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Revitalization of Public Space in historic cities.

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Good Practice Manual

Sustainable & Green Public Spaces in Historic Cities

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PART I

Protection of permanent elements of the arrangement of historical public spaces

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I. INTRODUCTION

1. 1. Public Spaces in Old Town Complexes

The Old Town complexes are made up of historical urban buildings with the space shaped by them.

The Old Town complexes co-create all architectural objects that develop an area with defined boundaries. The objects that make up a given complex can be diverse, but usually in the protected areas of the Old Town most of them are historical objects – this is the basis for determining the boundaries of these areas. The spatial arrangement of the Old Town complexes - the location of objects in a given area - was planned or created in the natural process of development. Old town complexes can therefore be analysed on two levels – as a set of architectural objects and as a set of spaces (squares, streets, courtyards).[1] The historic value of the Old Town complexes is also determined on these two levels. That is why the Old Town complexes are among the most complex and valuable groups of monuments.

Architectural objects that make up the Old Town complexes are as a rule separate wholes that can be individually analyzed, modernized and protected. Usually, however, objects in one area share many features. This allows us to distinguish groups of objects with similar features – stylistic, technical, functional, period of construction, etc. Features and values considered historic are the basis for indicating objects for protection. Protection, maintenance, renovation or modernization of architectural objects are as a rule individual activities.

The space of the Old Town complex can be treated as a single structure, because its components are generally connected (spatial, functional, technical). Nevertheless, the spaces that make up the Old Town complexes can also be divided into typological groups. Squares, streets, courtyards are diverse, among other things, due to functions, accessibility, location, equipment, etc. Despite this, the structure created by these components is perceived as a whole, because on this scale the urban features of the Old Town complex are revealed. Thus, the space of the Old Town complex should be analysed on two levels - as a whole with specific structural features and as a set of component spaces with individual parameters. Protection, maintenance, modernization, repairs should take into account the problems, needs and guidelines resulting from both levels.

Squares, streets and courtyards of the Old Town form a structure called public space. This concept goes far beyond the material aspect, which is emphasized by many definitions[2]. However, the basis of public space are physically existing places with specific material parameters. These are areas where people carry out activities characteristic of public spaces[3]. Therefore, conservation activities, in

1 In historical complexes, cemeteries or green areas are also different spaces. However, the public space in the Old Town complexes is primarily made up of squares, streets and courtyards, so they should be analysed as a whole. Cemeteries, green areas, undeveloped areas around fortifications are a separate issue.

[2] Act of 27 March 2003 on Spatial Planning and Development, Journal of Laws 2024.0.1130.
Wejchert K., 1993, The Space Around Us. Fibak Noma Press, Katowice,
Dymicka M., 2009a, Public Space and Social Space, [in:] Contemporary Shaping of Public Space, A. Golędzinowska (ed.). Pomeranian Regional Studies, Wyd. UMWP, Gdańsk, p.21,
Lorens P., Martyniuk-Pęczek J. (eds.), 2010, Problems of shaping urban spaces Wyd. "Urbanista", Gdańsk, p.10.

[3] Charter of Public Space adopted by the 3rd Congress of Polish Urban Planning, Poznań, 4–5 September 2009

addition to the protection of historic elements and values, should also take into account broader aspects of the functioning of the Old Town public spaces.

Interest and conservation activities are usually focused on architectural objects that make up the Old Town complexes. The value of architectural objects is the basis for assessing the value of these complexes. Public spaces, on the other hand, are not perceived as a separate carrier of historic values. They are under conservation protection most often due to the fact that the entire Old Town complex is entered (area entry), i.e. as the surroundings of buildings, the historic value of which justifies formal protection. The historic value of architecture is easier to recognize, both by monument conservators and other stakeholders (which is very important). Therefore, conservation activities are focused on buildings, and public spaces are perceived primarily as the subject of renovation and revitalization activities.

1. 2. Causes of frequent transformations of Public Spaces

The objective reason limiting the historic value of public spaces in the Old Town areas is their multiple transformations. The most durable parameter of public spaces is their shape, which determines and consolidates the buildings – in general, if the buildings do not change, the form of the space also remains unchanged. That is why in the memory of living generations, and even on a scale of centuries – as shown by a comparison of city plans from different periods – the impression of the immutability of public spaces is consolidated. However, this applies primarily to the shape, while other elements and parameters of public spaces – primarily its durable device and mobile equipment, are subject to frequent transformations. This is due to several reasons that take place in virtually all urban complexes.

First of all, there is always a need to **maintain an appropriate technical condition**, because public spaces are generally used by many users. It is a varied and intensive use. For example, in the limited and small spaces of the Old Town, as a rule, there was intensive pedestrian, vehicular and now car traffic. Very often, the intensity of use (e.g. loads) exceeded the technical parameters of the materials and elements used to arrange public spaces. Historical surfaces were also of low technical quality. As a result, surfaces and other facilities of public spaces were damaged and destroyed. Multiple repairs and modernizations were necessary. During these works, the previous elements were used, but they were also replaced very often.

An important factor forcing the transformation of public spaces was also the need to **introduce various installations and media**. Due to the lack of space, safety and the need to protect against various destructive factors (freezing, theft), various installations were laid underground. In practice, this meant that wires and canals were built under streets and squares. It is a common standard in laying water supply, sewage, gas, electricity, telecommunication cables. However, the key installations were introduced underground at different times, and then every dozen or so years they were repaired, modernized and supplemented. This requires dismantling the surface and excavations. Therefore, virtually all surfaces throughout the 19th and 20th centuries were changed many times, and the arrangement of public spaces was modernized.

Another factor causing the transformation of public spaces was the need to adapt them to changing functional standards (surface use). The changes were often radical. At a certain stage, the spaces had to be adapted to the introduction of new forms of communication and transport. Tram lines (rail laying) were built in many cities. Everywhere the space had to be adapted to vehicular traffic (roadways, signs, signals). Street trade (markets, stalls) had to be moved out of the streets and squares. Nowadays, on the other hand, vehicular traffic is limited, and pedestrian traffic is preferred. Pavements are being expanded and roadways are being restricted. The need to ensure the so-called accessibility requires various surfaces, lowering curbs, raising stops, raising the road at pedestrian crossings, etc.

As part of the functional changes, a number of modernizations are also taking place to adapt public spaces to **modern technical standards**. For example, the systems for draining waste and rainwater have been radically changed. Originally, they were drained on the surface (gutters), now they are drained through sewage and water systems. The standards of garbage collection and disposal are different, and above all, the amount of garbage in historical areas has increased very radically. Segregating waste has resulted in a several-fold increase in the number of containers. They take up more and more space and are increasingly hidden underground, but this is still done in public spaces. Of course, the standard of lighting in Old Town spaces has also changed, which requires many light points.

Recently, there has also been a growing need to adapt public spaces to **climatic and environmental requirements**. For example, environmental protection requirements have forced extensive and intensive measures to eliminate individual heating sources. The elimination of furnaces in apartments requires the supply of municipal heat or gas, which means the introduction of further installations under the Old Town surfaces. The use of rainwater also includes the construction of retention reservoirs and rainwater distribution installations. Limiting individual vehicular traffic must be supported by the organization of public transport, which requires, for m.in, the construction of stops in historical areas. Reducing the so-called heat islands requires the introduction of greenery in historical areas (there was none there) or the construction of roofs.

The sum of the above-mentioned factors shows that changes in public spaces have occurred very often and will continue to happen, probably even more radical. It can even be said that the process of transforming public spaces is continuous. However, the usually punctual nature of transformations and their justified causes make the changes seem natural and do not evoke many reactions, even in conservation circles.

1. 3. Historical elements in Public Spaces

The sum of the above-mentioned processes and factors means that in public spaces in historical complexes there should actually be no historic elements that can be the subject of conservation protection. However, this is not the case. The analysis shows that in the Old Town public spaces there are still many elements from the past and resulting from the past. Historical elements and values in

public spaces should be identified, documented and protected in accordance with conservation principles. Of course, the historic value of individual components of the space is very different, so the degree and method of their protection must also be different – it must be determined individually.

In historical areas, all preserved elements from the past have historic values. Therefore, the typology of these elements essentially coincides with the typology of public space elements – fixed arrangement of public spaces, urban furniture and greenery. Of course, in practice there is no balance in the number of preserved elements in individual groups, which results directly from their material characteristics. The possibility and legitimacy of preserving individual elements was primarily a function of their material durability. Stone surfaces, stairs, walls, fountains or monuments often had durability that allowed them to be preserved for centuries. The universal functions of such elements justified their preservation, protection and inclusion in subsequent stages of the modernization of public spaces.

