plot: the dormitory, in 1921 and the principal's house, in 1932. Between 1923 and 1928 there were several extensions: the second story, the western wing designated for the administrative body, and the subsequent festivities and gym halls. In the postwar period, the building received roof modifications, the sloping roof being replaced by a terrace.

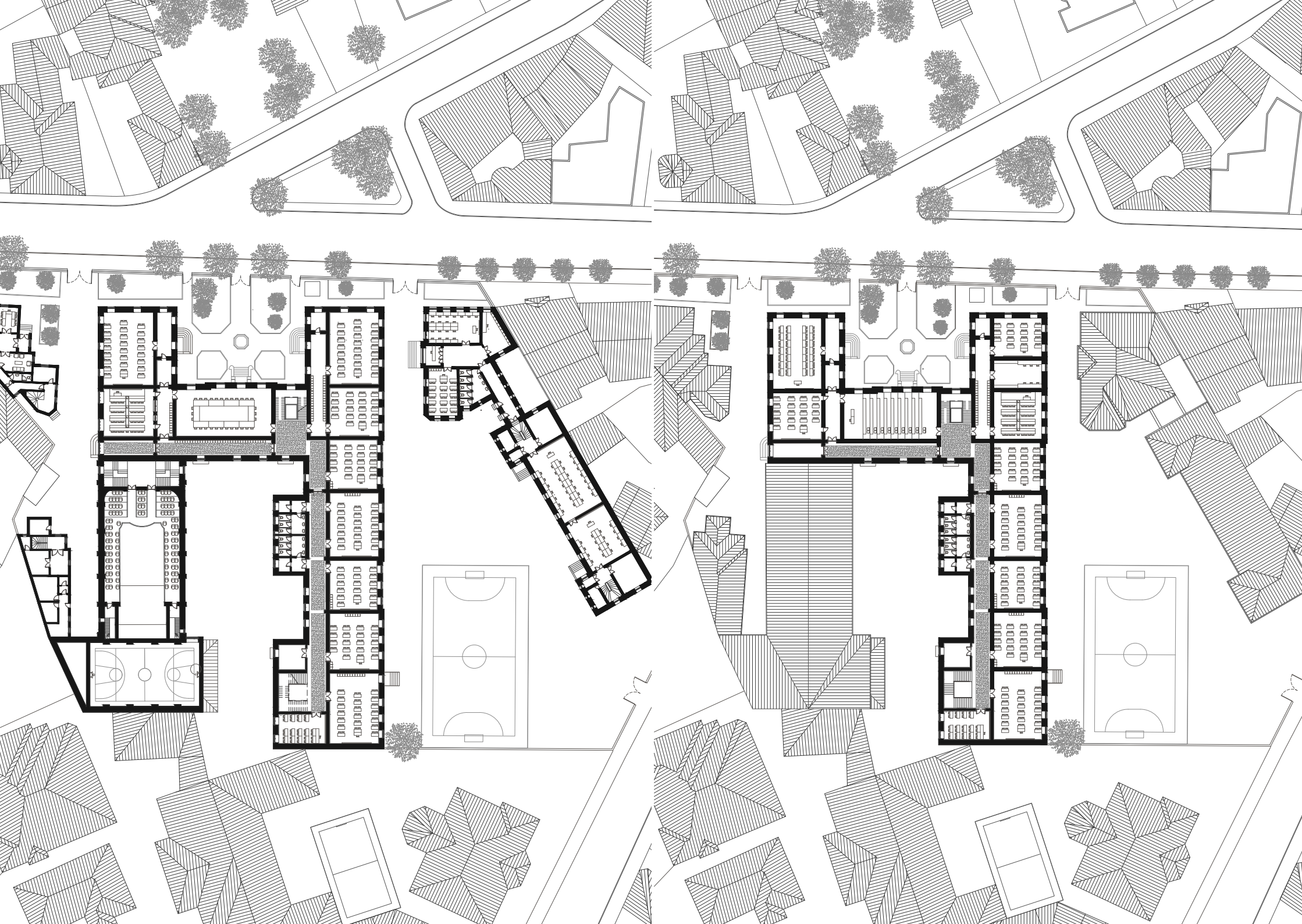
The construction follows the layout principles of Neoclassical French palaces. The symmetry of the volumes that surround the court of honor and the axial layout of the entrances and alleyways are evident. The representative area is generated by a setback of the two lateral wings from the alignment and by a subsequent setback of the central volume.

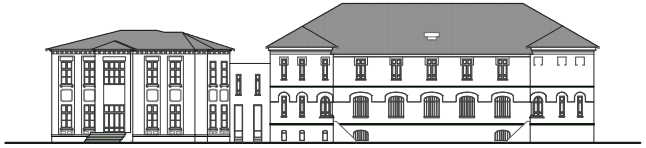
The position of the current building on the plot and the H-shaped plan create a yard towards the street, an inner courtyard and several lateral others towards the dormitory and the old principal's house. The layout is hierarchical, with the hallway on the inner courtyard's perimeter, and the main spaces, classrooms and the administrative and teachers' spaces placed alongside the main facades.

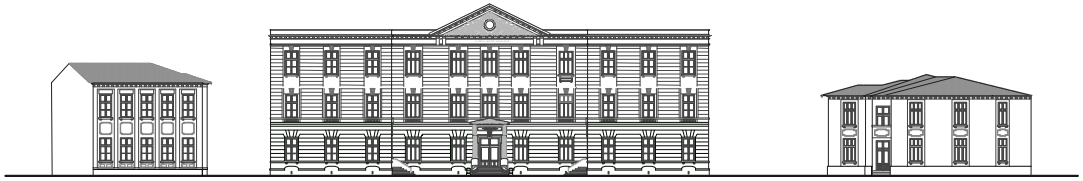
Towards the street, the facades assume the same neoclassical style through its clear registers that define the levels and their decorations. The western façade is interrupted by the juxtaposition of the festivities and gym halls. The monumental image of the main building contrasts with the Neo-Romanian architecture of the time that can be identified in the dormitory building. The style is evident in its decorative girdle and arches and small columns that mark the two entrances.

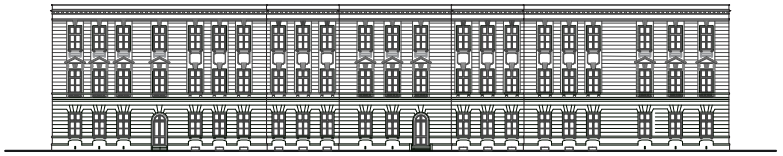
Matei Basarab High School was one of the tools implemented to modernize the city and is one of the first undergraduate educational buildings in Bucharest. It is a replica of the Academic style, which characterized a significant part of 19th century schools, and which stands out through its volumetric sobriety and compositional rigor.

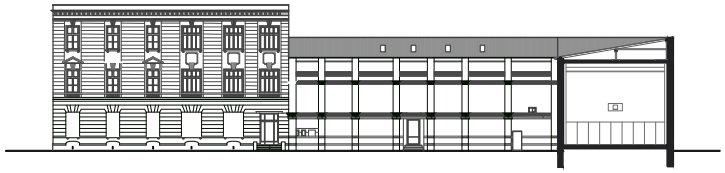


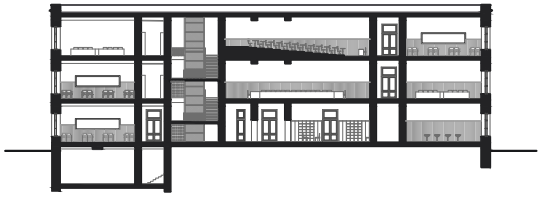


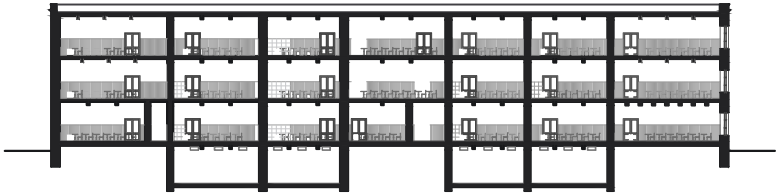












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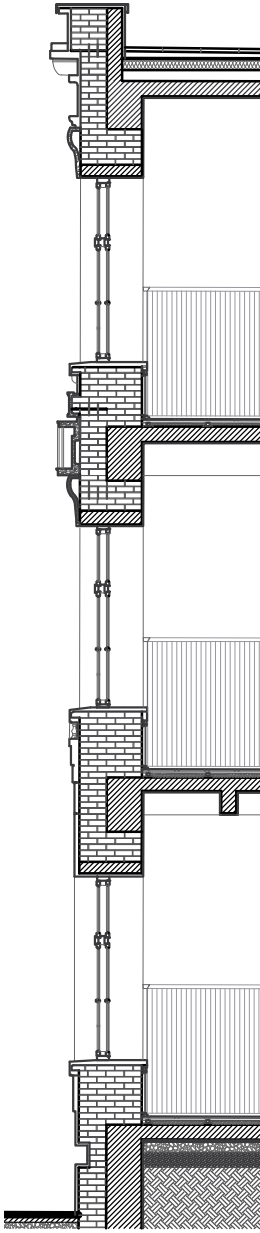
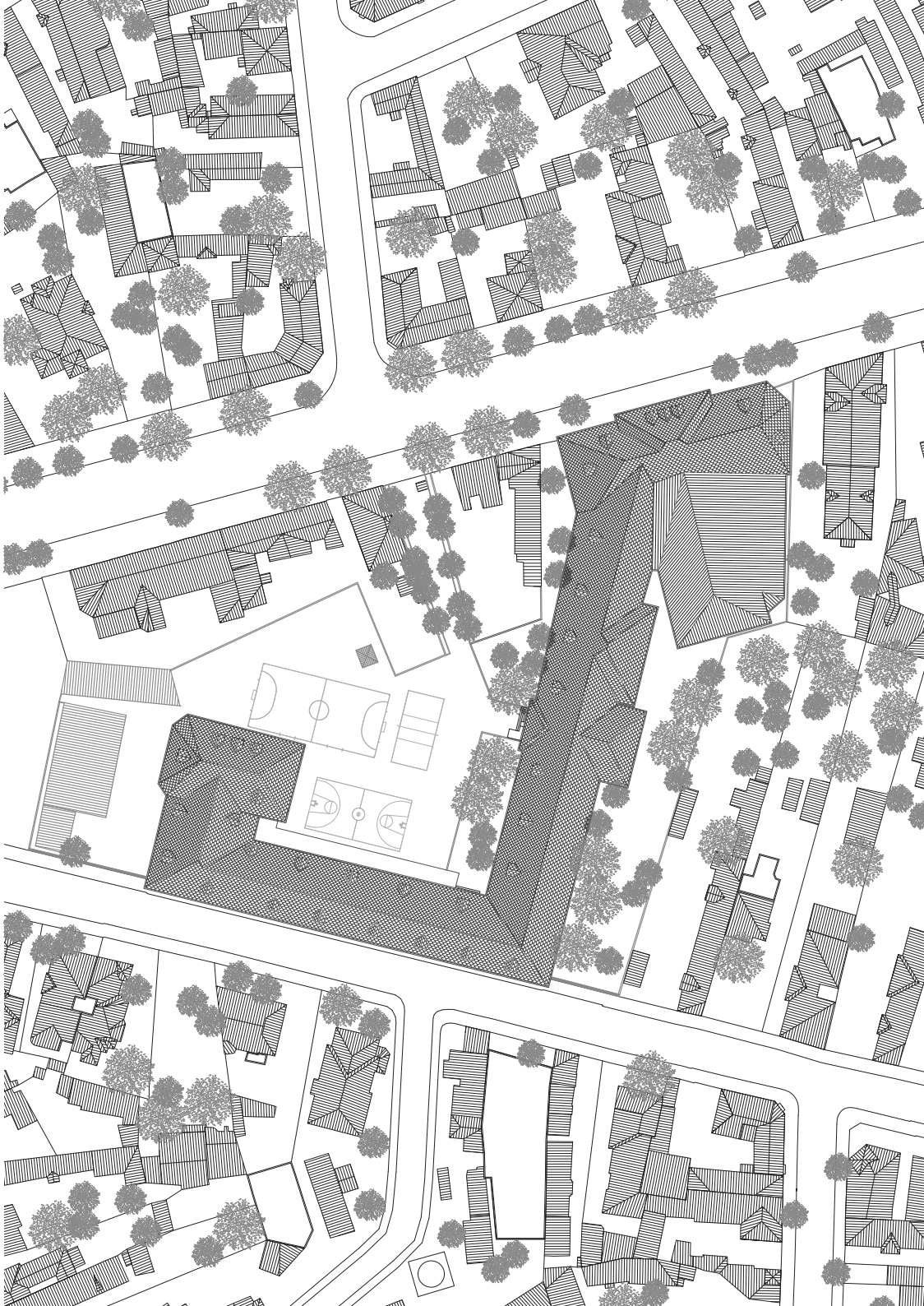
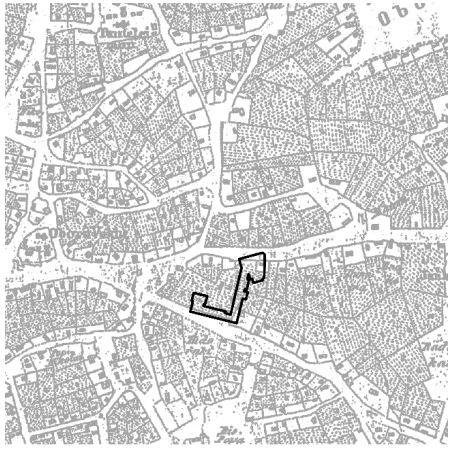


MIHAI VITEAZUL





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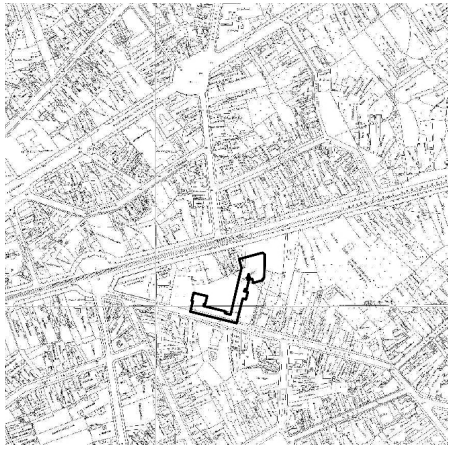
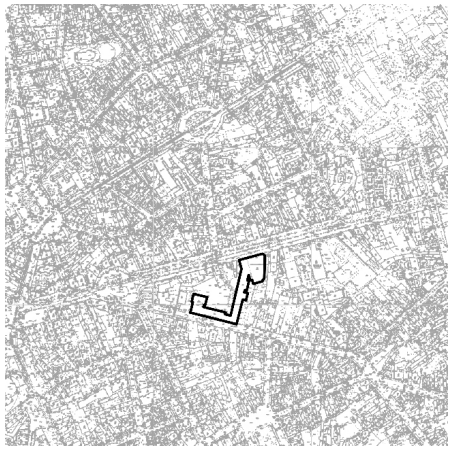


1911



1995

Mihai Viteazul National College was founded in 1865, as a subdivision of Saint Sava high school, and gained its autonomy two years later. The school changed location until 1921, when the construction of the current building began. The building was finished six years later.

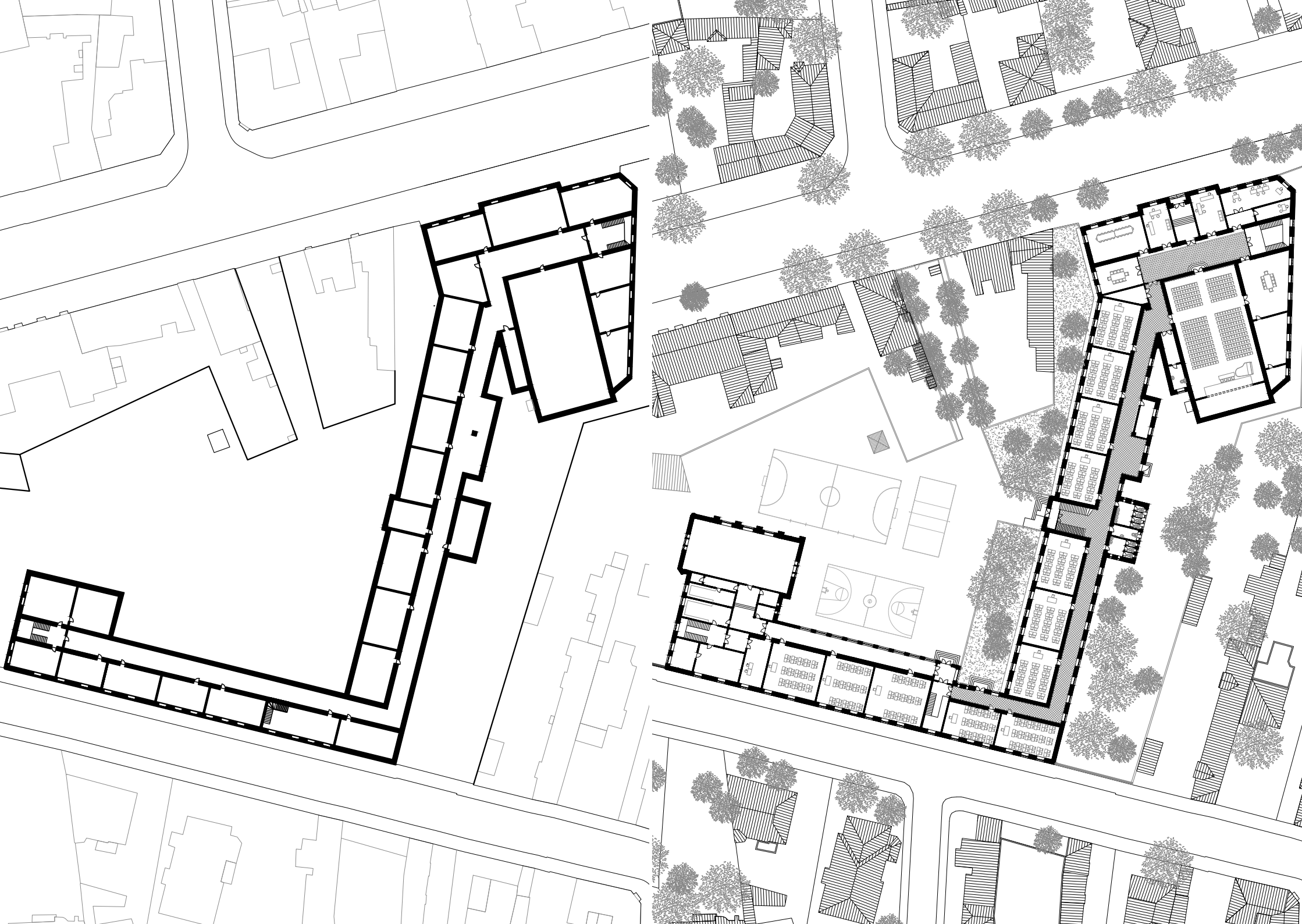
The high school is located between Matei Voievod street and Pache Protopopescu boulevard. Both teachers' and pupils' entrances are accessible from the boulevard. The wing facing Pache Protopopescu stands out through its height. Pupils access the inner courtyard crossing through an alleyway bordered by vegetation. The courtyard is enclosed by the eastern and southern wings of the high school.

