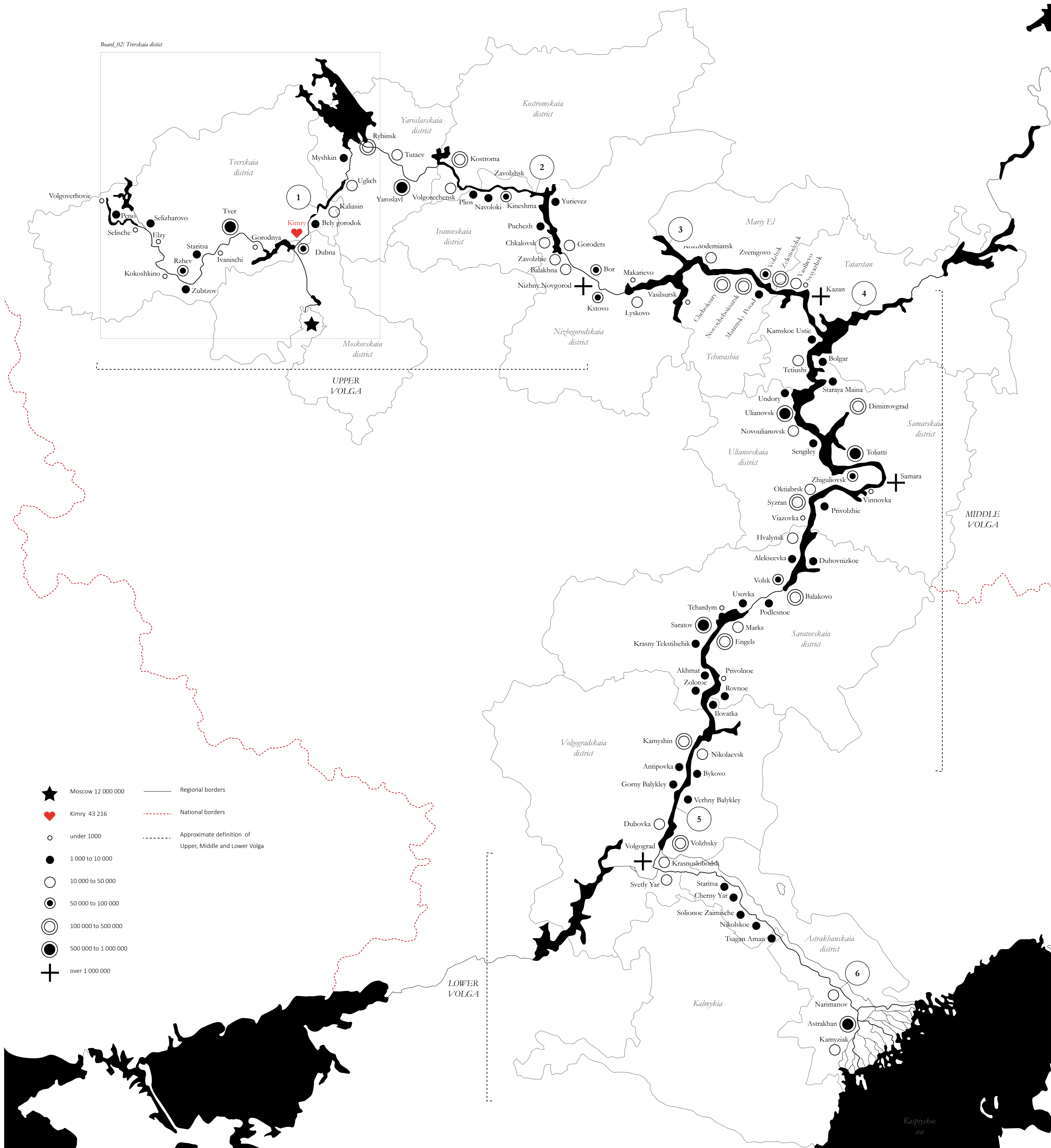


01\_Regional division of Volga river

Board\_02: Tverskaia distict



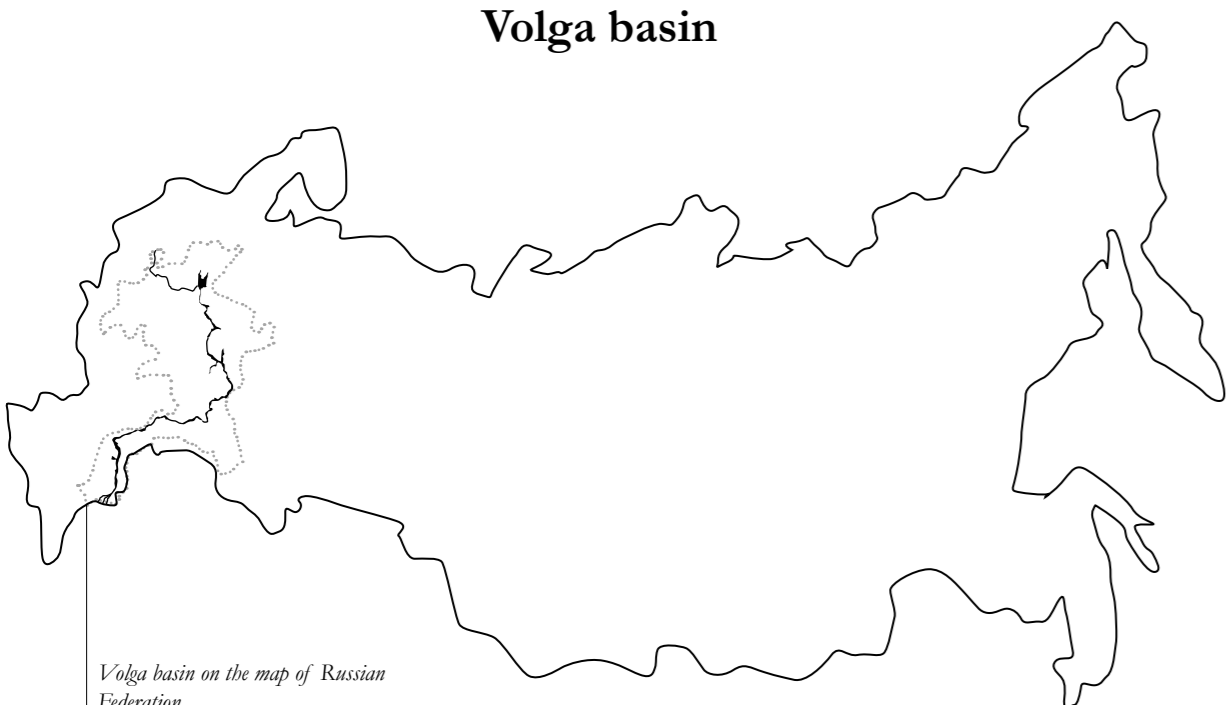
- ★ Moscow 12 000 000
- ♥ Kimry 43 216
- under 1000
- 1 000 to 10 000
- 10 000 to 50 000
- ⊙ 50 000 to 100 000
- ⊙ 100 000 to 500 000
- ⊙ 500 000 to 1 000 000
- ⊕ over 1 000 000
- Regional borders
- - - National borders
- · - · - Approximate definition of Upper, Middle and Lower Volga

Volga basin

Upper Volga

Middle Volga

Lower Volga



1. Tverskaia district



2. Kostroma district



3. Mari El Republic



4. Tatarstan Republic



5. Volgogradskaya district



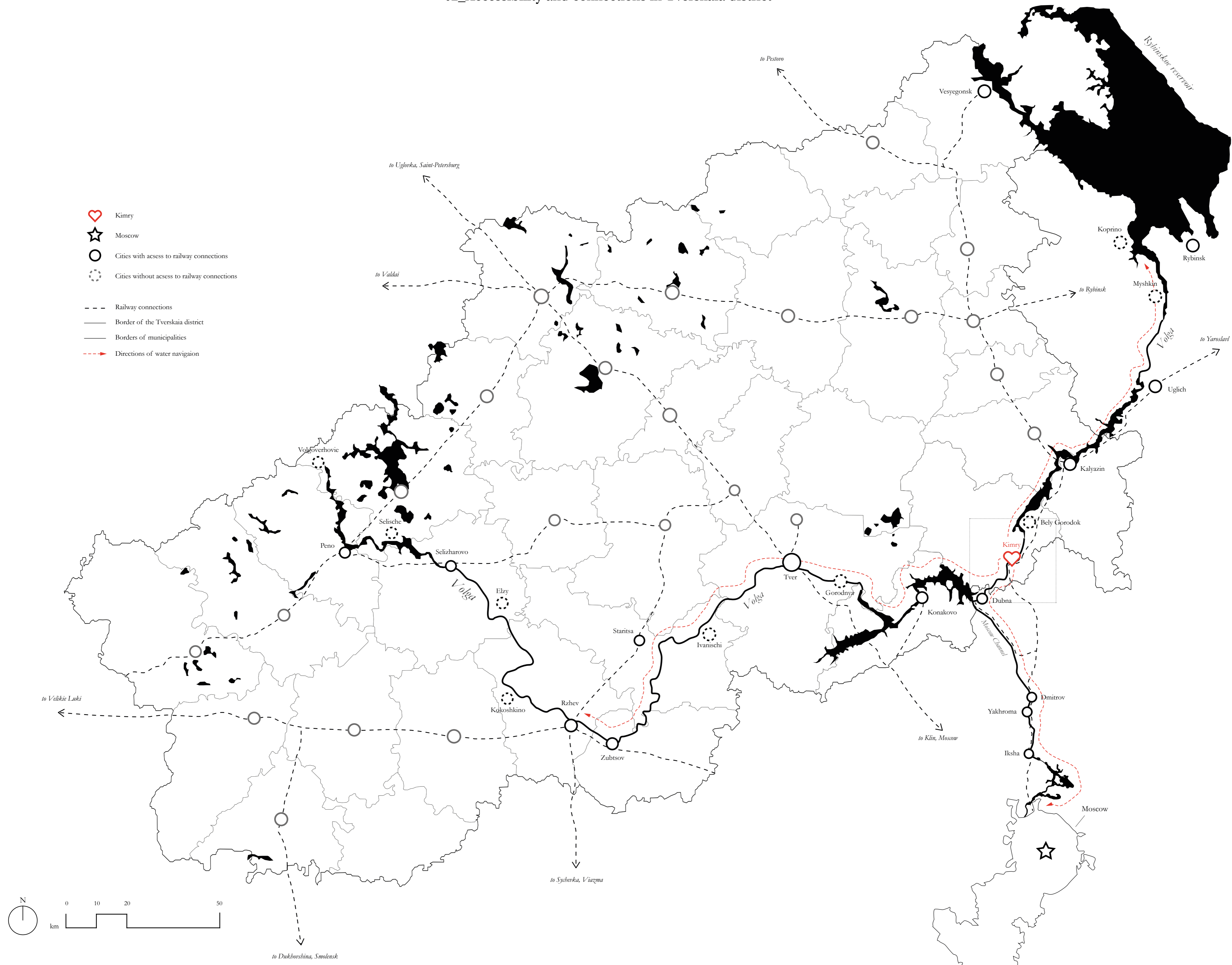
6. Astrakhanskaya district

Being one of the biggest rivers in Europe Volga is over 3 000 kilometers long and passes across 15 federal subjects of Russia. There are more than 100 cities spread along riverside of Volga, 4 of which have a population exceeding 1 million people. Volga basin is traditionally described as a unity of three different regions: Upper, Middle and Lower ones. They differ both in geographic and cultural characteristics, although the borders are not strictly set.

The landscape of **Upper Volga** can be characterized as a sequence of water reservoirs, with the water level regulated by a series of hydroelectric power station dams (also referred to as "GES"). The river banks vary from flat to slightly raised terrain covered by forests.

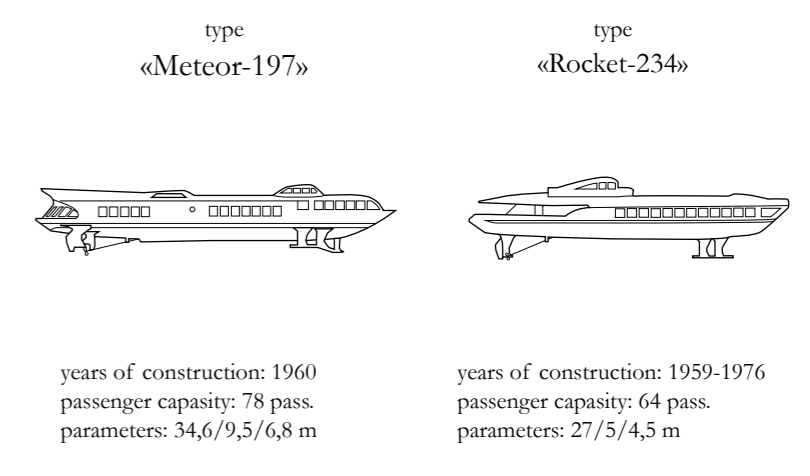
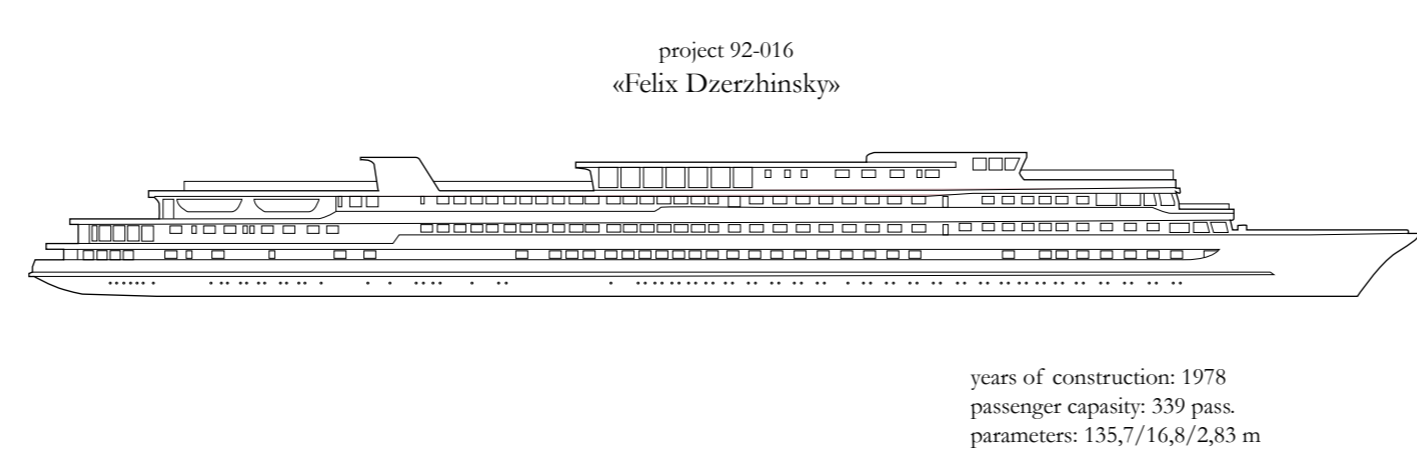
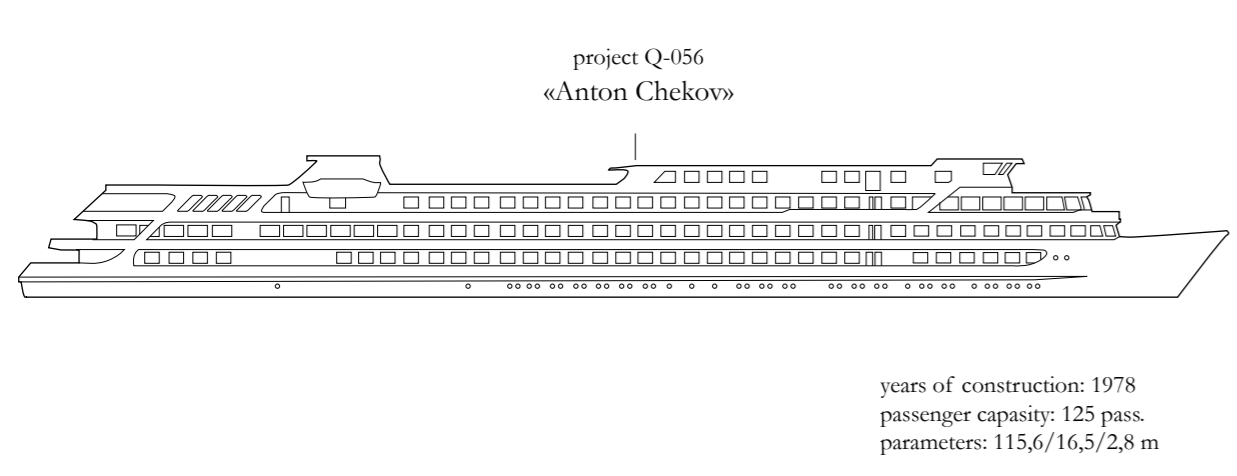
The **Middle Volga** becomes wider where it streams around the northern border of Privolzhskaya upland with a contrast between a tall right bank and a flat left bank. In Cheboksary another GES dam forms a water reservoir. In the lower part after merging with river Kama Volga continues its way along the Privolzhskaya upland until it reaches the region of Zhigulev mountains.

The character of the **Lower Volga** abruptly changes after the Volgzhskaya GES in Volgograd, since the river acquires a secondary branch parallel to the main stream called the Akhtuba branch. The vast space between two river flows, covered in flow-throughs, ducts and dried riverbeds, is called the Volgo-Akhtubinskaya bottom-land. The width of the floods in the area reaches 30 km in spring season.