Material durability also allowed various elements of technical infrastructure to survive, which were primarily utilitarian. Many such elements have survived. For example, fragments of tram rails, which were also quite often introduced into the Old Town areas. Currently, trams no longer run in these areas, but the remaining fragments of rails commemorate their former presence and routes. Another example is public pumps. In the past, water supply devices were a common element of the permanent arrangement of public spaces. Various types of pumps, wells, fountains were placed in the urban complexes. Nowadays, they do not perform their original functions, but they can be preserved as monuments. Yet another example are the old lamps illuminating the streets. Lighting systems were often modernized, and useless llamas were liquidated. If individual specimens have survived somewhere, they have a historic value and are protected. This should also be the case with all historical elements of infrastructure.

Another group of elements constituting the historical arrangement of public spaces consists of various types of infrastructure objects and remains of objects. For example, in some cities, the buildings of the former water tankers have been preserved. Sometimes public, open laundries have been preserved. These are not separate buildings, water containers and canopies protecting against rain or sun. Archaeological sites are also an element in the public space. In many areas of the Old Town, the remains of old buildings have been discovered, which are being secured and made available. When they were found in today's public spaces, they must have become a specific element of their permanent arrangement. However, the solution remains to be the way to secure and make them available.

The above-mentioned elements are only a representation and examples of monuments scattered in historical public spaces. They have such a historic value that their conservation protection is justified, and there are still so many of them that they give identity to these spaces.

1. 4. Objectives of the protection of historic elements and values in public spaces

The protection of historical public spaces should go beyond the protection of the relics of its arrangement. From the broadest, urban perspective, as many as three levels/justifications for the protection of public spaces can be indicated.

Firstly, various elements of their arrangement and equipment have survived in historical public spaces , which have historic value and should be protected - this problem has already been signalled above. It should be emphasized, however, that it is justified to protect even individual elements that are devoid of context and connections, because they always have documentary value and are characteristic signs representing the past of these spaces.

Secondly, the protection of historical public spaces serves to preserve their form as spatial elements. It is therefore a protection of the historical urban layout, which is also a historic value. Individual spaces – their forms – are separate units that can be analyzed and classified in various ways. Their behavior has a documentary value. On the other hand, at a higher level, the layout of all spaces together with the buildings of a given city is a unique example of historical urban planning. This has historical and analytical value, regardless of whether they were designed or created as a result of natural processes. Maintaining the form of space is, of course, particularly justified in the case of deliberately designed compositions.

Thirdly, the protection of historical public spaces serves to create an appropriate background and setting for the architectural monuments surrounding this space. In accordance with the conservation principles, the surroundings of monuments (objects filling the frontages surrounding the space) should be adapted and harmonized with them. It should not be a contrast, it should not compete with monuments. PP should have a historical character, regardless of how many real monuments have survived. Therefore, the protection of public spaces means the preservation of the surviving elements of their arrangement (as a complement to historical buildings), but also means a certain control over their contemporary arrangement. Conservators are to make sure that the new elements respect the historic surroundings – so that they create a kind of order with them.

The listed arguments show that the conservation protection of historical public spaces is fully justified. Meanwhile, in practice, public spaces were very rarely perceived as the subject of separate analysis and conservation protection. As a result, they were only occasionally the subject of separate conservation guidelines. One can even see a significant imbalance between the need to modernize public spaces, appreciated by local governments, and the attention that conservators devote to them in this process. The scale of underestimating the problem is also clearly evidenced by the lack of separate doctrinal documents devoted to historical public spaces. This is significant in a situation where dozens of doctrinal documents have already been created, devoted to many typological groups of monuments.

1. 5. A contemporary approach to the modernization of Public Spaces

The need to pay more attention to the protection of historical public spaces also results from the new circumstances in which they function. All the factors listed as the causes of multiple transformations of public spaces are currently intensifying. The cumulative pressure of these factors is increasing - intensification of use (tourism), change in utility standards, climate requirements, environmental protection (elimination of cars and pollution), accessibility. Their effect will be an increasingly deep modernization and transformation of public spaces. On the other hand, the main factor that will probably determine the direction of modernization of public spaces will be environmental needs. Climate change and the need to protect the environment mean that significant subsidies are being launched on an EU scale to support these goals. The sum of needs and financial possibilities can inspire and launch the process of modernization of public spaces, aimed at adapting them to climate and environmental requirements. This stage of modernization – it can be called climatic and environmental, will be the next after the previous stage of modernization, which can be called functional and aesthetic (when the first funds for revitalization appeared in Poland, and the revitalization of buildings and public spaces turned out to be the easiest).

Current modernisations of public spaces should be comprehensive, even if their primary purpose (and reason for funding) is environmental considerations. This means that it is necessary to develop and implement into common practice a methodology for the analysis of public spaces, which will take into account complex climatic and environmental requirements and a number of contemporary standards, and will enable the design of comprehensive modernization activities.

Modern modernization concepts should take into account new groups of parameters. Climatic requirements, i.e. parameters such as temperature, sunlight, rainwater and wind. Environmental requirements include factors such as air pollution, natural and recyclable materials, and the preservation of biodiversity. Accessibility requirements include pavement standards, level differences, building entrances, dedicated communication, parking spaces, markings. Of course, public spaces are still to enable the implementation of all traditional functions - m.in. communication, transport, trade and services, pedestrian traffic, event and meeting places, parking lots.

The implementation of new requirements and standards requires a significant range of activities, and some of them are new solutions, not previously used in historical public spaces. This requires the cooperation of various specialists, who should be part of the implementation of a coherent concept. That is why a comprehensive methodology for the analysis of public spaces is so important, which will cover all issues within a single process and document. The form of such a document can be the *Charter of Historical Public Spaces*, which allows you to inventory all elements and features of the space in an orderly manner and record all relevant information. On this basis, it is also possible to assess the problems captured and propose solutions. Such an analytical, comprehensive document should be the basis for the modernization and protection of historical public spaces. It can certainly be a form of documentation for the analysis and planning of conservation activities.

II. CONSERVATION PRINCIPLES OF OPERATION IN PUBLIC SPACES

All activities undertaken in the protected areas of the Old Town should be carried out in accordance with the conservation principles adopted for activities in the historic landscape. Importantly, this applies not only to activities directly aimed at the protection of historic elements and values, but also to all contemporary activities aimed at maintaining and modernizing public spaces in historical complexes. The conservation doctrine allows for the formulation of rules concerning both the treatment of the existing form and substance of historic elements, as well as new elements introduced into public spaces).[4]

In the Polish monument protection system, there are generally no documents formalizing the principles of monument protection. On the other hand, the instructions issued to the conservation services by the General Conservator of Monuments (on the basis of the provision in Article 90(3) of the Act of 23 July 2003. *on the Protection and Care of Monuments*). In order to coordinate the activities of provincial monument conservators, *guidelines and recommendations have been issued in the field of basic conservation principles concerning monuments*.[5] They contain m.in 7 principles that apply to works carried out on monuments, primarily conservation works (aimed at maintaining the historic substance). These are principles derived from traditional (restrictive) doctrinal documents that regulated actions in relation to monuments of significant value.

Bearing in mind the specificity of public spaces, several principles can be formulated for the protection of historic elements, features and values during the process of their protection and modernization. The rules concern the handling of historic elements (rules No. 1-2), and new interventions in the historical space (rules No. 3-8). The proposed rules are universal in nature, which means that they apply regardless of the scale of the monument (element, object, complex), its value and characteristics.

In practice, of course, individual principles are implemented in different ways and to different extents, because each monument has individual characteristics and is protected under different conditions. Importantly, the rules should be applied jointly. This means that they designate in various aspects the space in which the conservation/modernization/adaptation project of the monument should be located. Each action taken in a monument can be checked from the point of view of compliance with conservation principles – these are specific criteria of conservation correctness. Importantly, they can be used at every stage of dealing with the monument – from the development of the protection concept, through the assessment of detailed solutions, to the assessment of the work already performed. Therefore, they are the most important basis for conservation criticism, which should accompany all decisions and actions concerning monuments.

[4] Podstawą zasad konserwatorskich jest teoria konserwatorska. Współczesna teoria konserwatorska jest sfragmentowana, jest sformułowana w dziesiątkach tzw. dokumentów doktrynalnych. Tym niemniej na ich podstawie można sformułować zasady postepowania z zabytkami i działania w środowisku historycznym. Interpretację współczesnej doktryny konserwatorskiej oraz wybór najważniejszych dokumentów doktrynalnych przedstawia publikacja – B. Szmygin, Międzynarodowe teksty doktrynalne ochrony i konserwacji zabytków, Politechnika Lubelska, Lublin 2023 , ss.1-332.