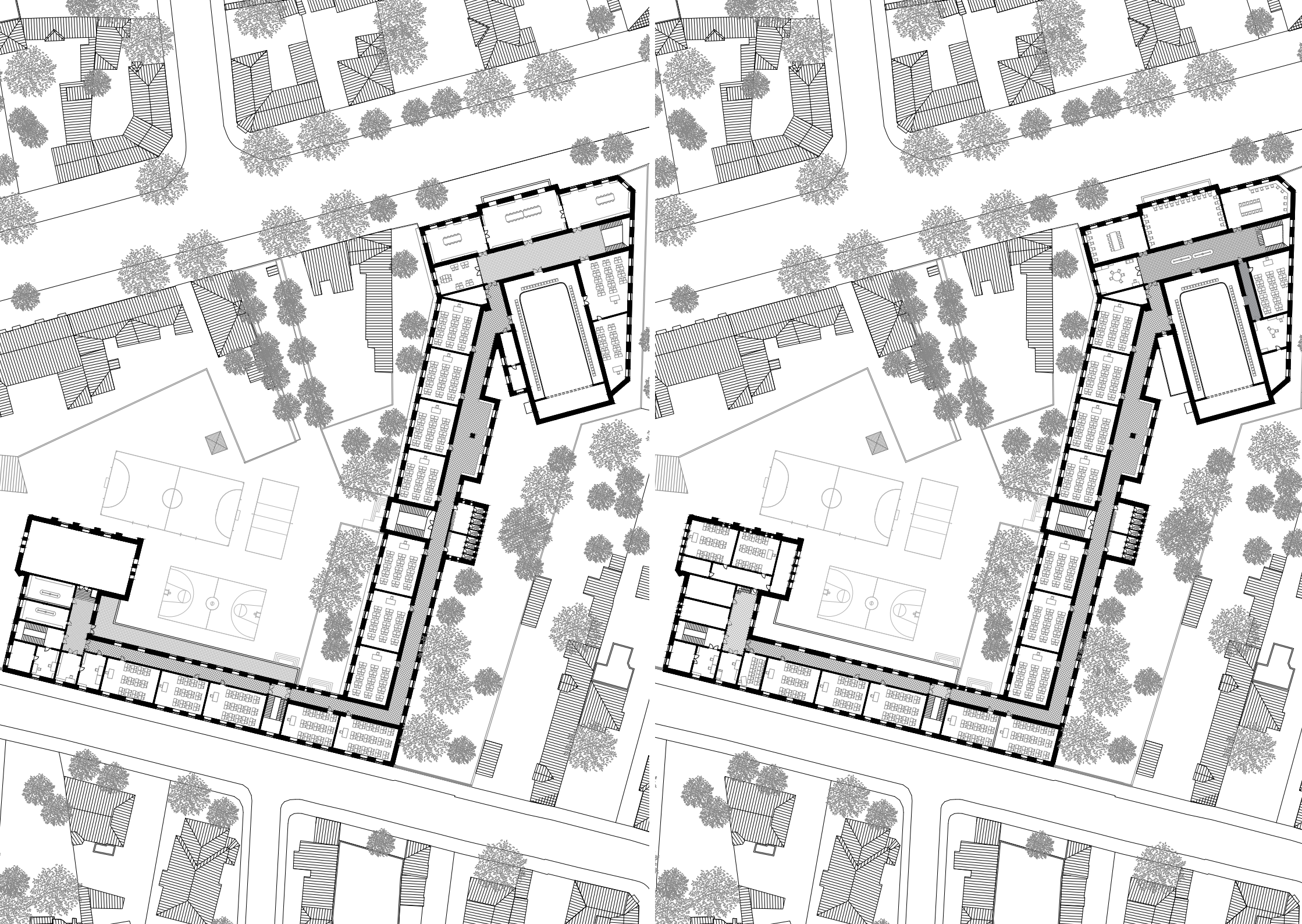
Classrooms run alongside the hallways of the two wings that make up an L-shaped plan. In the eastern wing, classrooms face and receive natural light from the inner courtyard, while in the southern wing, classrooms face Matei Voievod street.

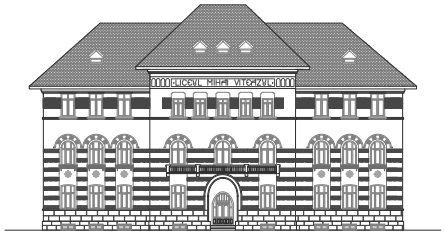
The volume of the building has two endpoints, of a slightly different height. The first one, overlooking the boulevard, hosts the festivities halls and a monumental library. The second one contains the two-leveled gym. The high school consists of equal parts built and unbuilt spaces. The significant height of its levels emphasize the imposing character of educational buildings of that time.

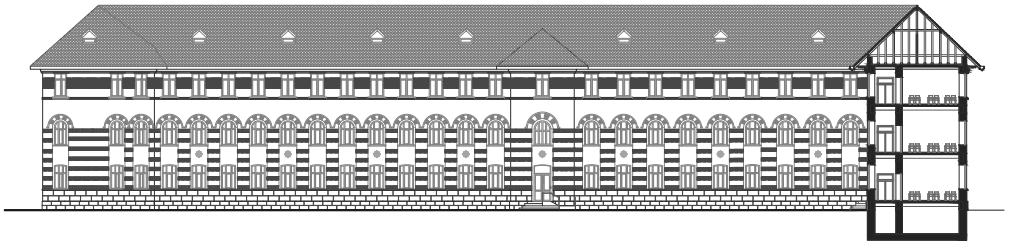
Ceramic tiles decorate the facades alongside the window frameworks and the artificial stone of the socle. On the façade overlooking Matei Voievod street, crests appear in relation to the skylights. The southern wing façade stands out due to the windows that retain their original metal joinery and its upper floor terrace. The interior spaces are simple and lack decoration. The floorings, however, are treated with a geometric pattern.

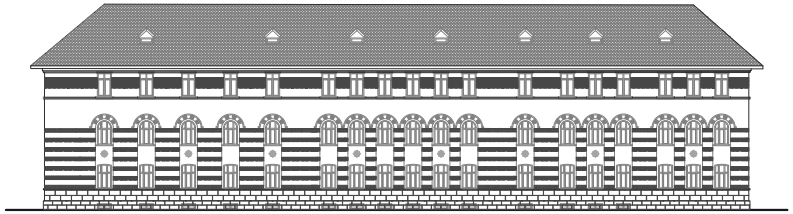
Mihai Viteazul National College is a landmark for the area in which it is situated, due to its monumentality and educational function.

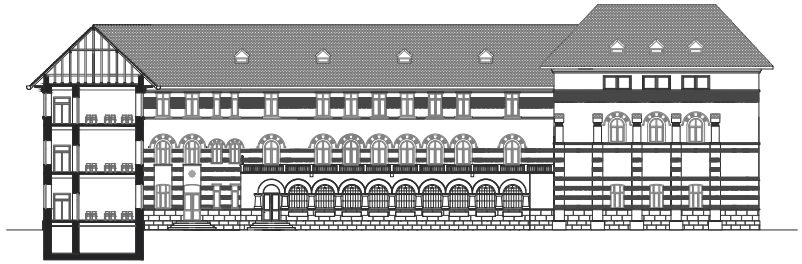


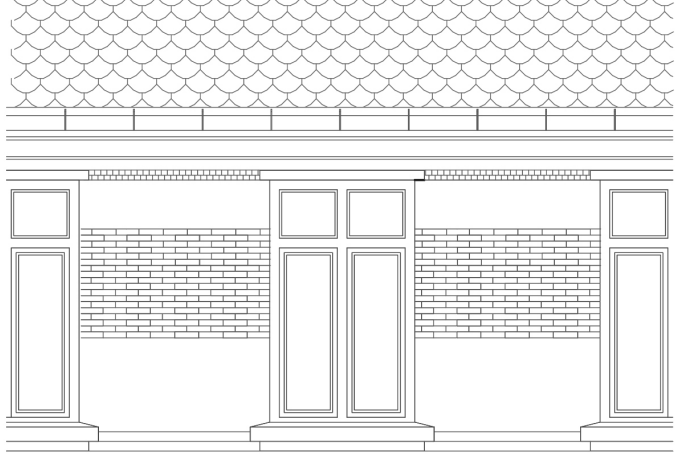


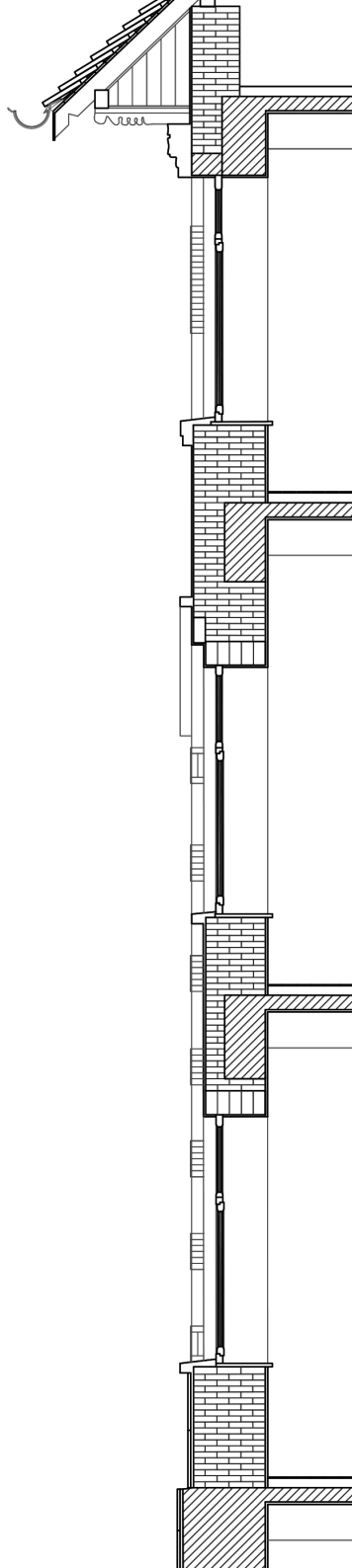




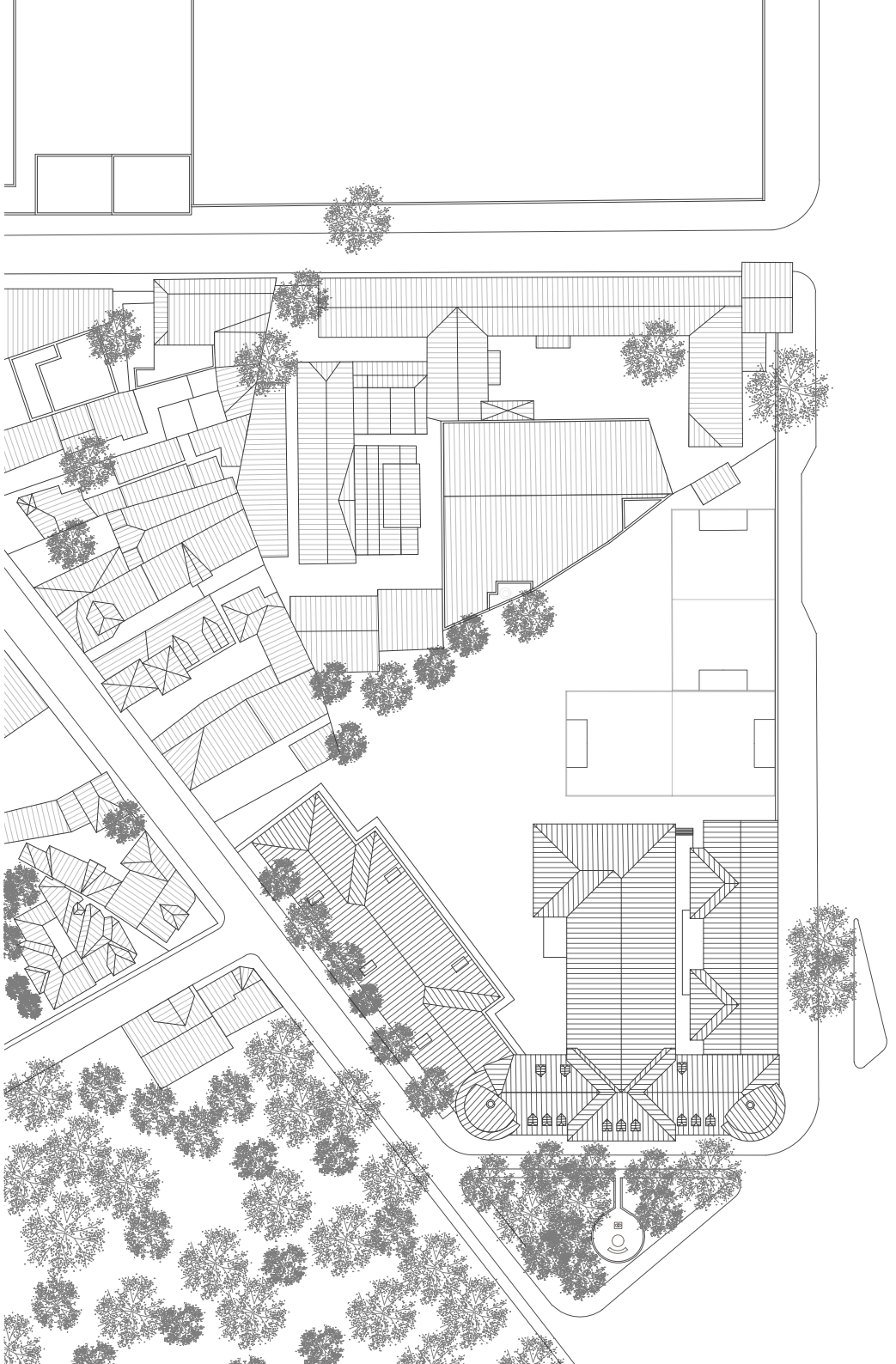






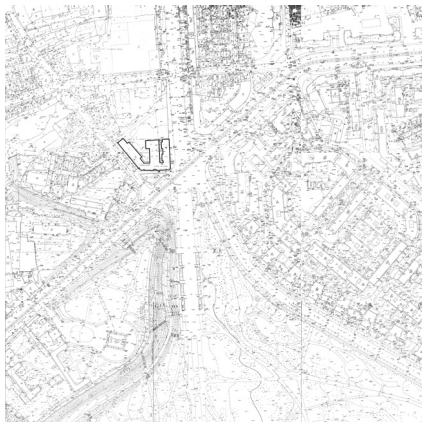


GHEORGHE ȘINCAI



1852

1911



1995

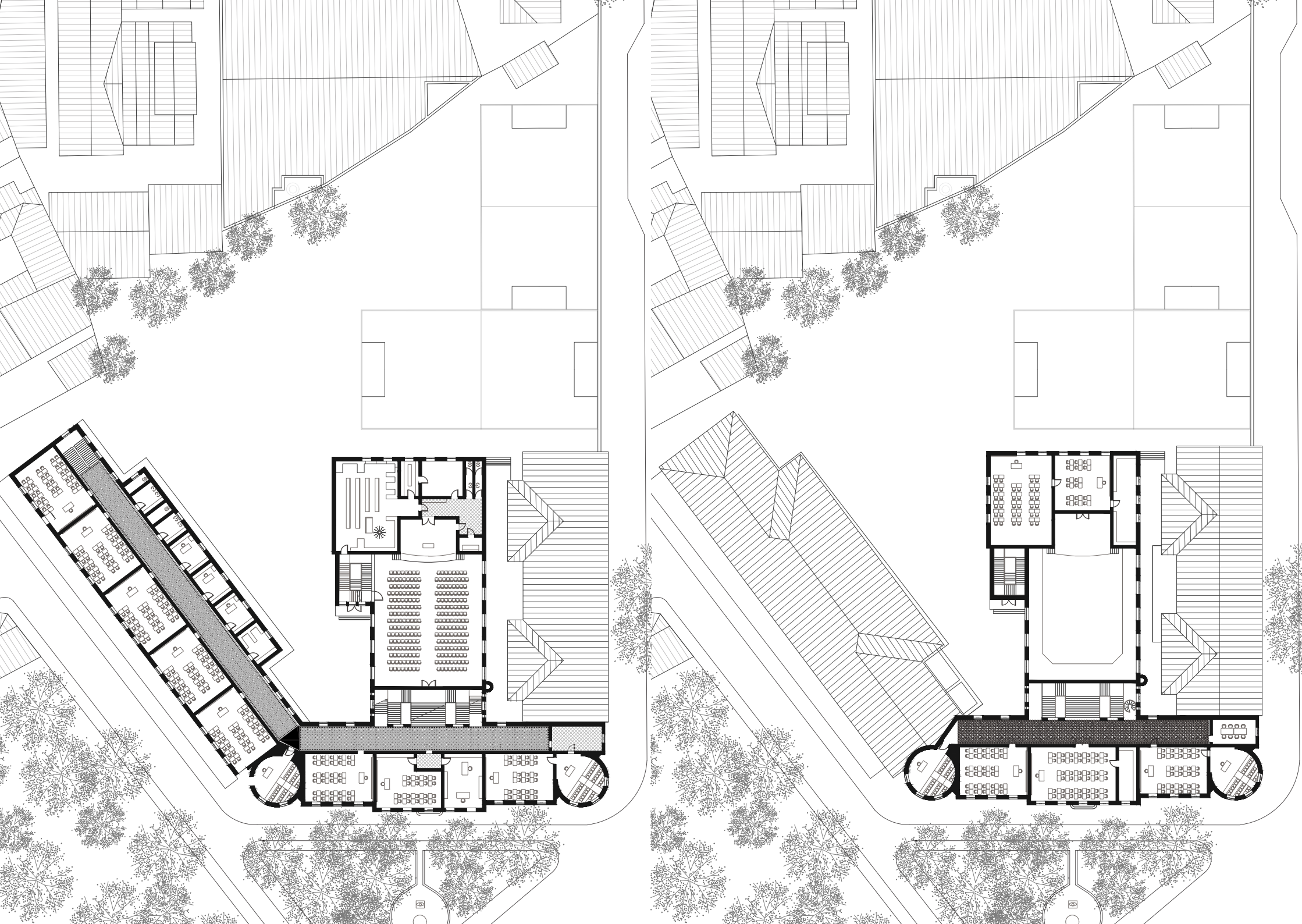
Gheorghe Șincai National College is situated in a special urban context, in the northern extremity of Tineretului Park, at the intersection of Cuza Vodă street (currently Gheorghe Șincai street), Dimitrie Cantemir boulevard and Șerban Vodă Avenue. The oldest roadway to define the area, Cuza Vodă street, descends the hill and splits in the intersection.

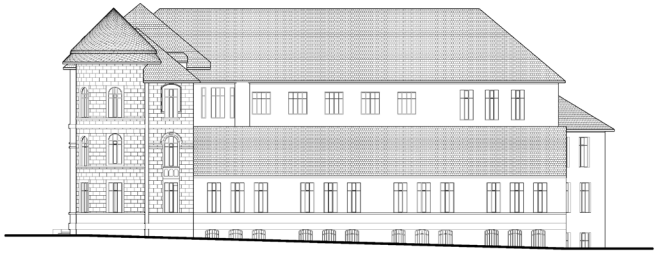
The area was subject to major urbanistic interventions. The college building, after being finalized in 1928, served as the main tool for the intention to draw the north-southaxis of Bucharest. Șerban Vodă Avenue was straightened while the construction took place to fit the corner volume and facades of the new building. Dimitrie Cantemir Boulevard was opened in the 1960s, on the eastern side of the building, to finalise the current intersection.

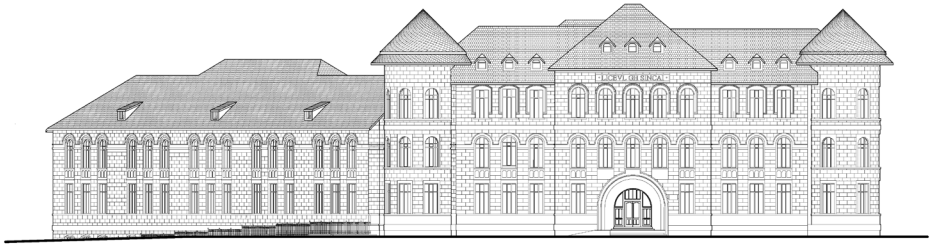
The volume of the building serves as a dominant, its height following the topographical slope, while creating interior spaces with exceptional proportions. The resulting image not only showcases the importance of the educational program, but its representative nature also contributes to the appearance of the intersection.