Contemporary cruise ships  
> route length: 1 to 8 weeks

Soviet hydrofoil ships  
> route length: up to 12 hours



Endangered heritage of Upper Volga

Scheme of Kimry city center showing destroyed churches



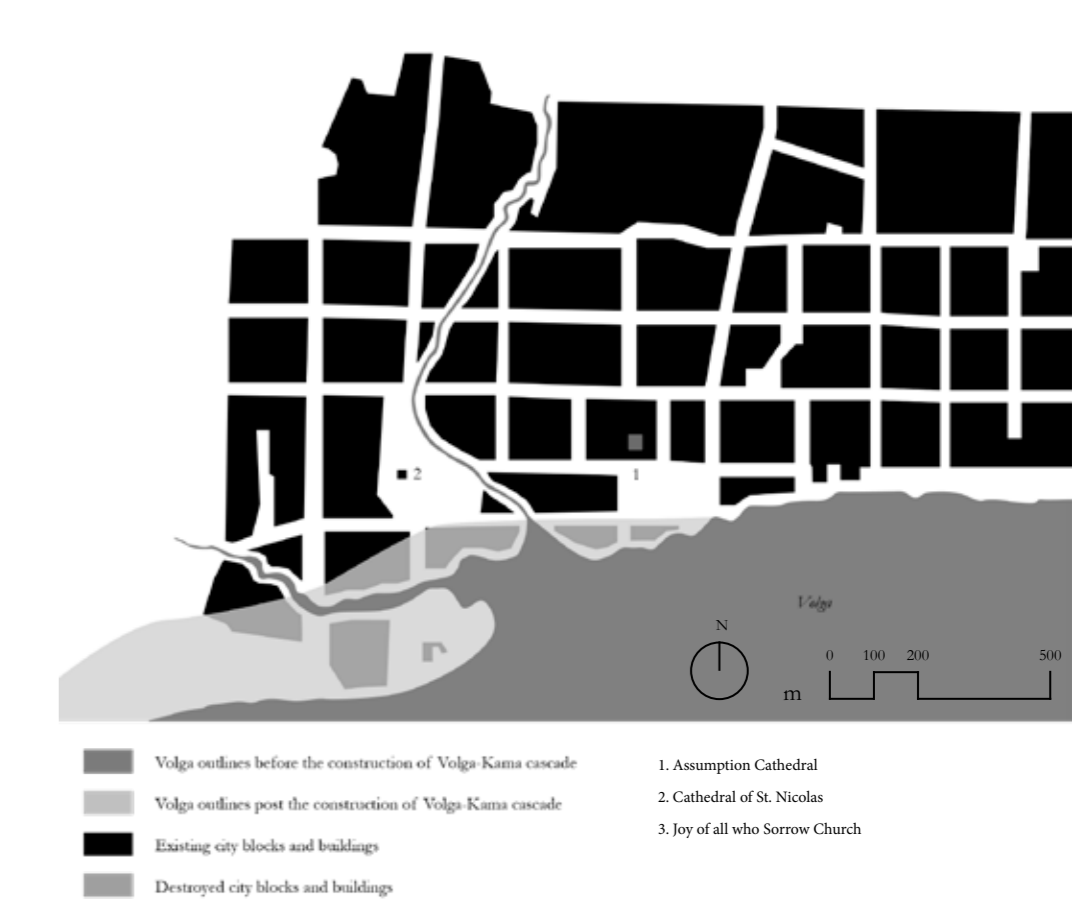
Scheme of Kalyazin with flooded areas



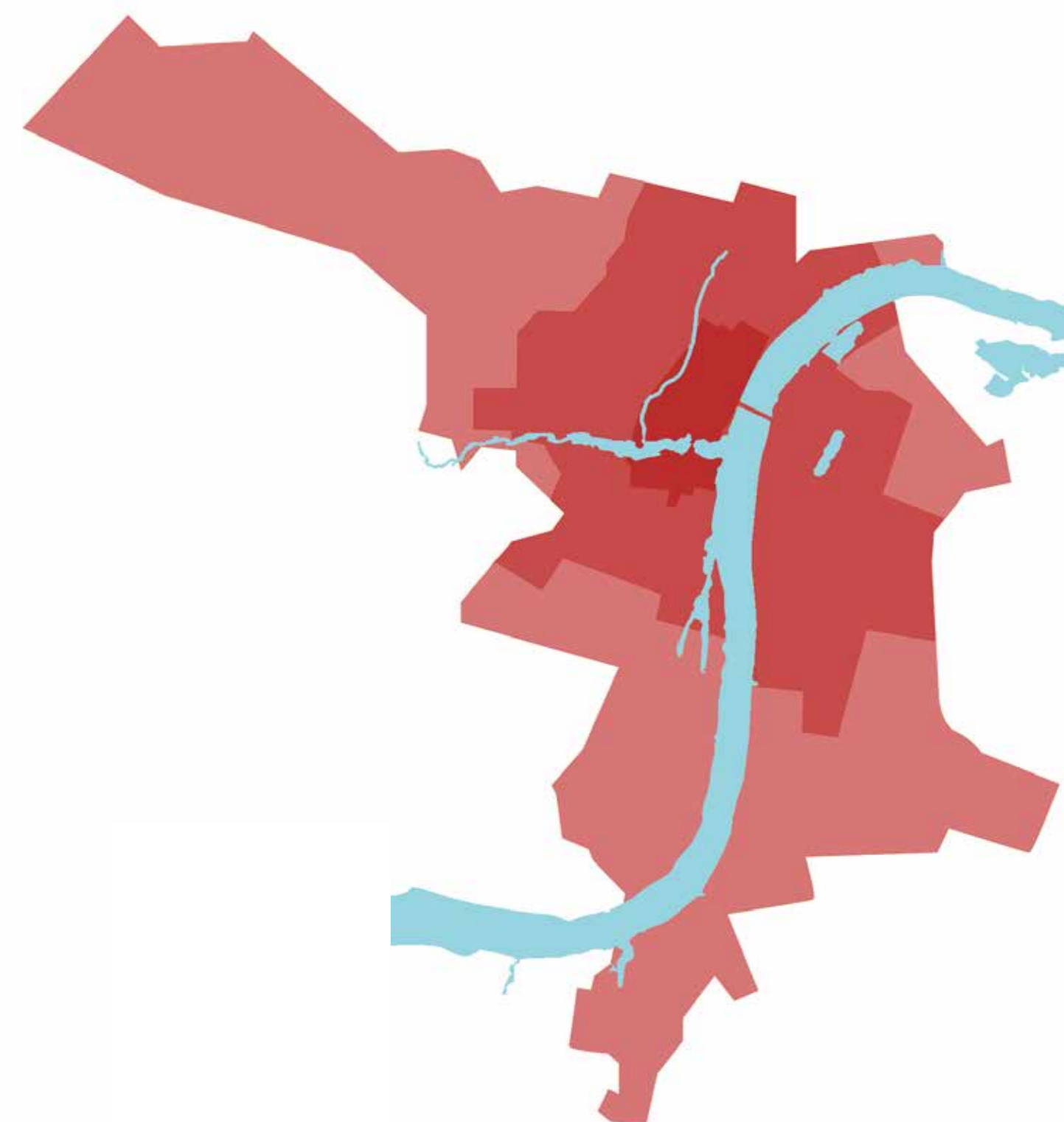
Scheme of Uglich with flooded areas



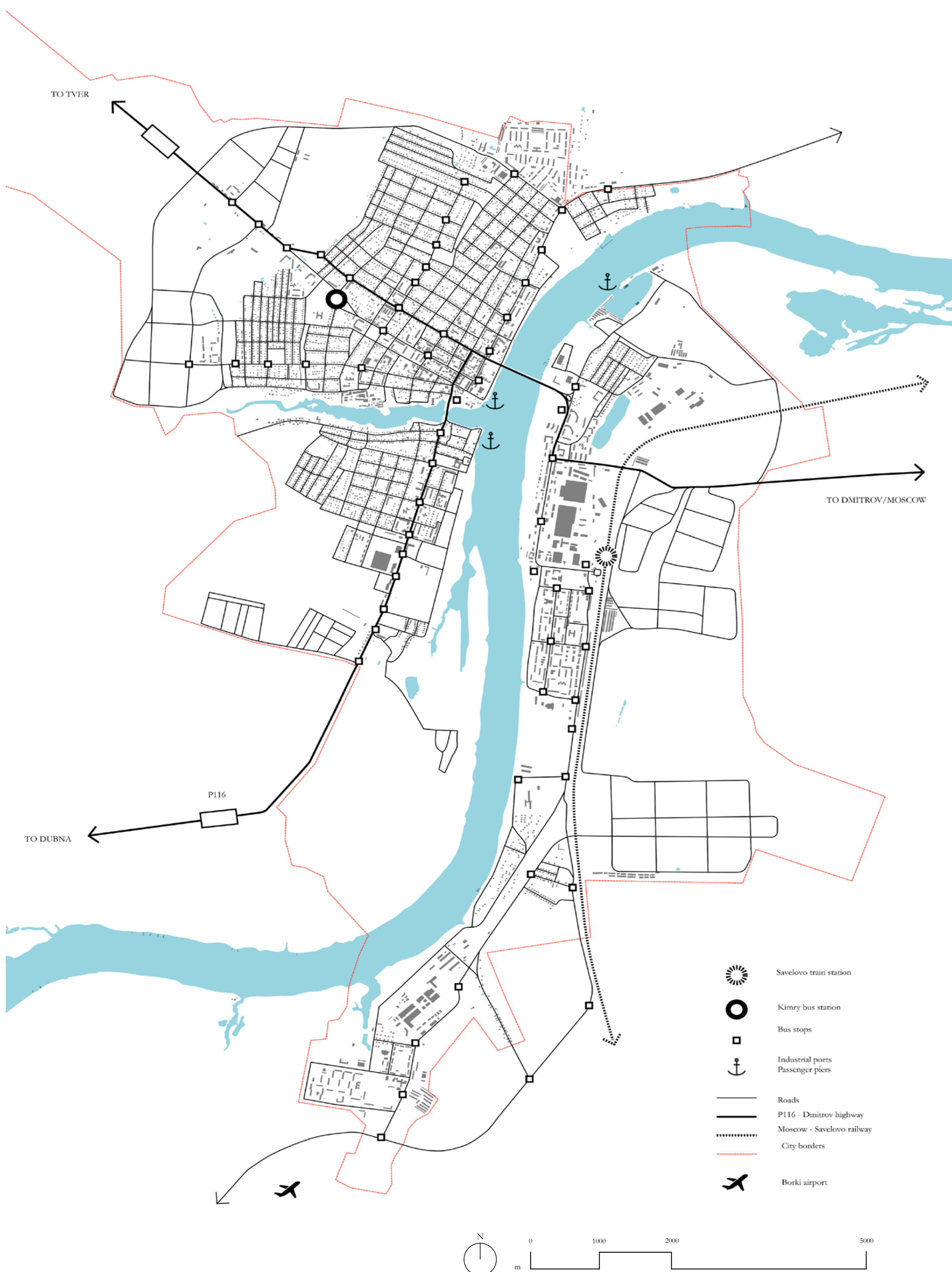
Scheme of Myshkin with flooded areas



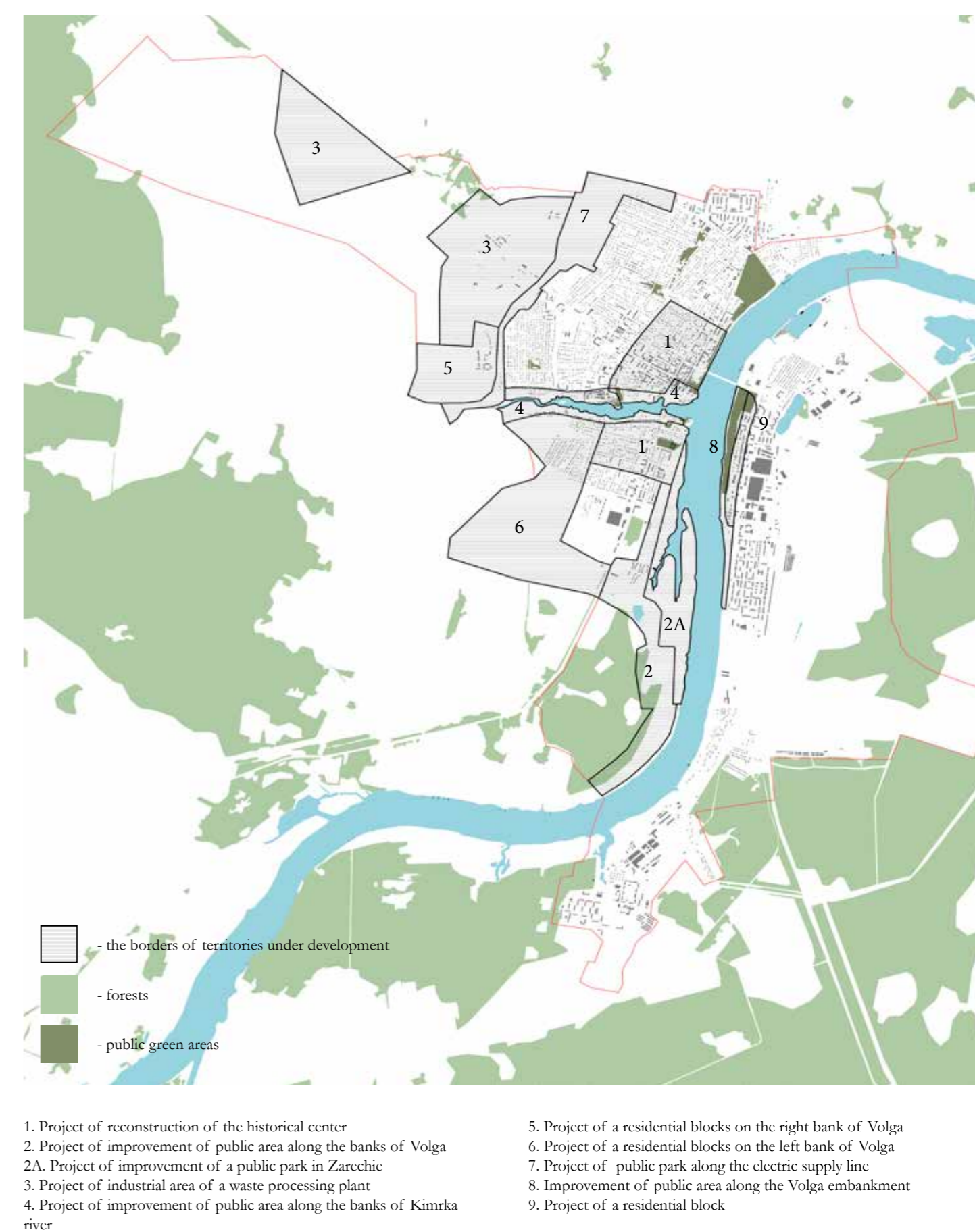
Historical growth of urban structure



Transport and connections

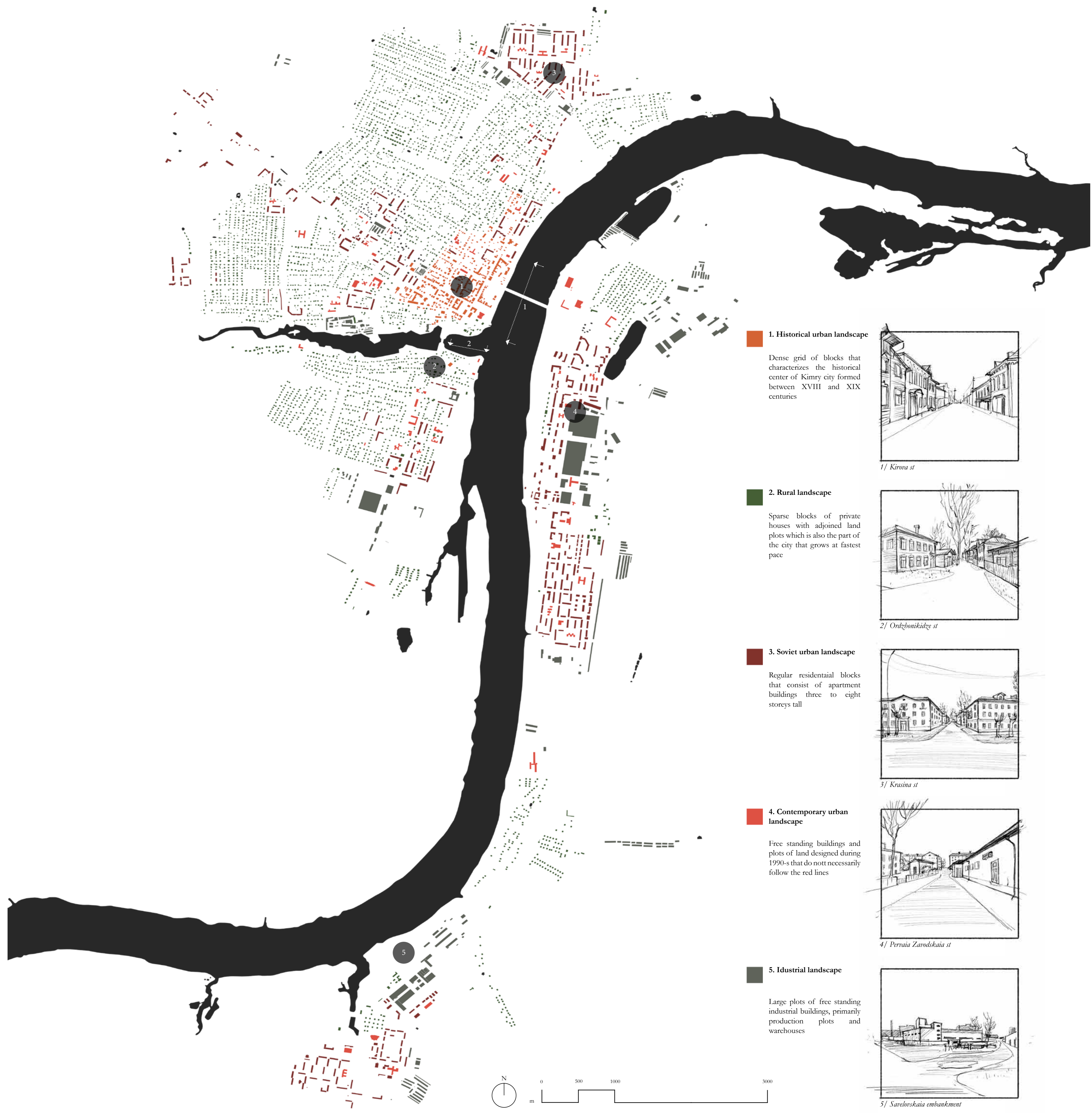


Types of town-planning interventions within the city of Kimry



Town planning turns of the city of Kimry





**1. Historical urban landscape**

Dense grid of blocks that characterizes the historical center of Kimry city formed between XVIII and XIX centuries



1/ *Kirova st*

**2. Rural landscape**

Sparse blocks of private houses with adjoined land plots which is also the part of the city that grows at fastest pace



2/ *Orzhonikidze st*

**3. Soviet urban landscape**

Regular residential blocks that consist of apartment buildings three to eight storeys tall



3/ *Krasina st*

**4. Contemporary urban landscape**

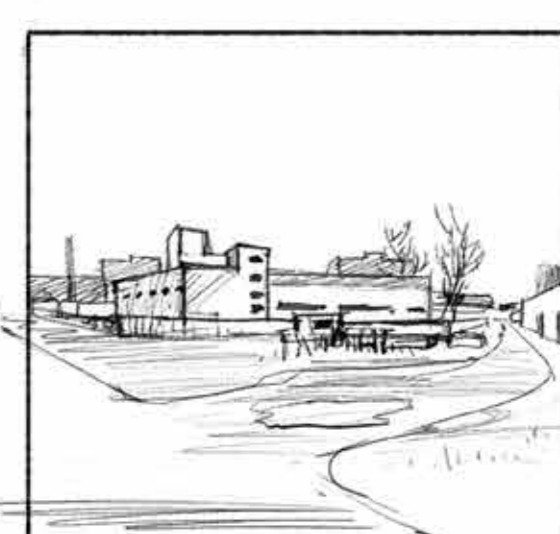
Free standing buildings and plots of land designed during 1990-s that do not necessarily follow the red lines



4/ *Pervaya Zavolokaia st*

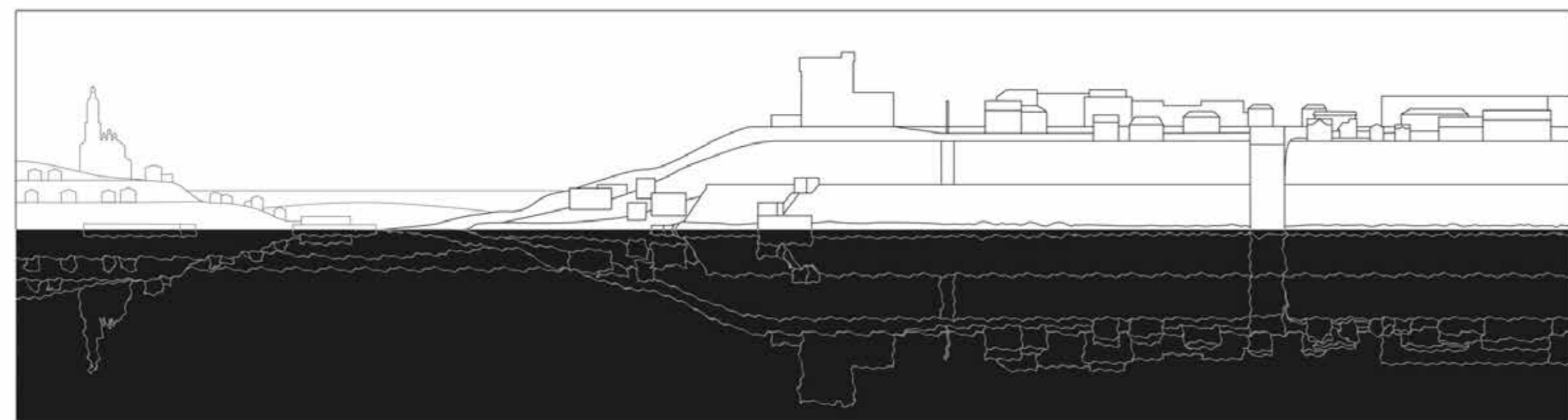
**5. Industrial landscape**

Large plots of free standing industrial buildings, primarily production plots and warehouses



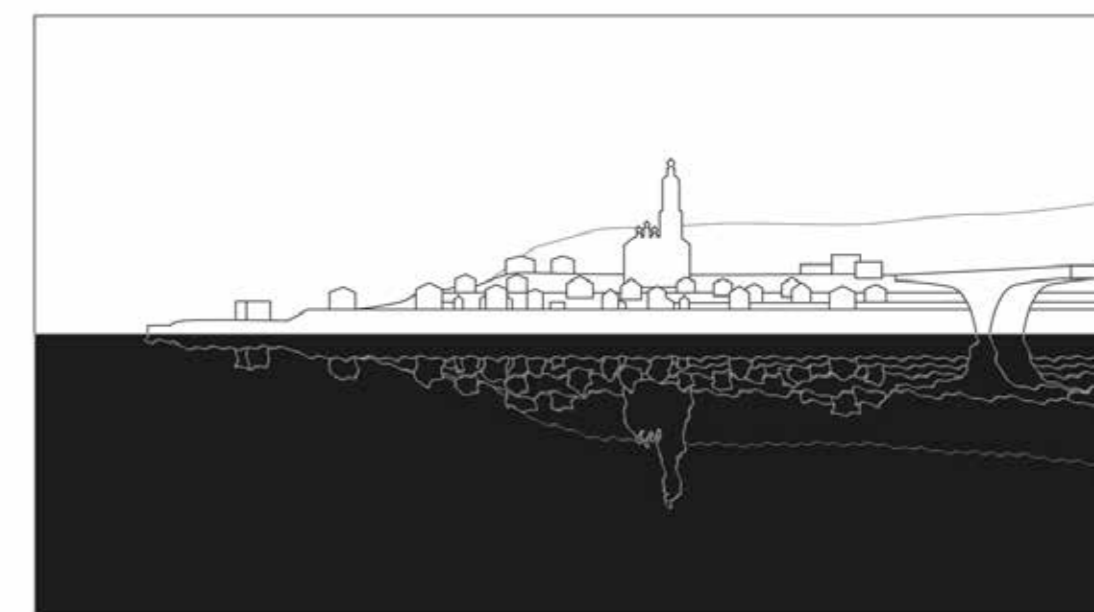
5/ *Savelovskaia embankment*

1. Nakhimovskaia embankment. "Urban" facade



The skyline of Pokrovskaja side of Kimry historical center has a distinctive urban character dominated by masonry buildings forming a dense grid of blocks. The historical local emergencies of Pokrovsky Cathedral and Ilyinskaia Church were replaced by the building of Kimry Theater of Drama and Comedy. The embankment is organized in two levels with pedestrian paths on each of them.

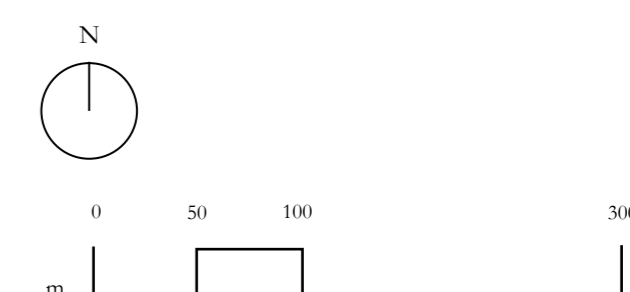
2. Voznesenskaia embankment. "Rural" facade



The skyline of Voznesenskaia side has a rural character since the embankment is mostly naturally formed and the majority of buildings are sparsely distributed private wooden houses. The main visual emergency of the landscape is the belltower of Voznesenskaia Church. In comparison to the Pokrovskaja side the authenticity of the rural part of Kimry historical center is better preserved.



1. Church of Ascension of Christ, 1813
2. House of N.N. Nosov
3. Wooden Art Nouveau House on Ordjonikidze st, 1920-s
4. Wooden Art Nouveau House on Moskovskaia st, 1920-s
5. House of N.A.Dzhardesky, 1920-s
  
6. House of merchant Teplov, 1906
7. House of V.M. Sukharov, 1911
8. Luzhin Brothers' houses on Kirow st, beginning of XXth cent.
9. House of A.E. Rybkin, beginning of XXth cent.
10. House of Serepiev, beginning of XXth cent.
  