[5] Document sent by the General Conservator of Monuments to the Provincial Conservators of Monuments (DOZ-KiNK.6521.63.2018.MP), Ministry of Culture and National Heritage, Warsaw, letter of 05 October 2018.

Each of the described conservation principles should be adapted to the specificity of the monument in which it is applied. Nevertheless, in the most synthetic way, the individual principles can be titled as follows: maximum preservation of the monument, preservation of historic layers, minimization of interference, contemporary nature of interference, distinctiveness of interference, reversibility of interference, technical simplicity of interference, harmonization of interference.

2. 1. Maximum preservation of all historical elements and features of the monument (tangible and intangible)

Maximum preservation of the historical form, substance, workmanship, location, function, etc. is a universal, basic principle applicable to all activities undertaken with monuments. The principle applies to activities on any scale – from the smallest component to the monument as a whole (object, complex, city, landscape). The preservation of historical elements and features of a monument is the basis for the preservation of all historic values – scientific, historical, artistic.

The state of preservation of a monument is determined by two parameters - authenticity and integrity. These parameters are determined in different aspects (Nara Document) and to varying degrees. There are no precise methodologies for determining the degree of authenticity or integrity. However, it is possible to objectify these assessments to a certain extent by assessing the so-called attributes. This methodology is being developed to assess properties in the UNESCO World Heritage system.

The preservation of the historical substance and form of the monument is of key importance. The principle of preserving the historical substance is broadly applicable. First of all, the element of the monument (substance) should be preserved in the place where it was historically built. However, respect for substance also means rebuilding elements that had to be dismantled during renovation work. The principle of respect for the historical substance is also implemented by the use of the same materials when the monument is supplemented during conservation or restoration works.

The principle of maximum respect for a monument also applies to the historical form of a monument. Changes in the historical form of a monument are primarily a consequence of the loss of historical substance – that is why it is so important to preserve the historical substance from this point of view. However, the addition of new elements - which do not interfere with the historical substance - also changes the historical form. The historical form is the subject of research (scientific value), but also affects the perception of the monument (artistic value). Therefore, changes in the form of the monument are negative, regardless of their scale.

2. 2. Maximum preservation of historical stratigraphy

Historical layers of historic value should be preserved. A monument should not be brought to a uniform in terms of style, composition, material, etc., if the elements documenting individual periods of its existence have a confirmed historical value. The preservation of the layers is of key importance for maintaining the documentary value of the monument (as a source of research) in the future.

The vast majority of artefacts should be treated as a form of palimpset, i.e. a document that undergoes multiple transformations and additions. Usually, the number of transformations is proportional to the age of the monument. Subsequent interventions change the substance and form of the monument, adding new elements and shaping a new form. The original building could undergo radical transformations.

Age is not always a factor determining the value - later forms may have a greater historical value. As a rule, however, historical periods/styles are treated as equally valuable, which means avoiding differentiation of monuments (phases of transformation) from different epochs - therefore the layers from different periods are preserved.

The equivalence of historical periods does not mean the equality of all layers. Individual forms of transformation of a monument may have different value, which is determined by many criteria – e.g. exemplariness, artistic quality, historical value, completeness, technical considerations, age. On the basis of the analysis of these criteria, it can be decided to remove layers that have no historical value. It is also possible to remove layers that are significantly less valuable than the elements on which they have a negative effect.

The layers should be legible. If in the past successive changes in the form of the monument were integrated into the object, then making the layers legible is not justified. However, if the conservation works reveal earlier phases, then making them legible is acceptable. The form of legibility should be as discreet as possible and adapted to the specificity of the monument.

2. 3. Minimized contemporary interference

Contemporary interference with monuments should be minimized to the greatest possible extent and scope. This principle applies to all aspects – the location of the place of interference, its size, form, introduced function, materials, colors, technology, complexity of solutions, etc. The basis of this principle is the assumption that contemporary interferences are of lesser value than a monument – its substance, form, elements, features. On the other hand, every contemporary interference is a kind of disturbance introduced into the form and substance of the monument. Each interference also changes the proportions between historic and contemporary elements. In addition, at the stage of design and implementation of contemporary interventions, it is not possible to assess their quality – architectural quality can only be objectively assessed in retrospect. Therefore, as a rule, contemporary interferences are treated as diminishing historic values.

Minimizing interference means, above all, refraining from unnecessary activities. This objective can be achieved in terms of technical interventions, but above all at the level of the concept of use, modernization and adaptation. Changing the concept of these activities is relatively easy to implement (if the priority of the protection of historic values is recognized). Undoubtedly, the selection of the utility function to the specificity of the building is the basic action to reduce transformations. This purpose is also served by the adoption of an appropriate standard of equipment, installation, and décor of the historic building, serving to minimize interference. From this perspective, the location of the interference in the monument is also important – it should be carried out in a place that destroys the historic values

to the least extent. Therefore, there are many aspects in which contemporary interference with the monument can be limited.

Limiting interference is an action with broad consequences, which results from the nature of technical activities. For example, an elevator attached to the façade of a building does not affect its historical structure, but it requires a foundation, fixing and connection to the wall, energy supply, making a door and a driveway. Against the background of the historic façade, the elevator also changes the silhouette and overall perception of the monument, although it hardly disturbs its historical substance and form. Each new element changes the structure of the historical space, the character and proportions of the décor, affects the atmosphere and the overall reception. The same is true for elements added in space, for example. For example, the new, level pavements that are supposed to provide accessibility on the Acropolis hill in Athens did not directly affect the historic buildings, but their flat, continuous ribbons create a dissonance against the uneven rocky ground and ruined objects. The perception of the historical space has been disturbed to a significant extent.

Limiting contemporary interference should also be achieved by reducing its technical complexity. Usually, the more complex the technical solution (device, installation, equipment), the more extensive its installation is. The operation and operation of such solutions may also be more demanding. Therefore, simpler solutions (possibly maintenance-free) are more suitable for protected monuments.

The inevitable transformations and violations of the authentic monument resulting from the addition of new elements (the material aspect) and the resulting changes in the perception of the monument (the intangible aspect) make the principle of minimizing contemporary interferences very important.

2. 4. Distinguishability of contemporary interference

Any contemporary interference made with monuments should be distinguishable from historical elements. This principle applies to activities carried out on any scale and nature – conservation, supplementation, addition, reinforcement. Contemporary interference should be clear and distinguishable.

The need to diversify contemporary interferences is necessary primarily for the sake of preserving the scientific (documentary) value. Future researchers of the monument cannot be misled – consider contemporary interferences as historical. The contemporary perception of the monument is also important – also at the level of non-professional recipients, who should be able to distinguish historical elements from contemporary ones.

The way of differentiation can be very different, it should result from the specificity of contemporary interference. The differentiation of interference can be made by form, material, color, surface, detail processing, etc. The diversity should be clear, but at the same time harmonized with the historic context. It should not affect the perception of the monument, in particular it should not deprive it of the so-called "value of antiquity".

First of all, contemporary interventions should be legible in transforming the historical form and substance. Interventions may be necessary for many reasons – conservation, technical, modernization activities, ensuring accessibility, etc. However, additions or added elements should not completely blend into the historical background – this would be a falsification of the monument.

The principle of distinguishability applies to an even greater extent to new elements/objects introduced into historical objects/spaces. In this case, the principle of distinguishability should apply to any scale – décor (e.g. woodwork, stuccowork, floors), architectural elements (e.g. stairs) or entire objects added in the historical space. New elements should not faithfully copy historical forms. Of course, they can refer to historical forms, be their contemporary versions – this is often safe from the perspective of harmonization with the historical environment.

In general, the principle of distinguishability corresponds to principle II on respect for stratigraphy - contemporary interference becomes another layer and should be legible.

2. 5. Reversibility of contemporary interference

The principle of reversibility of contemporary interventions states that in the future it should be possible to remove them in a way that does not disturb the historic substance and form as much as possible. This principle is also built on the assumption that, in general, contemporary interferences are of lower value than historical elements.

The principle of reversibility of interference is all the more justified because most contemporary interventions are utilitarian in nature, their purpose is to adapt and modernize monuments to modern functions and utility standards. Functions and standards change over time, and nowadays this process is accelerating a lot. Therefore, it is assumed that when the functional needs change in the future - standards and forms of implementation, the currently introduced elements may be removed or replaced with others. Therefore, nowadays, contemporary interventions should be designed in a way that allows them to be removed in the future, as possible without destroying the historic elements.