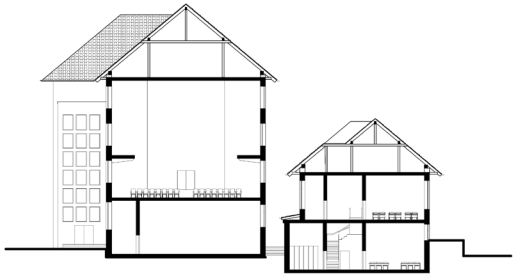
Alongside its main body, the initial building has been extended through a western wing, gracefully following Șerban Vodă Avenue. A one-level and semi-basement eastern wing was added after the completion of Dimitrie Cantemir boulevard in 1960, fulfilling the need to relate to the newly constructed front. The staircase connected to the central festivities hall was also altered.

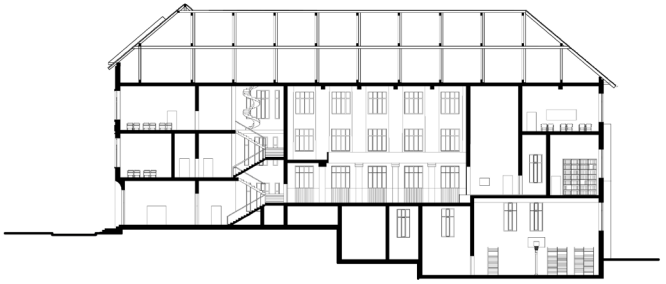
We presume the high school to have been initially thought out as symmetrical, having a secondary wing, identical to the one on Șerban Vodă Avenue, so as to relate to Gheorghe Șincai boulevard, on the eastern side. However, due to the urbanistic interventions of the 1960s, the layout of the high school has remained in its current state, split by the new Dimitrie Cantemir boulevard.







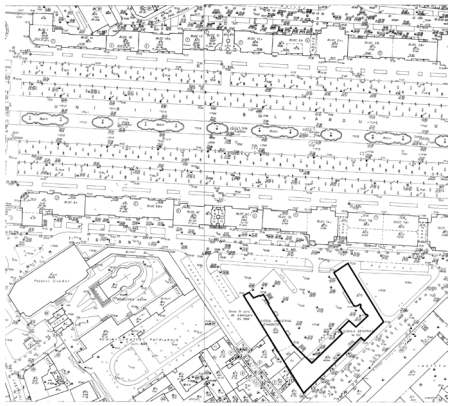




MIHAI EMINESCU

1852

1911



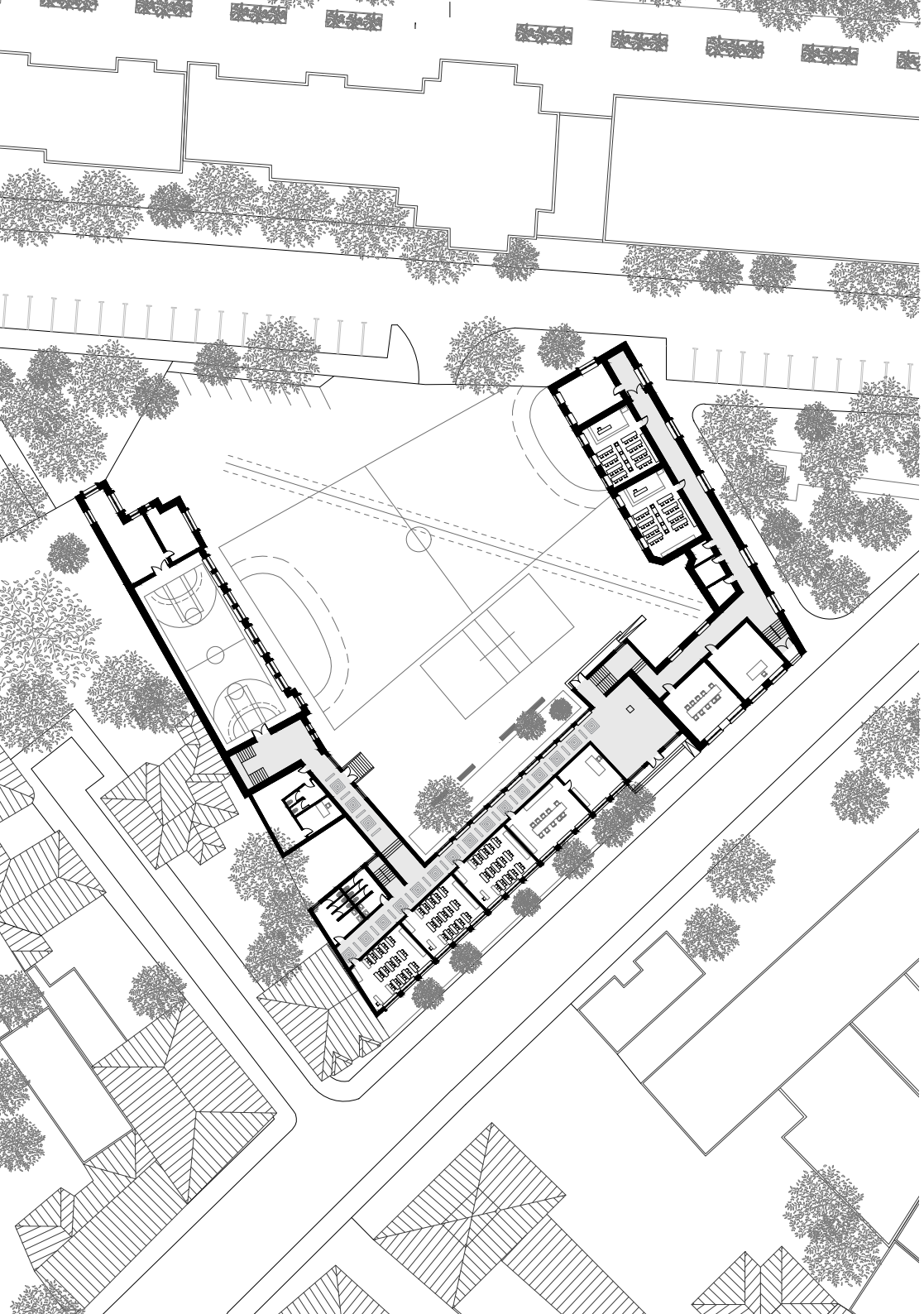
1995

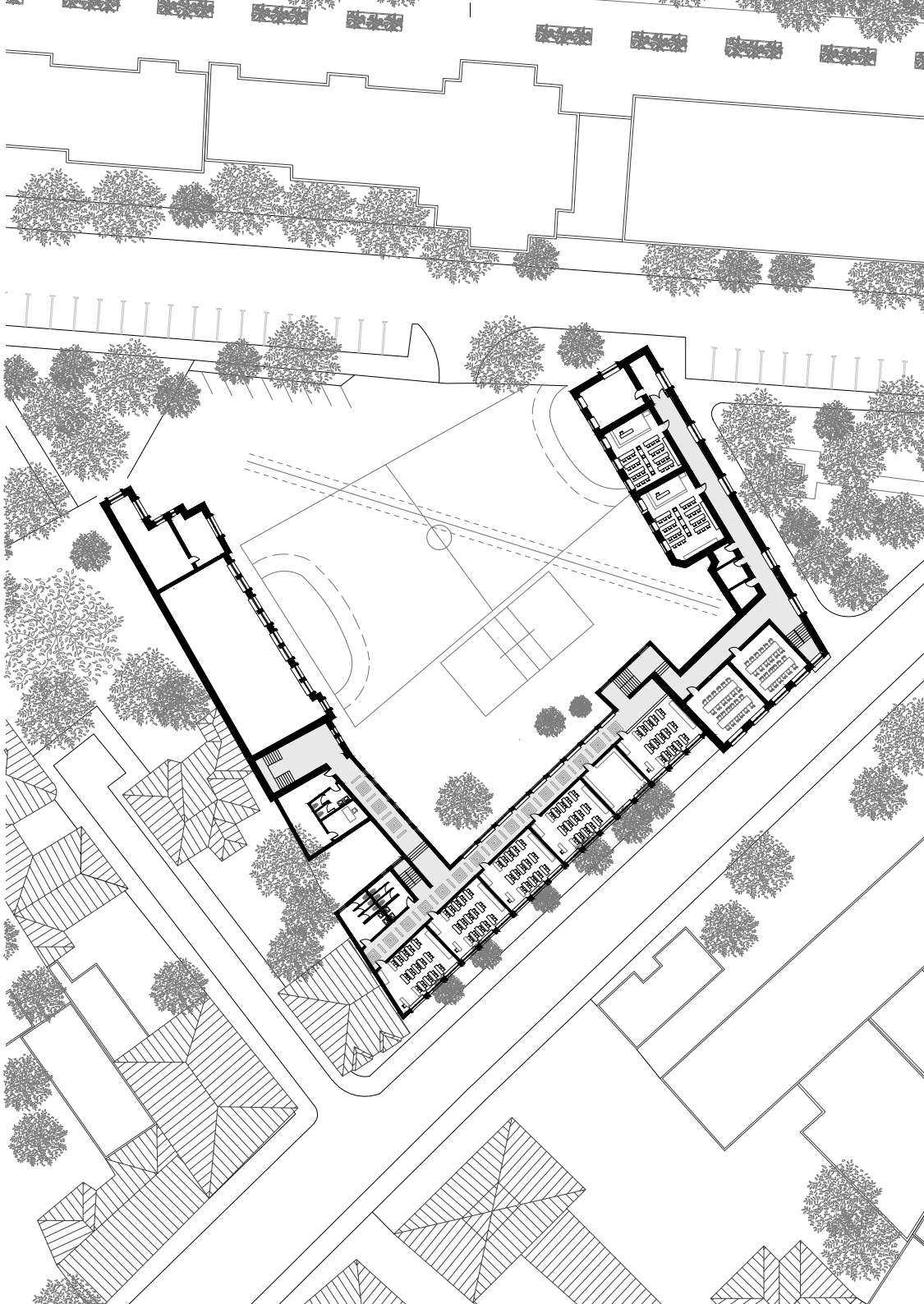
On September 1st 1926, Mihai Eminescu National College opened on the site of the former No. 31 Pimary School in Floreasca. It consisted of two volumes: the old manorial house, a larger building dating from 1860, and a smaller construction, dating from the first half of the 18th century. Up until 1958, Mihai Eminescu high school had maintained its old site and status from before the educational reform as a boys' school. At the end of the 17th century, as part of the systematization plan of the city, the area where the high school was located was also demolished. In 1982, the old site and appendage were demolished while keeping the more recent building as a base for the new one to be built.

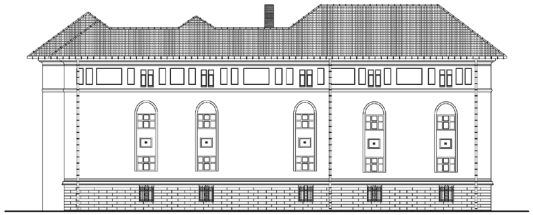
The much larger volume of the building stood out in its urban context, and soon became a landmark. The high school exists in relation to the city and the local community which demanded its construction.

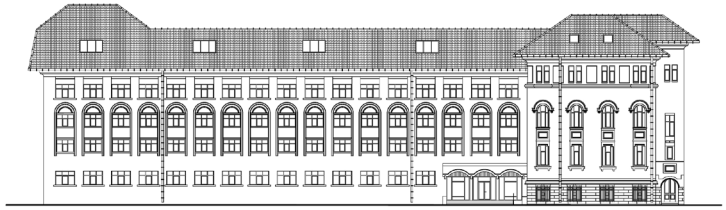
We consider the high school to be a pastiche, as the building follows the style of the housing blocks constructed in the '80s in Bucharest, without having any aesthetic value.

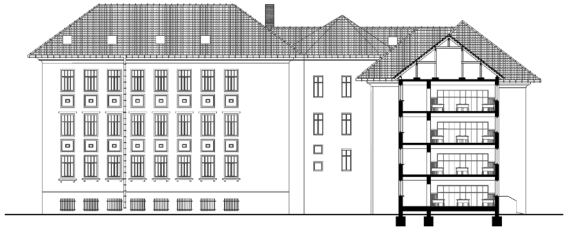
The layout of the high school consists of three volumes pointing in cardinal directions. The main body is South oriented, while the other two face East and West, respectively, both having hallways towards the inner courtyard. Classrooms are rectangular and are situated along a hallway.



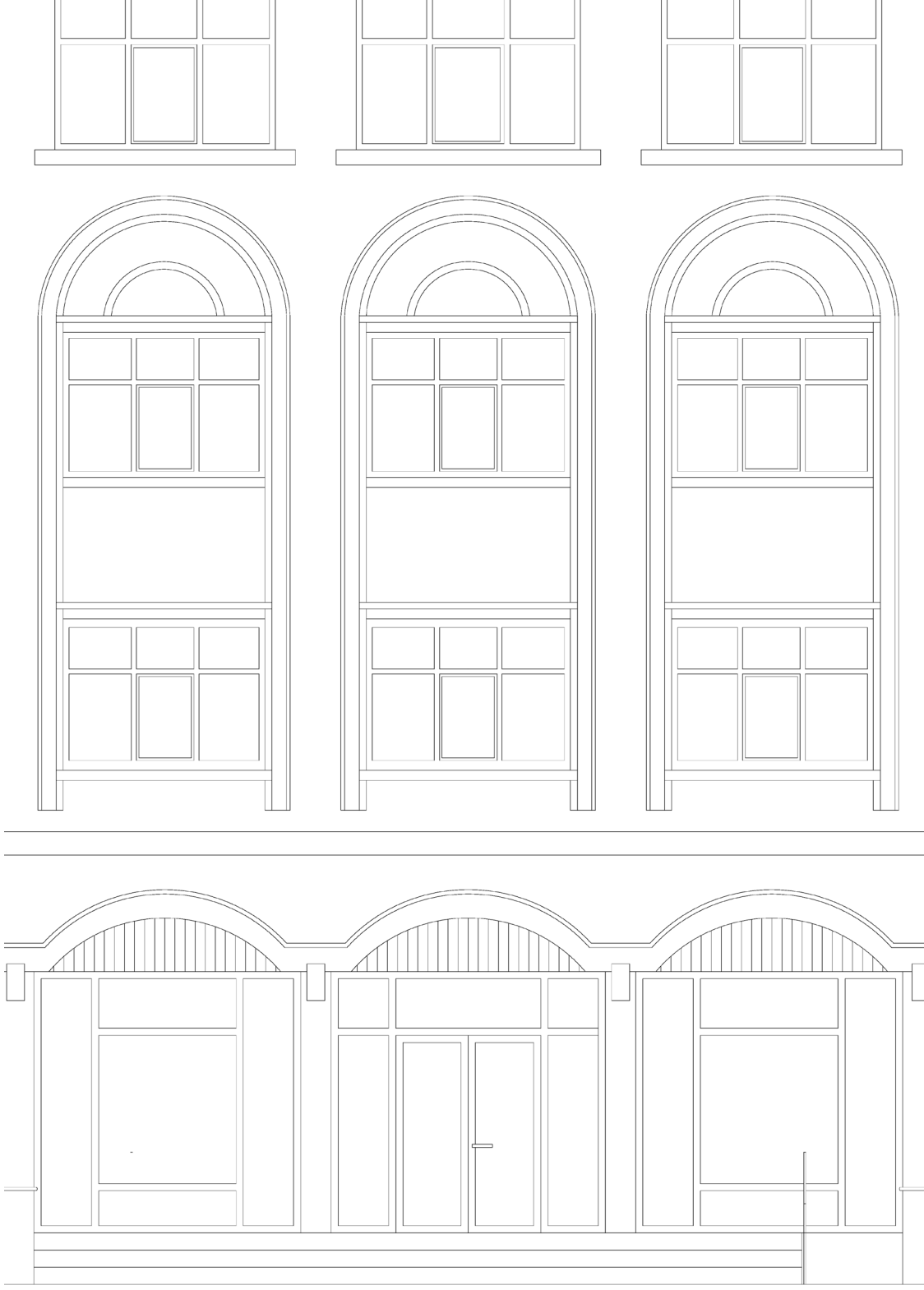






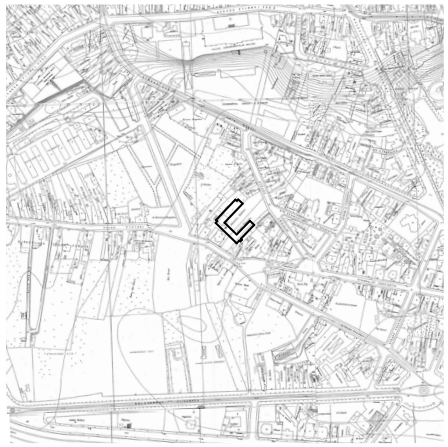


MINISTERUL EDUCAȚIEI NAȚIONALE ȘI CERCETĂRII ȘTIINȚIFICE
COLEGIUL NAȚIONAL MIHAI EMINESCU
CLASELE I-XII
BUCUREȘTI, SECTOR 4



MIGUEL DE CERVANTES

1852



1911

1995

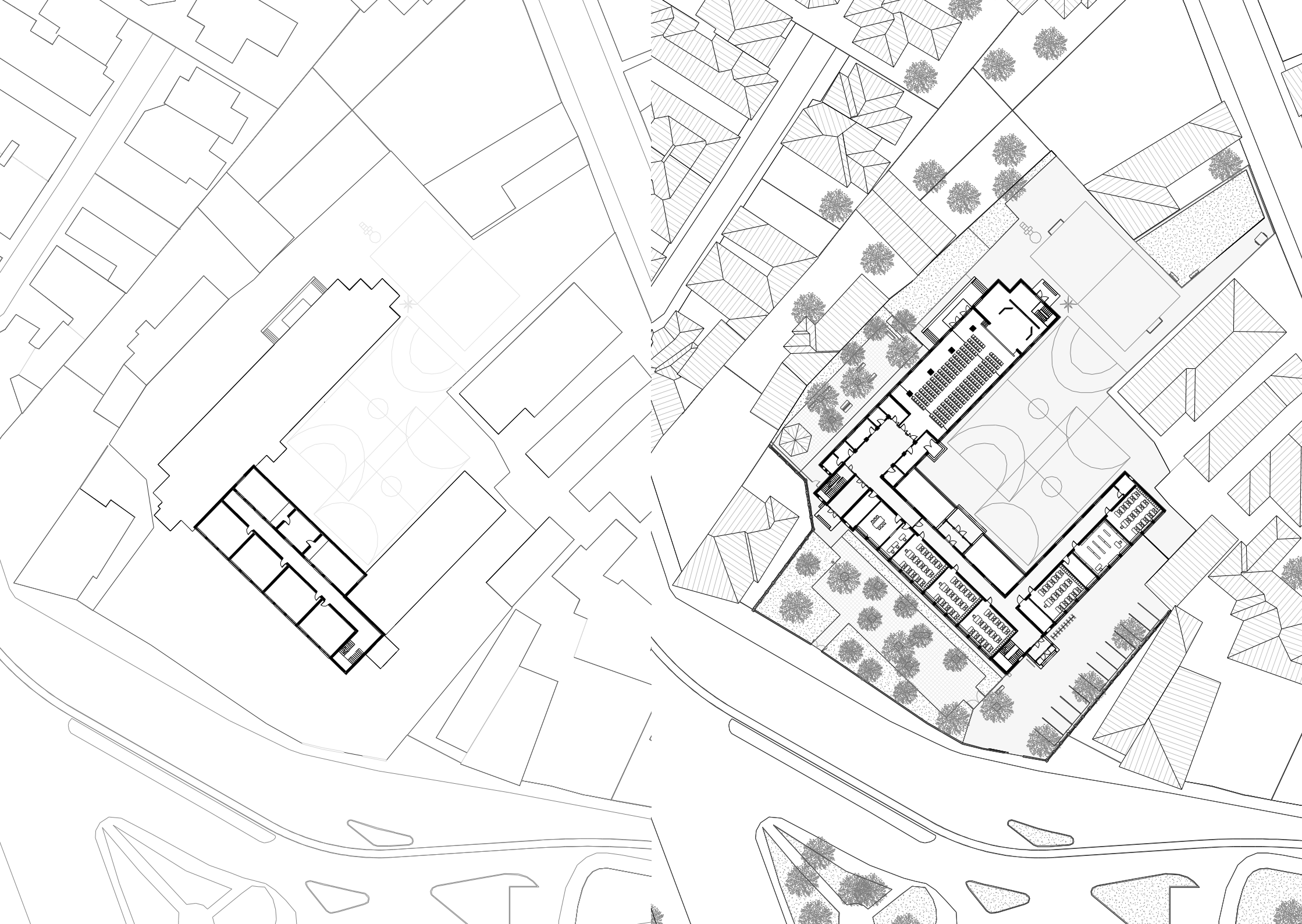
Miguel de Cervantes Bilingual High School was built in 1959 as a secondary school, presumably as one of the type projects developed in 1959 which featured 24 classrooms in a U-shaped monoblock layout.