11. House of M.A. Stoliarov, beginning of XXth cent.
12. House of V.D. Sobinov, 1895
13. House of O.V. Pnapskoi, 1890
14. House of I.K. Tuntsov, Middle of XIX cent.
15. Transfiguration Cathedral, 1902-1911
  
16. House of S.I. Gorylyev, end of XIX cent.
17. House of D.N. Zaitsev, end of XIX cent.
18. House of Shokin, 1917
19. Post office building, 1910
20. Building of "Yakor" factory, 1907
  
21. Merchant House, 1914
22. Fire Station Building, end of XIX cent.
23. The former "Kimry Public Peasant Bank" building, XIX cent.
24. The former building of Kimry Local Museum, 1870
25. House with a tower, first half of XX century

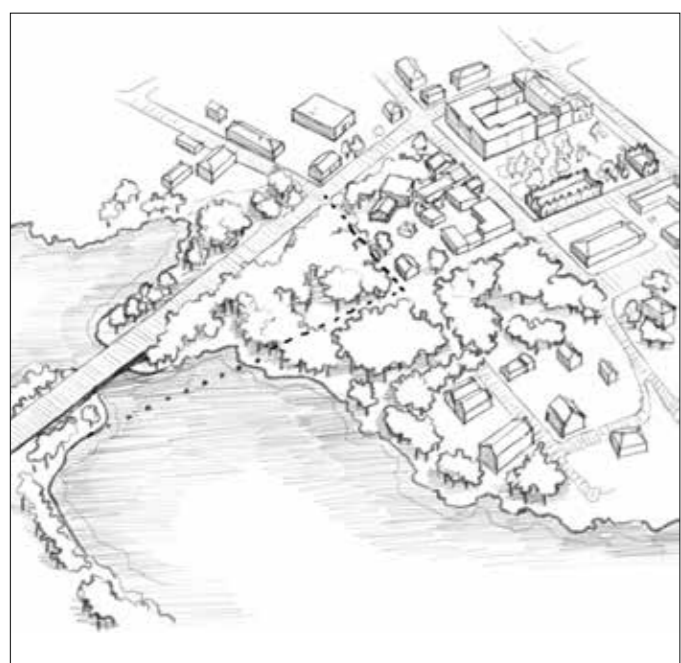
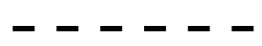


Merchant Raws building, 1910



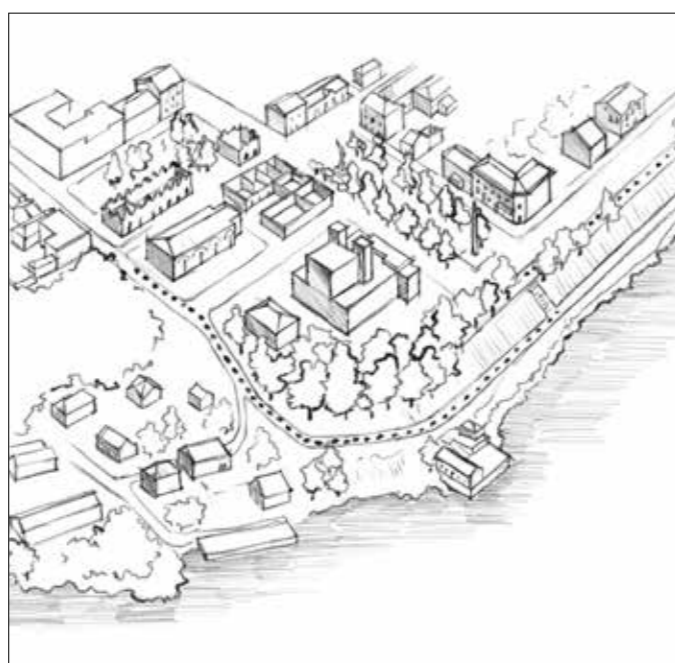


Missing connections



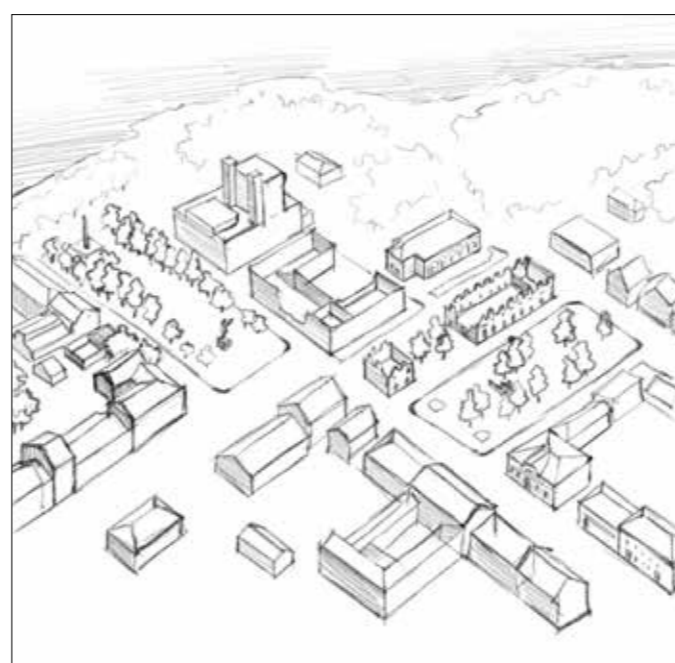
The connection between two sides of Kimrka has historically been the continuation of the Volodarskogo street where the building of Merchant Rows is situated.

Accessible embankments



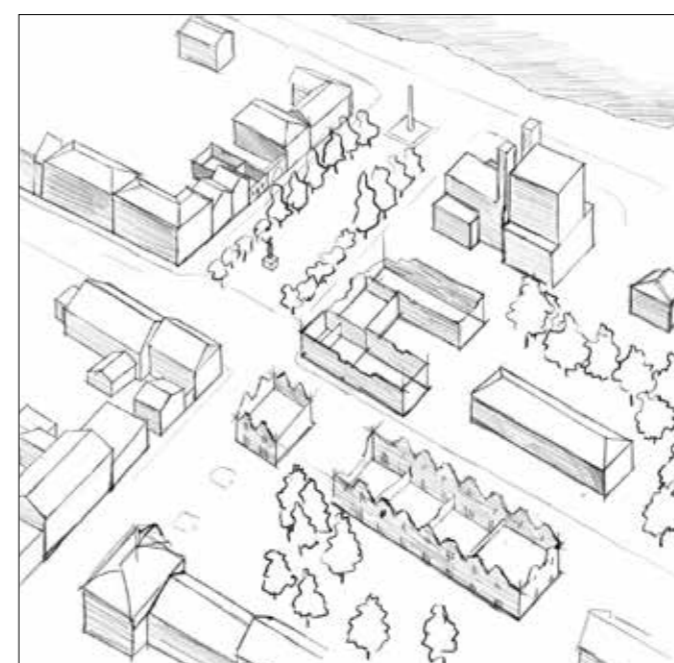
The pedestrian route alongside Volga is currently interrupted by a line of private houses which makes Kimrka embankment difficult to access.

Public spaces



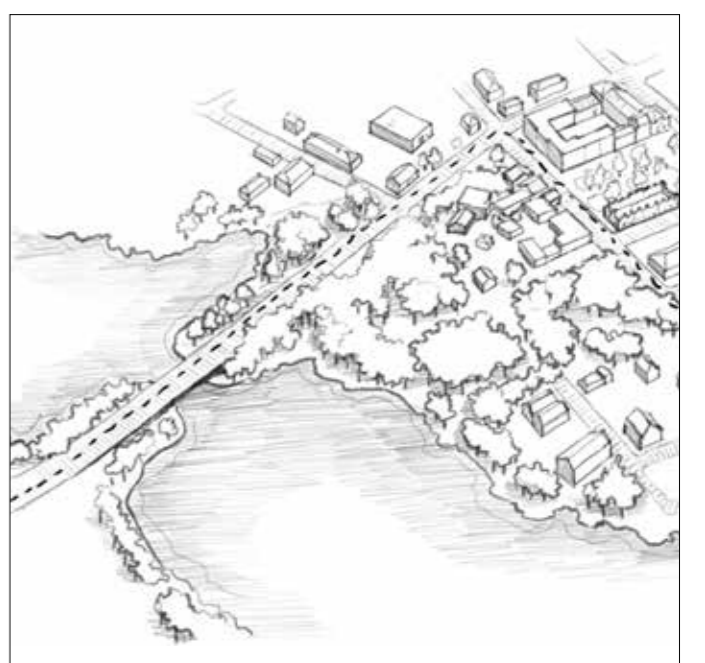
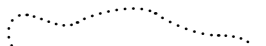
The building of Merchant Rows is surrounded by existing public spaces: The Theater square, facing Volga, and Tupolev square on the other side of the building.

Abandoned buildings



Unfortunately, the central part of Kimrka has a lot of neglected buildings in various states of decay, Merchant Rows building being one of them.

Anaccessible green areas



There is a large portion of unattended greenery between the building of Merchant Rows and Kimrka river which is difficult to access for regular citizens.

Examples of the typology



1. Kimry



2. Kashin



3. Klin



3. Krasny Holm



Historical photos

View of the Merchant Rows from the Central square, 1911, postcard



View of the Pokrovskaiia side of Kimry, 1911, postcard



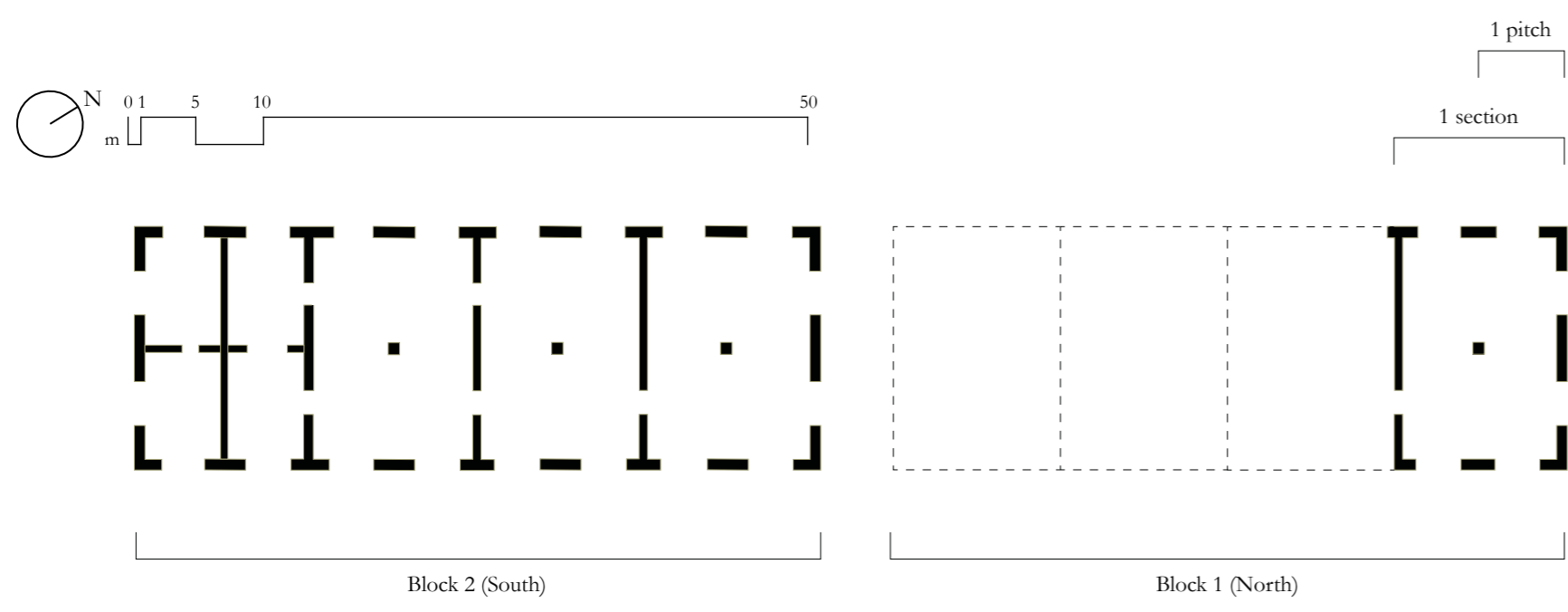
Construction of the Merchant Rows building, 1909, postcard