The application of the principle of reversibility is not always possible, because any interference in historic buildings must meet safety requirements – this determines material, structural, technological and functional solutions. However, there are a lot of interferences that can be solved in many ways. For example, equipping monuments with various types of installations, fixtures, devices. For example, laying wires in carved grooves (destruction of historic substances) or in raised floors, partition walls can be bricked or installed in light systems, windows replaced or supplemented with an additional sash.

The application of the principle of reversibility is facilitated by the contemporary variety of construction technologies.
In the context of this principle, the use of new technologies may be deliberate (instead of traditional ones) if they significantly increase the possibility of reversibility of works, and often they can also limit interference with the monument (principle III) and facilitate its distinguishability (principle IV).

2. 6. Adaptation of contemporary interventions to the monument

The general rule applicable to all works and interventions in monuments and historical surroundings should be their adaptation to the character and value of these objects/places. Contemporary interventions should be an element of the conservation protection program and subject to appropriate rigors. In practice, this means adapting and harmonizing contemporary interventions with the character and value of the monument in all possible aspects - form, function, material, color, technology, standard, etc. New elements and interventions should not compete with the historic ones, excessively distract attention, change the "spirit of the place".

The principle of adapting modern interference is rather uncontroversial in the case of technical or utility activities. Subordinating and harmonizing such elements and interference with the monument is natural, because the overriding goal is its protection. Therefore, treating these interferences as a neutral background that does not compete but emphasizes historic values is fully justified.

The need to protect historic values also means that monuments are not expected to be enriched with new, contemporary values. This is an important assumption from the perspective of larger architectural interventions significantly changing the form of the monument. Such interventions are sometimes necessary, but their designers should subordinate themselves to the existing historic values, and not compete with them with added forms. The ability to design in an architectural environment is based on harmoniously incorporating new elements into this environment.

The principle of adjustment of interference is also needed as a complement to Principle IV, which prescribes the distinctiveness of interference. The principle of alignment sets limits for actions ensuring distinctiveness. Interference should therefore be checked simultaneously from the perspective of these two principles/criteria.

The principle of adapting the interference to the monument is fully in line with the principles of minimization of interference (principle III), distinguishability (principle IV), reversibility (principle V).

The presented principles of conservation proceedings should apply to all activities related to the conservation, renovation, modernization, adaptation of monuments and historical spaces. All rules should apply, their hierarchy is not defined. Each of these principles draws attention to a different aspect and each defines and limits the range of possible solutions to a different extent. Therefore, their summary use allows you to delineate the correct area for any interference. Taking into account the sum of these indications narrows the area of possible solutions, which should limit the violation of the historic values of the object/area.

All the above-mentioned rules of dealing with monuments result from the assumption of the superiority of historic values – their observance is to help protect these values. Therefore, when planning and implementing any interventions in historical public spaces, they should be verified in the context of each of these principles – it will be a kind of test of compliance with conservation requirements.

III. PROTECTION OF PERMANENT ELEMENTS OF THE ARRANGEMENT OF HISTORICAL PUBLIC SPACES

Public spaces are an important component of historical complexes, so they should be the subject of conservation protection. This requires identifying historic elements and values preserved in public spaces and planning appropriate forms of their protection.

Historical spaces in public are not an obvious subject of conservation protection, so the first problem is to determine the elements and historic values. The subject of protection should be defined in accordance with the conservation doctrine. Contemporary conservation theory treats the historical cultural environment as a whole, in which all material and intangible elements related to the past are important. Such a broad approach to potential objects of conservation protection is included in the concept of the historical urban landscape in the UNESCO recommendation.[6] The concept of HUL is currently the starting point for the protection of historical urban complexes.

The subject of protection in the Old Town public spaces can be all historical material and intangible elements that co-create it. These elements should be identified separately, because the specificity of their protection (conservation activities) is different. The identification of historic elements and values is the basis for formulating a protection program for public spaces.

3. 1. Components of public space arrangement – tangible and intangible

The first and basic group of elements of historic Old Town spaces consists of the material components of their development and arrangement. According to the accepted morphology of public spaces, historical elements can be identified within each of the three components that make them up – permanent arrangement of public spaces, urban furniture and greenery. The number of preserved historical elements in individual groups is, of course, diametrically opposed, which is primarily due to their material characteristics.

Due to the technical and functional specificity, most of the preserved components of the permanent arrangement of public spaces are preserved. Elements such as surfaces, stairs, monuments or fountains were usually made of durable materials, so they can perform their functions even for centuries. Therefore, some of these elements retain their authenticity in many aspects and their maintenance may be limited to conservation work. Elements of permanent space arrangement constitute by far the largest group of protected components of Old Town spaces.

A much smaller group is the historical equipment of public spaces, i.e. urban furniture and infrastructural elements. The furnishing of public spaces – unlike the arrangement of public spaces, due to its technical and functional characteristics, was not durable. Benches, lamps, advertising poles or street pampas

[6] United Nations, Educational, Scientific and Cultural Organization, Recommendation on the historic urban landscape, Paris, 10 November 2011.

wore out during intensive use and were replaced. In addition, the forms, materials and technical solutions of street furniture and elements of technical infrastructure changed relatively often. Therefore, few such historical elements have survived.

Yet another is the specificity of greenery, which is generally the least durable component co-creating public spaces. In the Old Town areas, there was generally no composed greenery, and it was introduced as a planned element of urban public spaces in the 19th century. This was usually associated with the liberation of areas after the liquidation of the former city fortifications. If such assumptions of historical greenery have survived, they are subject to conservation protection. Old trees could also survive as an element of the historical development of courtyards or squares, so they should be the subject of protection (trees can also be the subject of environmental protection).

The second group of components that make up historical public spaces are intangible elements. The concept of intangible heritage can be understood very broadly, depending on the interpretation. In the simplest sense, these are elements that are easy to recognize, in a more complex understanding they are complex wholes, even difficult to analyze and decompose into components.

In the simplest sense, historical names – streets, squares, buildings – have a historic value. In a more complex sense, the historic value may be represented by the characteristic features of the Old Town space resulting from the diversity of individual streets and squares, which was the result of the specificity of the services/goods offered or the characteristics of the inhabitants (ethnic, social, professional). On an even more complex level, the historic value is attributed to the "spirit of the place" (genius loci), i.e. the overall atmosphere of a given place. Such a value has long been identified in conservation theory, so it should also be the subject of recognition and protection.[7]

Intangible assets can also be of a different nature. Each Old Town complex has various connections with important historical figures, events and institutions. Their meaning is very different, determined by the narrative adopted in a given community. Of course, this narrative changes over time, but some characters or events are always given significant meaning. As a consequence, the specific places associated with them in the Old Town space acquire a historic value. Such places have been and are marked in various ways in the Old Town space. Therefore, they are also intangible components of the Old Town public spaces, which should be included in conservation programs.

The juxtaposition of the tangible and intangible components of the historic Old Town public spaces shows that they are significantly different. Therefore, there must be various forms of conservation activities aimed at protecting them. There are also various interpretations and possibilities of maintaining authenticity and integrity – parameters describing the state of preservation of historic components of public spaces. Bearing in mind these differences, three groups of activities aimed at preserving the historic components of historical public spaces can be identified. These are: protection of the historical components of the PUT, consolidation of historical values in the BOK, informational and symbolic commemoration in the PUT.

[7] Deklaracja w sprawie zachowania genius loci (ducha miejsca), Quebec. Ratyfikowana podczas 16-go Zgromadzenia Ogólnego ICOMOS, w Québec (Kanada).

In the case of permanent components of public (material) spaces, due to the specificity of their function and material features, three groups of elements can be distinguished: individual components of space arrangement, repetitive components of space arrangement, walls and fences. In the Old Town spaces, elements of each of these subgroups have survived, but in different proportions, depending on their characteristics. On the other hand, all elements belonging to these groups should be preserved in a form that most fully preserves their authenticity and integrity.

3. 2. Individual elements of public space arrangement – monuments and fountains

The most visible in public spaces are those preserved elements that have been given individual aesthetic/artistic value. These are primarily objects of architectural space arrangement, such as stairs, monuments, fountains. They were often carefully and comprehensively designed, located in a properly selected place, made of durable and good materials. This gave them value and fostered their preservation in a complete historical form. As a result, they have long been considered valuable, regardless of their basic utility function (as stairs or fountains). Therefore, even in the distant past, they were kept in good technical condition - natural or intentional damage was repaired even for centuries. Repairs
and conservation of such elements were carried out even before the organization of conservation services.