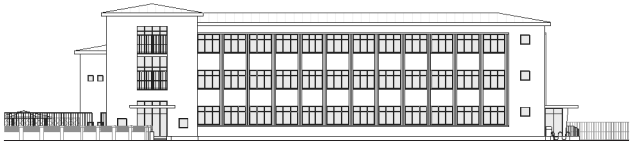
In 1958, Romania officially adopted the principles of rational construction imposed by Nikita Khrushchev in the USSR since 1954: economy and industrialization. Type plans emerged as models for economical, rational schools, which can function anywhere in the country. The type project for a school with 24 classrooms, designed by the architect G. Cristea resembles the layout of No. 165 Elementary School, the current Miguel de Cervantes Bilingual High School. Although the U-shaped plans are similar, the type project foresaw separate pavilions for the gym and festivities halls, while Cervantes High School incorporates them in one of the lateral wings of the buildings.

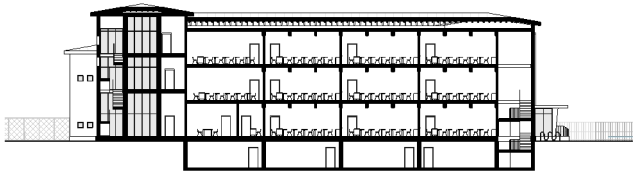
The high school is close to the Saint Emperors Constantin and Elena Church, its plot consisting of several previous plots of irregular shape crossing across the urban block. The placement of the building favours cardinal points, as the wings containing the classrooms face South, over the plot's limits or the alignment of the other buildings. Its location in a predominantly residential area previously lacking an educational institution points towards the rational theory of neighbourhood units. The building is set backfrom the alignment, being separated by a planted courtyard entrance, making it a subtle presence in the urban fabric.

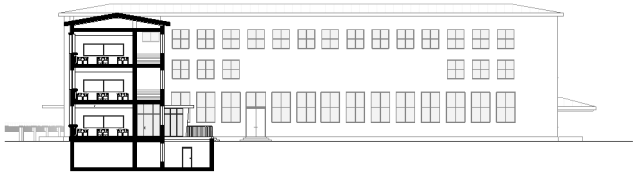
So as to receive as much natural light as possible, classrooms face South and hallways face the inner courtyard generated by the U-shaped plan. In the north-western wing, the ground floor features a festivity hall and a gym hall at the upper level.. The rest of the wing consists of appendages, offices and administrative spaces. Due to lack of space, as the former secondary school was eventually converted to accommodate classes spanning from age 0 to 12, several classrooms and laboratories were improvised in this wing.

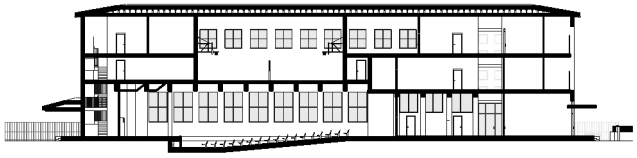
Overlapping the rigorous and rational plan of the high school over the irregular shape of the lot creates "accidental spaces" in the form of several yards surrounded by blind walls and fences from the nearby houses. Those "in-between" spaces with their lack of planrigour are what humanize the school experience that would have otherwise been a well optimized educational machine.

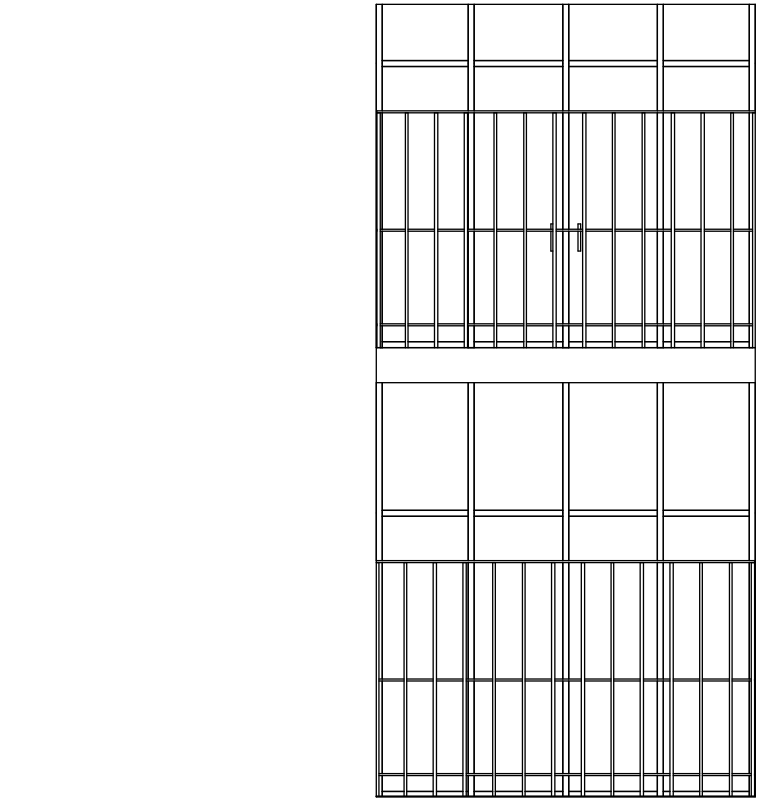


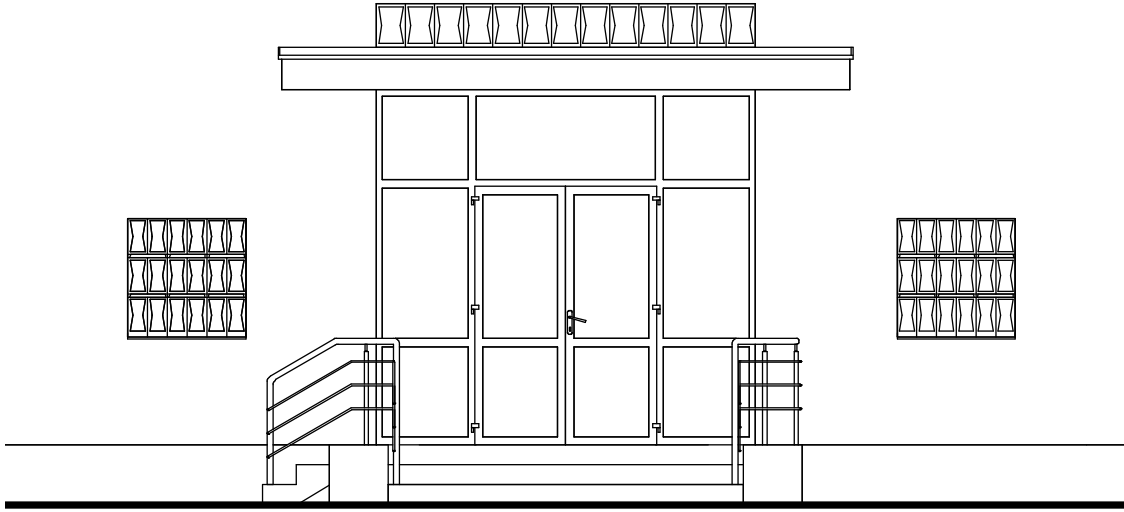


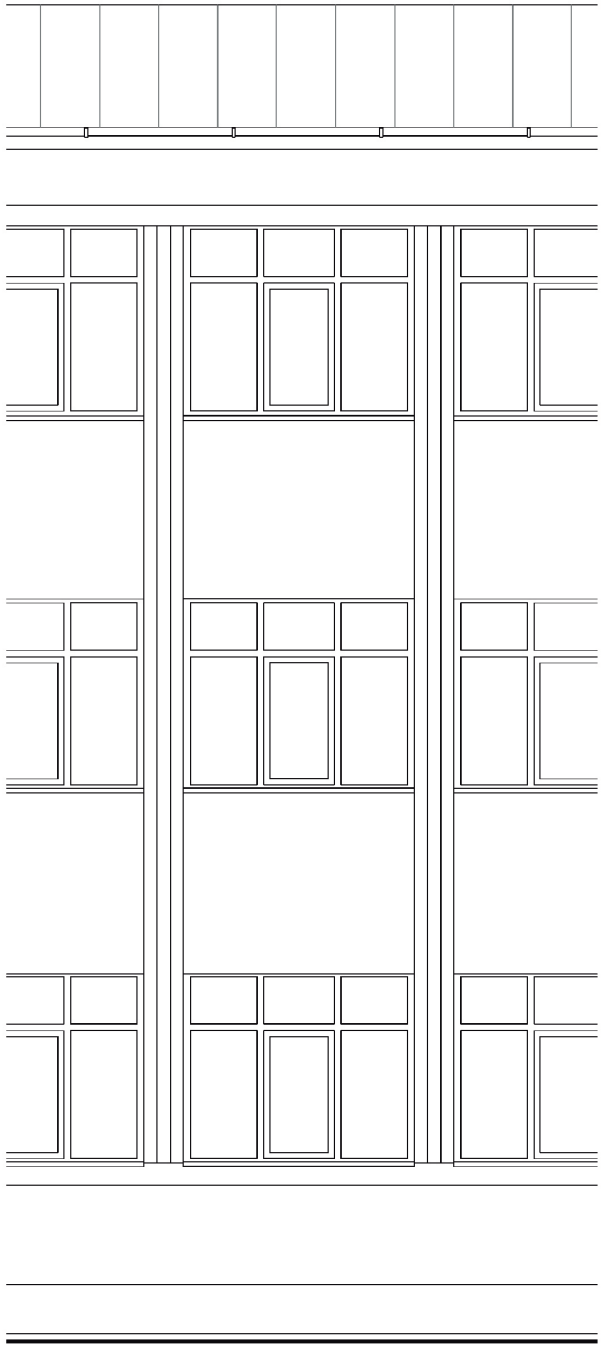


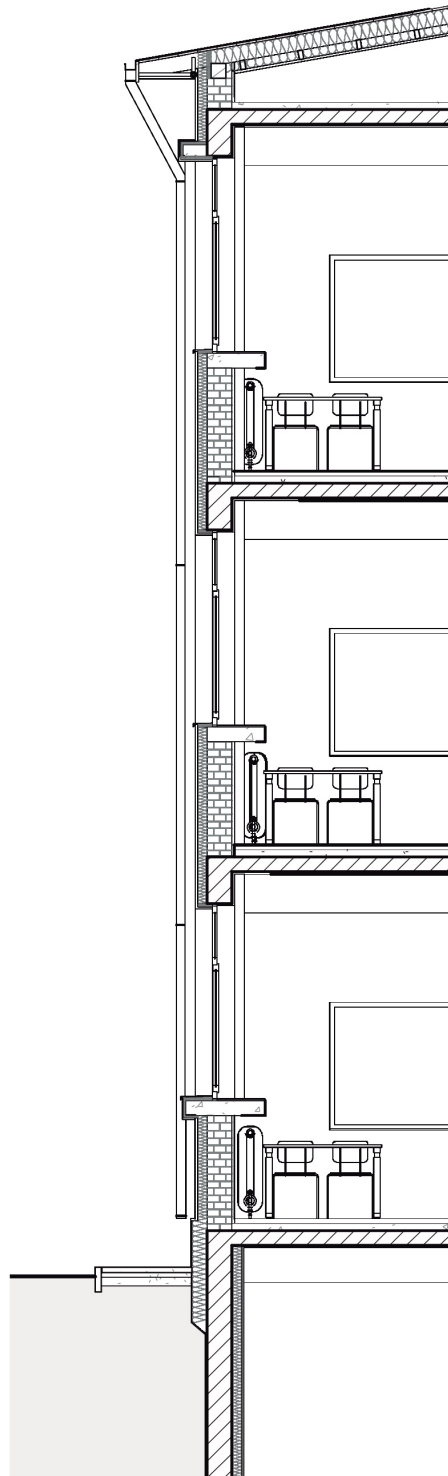






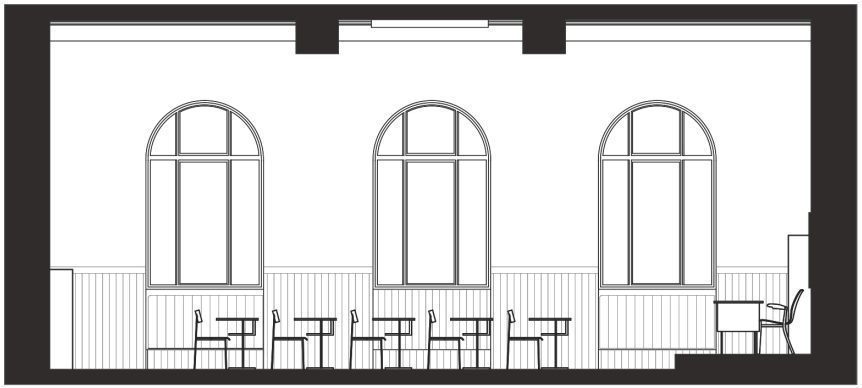


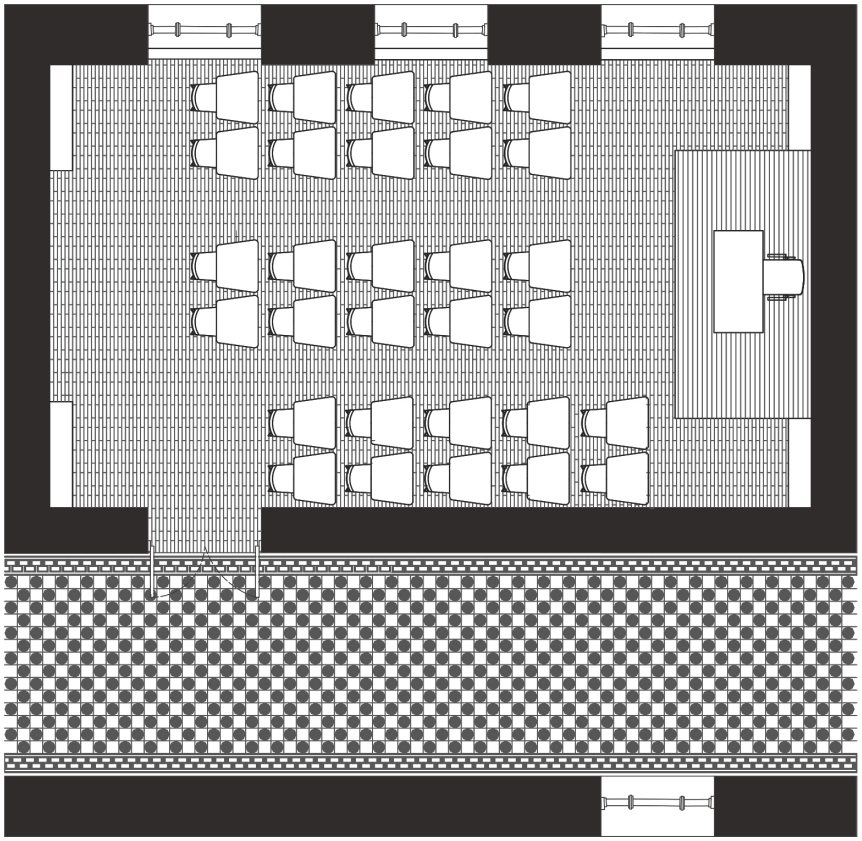




CLASSROOMS

SFÂNTUL SAVA





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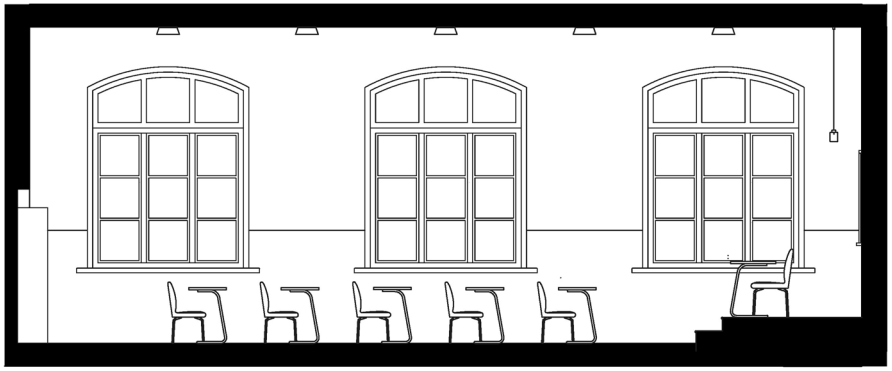