View of the Guest House building and the Merchant Rows, 1911, postcard



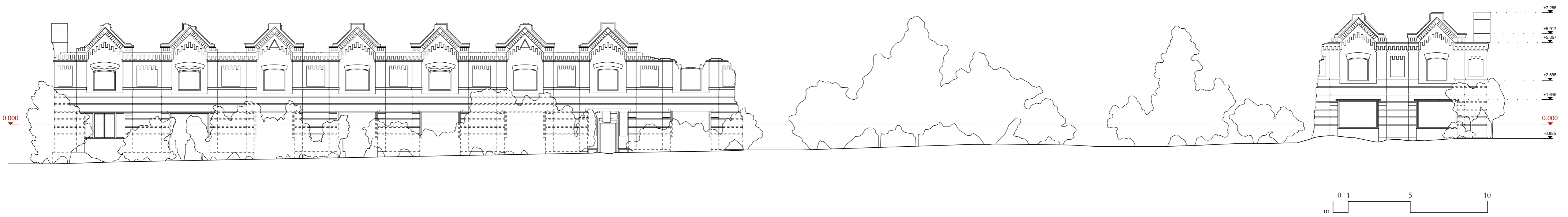
Scheme of the ruin\_plan



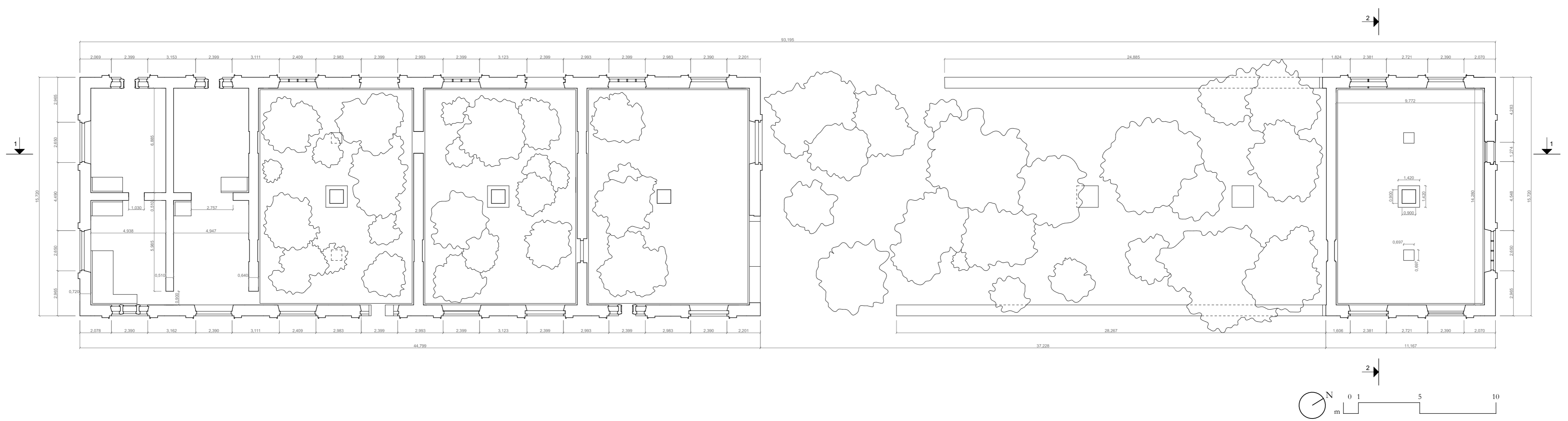
Scheme of the ruin\_facade



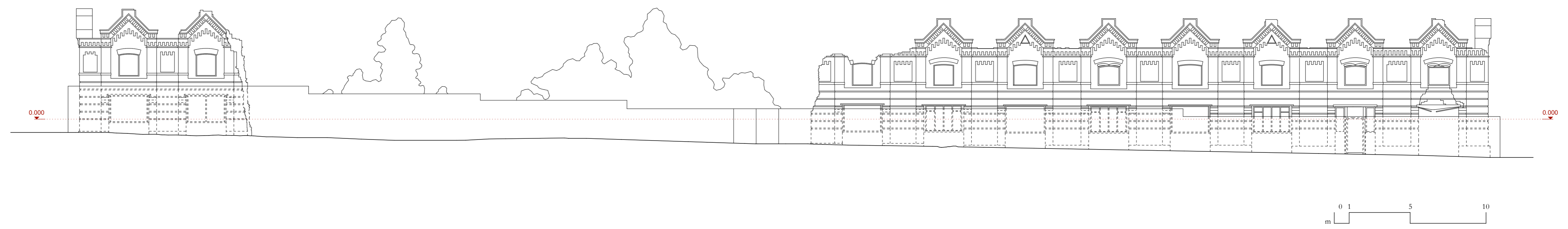
South facade



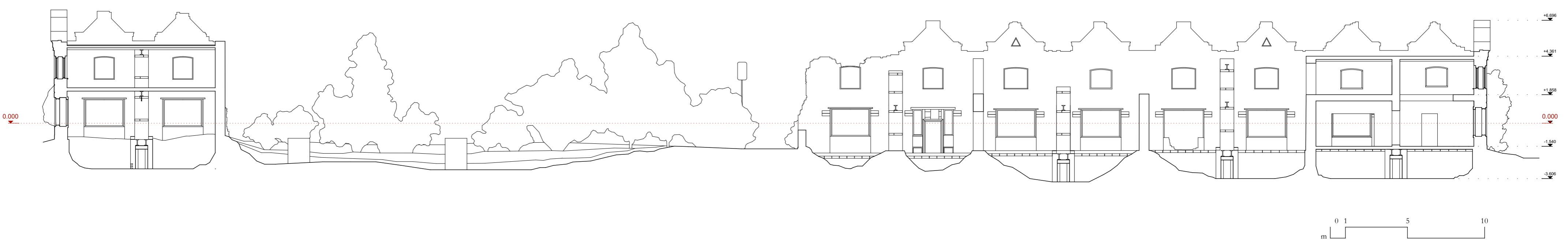
Ground floor plan



North facade



Section\_1-1

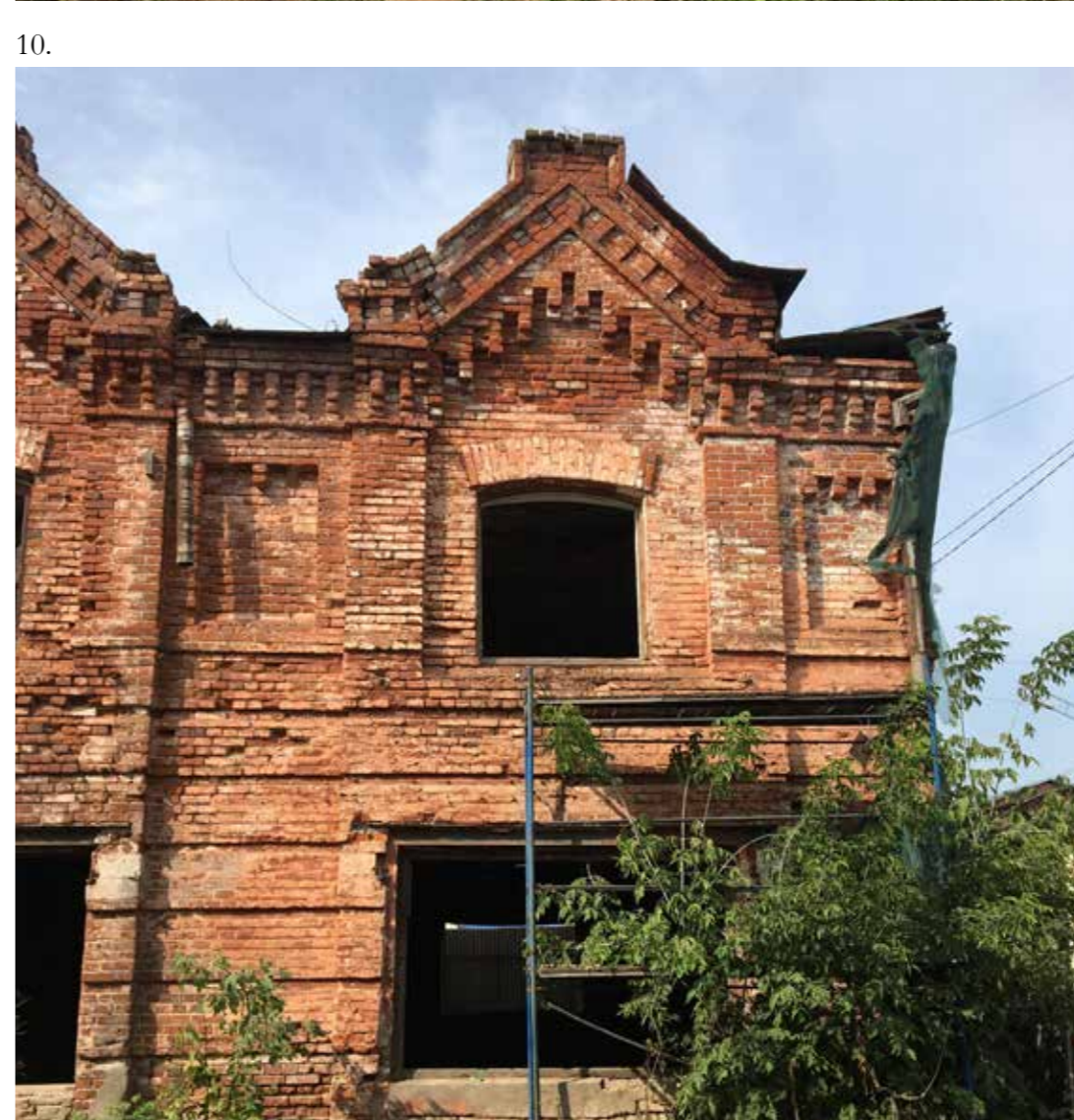
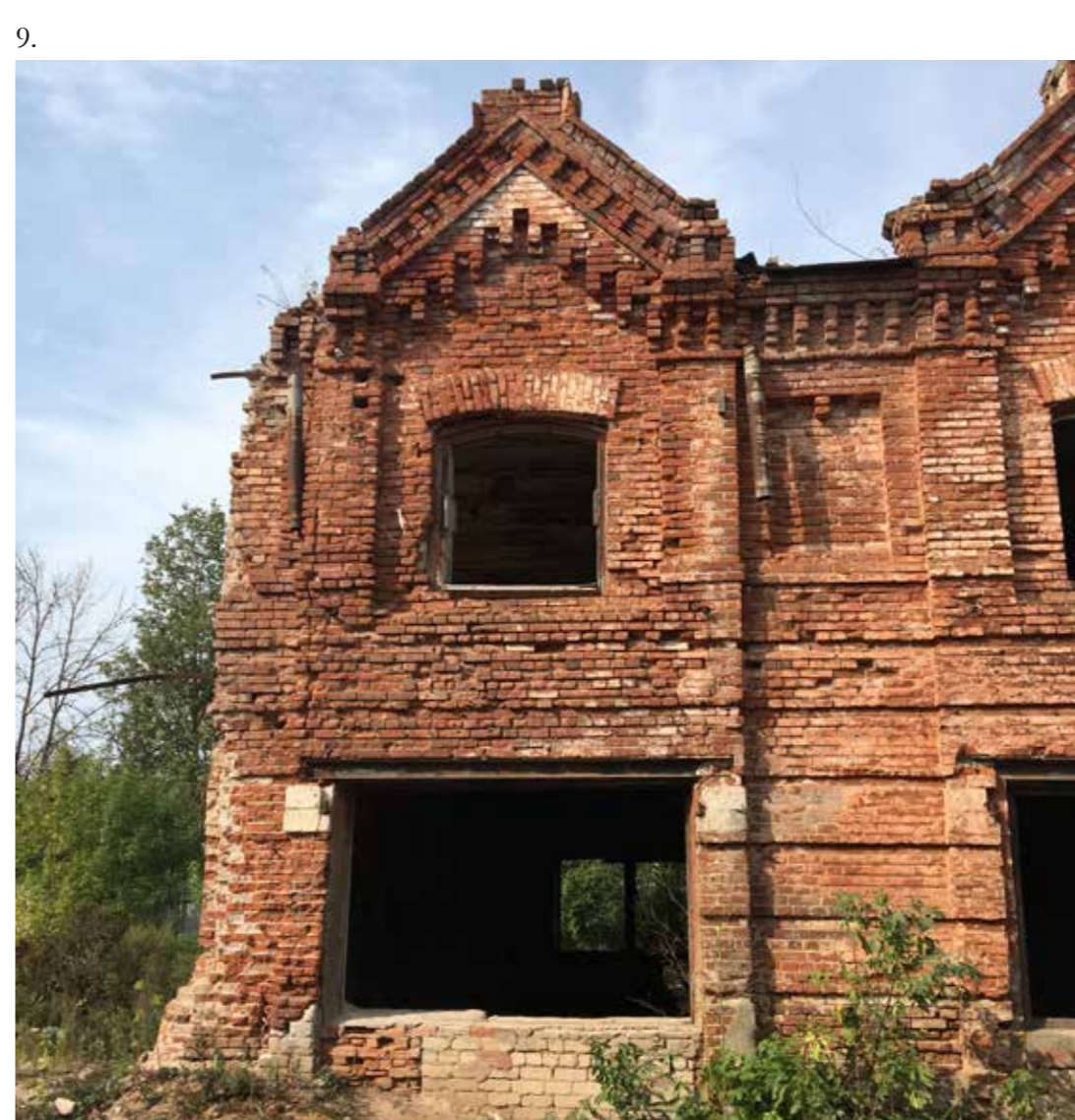
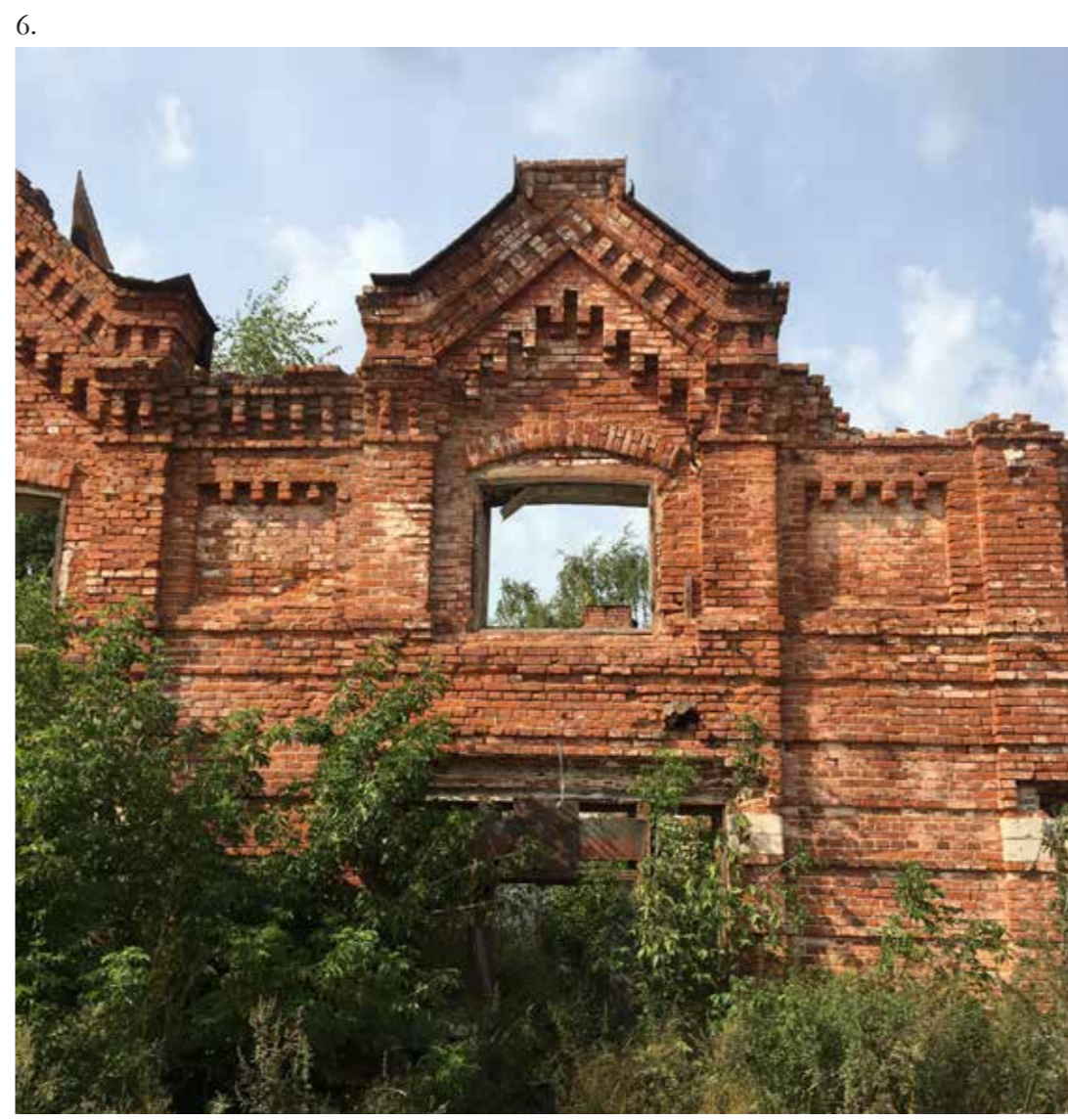
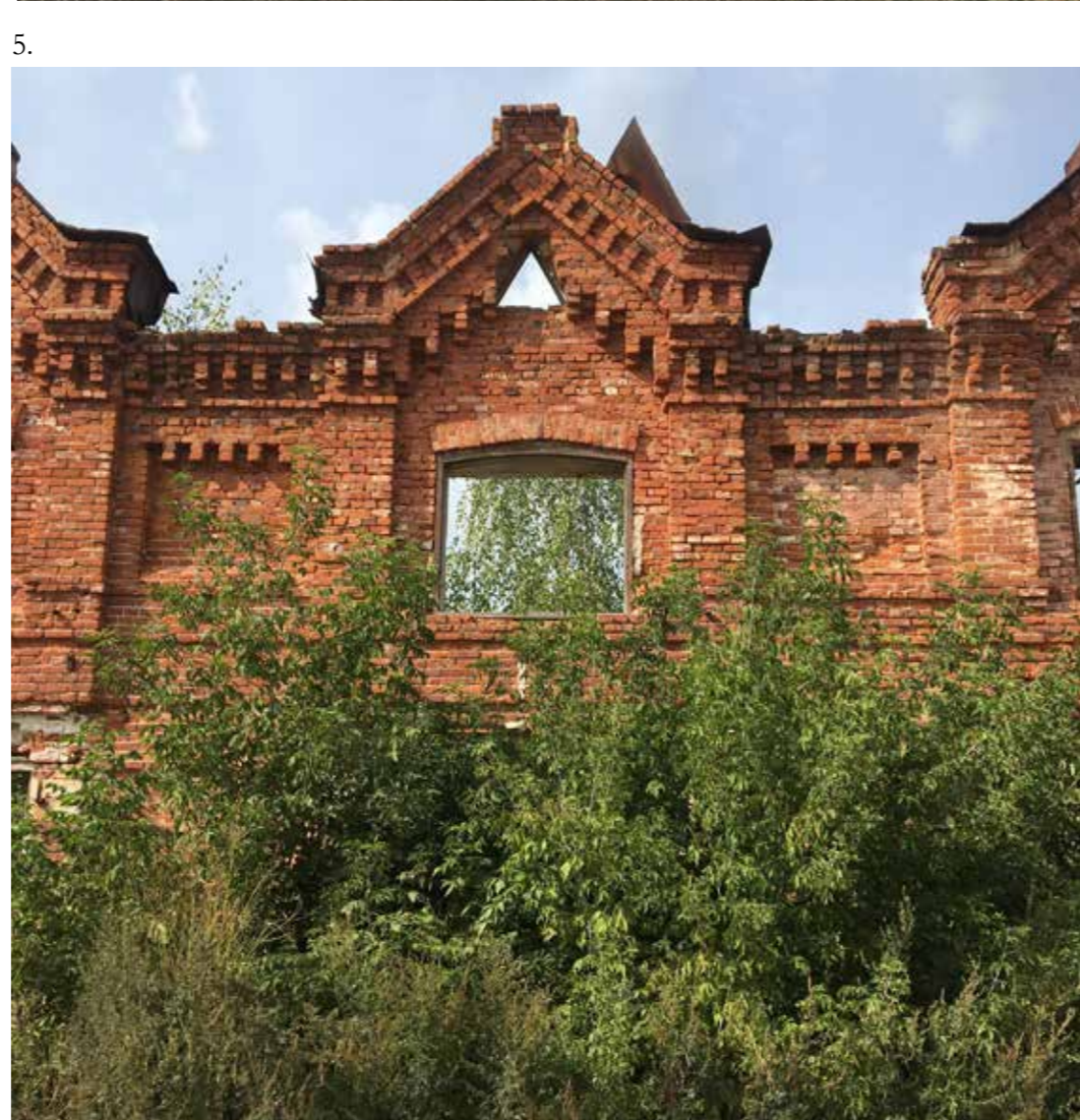
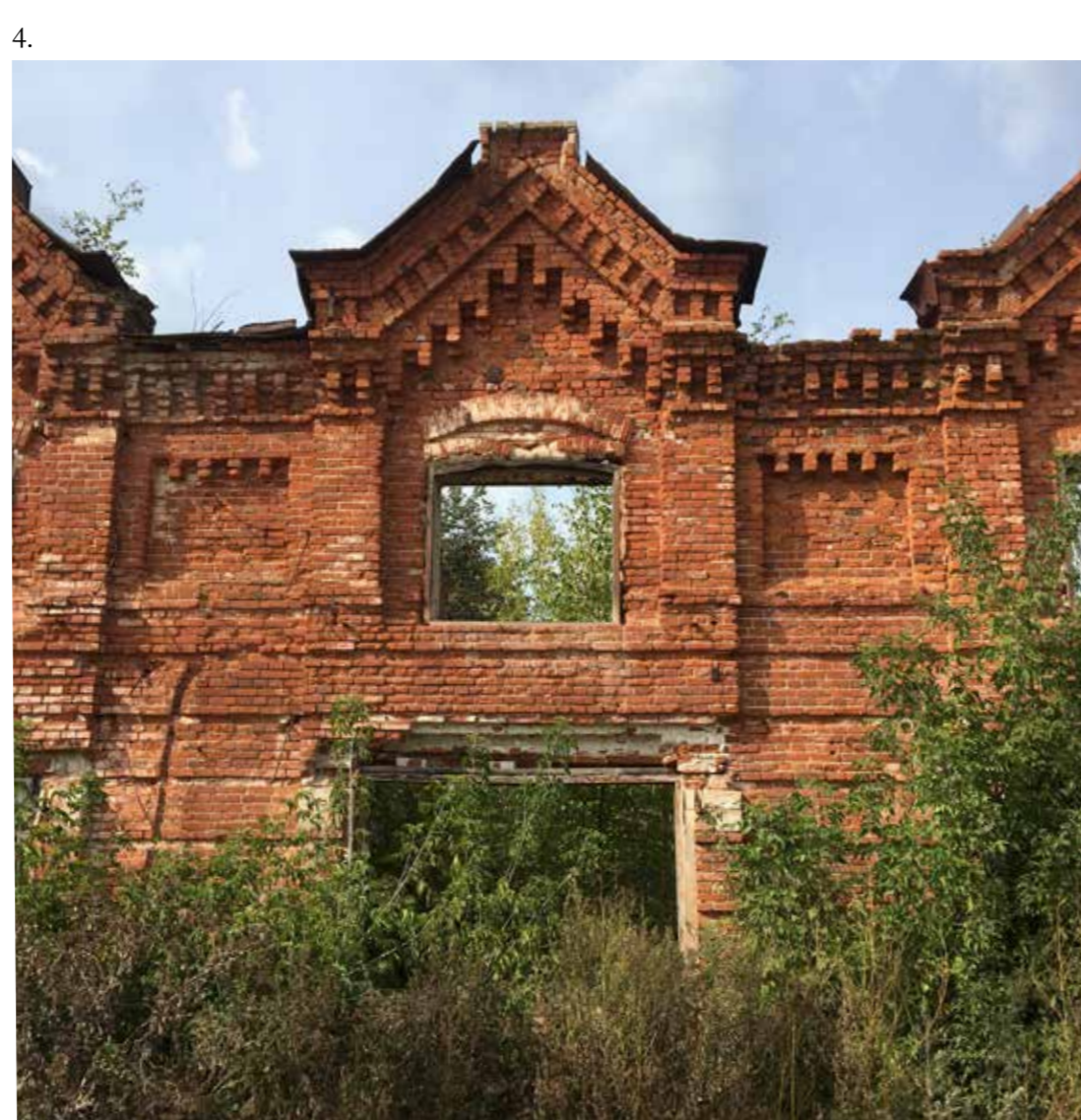
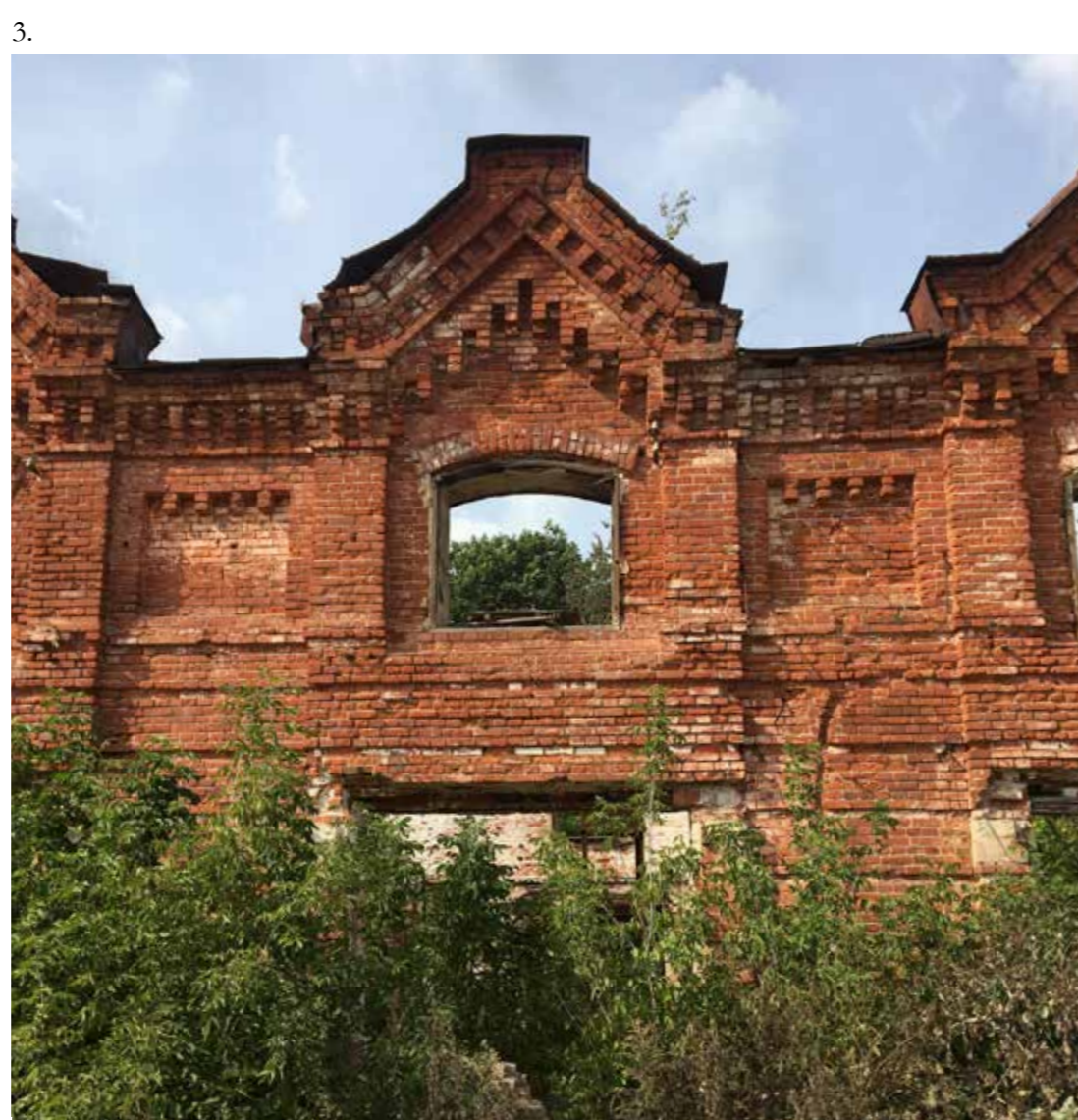
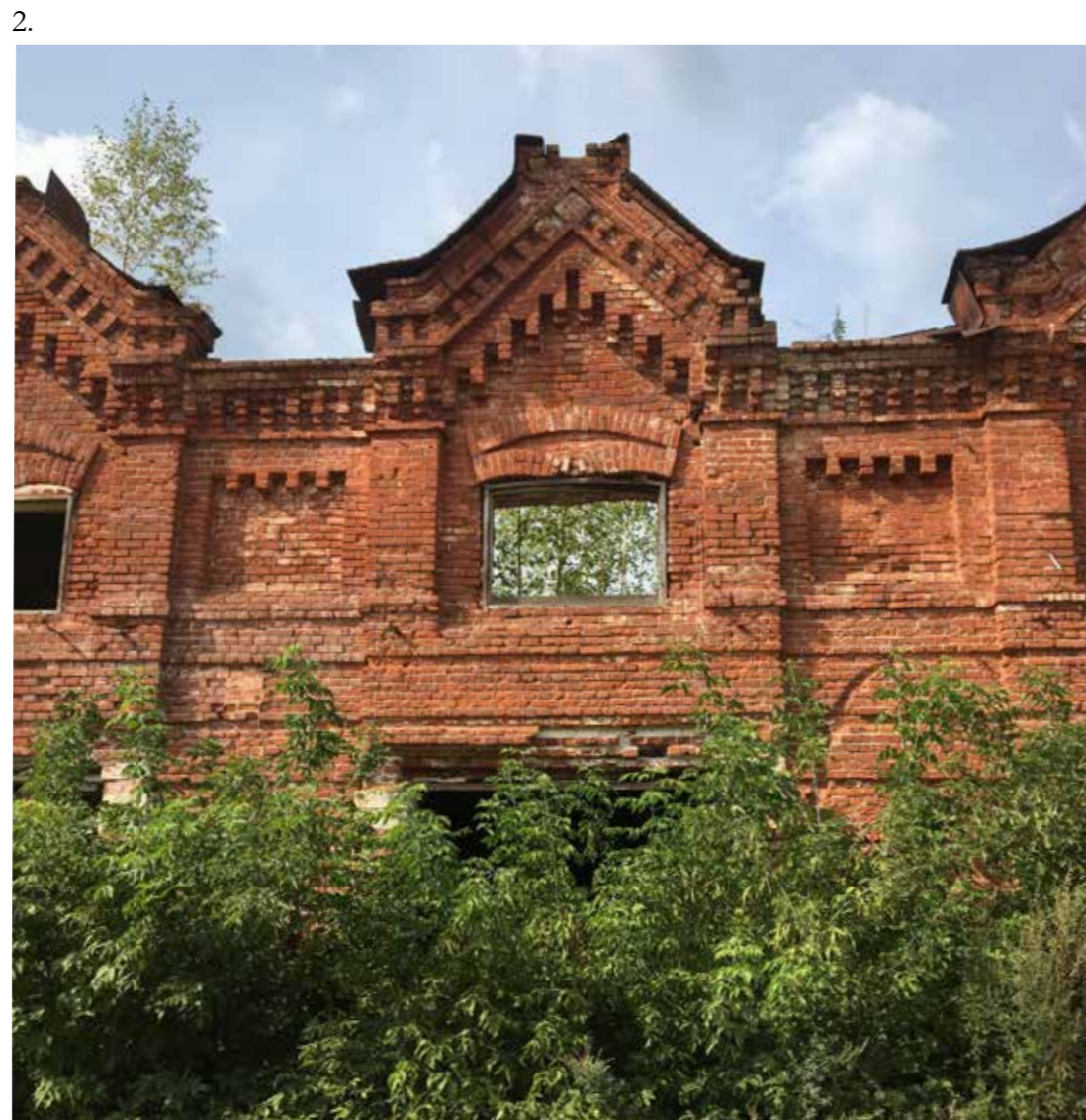
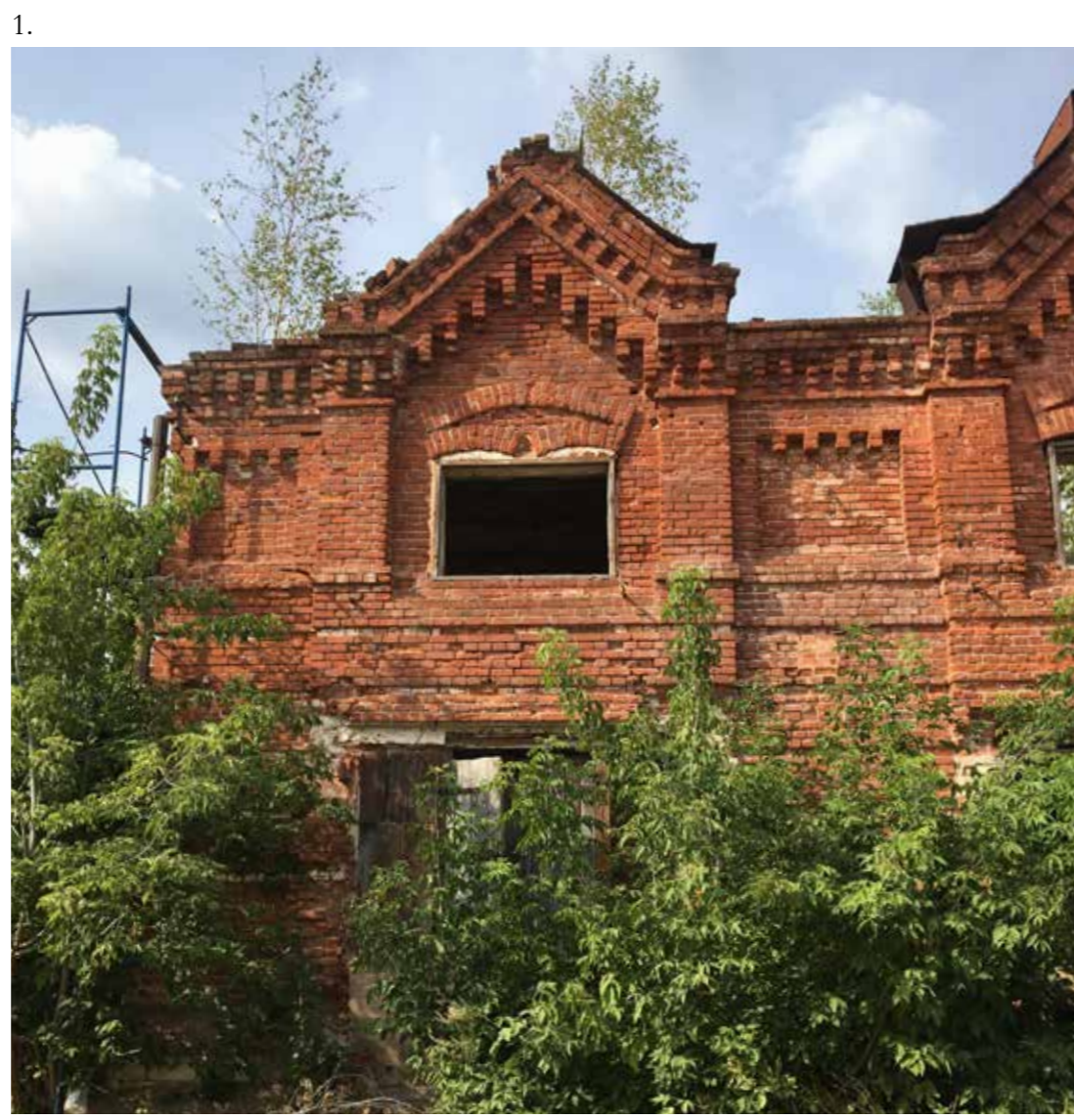