Monuments are the most individual and thus the most characteristic elements of the permanent arrangement of public spaces. Monuments – as a form of commemorating important figures or events, have been created since antiquity. In different historical periods, they were made of different materials, had different forms, sizes, etc. Usually these were figural representations – sitting, standing, on horseback. Various types of columns were also a popular form of commemoration. Monuments were usually placed on pedestals, which exposed them in space, and at the same time protected them from accidental damage or deliberate destruction. The scale and quality of the monuments was usually proportional to the event/figure commemorated.

The monuments were located in various places in the public space. As a rule, the location was a function of the importance of the person or event being commemorated. That is why the most important historical monuments were located in important squares in public space. Smaller (less significant?) monuments were also located in smaller squares or even streets.

From the conservator's perspective, special attention should be paid to monuments that have been designed in a way adapted to a specific space. This applies to aspects such as form, materials, colors, style, artistic quality.

In general, all parameters/features of historical monuments have historic value and should be subject to conservation protection of a standard similar to works of art. Their maintenance should come down to conservation and restoration works in the technical understanding of these terms – cleaning, filling

in small cavities in accordance with their original condition, protection against destructive factors (pollution, rainfall, frost).

Historical monuments usually become a permanent part of the public space. They often give them an identity, they are commonly recognized as a landmark. Commemorated people or events are even transferred to the nomenclature. Therefore, such monuments must be protected in situ – the only justification for translocation may be the impossibility of preservation in their original location due to a thorough reconstruction of the space in question.

Figure 1 Pomnik Unii Lubelskiej jest upamiętnieniem bardzo ważnego wydarzenia w historii Polski i Litwy (porozumienia o unii tych krajów podpisanego w 1569 roku). Pomnik usytuowano na centralnym placu Lublina, którego nazwa również upamiętnia to wydarzenie (Plac Litewski), (źródło: WBP, https://polaneis.pl/miejsca/pomnik-unii-lubelskiej-na-placu-litewskim-dawniej-musztry-w-lublinie)

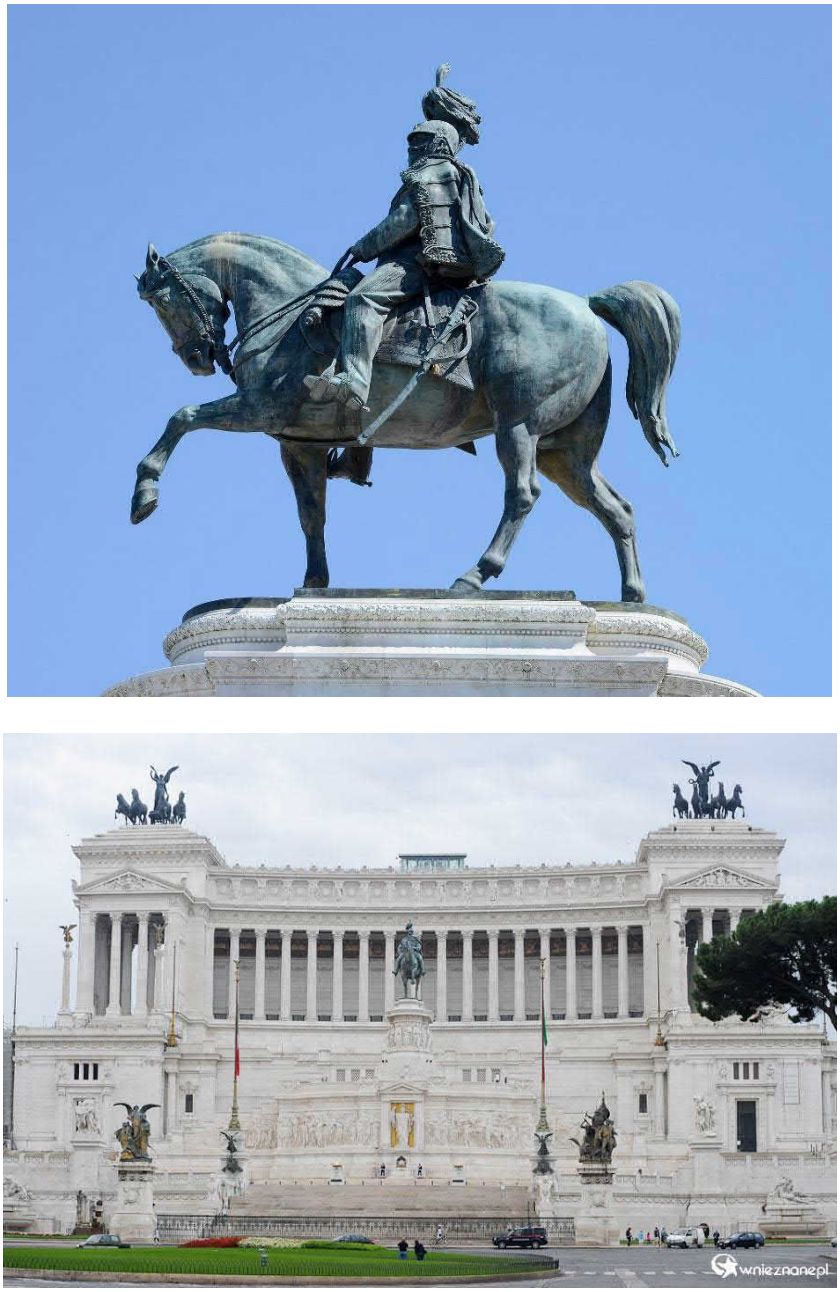

Figure 2 Skala pomnika króla Wiktora Emmanuela w Rzymie miała pokazać znaczenie postaci i wydarzeń, które symbolizowała. Dlatego pomnik właściwie dominuje i organizuje znaczną przestrzeń w historycznym centrum stolicy Włoch.
(źródło:https://pl.wikipedia.org/wiki/Pomnik_Wiktora_Emanuela_II_w_Rzymie#/media/Plik:Victor_Emmanuel_II_September_2015-1.jpg, https://www.wnieznane.pl/rzym_watykan,6,2,zdjecia,foto-2252,)

The function of monuments in public spaces can also be performed by various types of elements, which are fragments of historical objects. For example, Egyptian columns or obelisks were used in the past as elements of decoration of public spaces, especially important squares. Moving obelisks was practiced already in antiquity, but it was not until the 19th century that they were more widely considered to be an exotic attraction of significant cities in the West. Egyptian obelisks were set up, m.in, in Rome, London, Paris, New York. Currently, such practices are considered reprehensible, but after centuries

these elements are an arrangement of space of historical value. However, in the future, such items may be returned to the countries of origin.

Figure 3 W Rzymie jest kilka egipskich obelisków ustawionych w czasach starożytnych i nowożytnych. Pierwszym obelisk w czasach nowożytnych ustawiono na Placu Świętego Piotra. Tak zwany Obelisk Watykański o wysokości ponad 25 metrów został ustawiony w centrum placu w roku 1586, (obeliski na Placu Świętego Piotra, na Piazza Navona – fot. M. Trochonowicz, obelisk przed Panteonem – fot. K.Drobek)

Various types of works of art that do not have a commemorative but a decorative function should be treated similarly to monuments. In many cities, spatial works of various types and sizes are placed in public spaces. Sometimes their authors are well-known artists, which gives them considerable value. Such elements can also be a characteristic complement to the historical public space. However, it should be remembered that they should not dominate spaces of high historic value – therefore it is necessary to avoid placing objects with an extensive, eye-catching form or message in spaces with a fixed image.

Figure 4 Na historycznym Rynku w Krakowie ustawiono rzeźbę podarowaną miastu w 2005 roku przez autora Igora Mitoraja. Leżąca głowa nazwana „Eros Bendato" jest jednym z kilkunastu dzieł umieszczonych w przestrzeniach publicznych wielu miast na całym świecie. Skala krakowskiego Rynku pozwalała na umieszczenie współczesnego dzieła w historycznej przestrzeni (fot. .Szmygin).

A difficult problem in the case of historical monuments may be a change in the assessment of the significance of the commemorated people or events. Cultural, social and, above all, political changes lead to a change in the narrative of history. As a result, there may be social expectations that there are no monuments in public space honoring figures that are currently assessed negatively. Such a problem often arises with a radical change in political systems. For example, it was a common problem after the political changes that began in 1989 in the countries of the former Eastern Bloc. In these countries, thousands of monuments honoring the socialist system and the Soviet Union were removed. This process was understandable and justified, but it was undoubtedly a better solution to remove these monuments from public spaces and move them to different warehouses than to destroy them.[8]

[8] W Polsce w pierwszym okresie przemian niektóre pomniki związane z upadającym systemem niszczono, natomiast wraz z upływem czasu przede wszystkim przenoszono je do różnego rodzaju składów, magazynów. Dobrym rozwiązaniem było utworzenie w Muzeum w Kozłowce (woj. lubelskie) składnicy gromadzącej monumenty okresu socrealizmu.