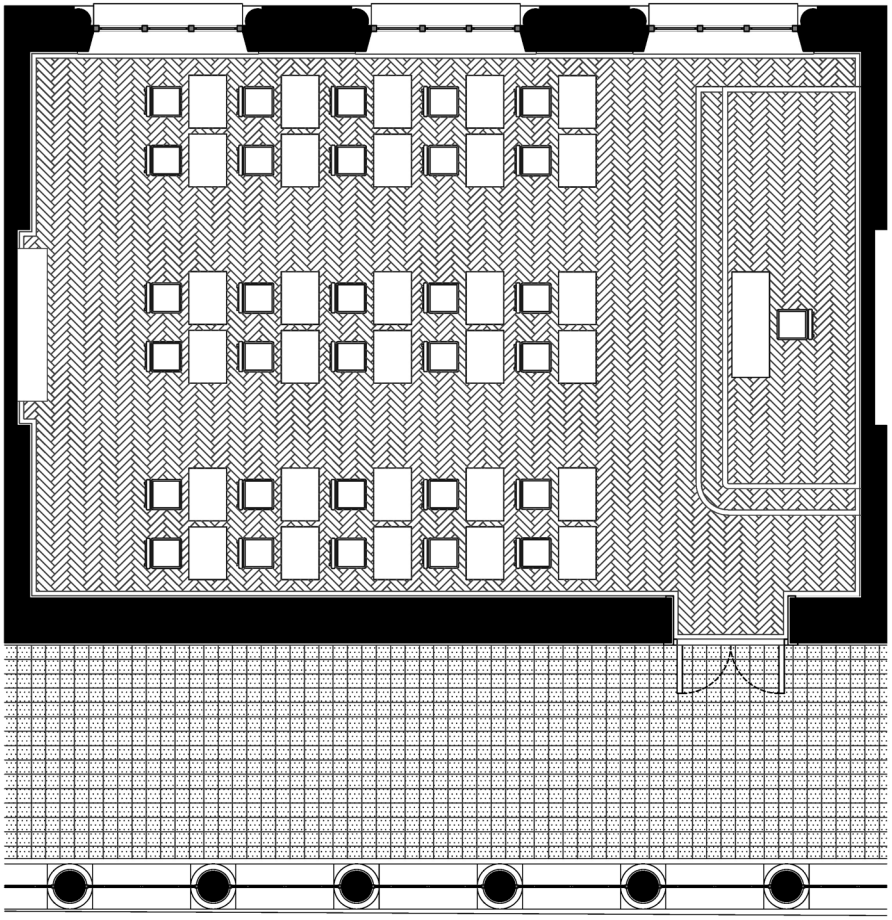

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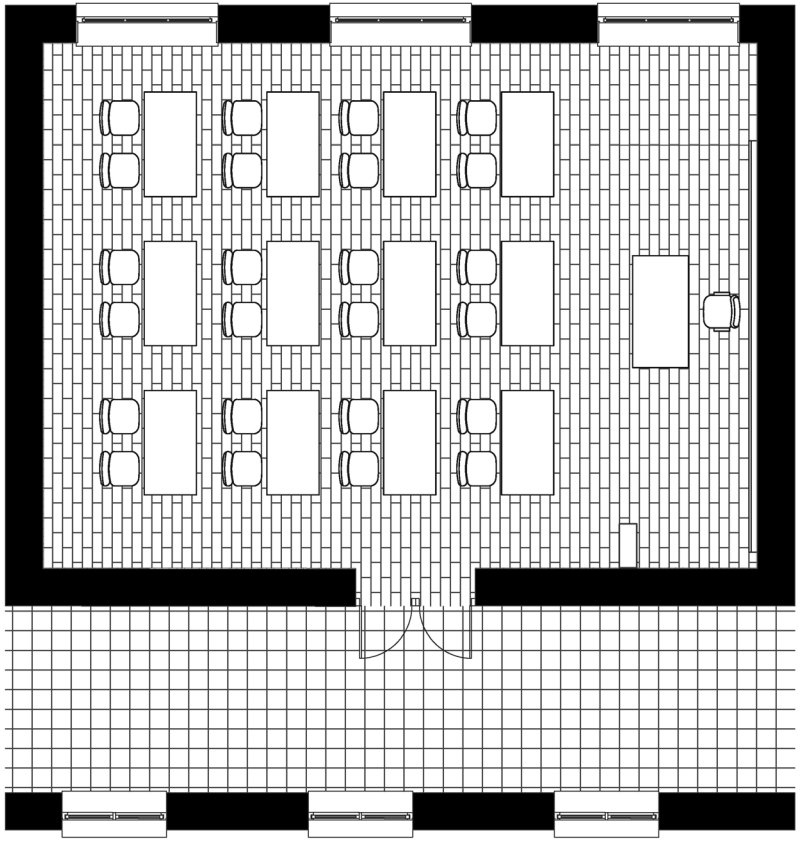

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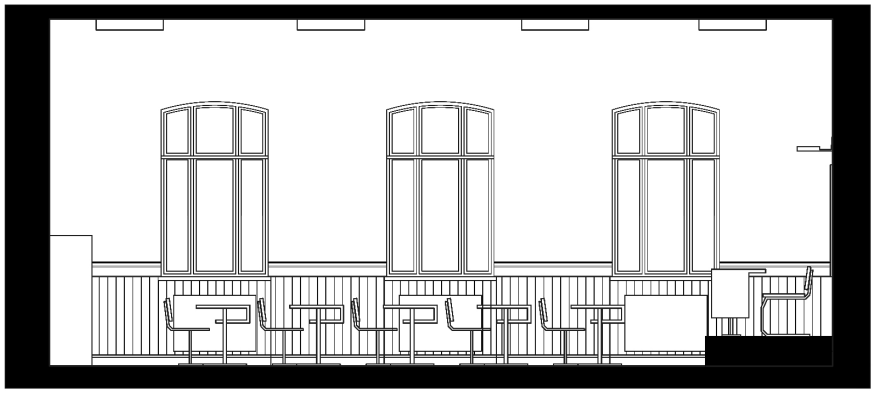

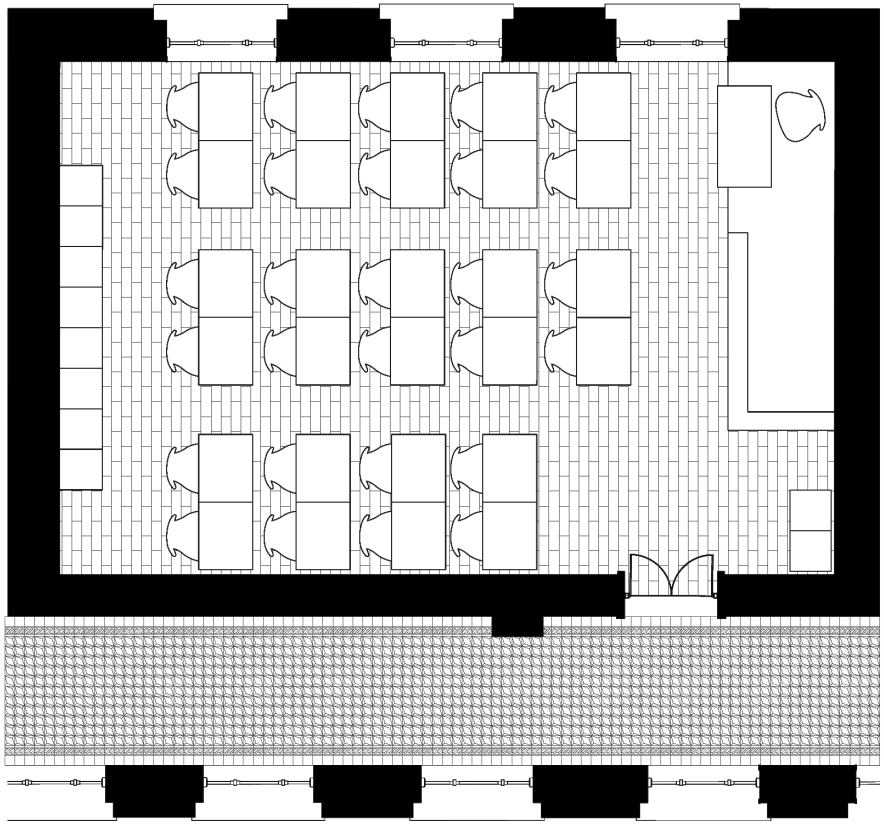

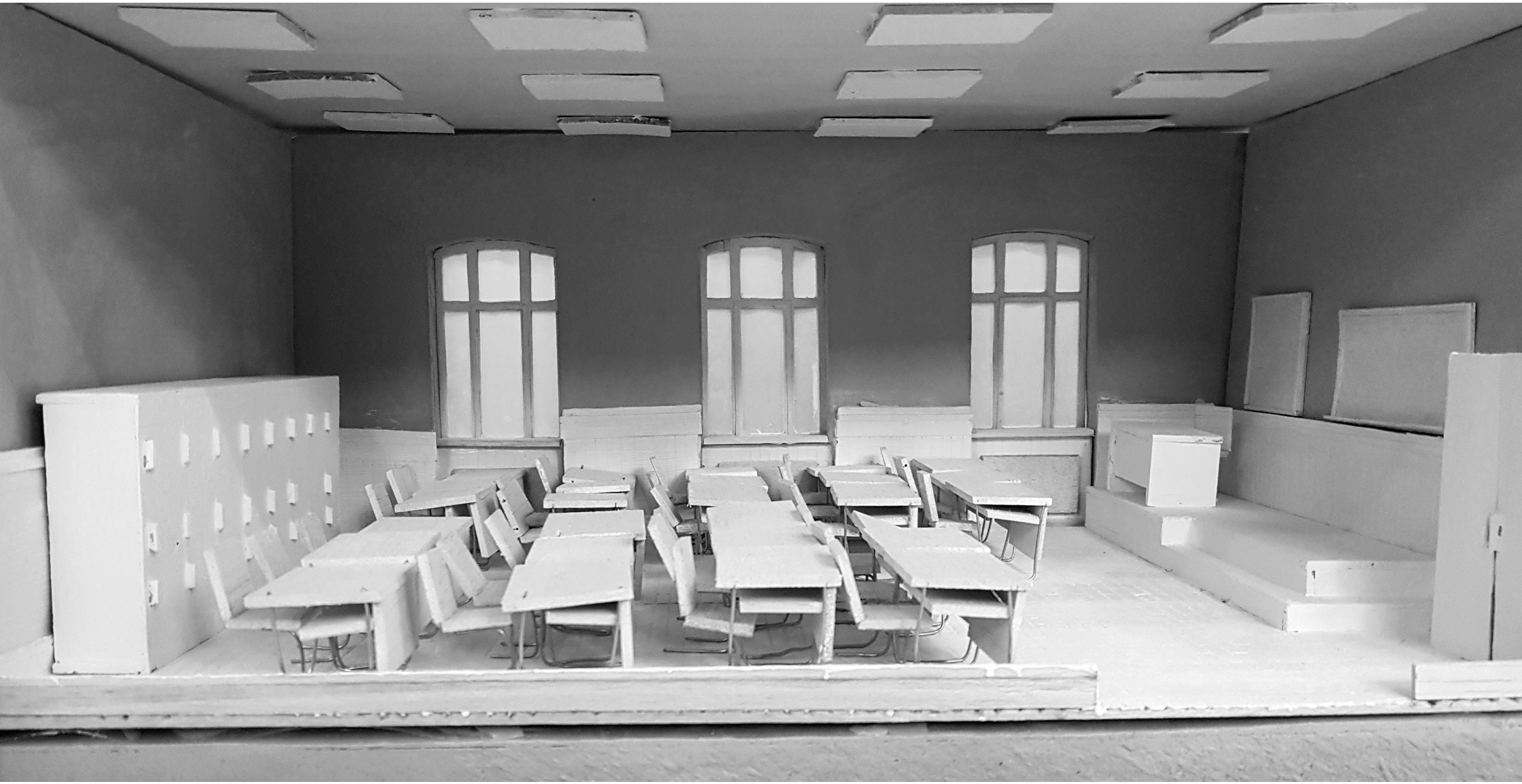

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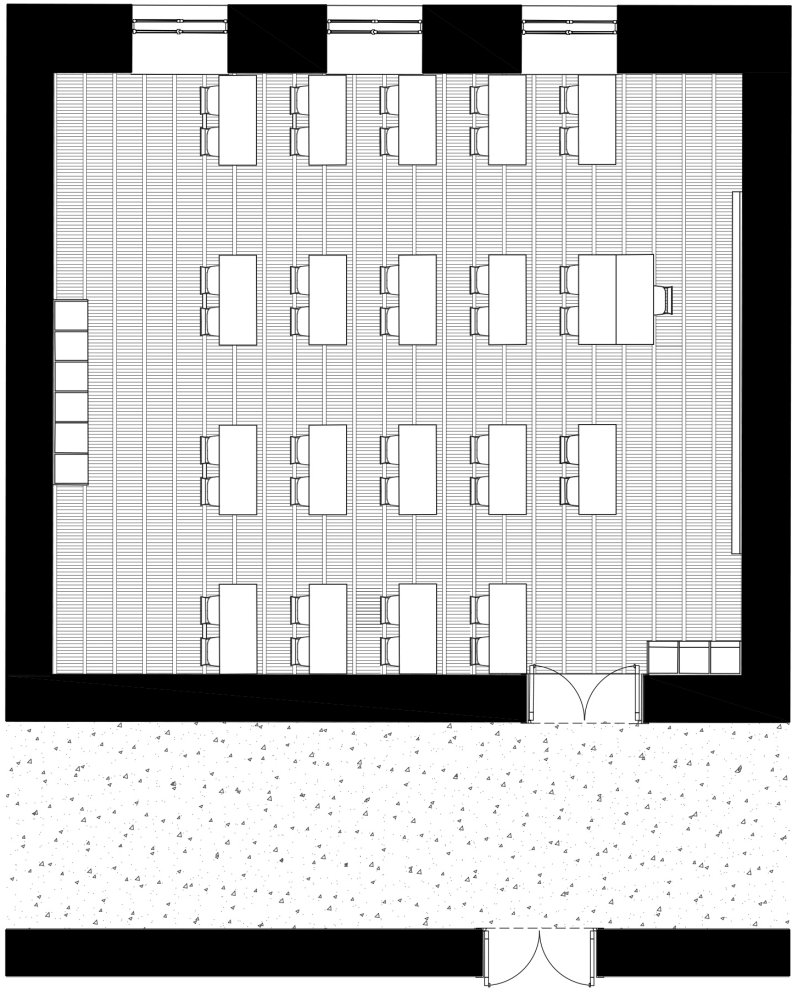
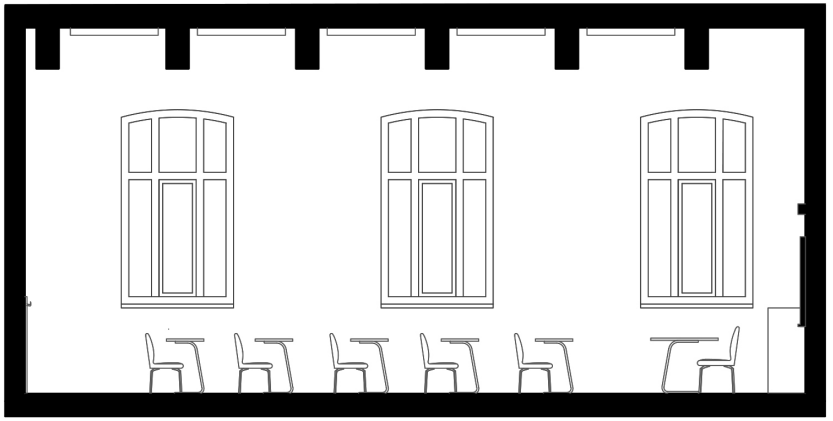
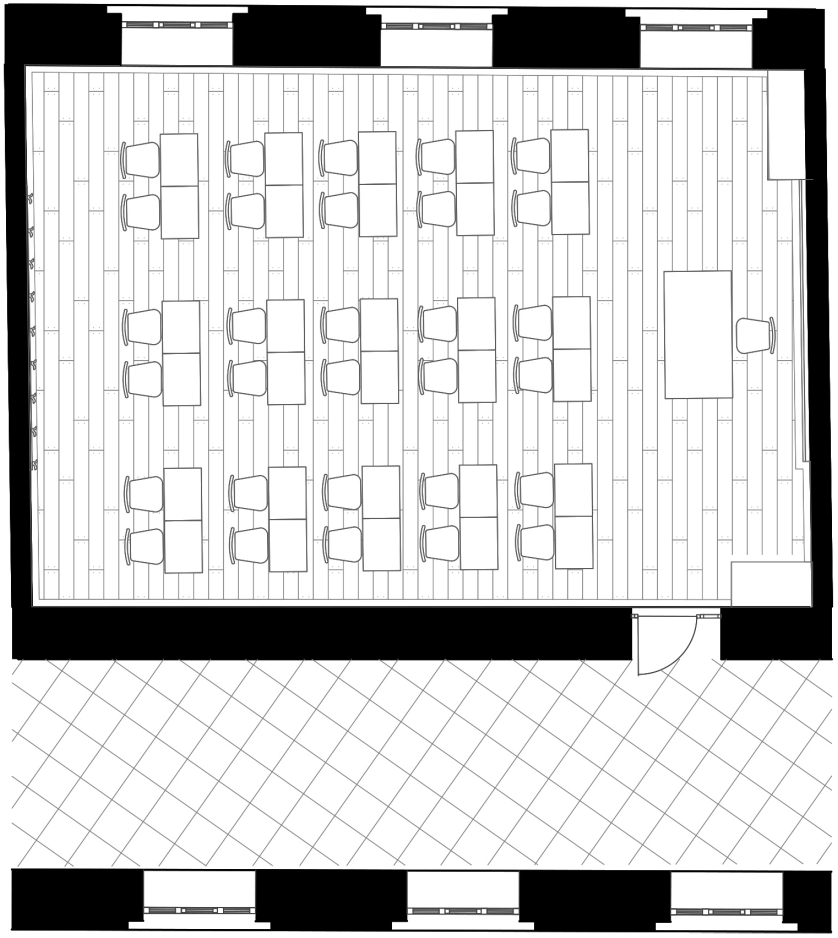
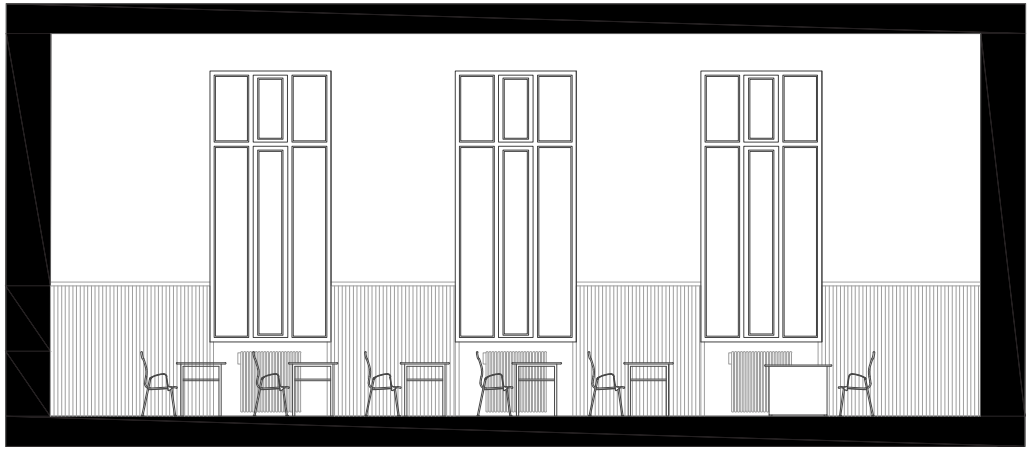