East facade



Section\_2-2





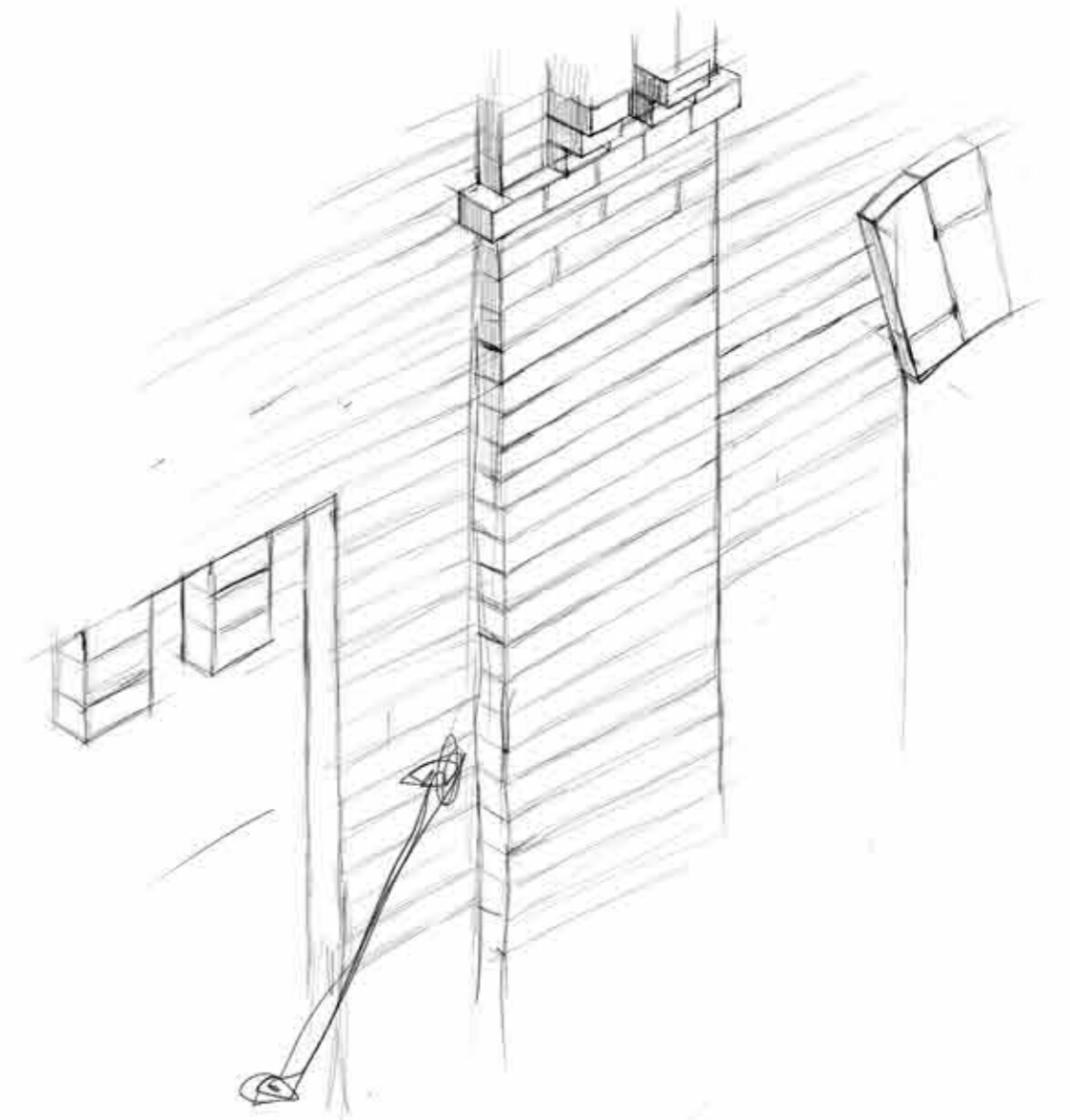


Elements of the building

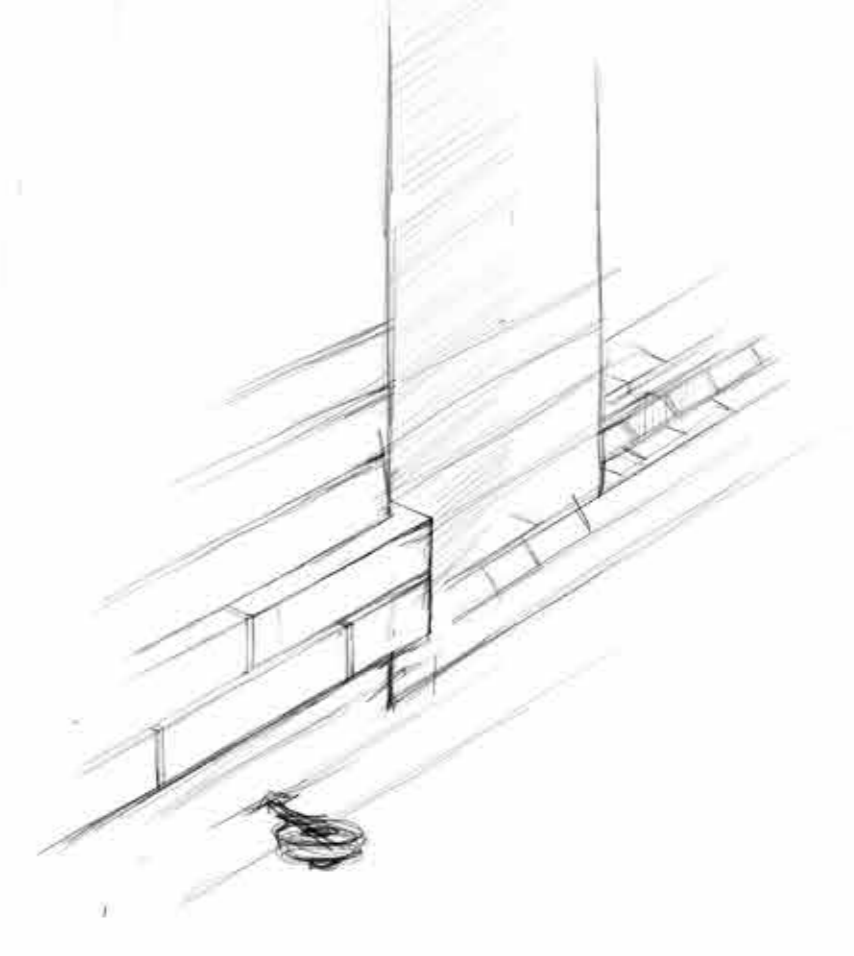
- |                                |                                     |
|--------------------------------|-------------------------------------|
| <b>HORIZONTAL ELEMENTS</b>     | <b>VERTICAL ELEMENTS</b>            |
| 6/ Foundation                  | 1/ Wall                             |
| 6a/ Strip foundation           | 1a/ External loadbearing wall       |
| 6b/ Pillar foundation          | 1b/ Internal loadbearing wall       |
| 7/ Pedestal                    | 1c/ Partition                       |
| 8/ Perimeter path              | 1d/ Lime stone strengthening        |
| 9/ Basement floor              | 2/ Pillar                           |
| 9a/ Structural double-T beams  | 3/ Carpentry framework              |
| 9b/ Wooden floor covering      | 3a/ Ground floor window             |
| 10/ Inserted floor             | 3b/ First floor window              |
| 10a/ Structural double-T beams | 3c/ Skylight window                 |
| 10b/ Wooden floor covering     | 3d/ Door                            |
| 11/ Attic floor                | 4/ Pipe drainage system             |
| 11a/ Structural double-T beams | 5/ Fixtures                         |
| 11b/ Monier vaults             | 5a/ Metal door hinges               |
| 12/ Roof                       | 5b/ Metal shutter hinges            |
| 12a/ Bed timber                | 5c/ Inserted wall metal connections |
| 12b/ Rafters                   |                                     |
| 12c/ Metal sheet covering      |                                     |

Details

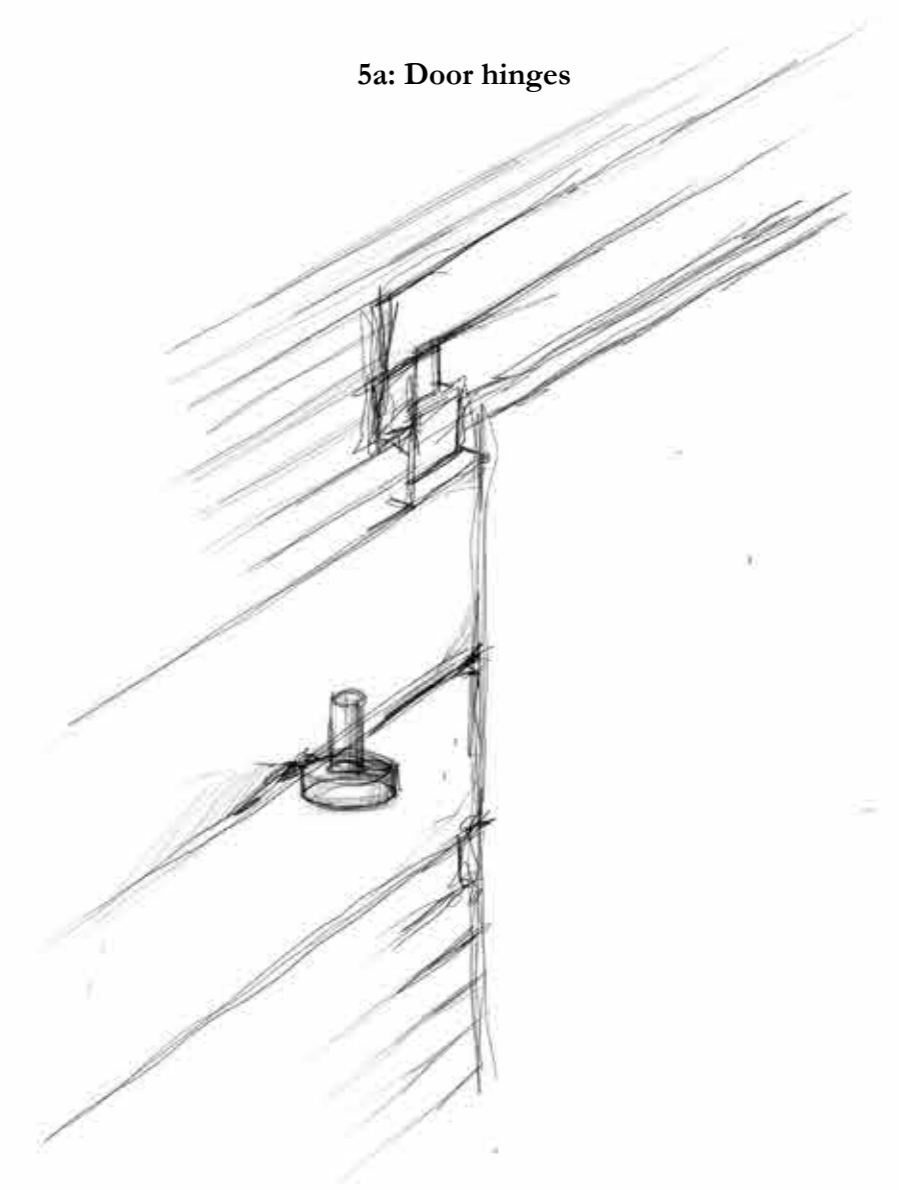
5: Electricity fixtures and shutter locks