In recent years, a similar problem has arisen in Western European countries, when various social groups have come out against monuments to people associated with colonialism or slavery. On both sides of the Atlantic, Protestants destroyed and removed monuments associated with these phenomena. Of course, these monuments were created at a time when these phenomena were not assessed negatively. Contemporary protests are understandable, but this does not change the fact that monuments represent a number of historic values. Therefore, destroying them is not the only solution – for example, you can add information with contemporary explanations and assessments or simply move these monuments from public places.

Figure 5 Pomnik upamiętniający Feliksa Dzierżyńskiego w Warszawie został zniszczony przez tłum protestujących podczas zmiany systemu w 1989 roku. W czasach społecznych rewolt niechciane pomniki są niszczone, a nie usuwane, (źródło: https://um.warszawa.pl/waw/zabytki/-/warszawskie-pomniki-nieistniejace-cz-4)

Figure 6 Pomnik upamiętniający Krzysztofa Kolumba - obalony w USA (Zrzut ekranu z Twitter.com / @RitaPanahi)

The second group of elements of permanent arrangement of historical spaces of great importance and value are various types of public water sources. Such devices of various sizes and forms were common equipment in public spaces in the past – without water, the city could not function. To this day, some devices have survived in many places, primarily various types of fountains, which were given decorative forms and displayed in public spaces.

Fountains - like monuments, have been built since antiquity. Originally, fountains were a publicly accessible source of water, which was provided by aqueducts. Rome was famous for its large and ornate fountains. The ancient traditions of fountain construction permanently determined their form. Therefore, in modern times, fountains continued to refer to old forms. They were built of durable stone materials, often marble. The decorative program was expanded depending on the prestige of the place. Especially many fountains were built in rich cities of southern Europe, where the supply of water to public places was justified by the climate. In the Middle Ages, water had an additional symbolic meaning, which is why fountains were built near churches, in important squares.

A special period in the construction of fountains in public space was the Baroque. At that time, many fountains were created, which were decorated with extensive figurative representations. Mythological motifs were particularly eagerly used in them. A city still famous for its many fountains is Rome, where very extensive fountains have given identity to many public spaces. The Trevi Fountain, the fountains in Place Navona or the Triton Fountain are separate tourist attractions that completely dominate the occupied spaces. Made by the best architects of the era from noble and durable materials - travertine, marble, bronze, they have the status of works of art and are protected with similar reverence.

Figure 7 Fontanna di Trevi w Rzymie, (fot. K.Boguszewska, K.Drobek)

Figure 8 Fontanna 4 rzek przy placu Navona (fot. M.Trochonowicz

Of course, the extensive fountains exposed in the space constitute only a small percentage of the devices performing these functions. In the old public space, modest devices supplying residents with water definitely prevailed. Stone or metal devices were usually mounted against the walls of various buildings, but with the possibility of public access. Most of them did not have an extensive form or many decorations, because their basic function was important. These devices often did not even have taps, the water flowed in a continuous stream. Such public water sources lost their functions when water supply and water supply directly to homes became popular. However, in many poor Old Town districts, some public water sources have been preserved, as the water supply system was brought to apartments only in the 60s or 70s of the twentieth century. Such water sources have a historic value and should be protected.

The preservation of historical fountains and all sources of water also has a contemporary practical justification. The flowing, sprayed water increases the comfort of using public spaces. The sprayed

water has the effect of cooling the heated air, which is important during high summer temperatures. Water also cleans the air near the fountain – wet surfaces keep dust particles. It is also believed that the sound of water creates a useful acoustic background in urban space. That is why users of public spaces are so eager to approach and sit near city fountains. The microclimate of these places is commonly felt by users of public spaces. In densely built-up Old Town complexes, where local heat islands with very high temperatures are formed, this is of great importance for the possibility of using these spaces.

Figure 9 Lokalne źródło wody w Rzymie, (fot. K. Boguszewska)

Figure 10 Mała fontanna w Rzymie, (fot. K. Boguszewska)

The legitimacy of protecting historical fountains and water sources in public spaces is obvious, regardless of their scale, location and artistic value. According to the conservation doctrine, these parameters are not assessed, and historical devices are only protected. However, there is still the question of building modern fountains and water sources in historic public spaces. Due to the comfort of use, in very heated Old Town complexes, the supply of water in this form is very justified. New permanent water sources should be small in size and harmonized with the environment. As in all contemporary interventions, the principle of respect for the historical environment applies. Therefore, the construction of permanent water sources in small spaces in the Old Town can be difficult, and the solution may be temporarily installed water curtains.

Even more problematic is the construction of new fountains in the historical surroundings. Such facilities generally have a larger scale and extensive form. Therefore, they should not be introduced into historical spaces, as they usually constitute too much interference.

Figure 11 Współczesne małe źródło wody na Rynku w Poznaniu, (fot. K. Boguszewska)

Figure 12 Nieudana fontanna przy J. Pawła II w Szczecinie, (fot. K. Nawrocka – źródło: https://wszczecinie.pl/fontanna-z-al-jana-pawla-ii-potrzebuje-generalnego-remontu-woda-tutaj-nie-poplynie-przez-dluzszy-czas/48608)

Figure 13 Kurtyna wodna np. na Rynku Wielkim w Krakowie, (Fot. B.Szmygin)

3. 3. Repeatable elements of public space arrangement

Historical elements of permanent arrangement of public spaces, which have an individual or characteristic form and have survived to the present day, have usually become recognizable and valued components of these spaces. They have historical, symbolic, tourist value, and become well-known

landmarks in the city space. This obviously gives them a special status and promotes protection in an unchanged form. Their authenticity and integrity are preserved.

The specificity of the preservation of historic elements is different, as they are not individual, do not have an individual form. In particular, this applies to elements of urban space arrangement that had only functional functions. An example of such elements are corner stones, which were installed to protect the corner of buildings from damage. Such protections were needed because horse-drawn carts, which were difficult to maneuver precisely in the narrow streets of the Old Town, often damaged the corners of buildings. Similar protections were sometimes installed on the corners of the lowest stairs in public spaces. With heavy vehicle traffic, the corners of the lowest steps were exposed to damage, so they were secured.

All the preserved corner stones are monuments, at the same time reminding us of old problems and solutions in the Old Town traffic. Therefore, they should be preserved and protected.

A similar functional element were stone or metal protections of the corners of the entrance gates to tenement houses. Such elements were particularly needed in crossing gates, which is why they were installed on a large scale. They should be maintained and left.

Figure 14 W Lublinie na terenie starego miasta zostały zachowany tylko jeden historyczny kamień narożny przy przy skrzyżowaniu ul. Gruella i Jezuickiej, (fot. B.Szmygin

Figure 15 W Łodzi w bramach wielu kamienicach czynszowych zbudowanych na przełomie XIX i XX wieku zamontowano różne formy zabezpieczenia naroży. Są one chronione i konserwowane podczas prac modernizacyjnych i remontowych, (fot. A. Klimko).

Figure 16 We Florencji teren przed Bazyliką San Lorenzo jest wyniesiony o kilka stopni ponad poziom otaczającego placu i ulic. Narożnik najniższego stopnia historycznych schodów został zabezpieczony odpowiednio ukształtowanym kamieniem, (fot. B.Szmygin)

The protection of historical urban furniture, which is the former equipment of public spaces, should be treated in a similar way. Due to changes in technical and aesthetic standards and natural deterioration processes, such elements are usually preserved only in a few copies, even if there were many of them in the past. Examples of this type of equipment are, m.in, street pumps, advertising poles, street lamps. The historical forms of these elements are distinctive components of public spaces, they show their historic character, therefore they should be protected with reverence.

The main limitations in the preservation of such elements of equipment were their limited durability and loss of function, resulting from technical progress. An example of such elements are historical lamps illuminating public space. Lighting systems changed radically, which is why the lamps were usually comprehensively replaced during subsequent modernizations. As a result, only a few copies have survived. The surviving historical lamps in public space completely change their function – they are no longer part of the technical equipment system, but individual monuments carefully protected.