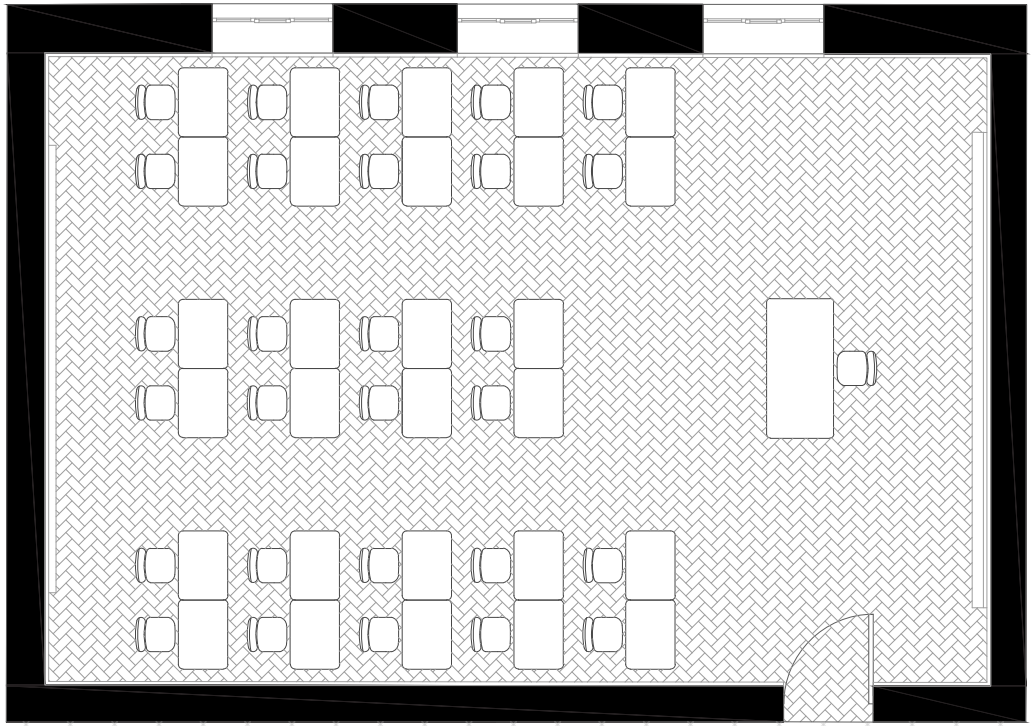
MIHAI VITEAZUL





GHEORGHE ȘINCAI





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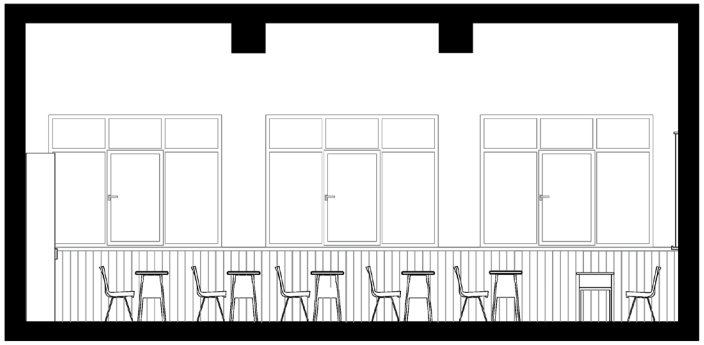
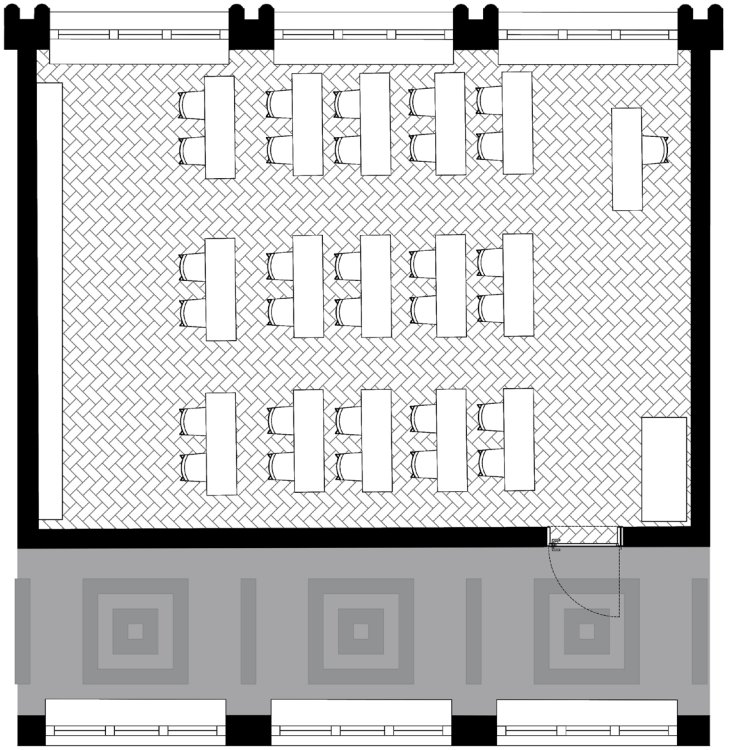
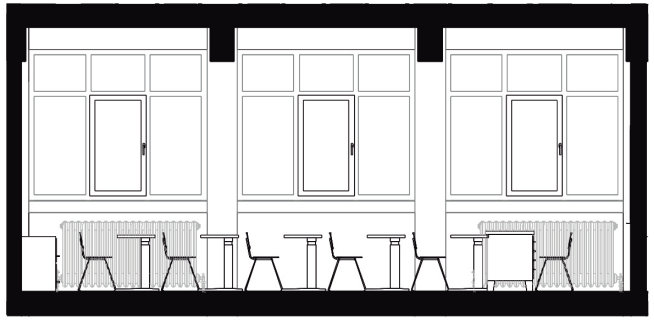
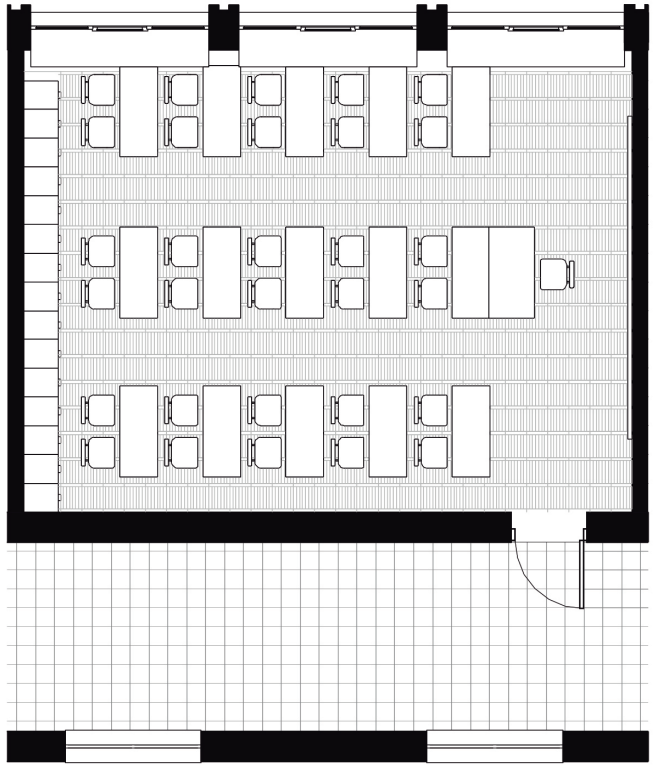




MIGUEL DE CERVANTES





POLEMIC

Is there an essential space to the School?
Varudh Varavarn

Is there an essential space to the School?
Gilles Delalex & Yves Moreau, MUOTO

Is there an essential space to the School?
Michael Meredith & Hilary Sample, MOS

Should the School be a Public or Private Program?
Paola Aguirre Serrano

Is the School a geographically-defined program?
Christine Fontaine

Can the School be imagined as a playful activity?
Eliza Yokina

Is the Schoolyard needful anymore?
Laura Cristea

Can you throw the ball over the fence please?
Cristi Borcan

Is there an essential space to the School?

When discussing about “essential spaces” in schools, a variety of images may come to mind: spacious(modern) school buildings in eco-friendly environment, high-quality teachers, well-equipped classrooms, efficient internet connections, all being used enthusiastically by happy and healthy students.

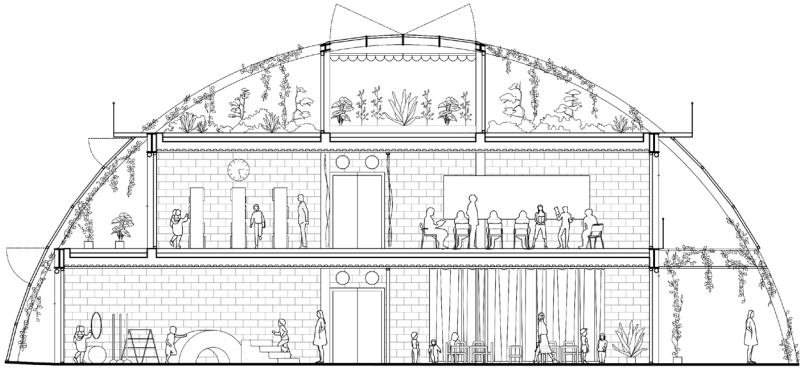
The schools I have opportunities to work with are far from these ideal situations. They tend to be located in remote places or hidden in inaccessible areas. Their wildest dreams for essential learning spaces do not venture beyond having basic classroom with simple desks and chairs, clean food and water, and being sheltered from heat, rain and natural disasters.

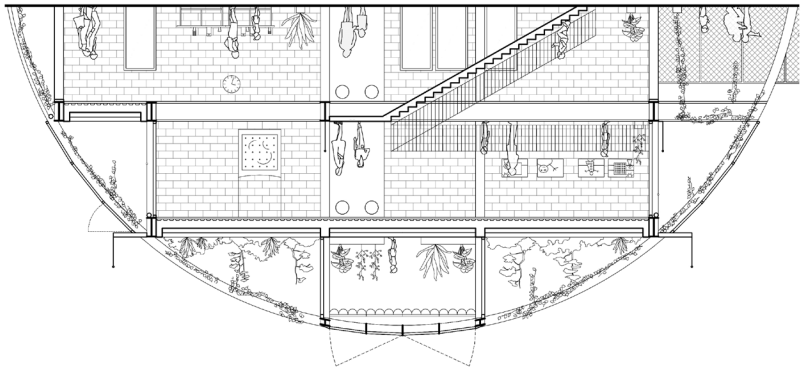
These schools exist in many parts of the world. Some have long suffered from the nature of their locations such as being in inaccessible mountainous ranges or being in communities surrounded by water. Others may be the direct consequences of certain sudden natural disasters. In these schools, the students may not even understand how “architects” or “architecture” can help to improve their lives.

For me, I have come to realize that the concepts of “essential/ideal” school spaces differ widely between well-endowed urban schools and disadvantaged rural schools.

For urban schools, the parents expect and are willing to support the schools to have all the facilities necessary for a holistic development of their children. The functions of the schools in remote rural communities, however, extend beyond being a learning place only for the young. The schools must also provide common spaces for the entire community for meeting, cultural events and all forms of activities. We have discovered from our experiences that by creating a conducive environment within the school, we are also reaching out to enhance the quality of life of the community and in turn, bringing about positive impacts upon the children.

Having worked with schools in many localities, I have come to appreciate their unique characters , needs and concerns, quite similar to the rich diversities we can find among children. Influenced by their specific environmental conditions and upbringing, children possess different personalities, interests, talents , potentials and require suitable developmental supports. For these reasons, in designing the “essential spaces” for the schools, we cannot impose any “One size fits all” concepts but must fully understand the special conditions of each school, and the ecosystem which encompasses the students, the teachers, the parents and the communities.





Is there an essential space to the School?

There are as many types of schools as there are societies. In France, for example, the republican model dominates, and undoubtedly defines a space of its own. When you look at the program of elementary schools, you always find contradictory demands of closedness and openness. The buildings should at once open to the city, and ensure the protection of children. This contradiction is at the heart of the republican ideal of laicity which implies to create buildings that are similar to islands of neutrality, providing a specific space where diversity is deliberately neutralised, as a means to protect children from difference and conflict, both among them and from the outside. When you think of it, it is a strange conception of publicness as you can only achieve it by means of a hermetic inner-space. This inner-space is an allegory of the Republican values. When you realise that, it becomes clear that schools do not serve to teach children grammar or mathematics, as much as they serve to integrate them into the system, and ensure that they learn the rules of the society that are going to live in. They are like micro-societies where kids rehearse their future social position.

Is there an essential space to the School?

The window is the most important space of a school. Windows, not the OS, but the thin spaces between inside and outside, between ourselves and others. Instead of occupying the window, we look through it - as a frame, a transparency, an opaque solid, a surface, a reflection. The window is a construction that depends on your point of view. It can be a door, a wall, a screen, or almost nothing at all, fading from focus. They come in different shapes and tints. They are fixed or operable. Personally, we like large square windows, neither portrait nor landscape in orientation, and big enough to walk through, to escape wherever you are. While in school, we need to be reminded of the world, of the things outside our body of knowledge, outside of our education, outside of us. Windows provide a picture, a desire, a reminder of doubt, the unknown or unknowable, and the possibilities of something else.

Anthony Overton school was closed in 2013. Now a private building, and while it waits for its redevelopment, it provides a space for the community to come together.

Should the School be a Public or Private Program?

As I was reflecting on this question, it led me to this other one: is education a fundamental human right or a privilege? Should the quality of our education be dictated by the places where we live in? As we continue to see our education systems follow and being shaped by the values of capitalism, the notion of public education becomes an *endangered species*. In my experience as a designer in a city such as Chicago, it has been interesting to learn how the education system in the U.S. has established ways to reinforce segregation of class and race by using funding and management mechanisms. To illustrate this is important to understand two main distinct features of the education system in most U.S. cities. Firstly, access to education is dictated by school districts where the tax income from the properties surrounding schools are allocated into the school's budget. Poor or wealthy neighborhoods fund their own local schools. Geography defines quality of education, and education becomes then a real estate pursuit. Secondly, public-private education models such as "charter schools" (schools built and operated with public funding and managed privately), have utilized significant public resources for decades overwhelming the network of schools and without a clear accountability or community evaluation system. The consequence of these two policies has impacted our communities in unprecedented ways. In 2013, Chicago closed 50 schools across 25 neighborhoods due to under enrollment, low performance and budget cuts. Where the most infrastructure, resources and investment is needed, that's where these closed schools were located.

Schools should be public, but a different kind of public. I think the concept of the *public* needs to be reclaimed, redefined and reinvented. The *public* does not mean government, and our government systems are not the only representatives of the *public*. **The public is our communities**. Public schools should be community schools protected, overseen and enjoyed by the people who care the most about them – their neighbors, their staff, their students. Our schools should be The People's Schools.

Is the School a geographically-defined program?

If schools are thought of as worlds in themselves behind walls, generally sponsored by the state, are they nevertheless detached from their geographical definition?

Indeed, if the school immediately evokes the type and its built form as a paradigm, the variation of school models has always shown diversity and a continuous formal evolution.

From its beginnings, compulsory schooling was understood as an institution of assimilation, political and hygienic, for the teaching of writing and arithmetic, allowing a minimum of emancipation of the young person, but also intended to create reliable citizens.

If, during the 19th century, this model followed the momentum inspired by politics and produced many remarkable buildings that we know, such as the reformed schools in France Belgium , Great-Britain and America, we can note a number of variations on the same model - variations following available sites, materials, and prevailing styles. In parallel to these projects, the Freinet and Montessori pedagogies, for example, have also produced schools whose forms come from the original educational project and are even more adapted to their context.

The very existence of the building depends on its geographical area and on the encounter of a commission with an architect and a site. It must first adapt to a pool of recruitment of children of age to access education (local for nursery and primary schools, further away and in town for secondary schools), to the land available in the region, to its constructive materiality (materials available or produced nearby).

In Vorarlberg, for example, the number and shape of schools can be deduced from the altitude of the school. The higher in altitude, the fewer classrooms

there are. On the other side of the world, in Mozambique, the conventional type is replaced by a single room, housing a school and other uses, designed through a participatory process and an understanding of the land, in the small rural village of Chimundo. A third progressive example would be that of learning in informal places, where school is a simple relay of knowledge acquired elsewhere in contact with its local geography, in a theater, on a farm, in a kitchen or in a workshop.

It seems that the school would have everything to gain by fitting into its geography. What makes us fear this era of pandemic is that learning takes place outside the school, but also outside the context of society, preventing students from finding their place in the world and how to live together. If geography is concerned with the place of humans in their natural, cultural, social, economic and political environment, so too is the school curriculum, in creating links with its context.

Eliza Yokina

Can the School be imagined as a playful activity?

At the beginning, when I and my colleagues laid the foundations of the De-a Arhitectura* cultural program, I had a clear idea in mind, namely that architecture is not a closed discipline, only for architects, but it must belong to culture, which is acquired through tradition and education and should be accessible to everybody.

In the first year of the optional course Let's play Architecture in my City**, as a pilot lecture in several schools in Bucharest, we, as members of the association, attended some classes in order to observe the flow and the reaction of the children, so that later we could adjust certain aspects of the course and of the process of teaching architecture to the children. For us, that period brought a lot of light on school and education, our hopes being confirmed and our fears dismantled. We were then witnessing, in classrooms full of curious and enthusiastic children, a sense of strong energy in the air that instantly changed the space into a place of discovery, experiment and knowledge. Stories, images, but especially experiments and games were instantly absorbed, with an extraordinary capacity for understanding. I was often amazed to find that children can work with abstract notions such as sustainability, section and plan, regulation and more, with an ease characteristic of college students. In a very short time it was made clear to us that sometimes complex ideas and concepts that we were trying to explain to the students through examples, schemes, words, exercises will be assimilated much more easily and directly through play and experimentation. A game has been invented for each subject of the course and the biggest challenge for architects was to extract the essence of a concept in order to generate that game or experiment.

We, as architects, come to reflect and express us in a theoretical, philosophical or professional-technical way. However, the main ideas and values of the built environment form the foundations of urban society and therefore their direct availability is important for all of us.

The initiative to imagine architectural and built environment education in schools has involved challenges for everybody involved- teachers, architects, sometimes parents or school staff - except for students, who took the lessons as a playful activity. The usual sobriety of the architects towards the the profession had to be transformed into flexibility, certainties into questions, theory into stories and values into arguments. The formal judgment of the final result was abandoned in favor of the play. Architects have rediscovered not only the social dimension of the discipline, as promoters of good building principles, as integrators of the sciences of the built environment and, last but not least, as a mentor, they found themselves in a situation of doing by playing. The informal buid environmet education performed by architects in scools had impact not only on the students and eventulally on the scools but also in the opposite direction, towards the architects, who rediscovered this new role by extending their professional limit, only with the condition of accepting to play.

*„De-a Arhitectura" working group was set up in 2011, when the six founding members gathered together to write the " De-a arhitectura [Playing architecture] in my city" course. The working group operated until January 2013 as part of the cultural project of the Romanian Chamber of Architects – Bucharest Branch. During this period, the group managed to test this new study subject in seven schools from Bucharest, with the help of eight volunteer architects.

* * „Let's play Architecture in my City", optional course (curriculum at school's decision or extracurricular) which is part of the national offer, approved by the Order of the Minister of National Education no. 4422 of 28 August 2014 for 3rd, 4th or 5th grade students.