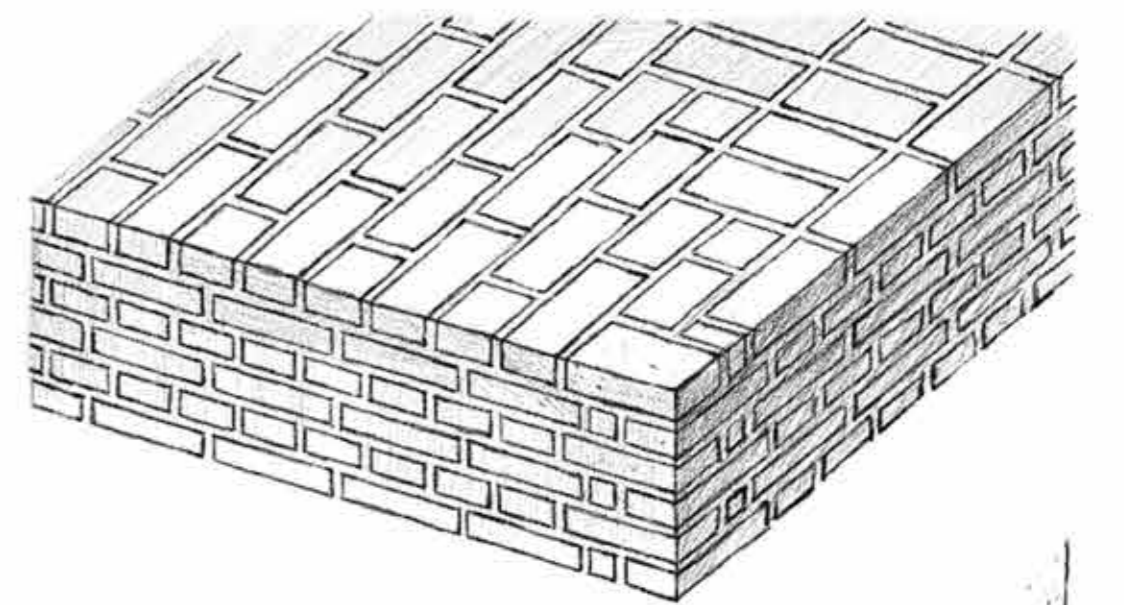
5b: Shutter hinges



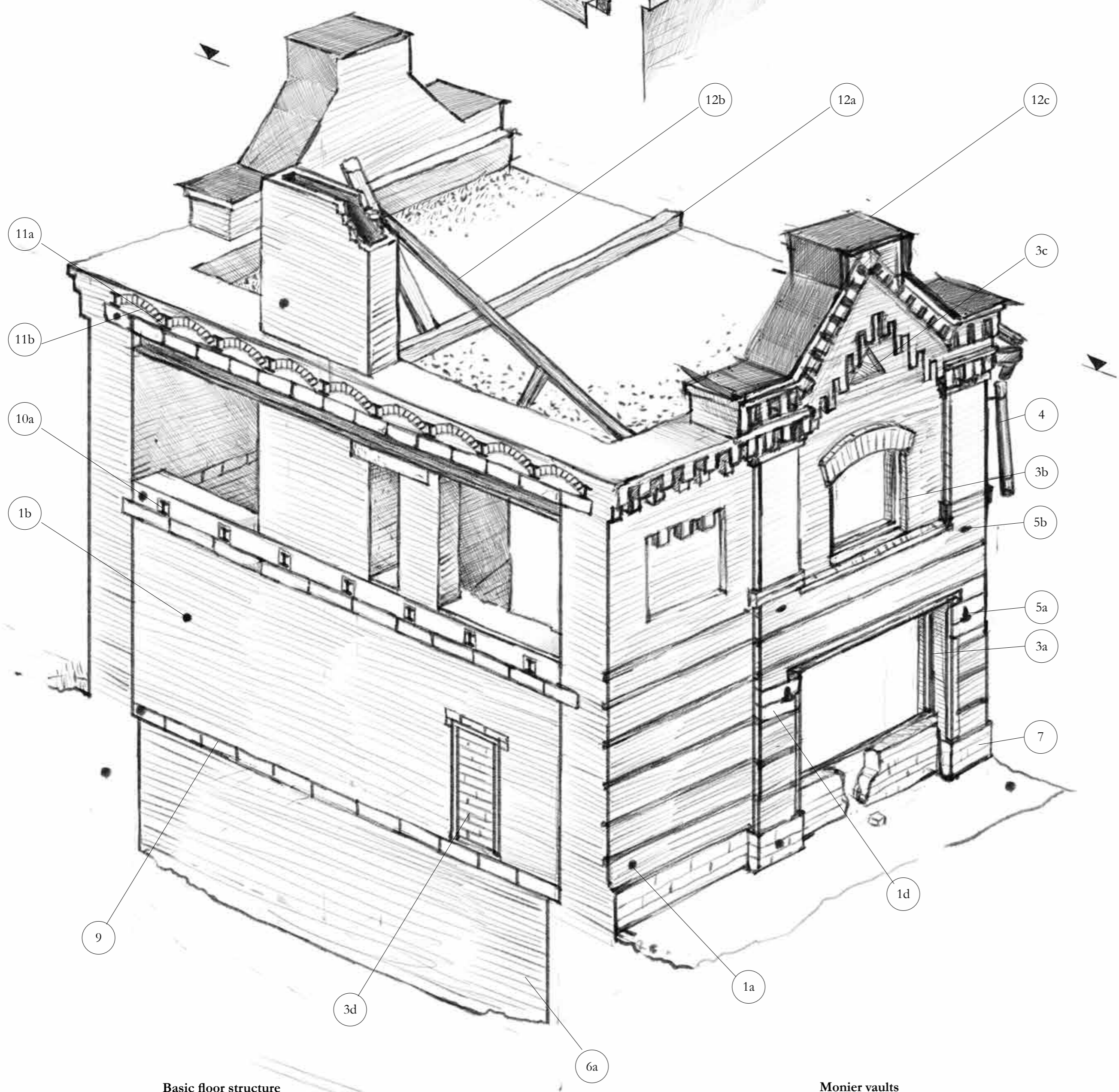
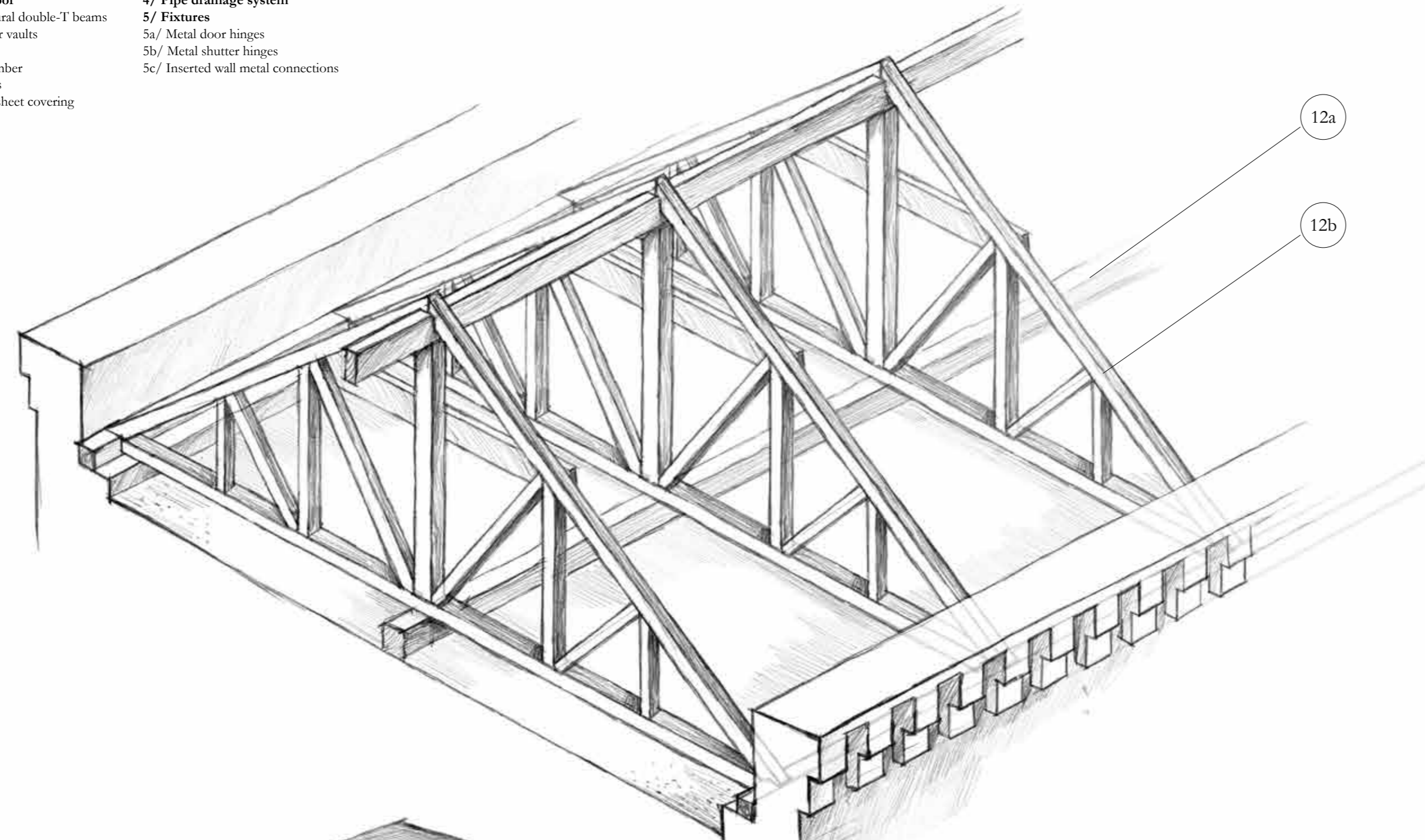
5a: Door hinges



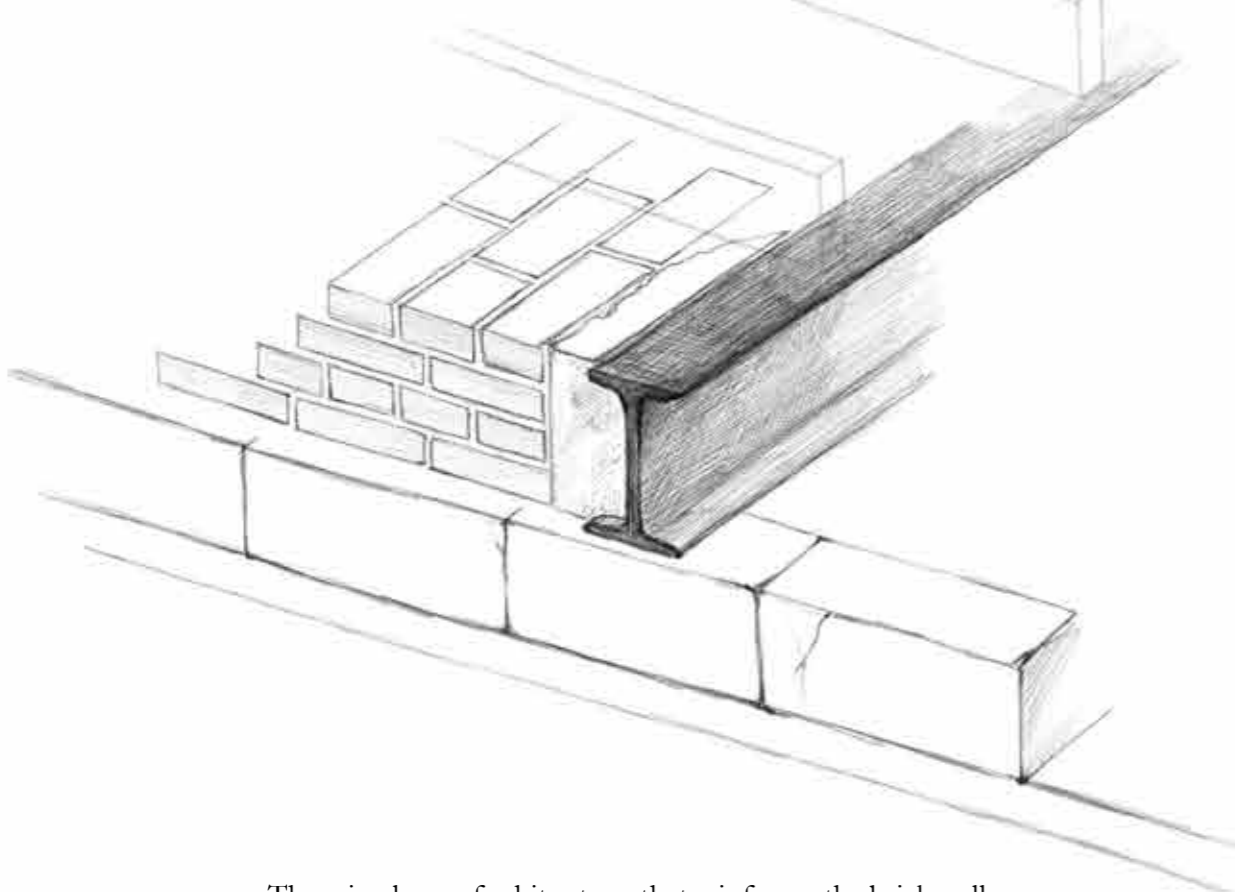
«Chain» brickwork



«Chain» brickwork is an ancient method that makes sure that there are no overlapping seams. The mass of loadbearing wall is constructed in this way, although the decorative parts of the pitches may differ

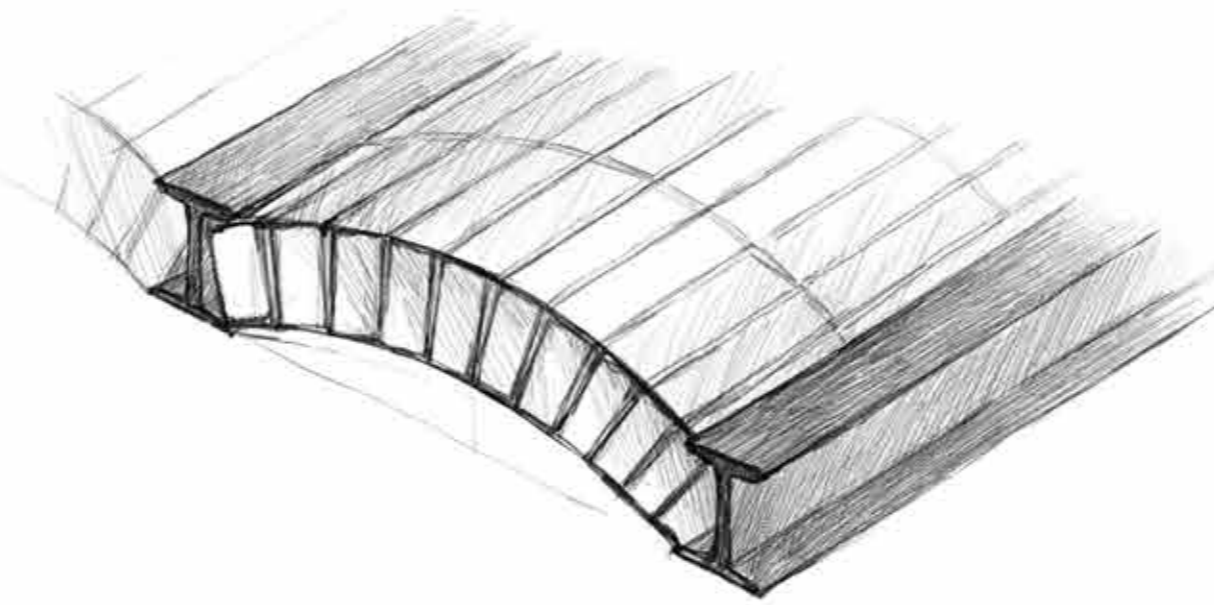


Basic floor structure



There is a layer of white stone that reinforces the brick wall beneath a layer of flooring. The main structural support of every floor consists of metal double-T beams of various profiles with a layer of wooden planks over them.

Monier vaults



Monier vault is a type of construction very popular within russian brick style architecture. The metal beams support small brick arches, creating a rippling effect in the interior

Scale 2: the river

Tverskaia district



Types of intervention

1. Propose an affordable infrastructure for reestablishment of Volga passenger shipping
2. Restore preexisting piers for minor hydrofoil ships
3. Encourage local boat owners
4. Improve accessibility of minor historical cities that are not directly connected to the railway system

Stakeholders



1. «Vodohod»: Volga passenger shipping association
2. «The National Fund of Development of Minor Historical cities and settlements»: an official government organization financing local initiative in minor historical cities and settlements
3. «Heritage keepers»: a private independent organization, working with cultural heritage on national scale
4. «ArchNadzor»: a

Scale 2: the city

City of Kimry

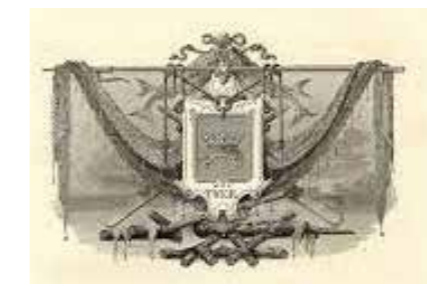
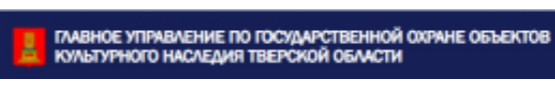


Types of intervention

Considering three scales of the research I propose three scales of intervention:

1. Conserve and enhance the Merchant Raws building
2. Restore the pier on the Voznesenskaia side of historical center
3. Reintroduce the missing link between the two sides
4. Create an uninterrupted sequence of Volga embankments in the historical center

Stakeholders



1. «Tverskie svody»: an independent organization dedicated to collecting a preserving data of Tverskaia district architectural heritage
2. «Main Directorate for the State Protection of Cultural Heritage Sites of the Tver Region»: an administrative body responsible for heritage preservation
3. «Guardians of Upper Volga»: an independent heritage preservation organisation operating on a national scale
4. «The Society of Tverskoy National Museum»: the association of local museums of Tverskaia district
5. «Tver Digest»: independent public news portal focused on cultural events

Scale 3: the building

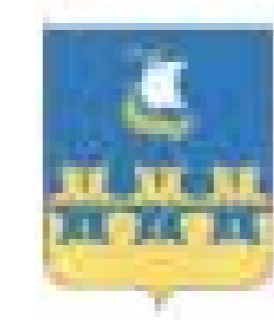
Building of the Merchant Raws



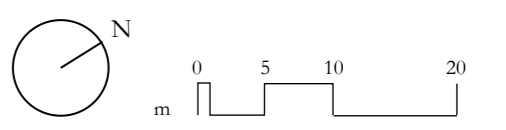
Types of intervention

1. Conserve and consolidate of the ruin of the Merchant Raws building
2. Make reversible additions to the structure responding to specific types of damage
3. Create a public green area on the site of the missing block of the building
4. Impact the local community by introduction of multiple public functions to the building: an exposition space, a public area, a recreational area

Stakeholders



1. «Kimry local museum»: museum of Kimry history with a hard lean into industrial production
2. «Tom Sawyer Fest»: an independent organization that manages volunteers in an effort to restore abandoned or neglected buildings
3. Kimry City Administration
4. «Selskaia Tzerkov» Center: An independent organization that monitors restoration of religious monument in Kimrsky municipality
5. «Minor Historical Cities and Settlements» competition: an annual event organized by the Ministry of Culture for aspiring projects in urban development



**Different types of damage to the building**

Various sections of the ruin have survived in different ways. The remaining sections of the northern block and the two sections of the southern block still have the floor structure partially intact, while the majority of the southern block has only the loadbearing walls and pillars in place. In response to the type of damage and intended functional use I decided to adopt different types of roof structure.

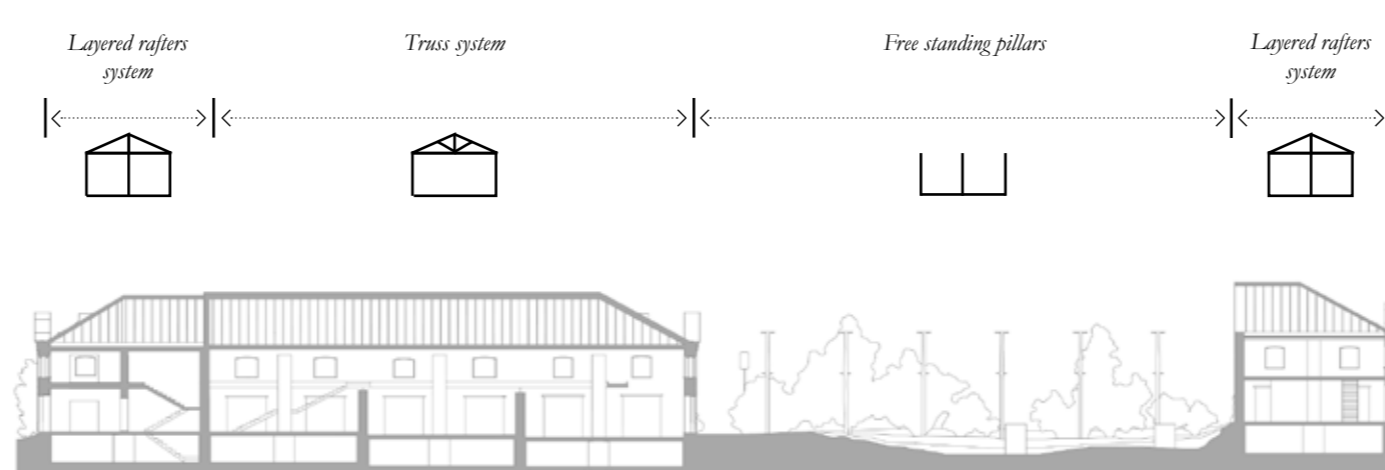


**Kimry Local Museum: Temporary Exhibition space**

I consider the Kimry Local Museum and Tom Sawyer Fest as two of the main stake holders, since both organizations have a lot of unexhibited material stored due to the lack of appropriate space.

**Different types of construction systems**

For the parts of the building that still have the attic floor structure intact I decided to use a system of rafters, which was the original type of roof construction for the building of Merchant Rows. For the parts that miss the floors entirely I chose to use the truss system, since it leaves an opportunity to leave the roof structure exposed in the interior.

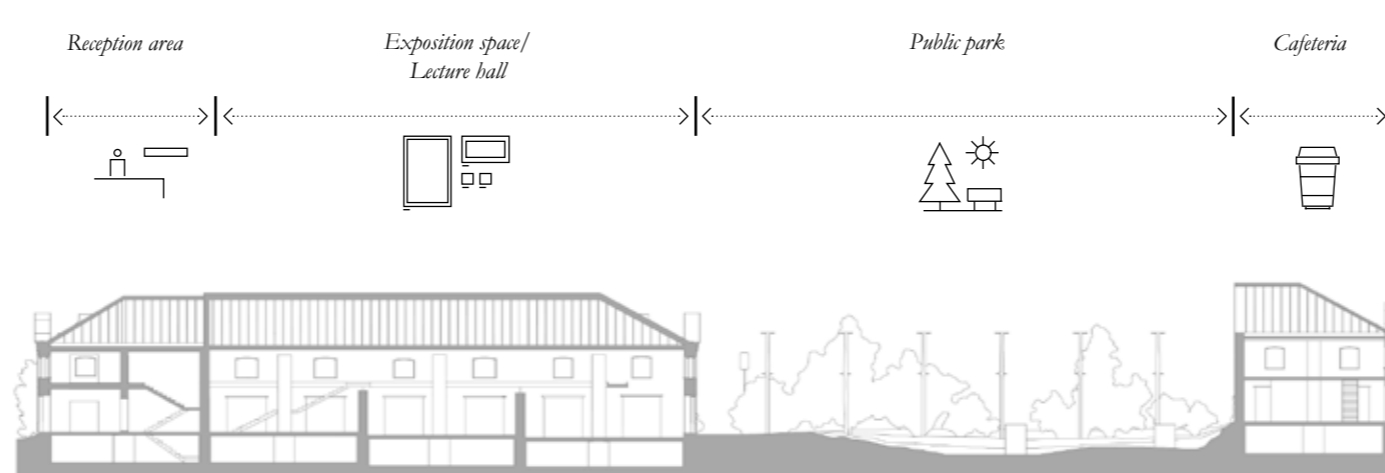


The building of Kimry Local Museum



**Different types of functional use**

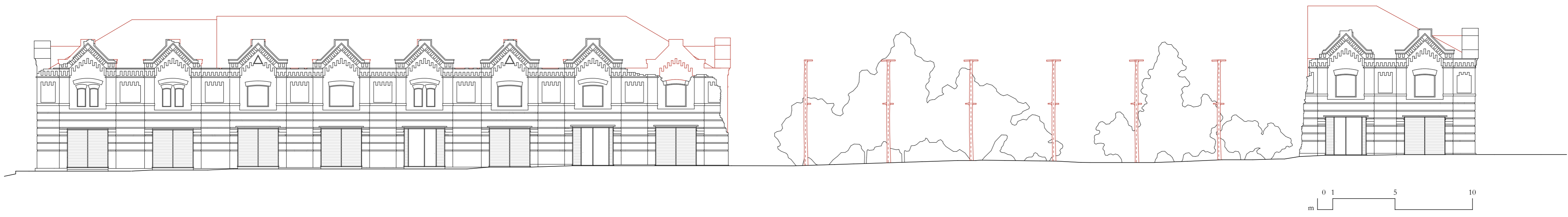
The different types of construction systems create a sequence of visually contrasting spaces. The large space with an exposed truss system is used as an exhibition space. The remaining two sections of the northern block are used as a small canteen facing the Theater square, which is the main meeting point of the Kimry city.