In the case of such artefacts, it can be considered that the authenticity of individual specimens is preserved to a large extent. Therefore, even a single lamp preserved in public space is a valuable monument that should be properly secured and displayed (primarily through additional information). Of course, it should be remembered that lamps functioned as elements of a network of devices constituting equipment for public spaces. From this point of view, the integrity of these networks is not preserved. Therefore, keeping a few lanterns - if possible, is of greater value, and at the same time allows you to draw attention to them in public space.

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Figure 17 W Sukiennicach na środku krakowskiego placu rynkowego zachowały się pojedyncze egzemplarze lamp gazowych. Są cennym zabytkiem techniki, (fot. B.Szmygin)

Figure 18 W Genui zachowały się przykłady historycznych lamp ulicznych, (fot. K. Boguszewska)

Figure 19 We Florencji w bezpośrednim sąsiedztwie Kaplicy Medyceuszy przy Piazza San Lorenzo zachowane są cztery dawne latarnie uliczne. Latarnie już nie świecą, są jedynie historycznym elementem wystroju przestrzeni publicznej, (fot. B.Szmygin).

A similar example of technical devices in public space are street pumps, which lost their function with the development of the water supply network, supplying water to individual apartments. In some cities, however, the pumps were left and treated as a characteristic element of the space design – this is facilitated by the solid workmanship of the casing. The preservation of such elements may require their relocation from their original locations (for example, when they are radically rebuilt) to places where

they can be located and constitute an element of the décor of the public space. Such a procedure can be considered acceptable from the conservation point of view, because it determines the survival of such devices, and at the same time allows them to be exposed.

Figure 20 W Szczecinie publiczne pompy były częstym elementem urządzenia przestrzeni publicznych. Obecnie nie pełnią już pierwotnej funkcji ale są zachowane jako charakterystycznym element krajobrazu miasta – została odtworzona ich kolorystyka. Tylko część pomp stoi w pierwotnych miejscach, (fot. B.Szmygin).

The protection of historical surfaces has a different specificity. Undoubtedly, it can be considered that historical surfaces also represent historic values. All the features of the surface are important from the conservator's point of view – the material, colour, size and shape of the elements, the way they are arranged. Therefore, of course, fully preserved historical surfaces are of the greatest value. However, there are very few such surfaces due to changes in utility standards and multiple laying of underground

installation networks. As a result, intact historical surfaces survived only in places that were uncovered during archaeological works. Such surfaces are virtually non-existent in open, traffic-accessible, Old Town public spaces.

Figure 21 Zrujnowane podczas II wojny światowej stare miasto w Szczecinie zostało tylko częściowo odbudowane. Dzięki temu na części obszaru przetrwały bruki, które podczas trwającej obecnie odbudowy są chronione jako historyczne, (fot. B. Szmygin).

However, in many Old Town complexes, traditional surfaces have been preserved, which may seem authentic. This is partially true. The surfaces of the Old Town were usually made of erratic stones, on impermanent foundations. Intense city traffic knocked out unevenness and from time to time the surfaces had to be renovated and rearranged. Such a necessity also arose when laying subsequent underground installations. That is why the surfaces have been postponed many times. However, if they are made of the same material (supplemented, of course), in a similar technology and shape, they are now considered historical. Such surfaces meet the modern understanding of authenticity, although not in all aspects.

Figure 22 Staromiejska brukowana nawierzchnia we Florencji i Quedlinburgu, (fot. B.Szmygin, K. Boguszewska

A separate issue is the assessment of the integrity of the preserved or relocated surfaces. Integrity in this case should be assessed similarly to systems for furnishing public spaces, such as lighting. If it is possible to determine the extent of coverage of the Old Town area with a specific surface, then the measure of integrity would be the current degree of preservation of these surfaces. In the vast majority of Old Town complexes, however, cobbled streets are preserved only fragmentarily - usually cobblestones are preserved only on less frequented streets. Thus, the integrity condition is not fulfilled (or partially satisfied).

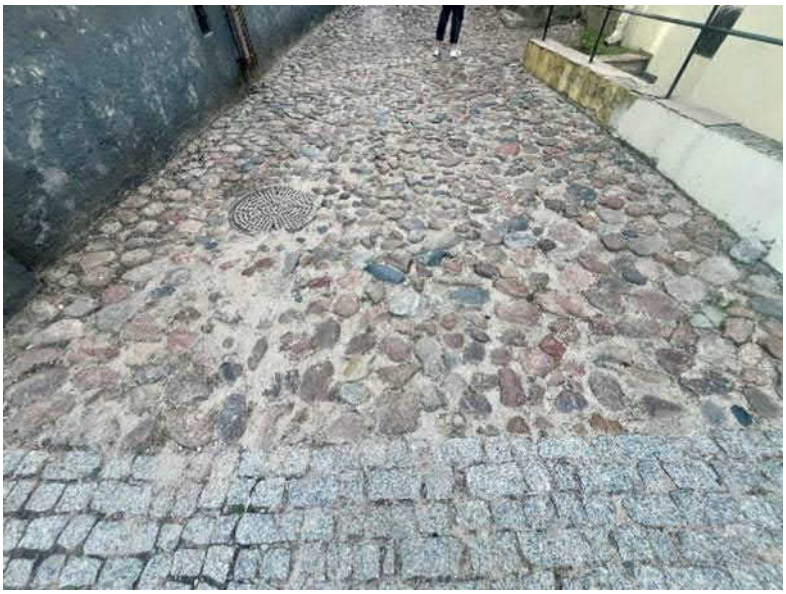

Figure 23 W Lublinie na terenie starego miasta jest kilka ulic pokrytych brukiem. Nawierzchnie były przekładane w pierwszych powojennych latach – są obecnie uznawane za historyczne, (fot. K. Boguszewska).

Partial preservation of the historical surface as part of modernized streets or squares is also treated as protection. For example, the historical surface – which usually has worse performance parameters, is partly replaced with modern materials. This is not an optimal solution from the point of view of authenticity and integrity, but it allows for at least partial preservation of the historical surface. Therefore, conservators accept such actions, especially on streets where there is intense vehicle traffic.

[9] W polskim systemie ochrony zabytków nie wdrożono metodologii oceny integralności. Pojęcie to zostało przejęte z systemu Światowego Dziedzictwa UNESCO, ale tam również nie określono czy warunek integralności może być spełniony częściowo.

Figure 24 W centrum Gdyni pozostawiono fragmenty nawierzchni historycznej (z okresu postania miasta), a pasy intensywnego ruch pokryto asfaltem, (fot. B. Szmygin).

The laying of new surfaces with the use of authentic stone elements (paving stones, slabs, edges) can also be considered as a conservation activity. The specificity of this activity consists in laying surface patterns other than the original ones. So the appearance will change, and additionally, additions made of new materials may be introduced. An example of such an action is the use of characteristic paving slabs in the centre of Szczecin. Many pavements in the city center were made of large granite slabs, which made them a recognizable element of public spaces. Slabs are massive, have a smooth surface, and are generally durable. However, the edges are uneven, and some slabs were damaged during post-war operation. Therefore, when it was decided to reuse them during the modernization of pavements, it became necessary in. Despite this, they are still used on a large scale during the modernization of pavements in the city center. Small granite paving stones are used to fill in the spaces between the slabs when, for example, cavities need to be filled. From a conservation perspective, it is an example of the protection of authentic elements as well as the historical appearance of pavements.

Figure 25 W zabytkowym centrum Szczecina podczas modernizacji masowo są wykorzystywane zachowane płyty chodnikowe. Ponownie układane są nawet częściowo uszkodzone płyty, (fot. B. Szmygin).

It is also a common practice to use materials in the Old Town public spaces similar to those in the past. First of all, this applies to natural stone materials, from which the vast majority of elements of the permanent arrangement of public spaces were made. Stone can still be used for this purpose, as it is a durable material and considered prestigious. These features support its use, but are not related to the type, form or colour of the materials used in the Old Town space. This should be an area of conservation arrangements.

First of all, it is advisable to use materials that have been historically used in a given team. For practical reasons, in the past local materials (transport) were used if they were suitable for technical reasons. Individual elements of the arrangement of public spaces could be made of nobler materials, imported

from afar, while surfaces were made of easily available local materials. Nowadays, this principle should be continued.