Laura Cristea

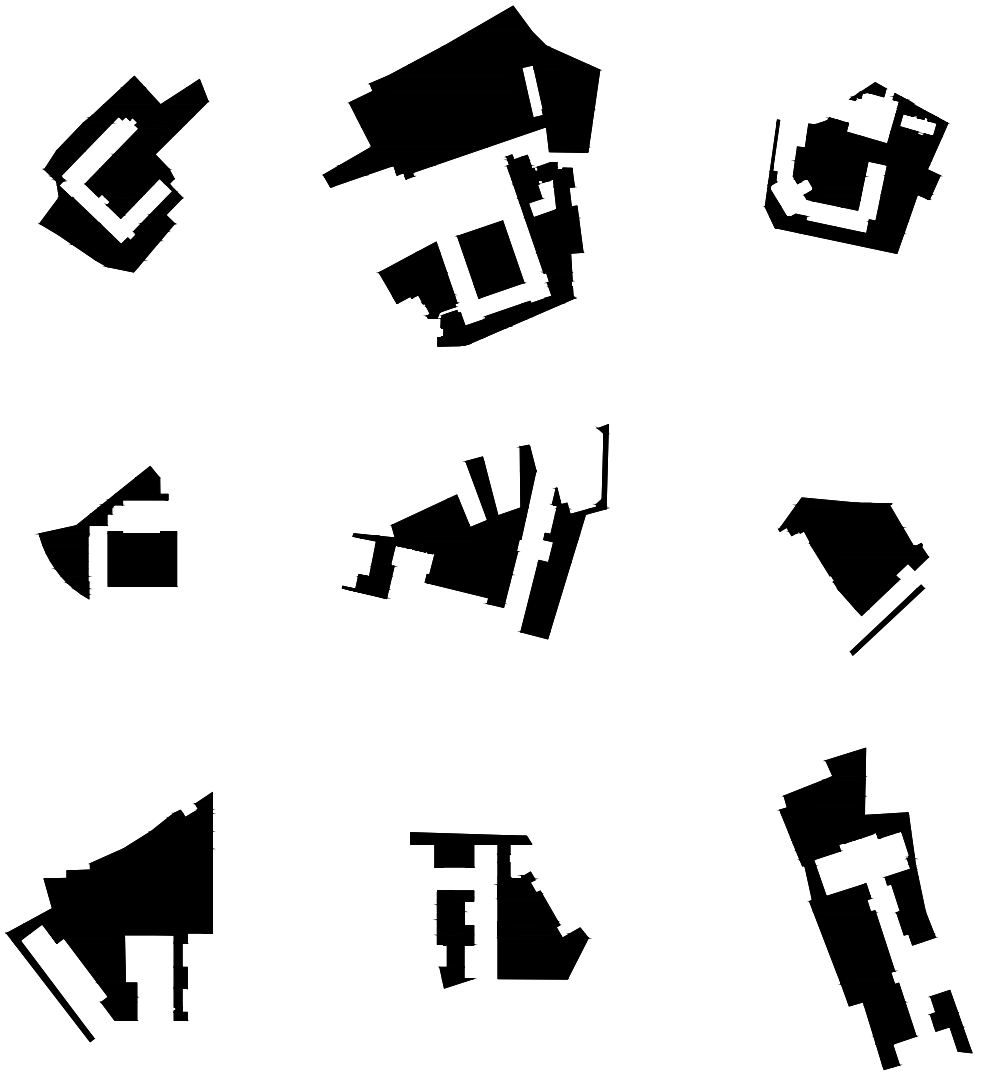
Is the Schoolyard needful anymore?

Maybe more than ever, the schoolyard as an agora for citizens-to-be is a crucial space for our society. Whether by choice or by algorithm, its digital counterparts are only creating enclosed ‘bubbles’ and cannot replace spontaneous human interaction. The physical recreation room can offer non-curated happenings and meetings within the school society, contributing to possibly more developed feelings of empathy and to the formation of more complex human characters.

One schoolyard I really like is in Jaú, a city in the state of São Paulo, Brazil. Very roughly and cheaply built in 1973, this school project by Vilanova Artigas has never been published and was probably rejected by the architect himself. Yet to me it seems even more so essential, as it eliminates the architectural fetish of fancy materials or the cliché of school ‘colorfulness’.

A massive umbrella pillar covers an internal courtyard, occupying its center and, as I imagine, becoming the main character, an icon. A generous ramp connects the courtyard to the classrooms above, encouraging everyone to take the same smooth route. The parapet of the classroom walkway is higher than usual, blocking the direct view of the courtyard below – one has to descend, to move, to discover, to hear, to imagine.

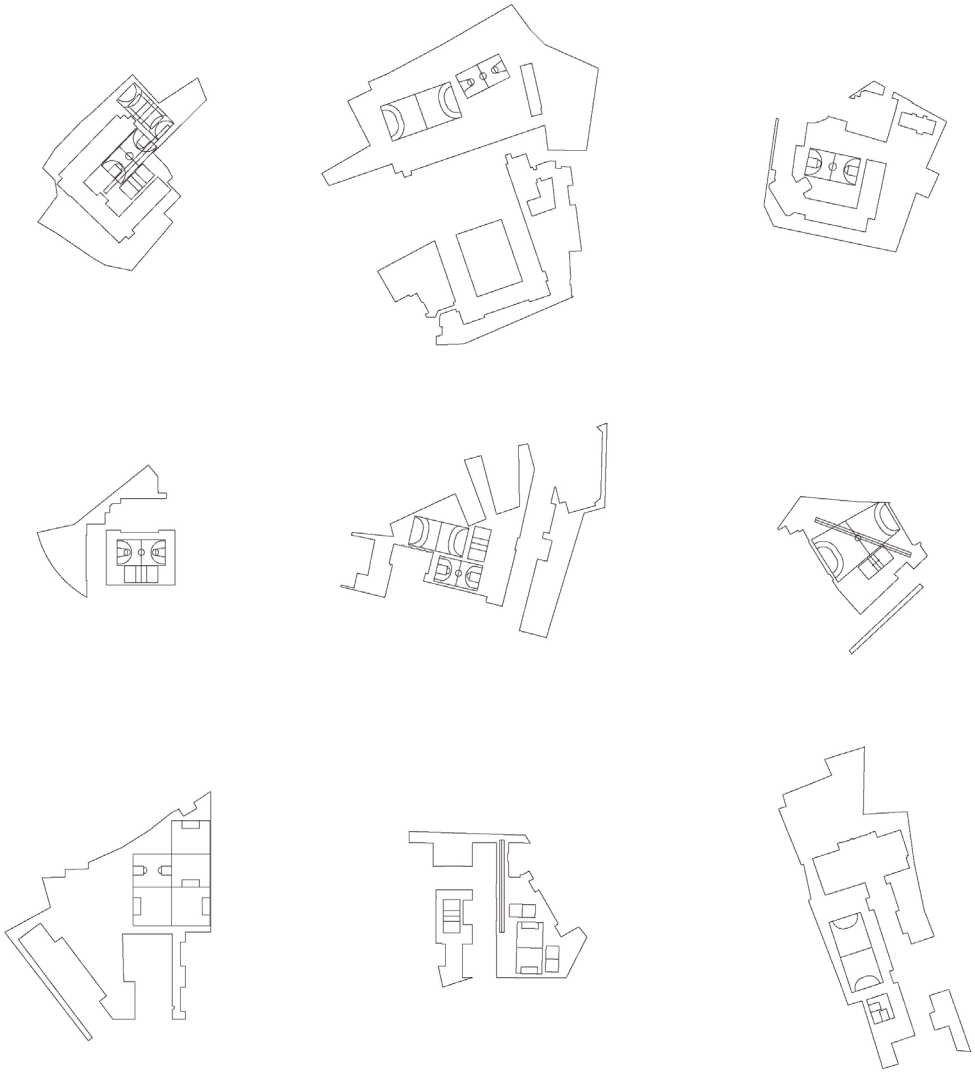
In the breaks, the giggles and the whispers invade the whole space, producing liveliness and mystery. Children run around the walkway, the ramp and the pillar tirelessly. Essential interaction – movement, imagination, curiosity obtained by very simple architectonic means in a schoolyard that seems to be fulfilling its social role up to this day.



Can you throw the ball over the fence please?

The interaction contained in the title question, probably the most common type of relationship between students and neighbors around a school, best spatially describes the close vicinity between most schools in central Bucharest and the urban fabric in which they were built.

Part of the modernization program of the Romanian society starting with the second half of the 19th century, education also involved the construction of an infrastructure of schools and high schools in the new state capital. A series of imposing buildings begin to be built in important intersections and on the main boulevards in Bucharest (Lascu, 2011), the architectural program being used as part of the strategy to straighten the medieval urban fabric. Usually located on the street and offering to the public space wide, rhythmic, decorated and symmetrical facades, the schools and high schools built during this period still stand out today in the geography of Bucharest. The image towards the street, however, contrasts with what is happening in the backyards. As a result of overlapping the representative location and the pre-modern fabric of the city, the schoolyards have irregular, rugged, crooked, twisted shapes, accentuated by successive extensions, demolitions, nationalizations and retrocessions. Buildings and courtyards are thus two different types of spaces, one being a “modern space”, pragmatic and separating the various heterogeneous elements (Petcou and Petrescu, 2007: 324), and the other being an unscheduled, free, open and informal space. The building-schoolyard spatial duality is doubled by the type of knowledge mediated by the two spatial typologies. Classroom education involves a vertical, hierarchical and unidirectional relationship of knowledge transfer from teacher to students, a transfer spatialized even by the interior layout of the furniture, with a teacher in front, often even on a small pedestal, and children the other side, in benches lined up in rows at equal distances. The schoolyard turns this transfer to 90 degrees and multiplies the horizontal directions of knowledge transfer among children, through experimentation, interaction, play, conflict and by establishing their own rules depending on the



situation, place and group of the children they belong to or interact with. The schoolyard is the place of active and direct knowledge transfer between children and between children and the environment. The schoolyard is a space for free use: running, pushing, paying football and different games, whispering, gossiping, phone talking, smoking. The schoolyard is a collective and collaborative space, unlike the classroom which is a space of individuality and competition. The schoolyards, more than buildings, function as the "third educator" in the sense used by Loris Malaguzzi (Gandini, 1993).

The high schools courtyards studied within the third year project of the studio are characteristic for central Bucharest: closed with high fences and as opaque as possible, guarded by bodyguards, with concrete surfaces, without furniture, used as parking for teachers, with green spaces forbidden to children, with modified sports fields to fit the space, crooked, narrow and overlapping, and with many rules "not allowed". However, due to the configuration resulting from the typical morphology of Bucharest, the schoolyards are also spaces that stimulate children's imagination and invite inventive, informal, contextual, different and unique practices and uses. In the absence of "maidans" (Tudora, 2010) that have shaped whole generations of children, schoolyards are perhaps the last spaces of situated knowledges (Haraway, 1988). After all, what other way to learn about the community is better than playing football at the makeshift gates painted on the blind walls surrounding the schoolyard and the dialogues through the fence with the neighbors to recover the ball.

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PROJECTS

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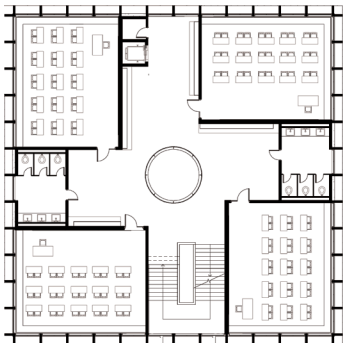
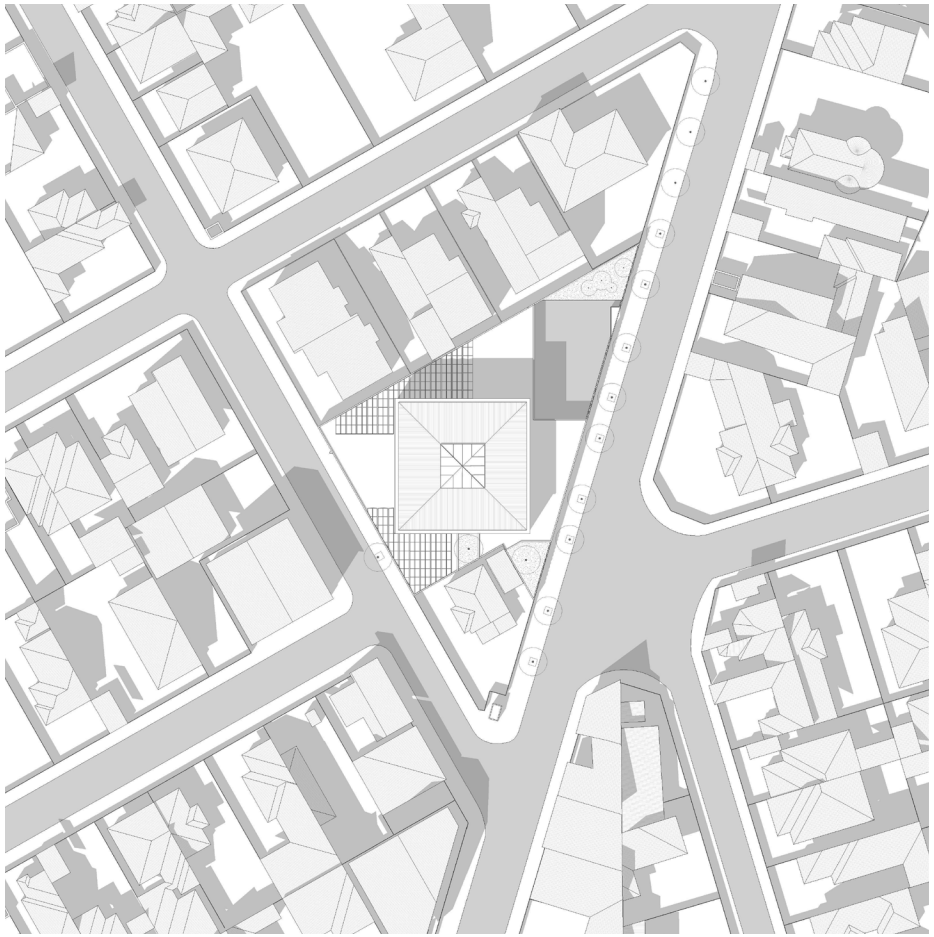
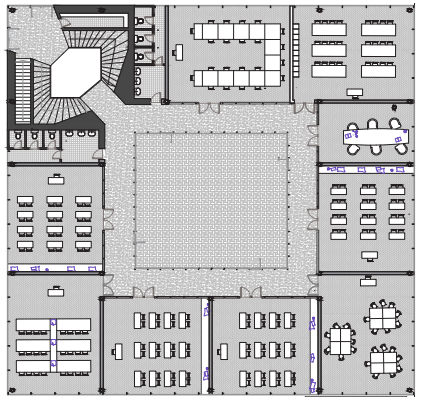
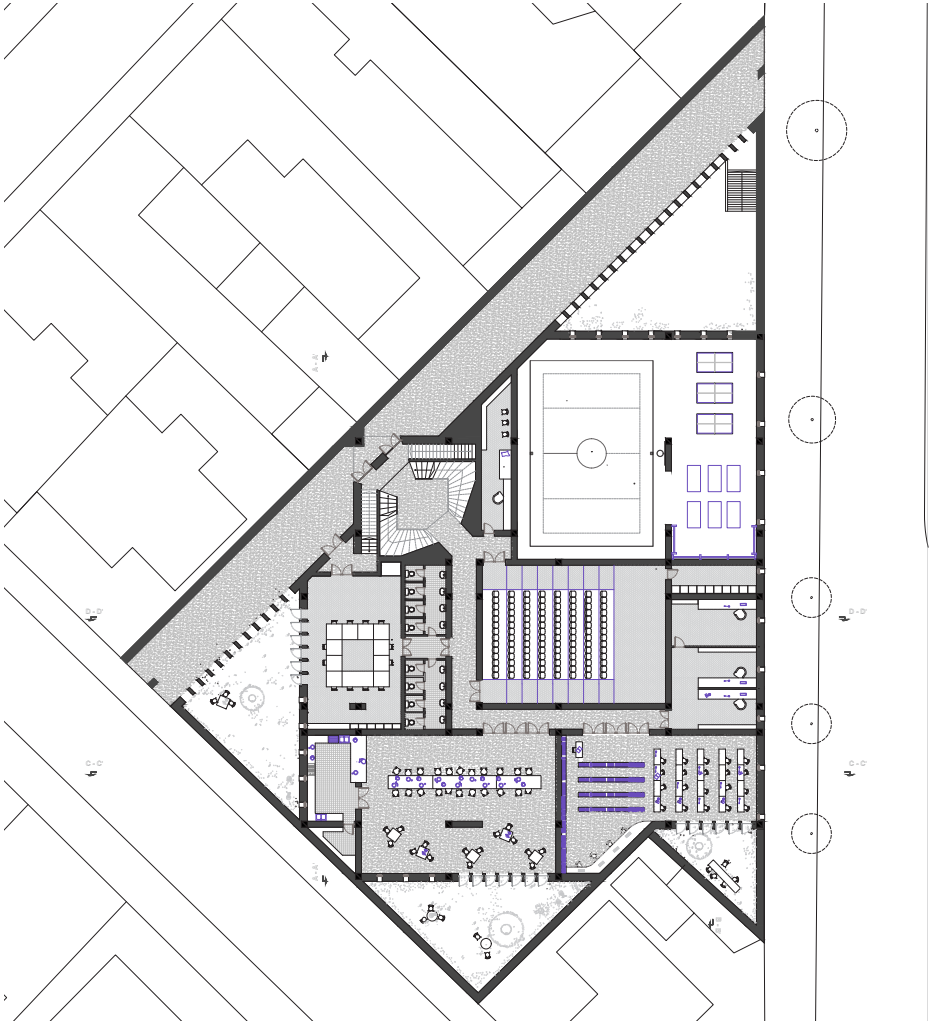
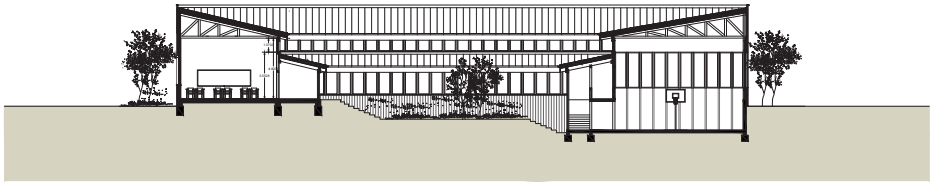
Following this study from the first part of the semester, the students had to design a small school on an existing plot in the neighborhood of Bucureştii Noi. In addition to analyzing the site, in order to understand the rhythm and atmosphere of that area, as well as its proximity, the stakes of the educational program were also important. Thus, the nature of these projects was imagined in relation to the needs of students during school time: class sizes, their proportions and lighting; the distribution system, conceived as a potential social condenser; the relationship of the common spaces (cafeteria, gym) both with the classrooms and with the neighborhood; the moment of entering the school and, perhaps first of all, the configuration of the school yard. All these moments are called to build the institution of the school as an important common place for the whole community, both at the educational level and as a possible landmark in the structure of the city. Architecture, through its most elementary qualities, through the rigorous ordering of the spaces it enables and through their relation to the configuration of the city, discreetly demands its autonomy.