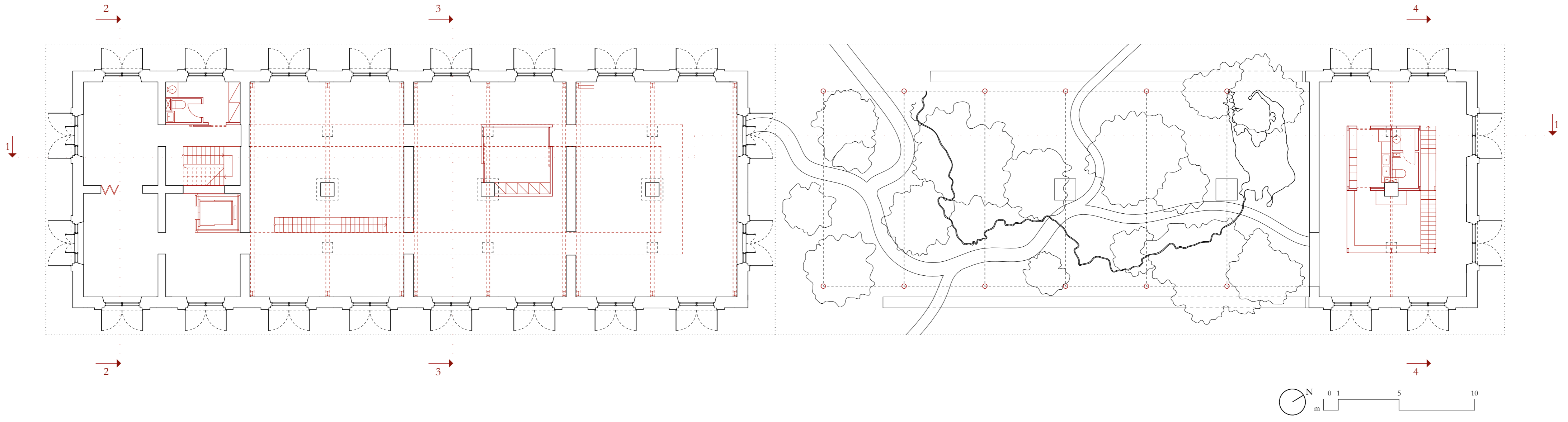
House of Tupolev Headquarters of Tom Sawyer Fest



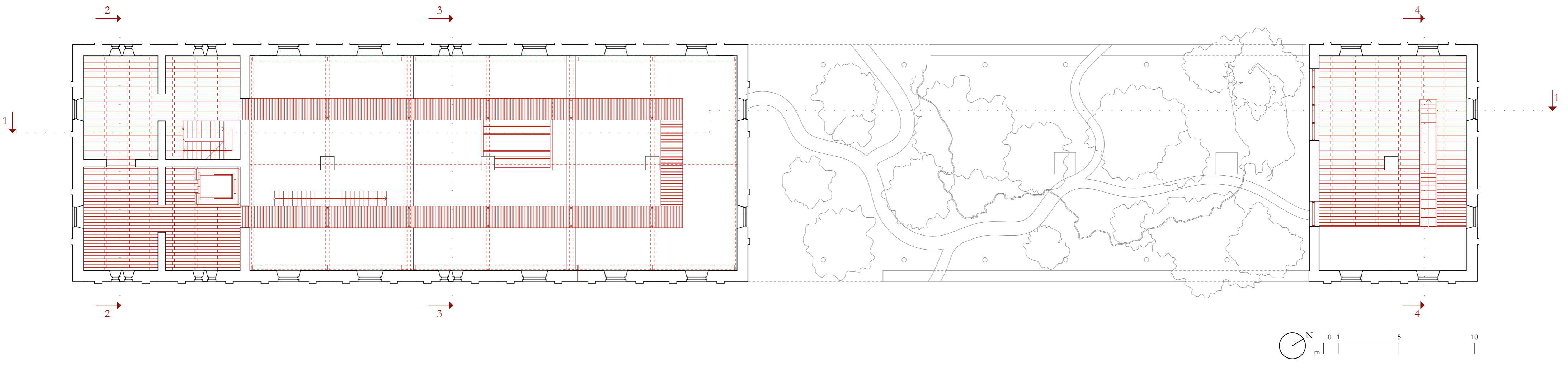
South facade



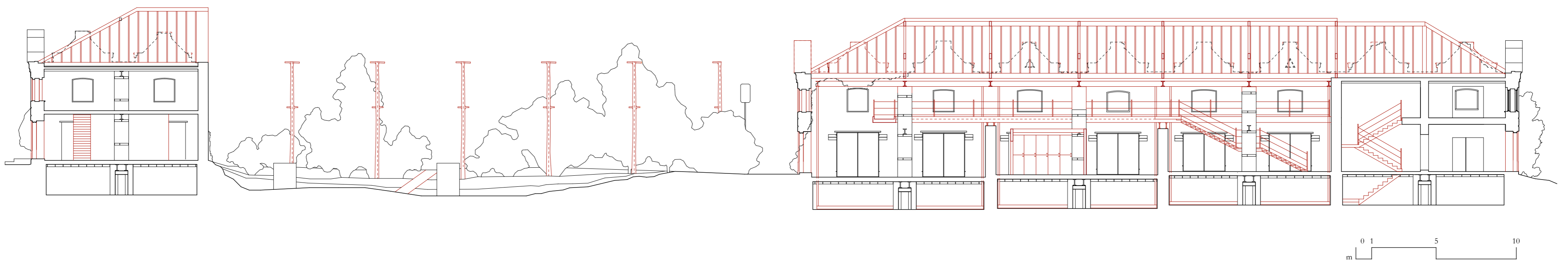
Ground floor plan



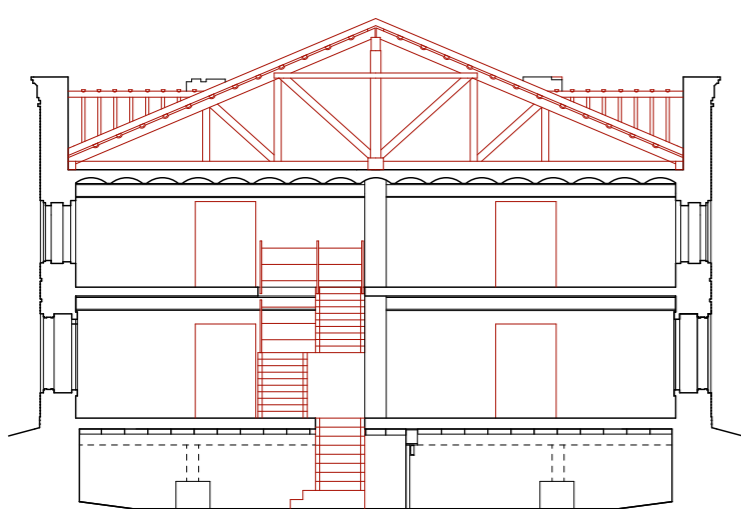
First floor plan



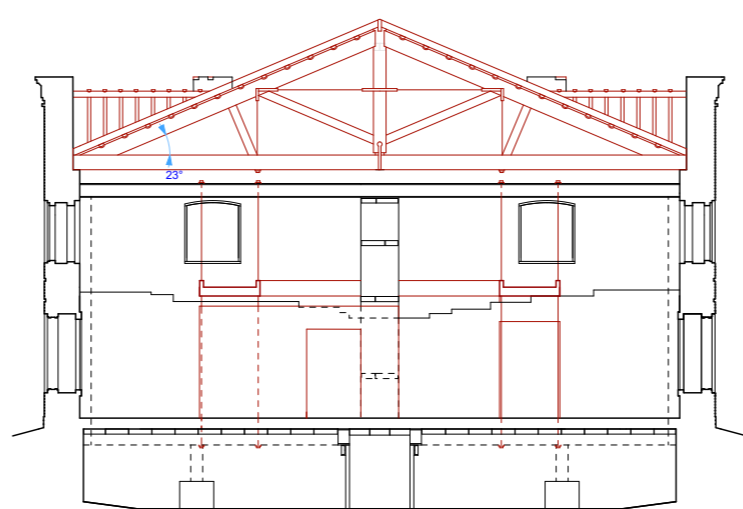
Section\_1-1



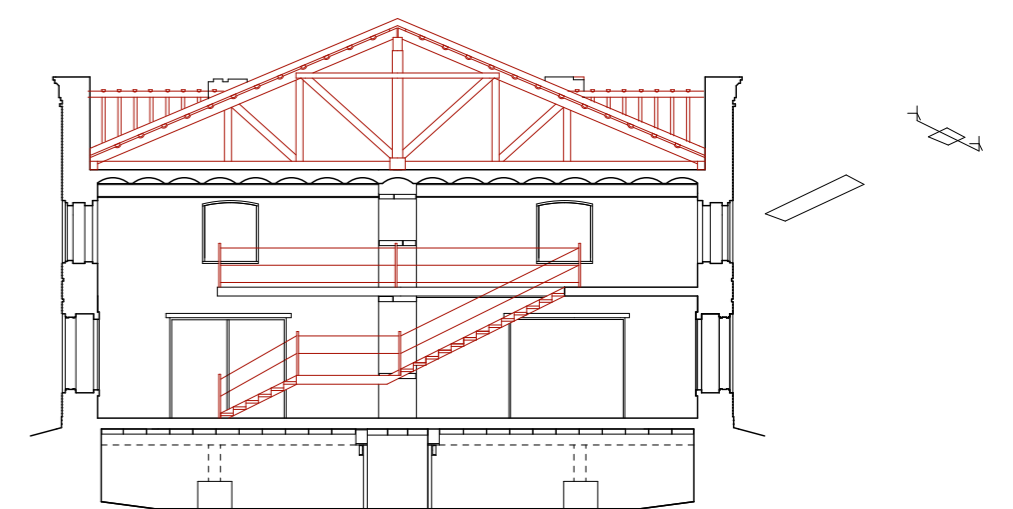
Section\_2-2



Section\_3-3



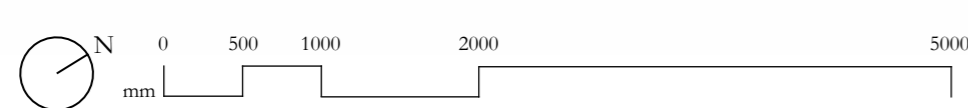
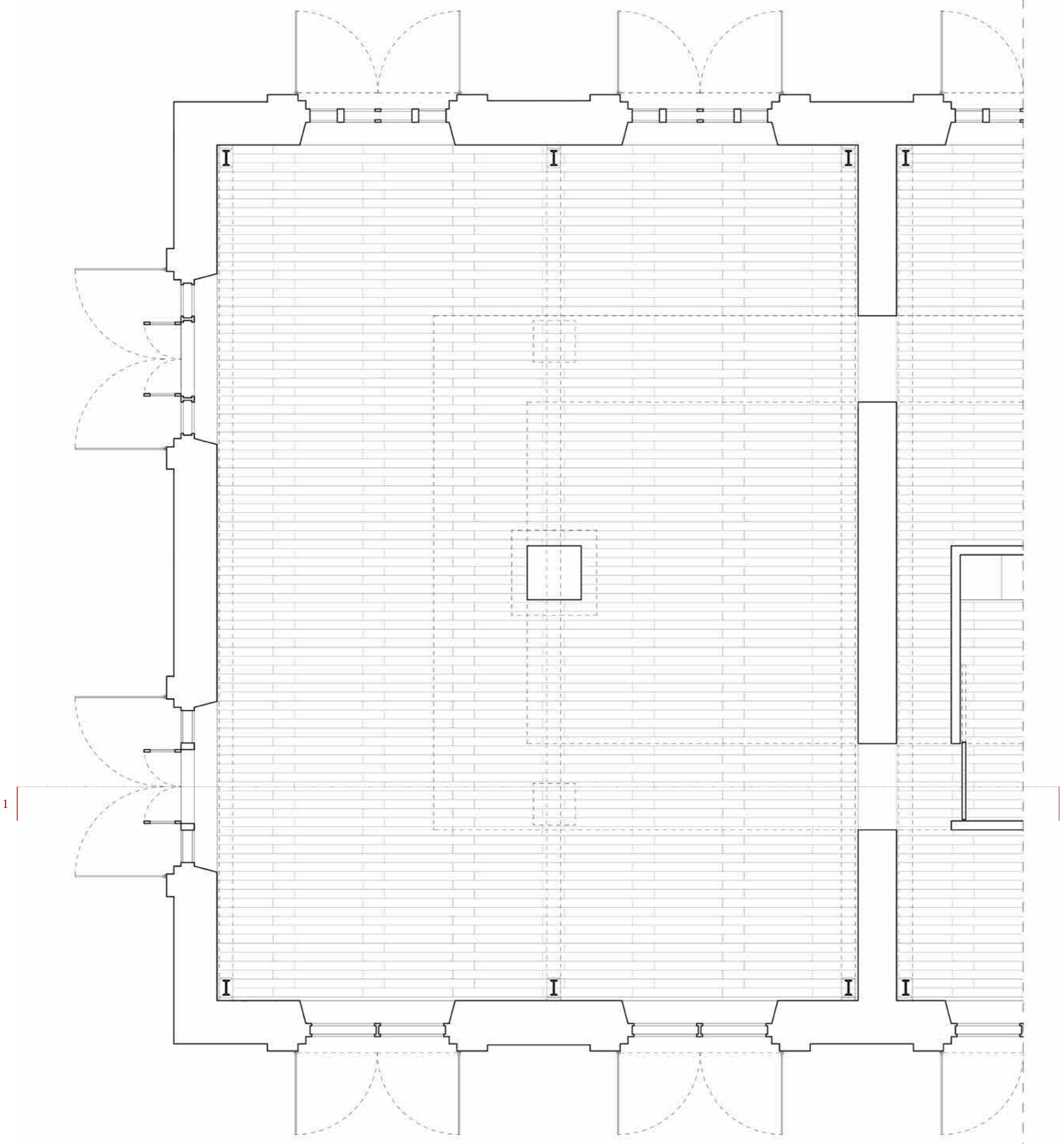
Section\_4-4