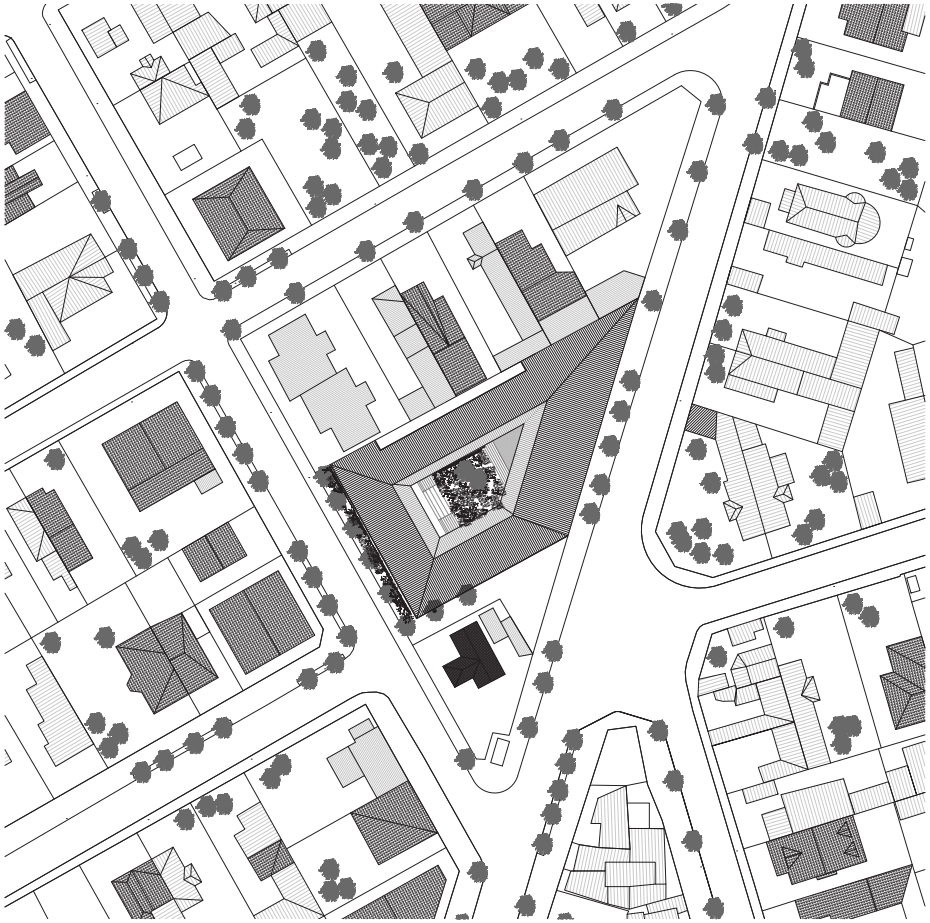


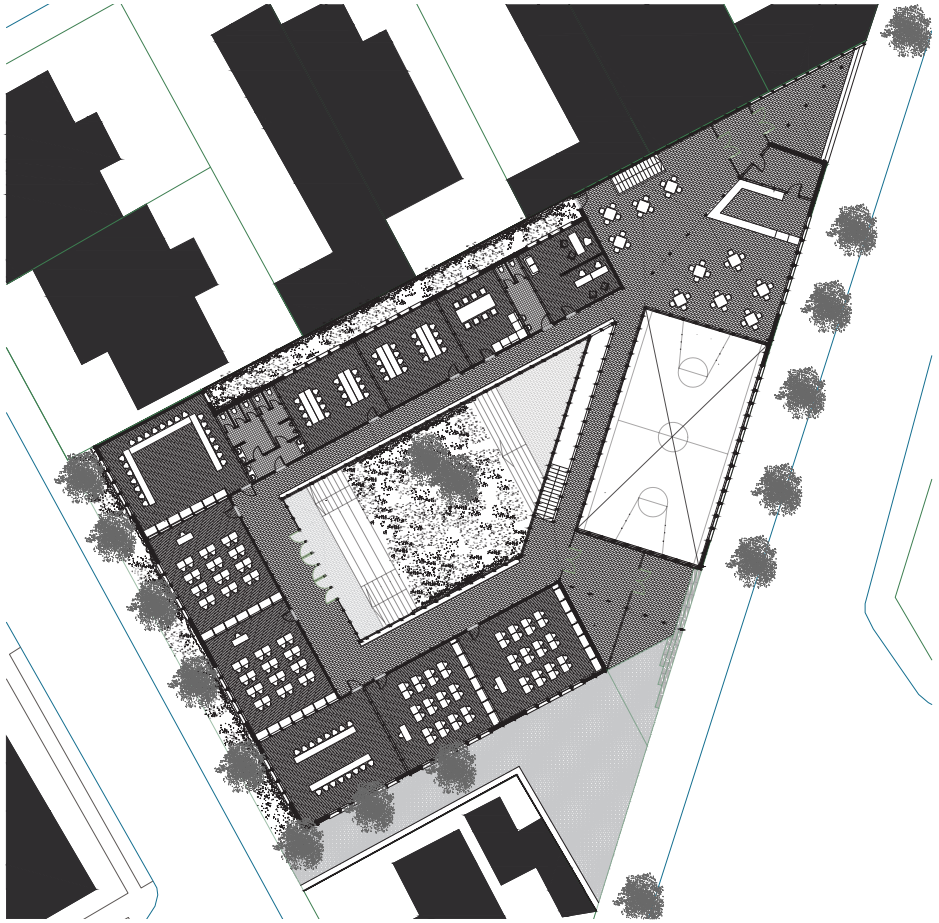


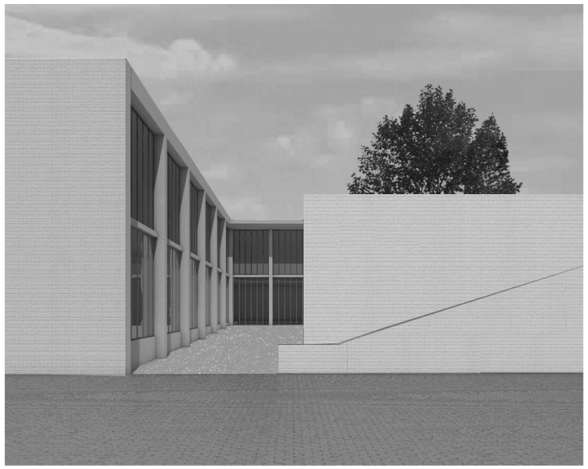


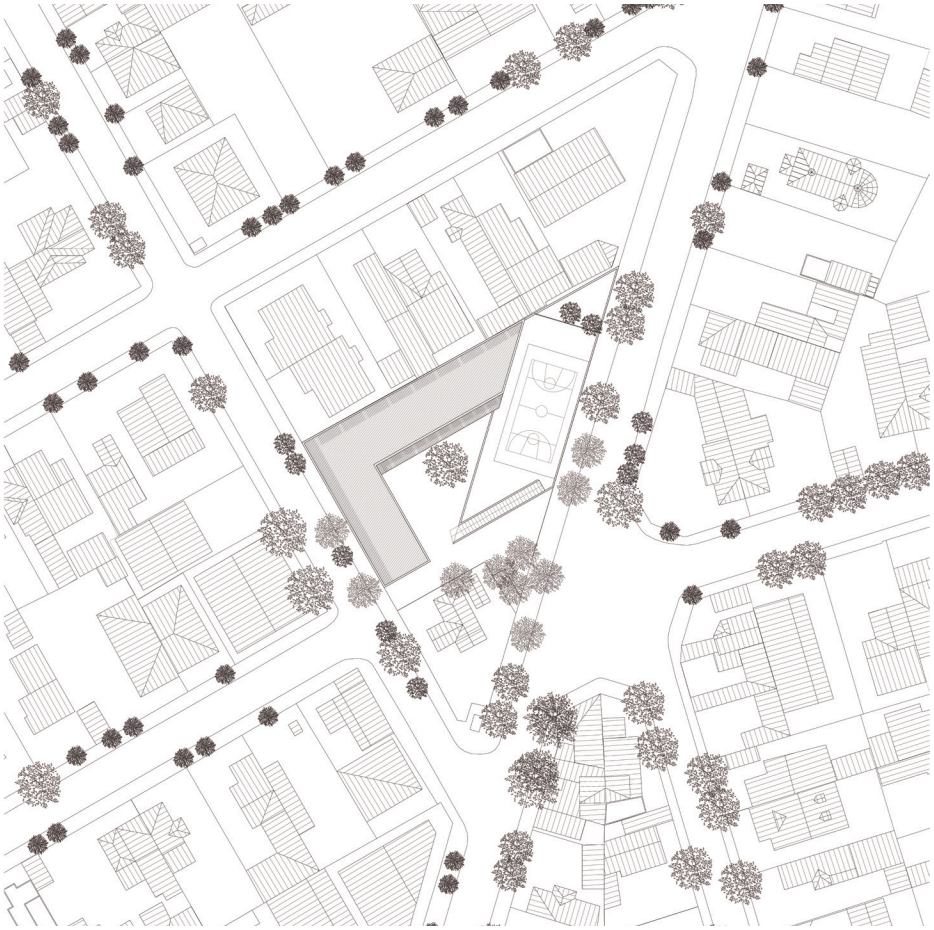


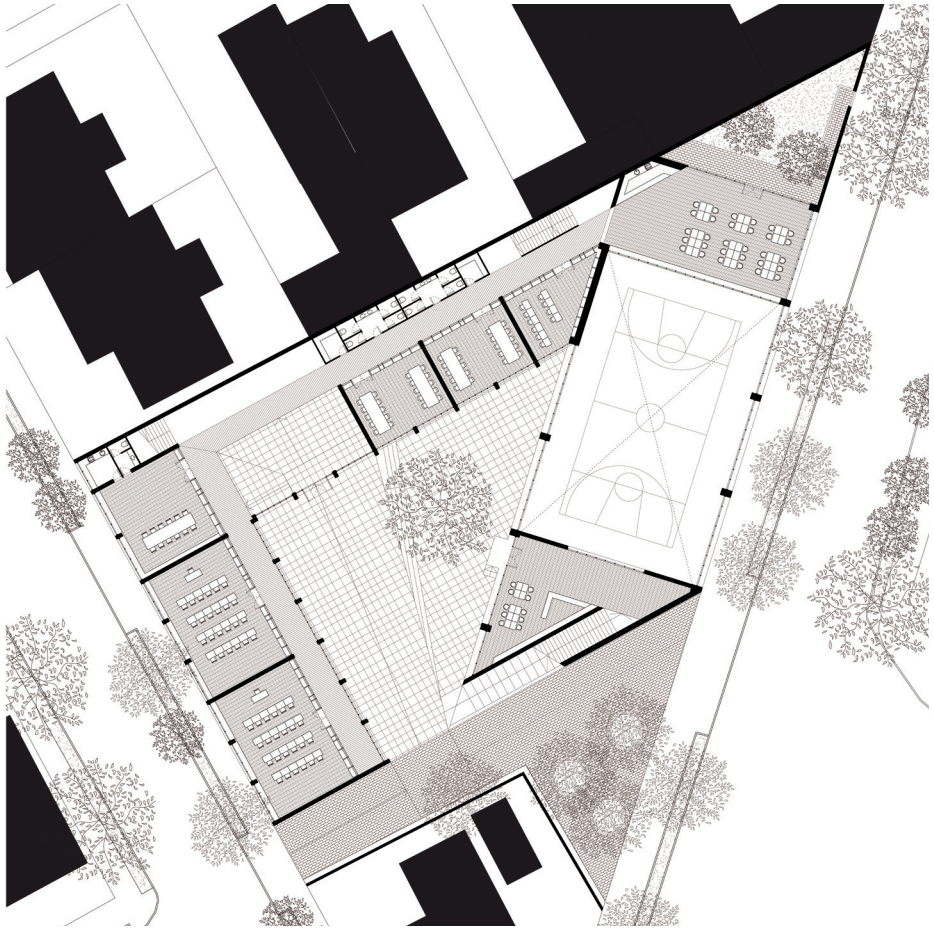


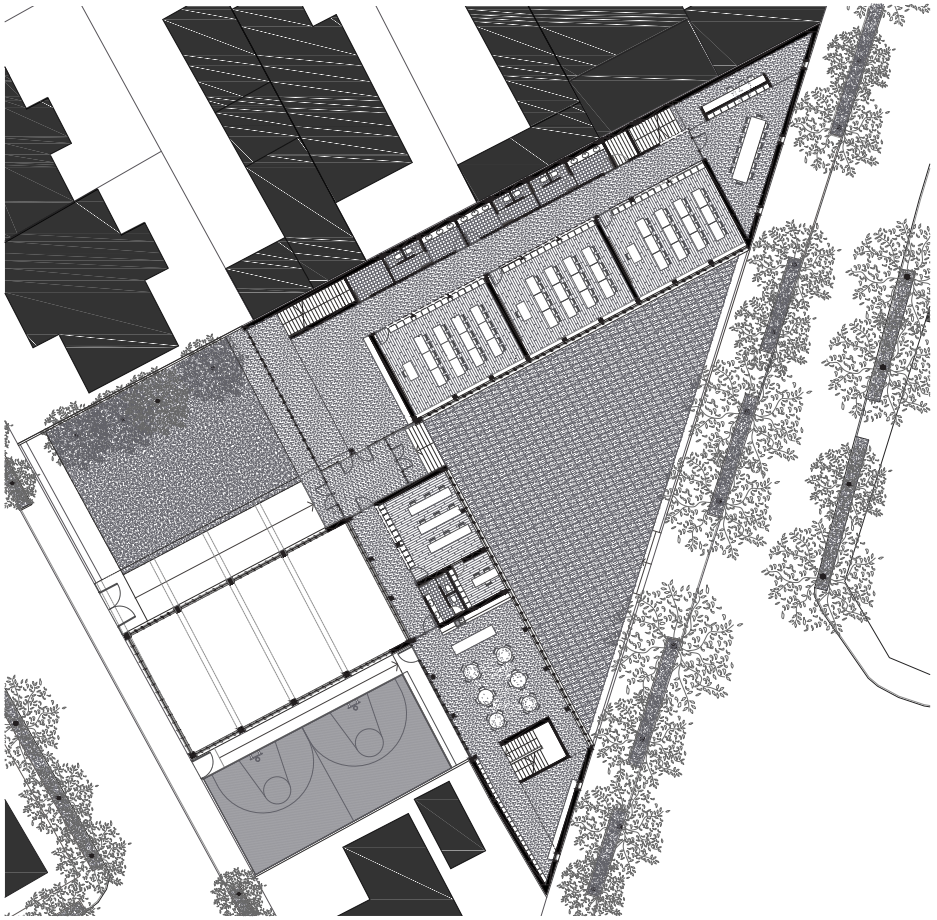


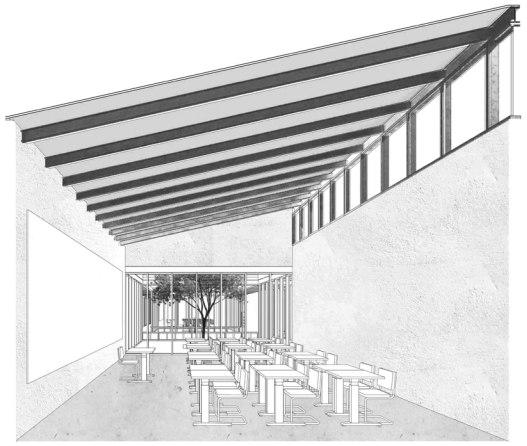












CONTRIBUTORS

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M.L. Varudh Varavarn received his AA Diploma/ RIBA from the Architectural Association School of Architecture (AA), London, and established his own practice Vin Varavarn Architects (VVA) in 2005, based in Bangkok, Thailand. Apart from his normal office projects, Varudh believes in taking part with social and community improvement, and devotes himself with different Non-profit organizations and foundations to design schools and low-cost housing in remote areas around Thailand.

GILLES DELALEX & YVES MOREAU, MUOTO

MUOTO is an architectural office based in Paris, founded by Gilles Delalex and Yves Moreau in 2003. Its activities cover the fields of architecture, urbanism, design and scientific research. Muoto means form in Finnish.

Muoto's work often features minimal structures made of rough materials, as a means to combine different activities, and merge economical as well as aesthetic issues. Vertical diversity as an articulation between building and city scales is a recurrent figure in Muoto's projects. The office has been rewarded by several prizes, such as Holcim Awards 2014, Equerre d'Argent 2016, and Bauwelt 2017.

Gilles Delalex is a French architect. He studied architecture in Grenoble and Montreal. He holds a Master in urban planning and a Doctorate of Arts from Alvar Aalto University Helsinki. He is a professor at the School of Paris-Malaquais, where he heads the department "Theory, History and Project". Since 1998, he has been a research fellow at the Liat Lab focusing on modernity and infrastructures.

Yves Moreau is a Dutch-Belgian architect. He studied at the Ecole des Arts de Saint Luc in Brussels and graduated from Chalmers Teknista Högskala, Göteborg. Between 2000 and 2001, he collaborated with Blå Arkitektur Landskap, in Sweden. Between 2001 and 2006, he worked with Christian Dior and Dominique Perrault. In 2008 he was awarded the Nouveaux Albums des Jeunes Architectes and Paysagistes.

MICHAEL MEREDITH & HILARY SAMPLE, MOS

In 2008, we were licensed and became a legal entity, but we had already had an office and made some buildings. At some point, we drifted towarsds MOS - an acronym of our names and reflection of a shared desire to be horizontal and fuzzy, as opposed to tall and shiny. We began around an oversized table, a surface for collecting, gathering and thoughts. We are now located in New York, we have grown a little, but remain around a large table, working tofheter on each project through playful experimentation and serious researcg. We have won some awards. We have written some books. We have built some buildings. We are currently making more. Our webside indexes that work: housing; schools; houses; cultural institutions; retail; exhibition design; instalations; furniture; objects; books; writing; software experiments; and videos.

PAOLA AGUIRRE SERRANO

Paola Aguirre Serrano is founder of BORDERLESS, Chicago-based collaborative city design and research practice. Paola focuses on multidisciplinary exchange, city systems integration and participatory civic processes focused on social equity by leveraging her experience working with public, civic and private organizations in Mexico and the United States. Also an educator, Paola has taught at Archeworks, Sam Fox School of Design at Washington University, and the School of the Art Institute of Chicago. Paola received a M. of Architecture in Urban Design from the Harvard School of Design.

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Christine Fontaine is an architect and a professor at UCLouvain-LOCI Brussels, teaching and researching in History & Theory. She also organizes multidisciplinary international workshops allowing to map the typo-morphologies and their uses in different contexts, in order to draw up a panorama of urban voids, edifices and architectural elements colored by the local cultures. Her practice with ZED architects covers the construction of public institutions and social housing.

ELIZA YOKINA

Eliza Yokina is a founding member of the "De-a Arhitectura" Association - which brings the culture of the built environment to schools. In the past she founded SYAA architecture studio, currently being an associate architect in Cumulus office, founded in 2017 together with her partners. She has graduated UAIM Bucharest in 2004. A sensitive personality, careful with details, Eliza has a disposition for sensory reinterpretations and towards architecture strengthened by a story. She is a three-time winner of the Bucharest Architecture Annual and awarded at the "Good Printing Gala" in 2012 with her book "Dreams About Houses". Eliza seeks through architecture a form of relationship to people and life. She is an active presence in the artistic landscape of Bucharest. The projects she coordinates are noticed by their sensitivity and vigor, a mix that captures the essence of Eliza, as a human being and as an architect.

LAURA CRISTEA

Laura Cristea is an architect working both in Romania and Switzerland. She studied at UAUIM in Bucharest and graduated in 2016 from The Oslo School of Architecture. The first built work is Inverted House in Hokkaido, Japan, developed together with a team from the same school led by Neven Mikac Fuchs. She worked as a teaching assistant for the studio of Raphael Zuber in Oslo, at EPF Lausanne and at ETH Zurich. She is also a founding partner of Pelinu Books.

ȘTEFAN SIMION

Stefan Simion obtained a degree in architecture at "Ion Mincu" University of Architecture and Urbanism, Bucharest in 2004 and he's the author of the thesis "Vacchini" in 2009, that led to "The Ambiguity of the Masterpiece. LIVIO VACCHINI, in 11 dialoguesi" published in 2018 by Arhitext Design publishing house. As a laureat of the SCIEX award attributed by The Rector's Conference of the Swiss Universities, he has conducted a post-doctoral research on the work of Livio Vacchini during the academic year 2013-2014 in EPFL. He taught architectural design at UAUIM (Bucharest), Pratt (New York), EPFL (Lausanne), International University of Rabat (Morocco). Currently he teaches architectural design in UAUIM Bucharest and he's a partner architect of the office www.theposter.ro with Irina Melita.

EMIL BURBEA

Emil Burbea-Milescu is a practising architect, senior partner at Republic of Architects. For more than ten years he works also as teaching assistant at UAUIM. In both postures, he promotes the necessity of a permanent negotiation between the public and private interests in order to determine a common configuration of the built environment. His PhD thesis was inspired by the "Heterotopia" of Michel Foucault – a political tool to infiltrate or detour the mainstream power authority, trying to find new and candid human interactions.

CRISTI BORCAN

Cristi Borcan is a Bucharest based architect, a teaching assistant at the UAUIM Architecture Faculty in Bucharest and co-author of civic, community, educational and cultural projects. His research is currently focused on collective modes of producing social spaces and spatial practices of commoning. He is a co-founder, together with Alex Axinte, of studioBASAR, an architectural studio and a public space practice that operates between practice-based research, participatory action research, community activation, co-production and co-design, urban design, live education and civic pedagogy.

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