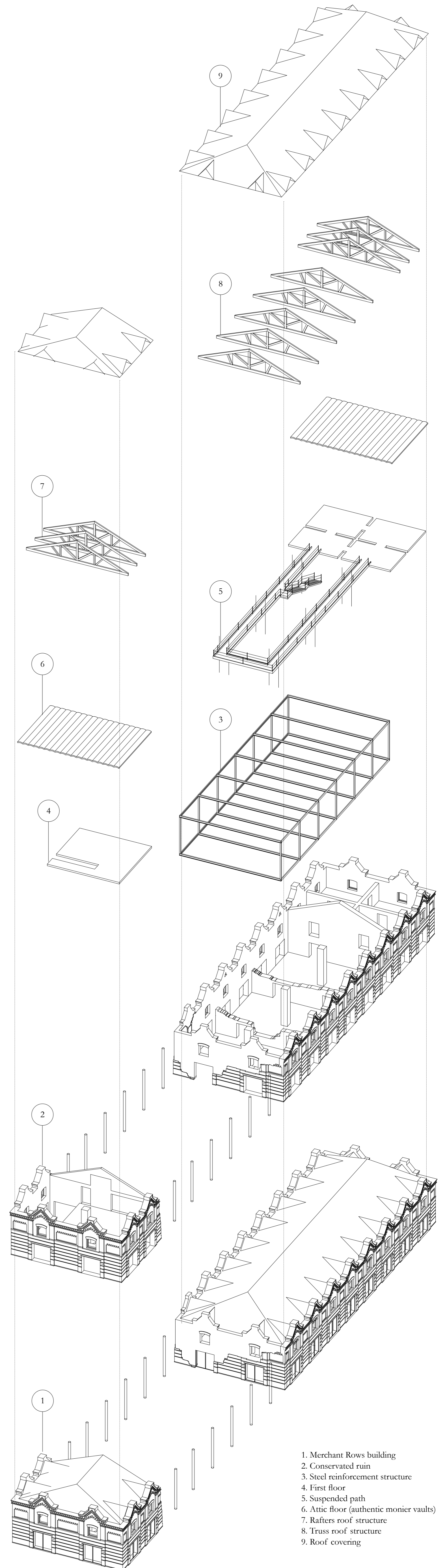
Section 1-1



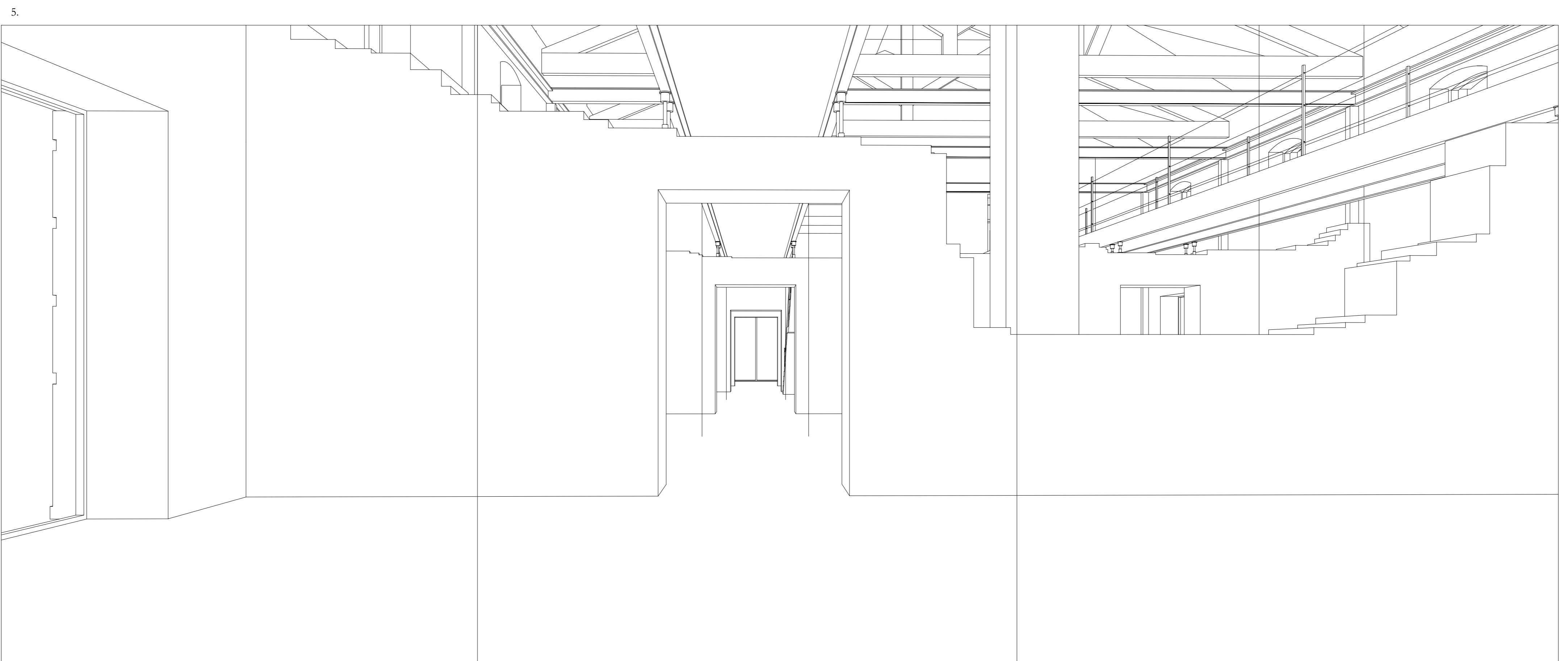
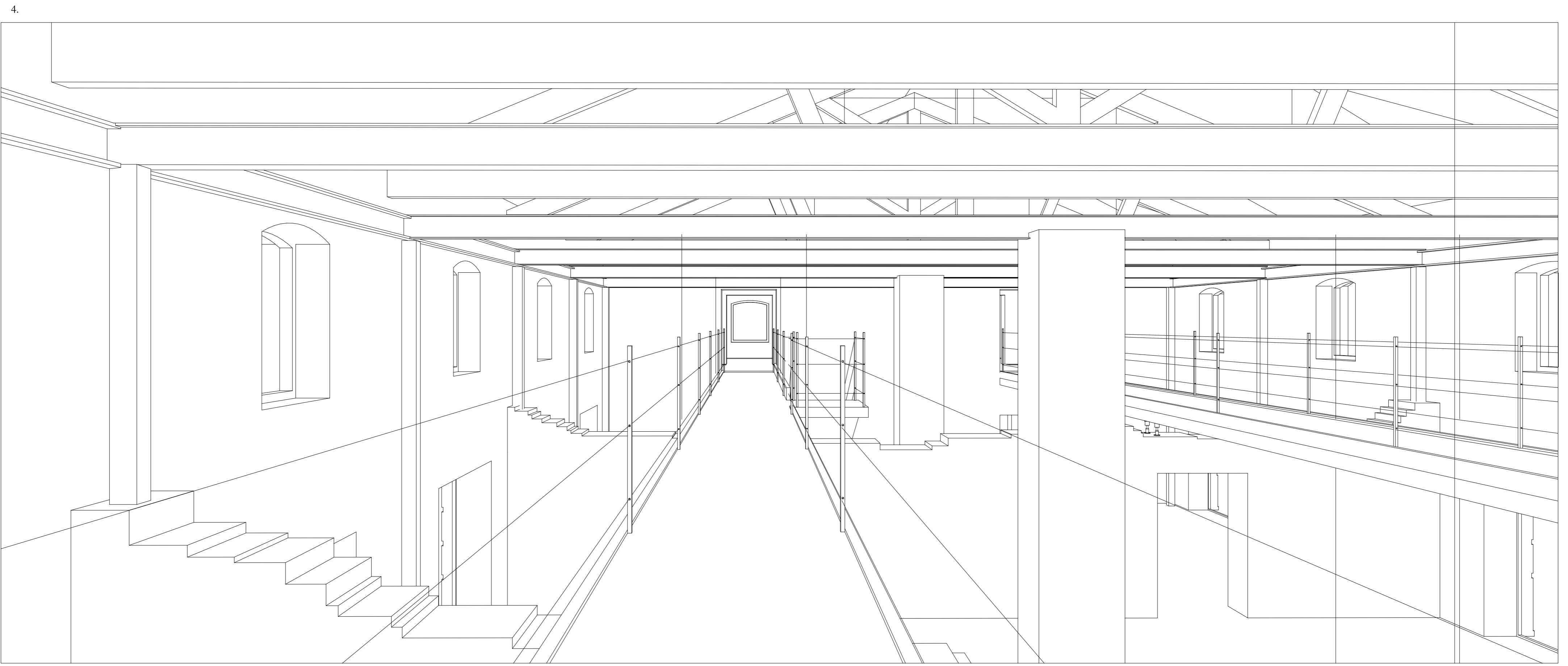
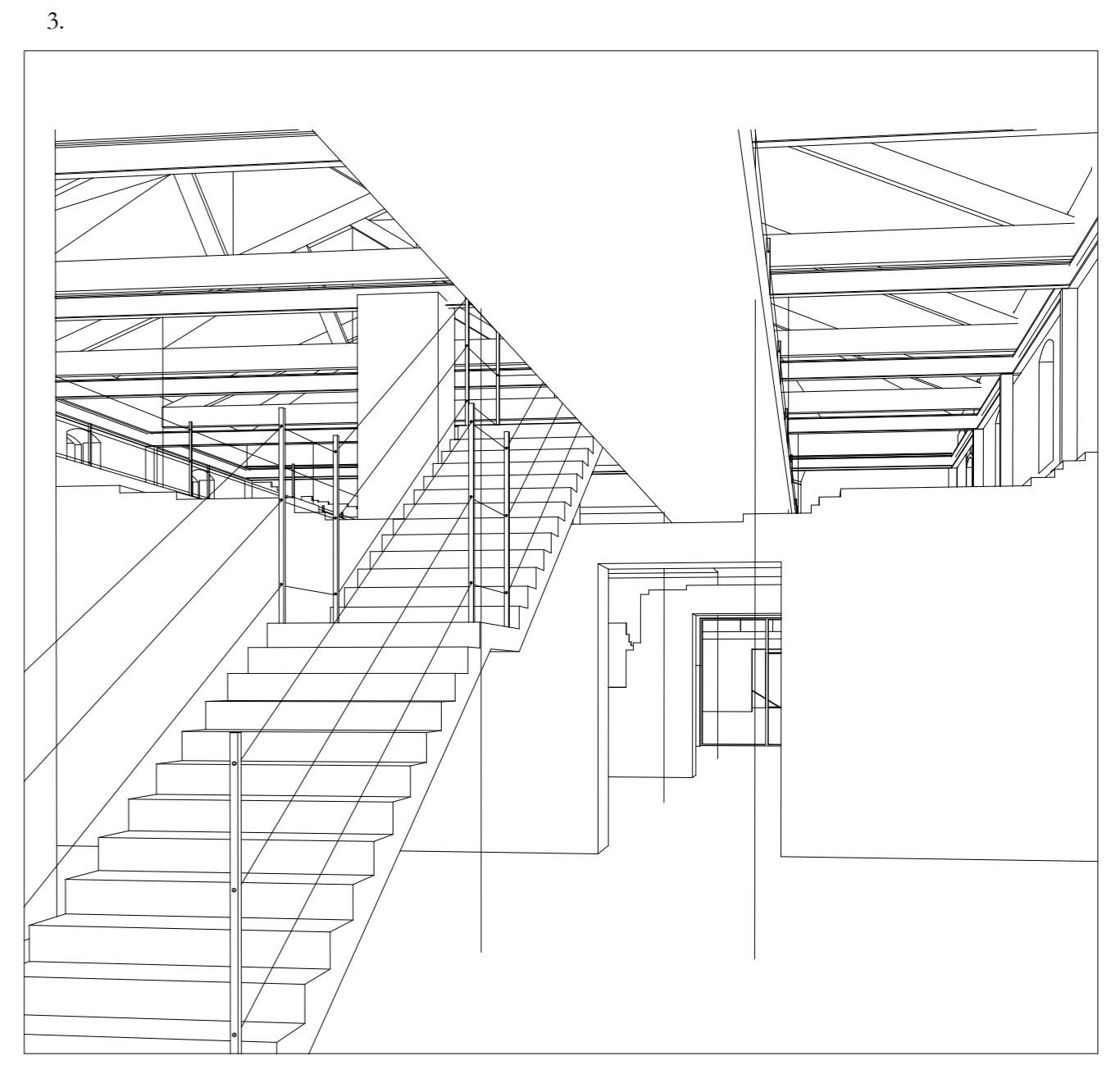
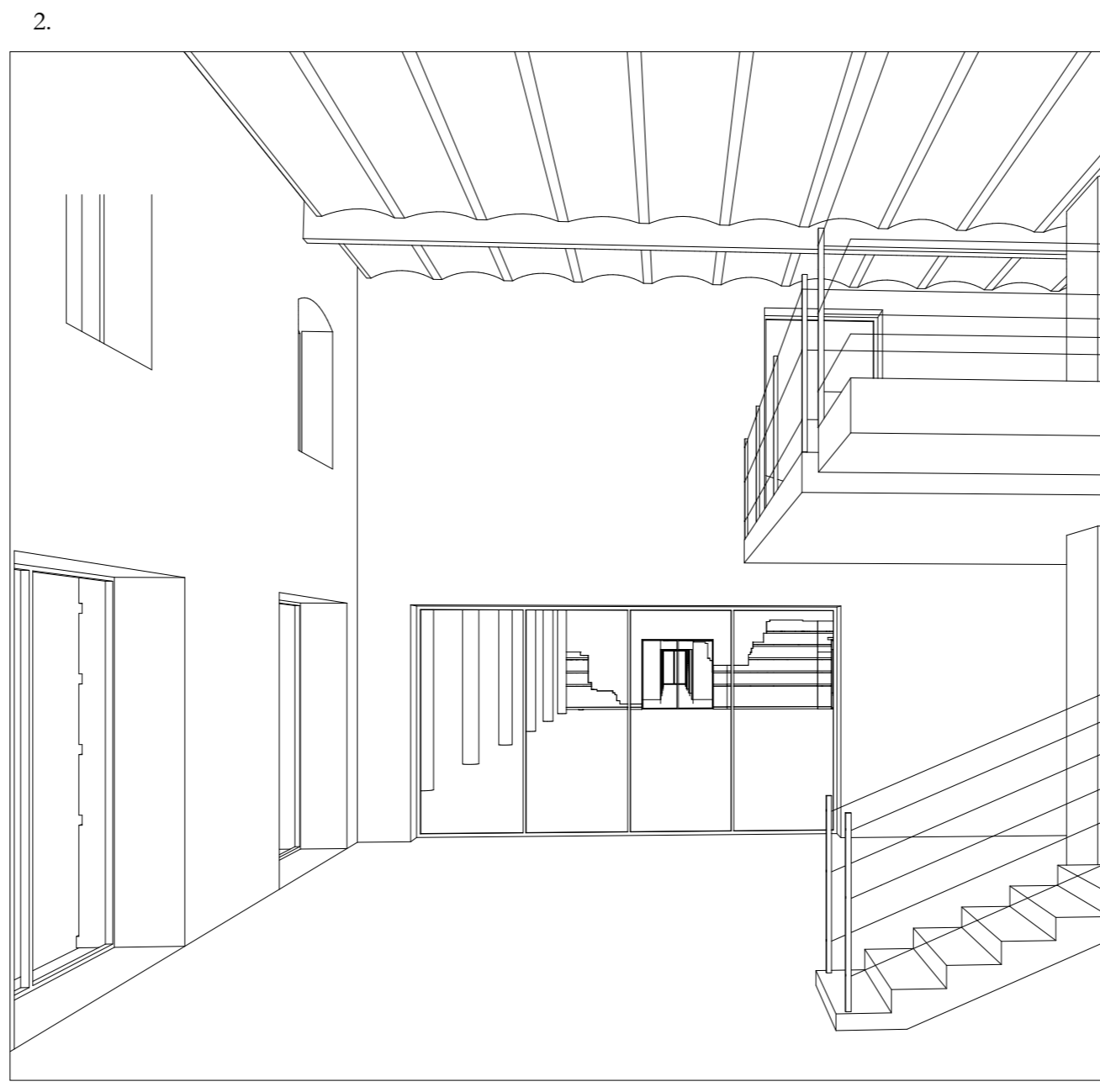
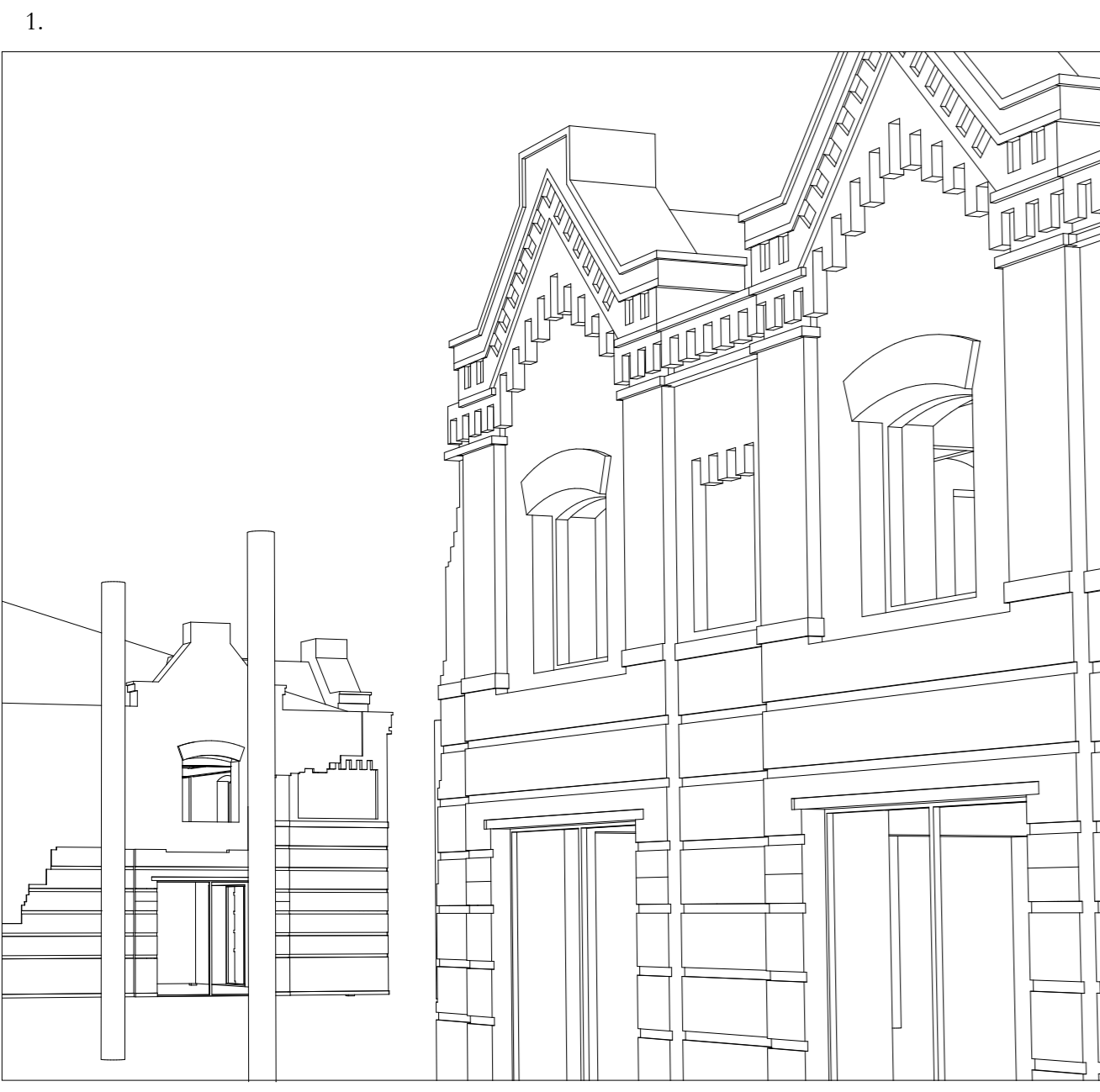
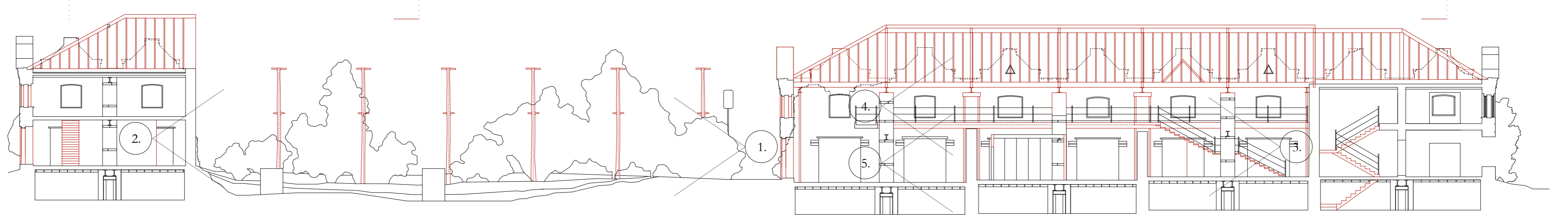
Ground floor plan

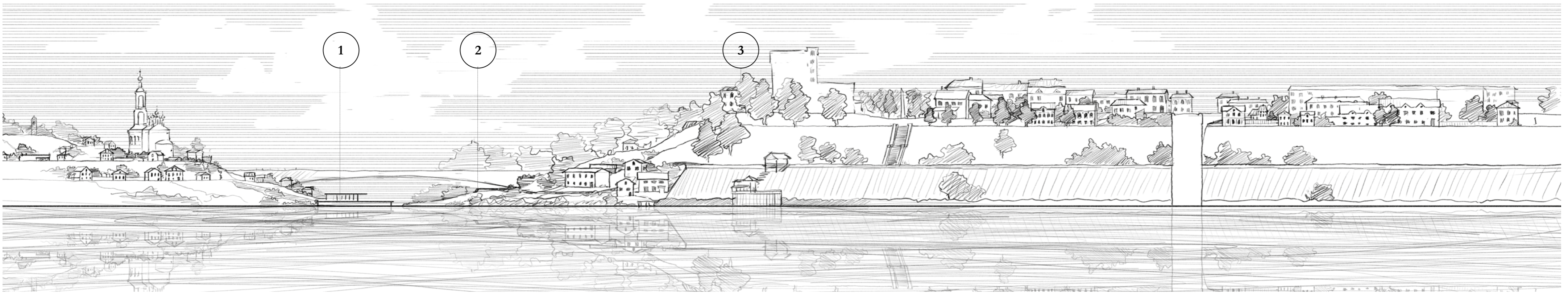


Structural exploded scheme



1. Merchant Rows building
2. Conservated ruin
3. Steel reinforcement structure
4. First floor
5. Suspended path
6. Attic floor (authentic monier vaults)
7. Rafters roof structure
8. Truss roof structure
9. Roof covering





1 Passenger pier in Zarechie

As a way to reintegrate Kimry into the Volga waterway system I suggest to restore the already existing pier in Zarechie, at the southern bank of Kimrka river, in a way that will allow regular hydrofoil ship navigation. The pier was initially constructed with this purpose, which makes a restoration project possible with minimal adjustments.



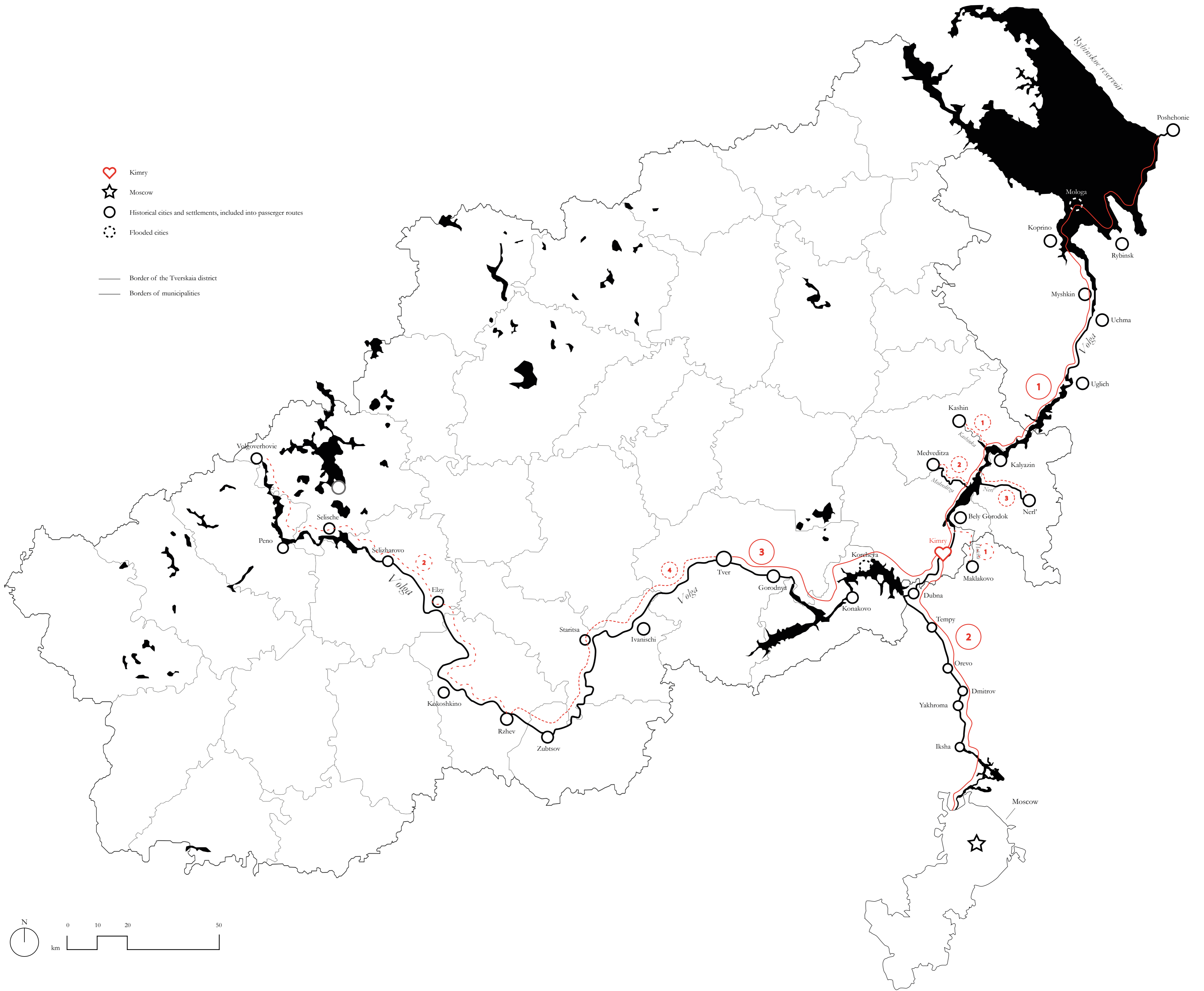
2 Pedestrian path at Kimrka river

A temporary footbridge can serve as a temporary passage along the bank of Kimrka river in the time period when the official project of Kimrka embankment is still in the works. This solution allows a perfect view of the Voznesenskaia side of Kimry historical center, a highly recognizable historical landscape which is deeply valued by Kimry citizens.

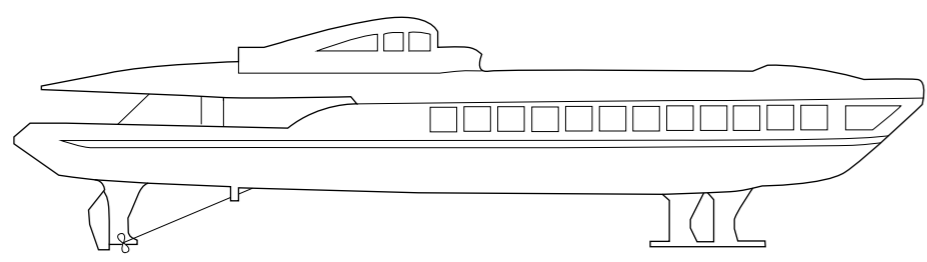


3 Exhibition space in Merchant Rows

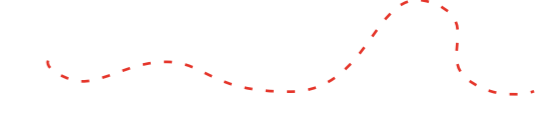
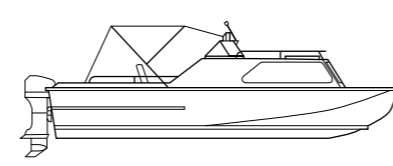
An exhibition space within the ruin that can also serve for hosting public events is a way to help reintegrate the building of Merchant Rows into the regular city life. The building is situated at the strategic point where the Kimrka embankment, the central square and the Volga embankment intersect, which makes it a key element of Kimry urban structure.



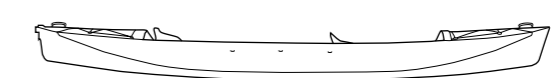
Hydrofoil ships



Motor boats



Kayaks



- 1 Kimry - Rybinsk**
  1. Kimry
  2. Bely Gorodok
  3. Kalyazin
  4. Uglich
  5. Uchma
  6. Myshkin
  7. Koprino
  8. Mologa
  9. Rybinsk
  10. Poshehonie
- 2 Kimry - Moscow**
  1. Kimry
  2. Dubna
  3. Tempy
  4. Orevo
  5. Dmitrov
  6. Yakhroma
  7. Iksha
  8. Moscow
- 3 Kimry - Tver**
  1. Kimry
  2. Dubna
  3. Korcheva
  4. Konakovo
  5. Gorodnya
  6. Tver

- 1 Kalyazin - Kashin**
  1. Kalyazin
  2. Kashin (river Kashinka)
- 2 Kalyazin - Nerl'**
  1. Kalyazin
  2. Nerl' (river Nerl')
- 3 Kalyazin - Medveditza**
  1. Kalyazin
  2. Medveditza (river Medveditza)
- 4 Tver - Rzhev**
  1. Tver
  2. Ivanishi
  3. Staritsa
  4. Zubtsov
  5. Rzhev

- 1 Bely Gorodok - Maklakovo**
  1. Bely Gorodok
  2. Maklakovo
- 2 Rzhev - Volgoverhovie**
  1. Rzhev
  2. Kokoshkino
  3. Elzy
  4. Selizharovo
  5. Selische
  6. Peno
  7. Volgoverhovie

These routes are suggested as the basic type of regular passenger transportation, since all of the listed cities already have piers that are capable of hosting hydrofoil ships. Some of them need restoration and maintenance, like in the case of Kimry. All of the cities situated along the routes can be reached within a day trip from Kimry, which gives the passengers a possibility to plan their stay in each city, instead of submitting to the fixed intervals of time that are posed while travelling by large cruise ships.

These routes are suggested for the private owners of motorboats and travellers who are willing to rent them out for a few days. This type of boats can be used to navigate Volga inlets as well as Volga on the part between Rzhev and Tver, since it becomes too shallow for hydrofoil vessels.

These routes are suggested for sport tourism. Due to the rising popularity of water tourism, kayaks and other types of rowing boats are the most environmentally friendly way of exploring smaller rivers; local dwellers have already established an infrastructure of small villas and camping sites to stay along the route. The upper part of Volga starting from the source and up until Rzhev flows through a natural resort which prohibits the use of motor boats.

Kimry, Voznesenskaya side



Moscow channel



Kalyazin



Kashin



Bely Gorodok



Rzhev



Mologa



Poshehonie, Rybinsk water reservoir



Staritsa



Zubtsov



Maklakovo, St. Alexander monastery



Volgoverhovie