The surfaces that most determine the perception of the cityscape should be made of local materials. For utility and executive reasons, new paved surfaces made of erratic stones are not laid. Therefore, locality means the use of regional or country's materials. In Poland, there are deposits of granite and basalt, which, due to their technical parameters, are suitable for the construction of street and pavement surfaces. However, there is no justification for importing stone pavements from distant countries or even continents. [10]

The urban landscape - to the same extent as the color and grain size of stone surfaces - is determined by their shape and arrangement. The surface of paving stones can be processed in various forms. The uneven surface is a closer reference to the paving stones, but it is a certain difficulty in moving. Nevertheless, due to some variety in appearance and historical associations, such paving stones are often used. From a conservator's point of view, it can be recommended to diversify the stone surface, but it is difficult to determine to what extent it can be uneven – the comfort of users and architectural accessibility should be taken into account to a significant extent.

Figure 26 Ulica staromiejska w Lublinie wyłożona współcześnie kostka brukową o nierównej nawierzchni (granit łupany), (fot. K. Boguszewska).

The form of paving is important. In the past, the streets and squares were not paved in patterns. This surface was treated as utilitarian, decorative elements appeared in representative squares or courtyards. Meanwhile, modern paving stones of uniform sizes allow for a large variety of patterns. However, it should be recognized that complex patterns in the arrangement of paving stones should be used in moderation. They can be laid in spaces that have an individual, representative character – in practice, primarily in Old Town squares. The pattern in the arrangement of the paving stones should

[10] In Krakow, the surfaces were imported from Turkey.

rather signal the functional divisions of the space than constitute a separate decoration. An overly decorative pavement can create dissonance in a historical space.

3. 4. Walls and fences

A significant group of elements co-creating the permanent arrangement of historical spaces are various types of walls and fences. A feature that allows us to distinguish this group is their specific function – they demarcate and protect spaces in historical complexes. This feature makes them linear, simple, self-contained structures. As a rule, these are brick buildings – made of brick or various types of rocks, sometimes supplemented with metal or wooden elements.

The long-term exposure to weather conditions and the location in intensively used public spaces mean that fences and border walls are gradually deteriorating. Usually, however, it is a gradual process, the effects of which may be limited by successive repairs. They must be made on an ongoing basis, so the authenticity of fences and walls cannot be assessed too orthodoxly. Repair and replacement of various elements – foundations, individual stones, tiles, plaster, etc., is a common, necessary and repeatedly repeated activity in the case of these elements.

The key to the durability of walls and fences is protection against water, especially rainfall and capillary. Durability can be ensured by protecting the crown of the walls – a low-absorbent material and the shape of the cap on the crown, and the layers near the ground – material and insulation. Successively repaired and properly secured historical walls and fences can last even hundreds of years.

Fences and walls in the Old Town space must, of course, meet a number of technical conditions resulting from its function. The conditions resulting from building standards and regulations must be met during the construction and operation of walls (they are not the subject of this study). On the other hand, from the point of view of the protection of historic values and the preservation of the Old Town landscape, several key features of fences and walls can be indicated. It is primarily the form, material, colors, and details of the décor. Both renovation works on the preserved fences/walls and designs of new fences should take these aspects into account.

The simple structure and obvious functions of fences and safety walls mean that there is no need to expand the typological divisions of these elements. However, from the point of view of exhibitions in public space, they can be divided into two groups - fences and boundary walls, and retaining walls and balustrades.

The first distinguished group consists of all kinds of fences and demarcation walls. These are free-standing elements with a separate function - separation and protection of the separated area from the rest of the space, and their own technical characteristics. Many historical fences still exist and retain their original function, because in historic complexes the divisions of the area established even centuries ago could survive.

The function of fences is unambiguous - restricting access to the object/area and showing its boundaries. The form of fences results directly from this function and a number of factors, similar to

those in other buildings (availability of materials, finances, function of the fenced facility, etc.). Historical fences therefore represent historic values and should be protected. They are also a characteristic element of the arrangement of historical public spaces. Therefore, they should be treated with due attention in projects to modernize these spaces.

The construction of fences is usually simple – a wall and/or spans. There are many combinations of these elements. However, from the perspective of arranging public spaces, the size, material and form of fences are crucial. The selection of these parameters was usually determined by the function of a specific fence – the need for effective fencing of the area or facility.

The most restrictive fences were built around areas and facilities whose use required strict control (entering and exiting). This concerned primarily religious institutions (especially monasteries), prisons, military facilities or residences of important and wealthy people.

The fences of such facilities were supposed to be a real obstacle, so they were usually high and solid. It was usually a solid wall, sometimes of considerable thickness. The faces of the walls were generally smooth, devoid of decorations – any unevenness could make it easier to climb the wall. In addition, the character of most of the buildings fenced in this way did not require decorating the surrounding walls. The appearance of the fences was rather to reflect the seriousness and prestige of the institution, thus discouraging uncontrolled entry.

Figure 27 Wysoki, lity mur klasztorny we Wschowej – mur wykonany z kamienia, tynkowany, (źródło NID)

If the function of historical buildings is preserved today – this may be the case with religious institutions, military or offices, then fence walls are still needed. This makes it easier to preserve such fences in their historical form. Sometimes it is necessary to install modern installations on them - for example, monitoring, but usually this does not significantly change their perception. The preservation of such fences reminds us of the former functions of the buildings and shows historical divisions – so it is a

protection of historic values. However, in general, such fences are an important component co-creating the historical urban landscape, and at the same time symbolically show the continuity of the existence and use of historic areas.

Rysunek 28 Wysoki, lity mur więzienny w Katowicach – mur ceglany, (źródło: NID)

The nature of the institutions that defended access by building high, tight fences was usually reflected in gates and entrances. First of all, there were not many of them (easier control), there were also full (built-up) and simple (without many decorations). The gates and entrances corresponded with the character
and image of the institutions to which they limited access. Therefore, even if the utility functions of solidly fenced complexes are changing today, it is justified to maintain the character of walls and entrances. Materially, the walls should remain, but functionally, the fenced areas can be opened and made available.

High, full and without architectural details, fence walls tightly enclosing historical plots were a characteristic element of the Old Town districts. In the newer historical districts, the nature of the fences has changed. Early modern fences of public buildings and private residences changed their function, which resulted in a change in their appearance.

First of all, fences did not have to be a physical barrier in such a literal sense as in institutions where access control was of fundamental importance. Fences were still supposed to block access to the property, but this restriction was also increasingly symbolic. The fences were not only – or not primarily – to physically hinder access, but also to show that access to a given area is limited.

Ogrodzenia budowli publicznych i prywatnych zaczęły też w coraz większym zakresie pełnić dodatkowe funkcje. Ogrodzenia zamykały teren posesji, ale jednocześnie pokazywały znaczenie czy zamożność the institution or the person who owned it. Therefore, the fences no longer had to completely obscure

the view of the area and the objects located on it. The fences could be lower, but above all, they did not have to be full. Fence walls were replaced by metal spans placed on foundations of different heights, from time to time stiffened with stone or brick posts. Such fences increasingly had decorative functions and complemented the architectural décor of the buildings located on the fenced plot. The form of fences was often adapted to the architectural décor of the buildings. Brick and metal elements of the fences could even be an integral part of the architectural concept of the plot.

Fences - and above all gates - could be expanded and decorated. The architectural décor of such fences should, of course, be the subject of protection and conservation work.

Figure 29 Historyczna brama wraz z ogrodzeniem dawnej fabryki wyrobów bawełnianych I.K. Poznańskiego w Łodzi, (fot. Marek & Ewa Wojciechowscy, źródlo: www.zabytek.pl)

A specific example is the historical fences of city gardens and parks. In the nineteenth century, these were already public spaces, but access to them was controlled (paid), so fences were necessary. The fences of city parks and gardens were an element of their leisure, decorative function. They were therefore a consciously designed element of public space. Also in such fences, gates were a particularly elaborate, decorated element.

Cemetery fences are also an element of the arrangement of historical public spaces. Cemeteries, which used to surround churches even in cities, were liquidated for hygienic reasons. From the end of the 18th century, cemeteries were established outside the built-up area, but the development of cities meant that some of them became part of areas now considered historical. In such cases, they are an element of protected public space, although historic cemeteries can also be subject to conservation protection on their own. As a rule, cemeteries were surrounded by fences, designed in various architectural forms. Most often these were simple forms referring to the Gothic, which was considered the most appropriate for sacral buildings. Such fences should be protected in their original form.

Figure 30 Historyczne ogrodzenia parku, neogotycka trójprzęsłowa, ażurowa brama żeliwna z kamiennymi filarami z latarnią. Integralnym elementem ogrodzenia jest Domek Odźwiernego zaprojektowany w 1889 r. przez Mariana Jarzyńskiego. Założenie ogrodowe wraz z elementami małej architektury zostało zrewaloryzowane i poddane konserwacji w roku 2011, (fot. K. Boguszewska, źródło rysunku APL)

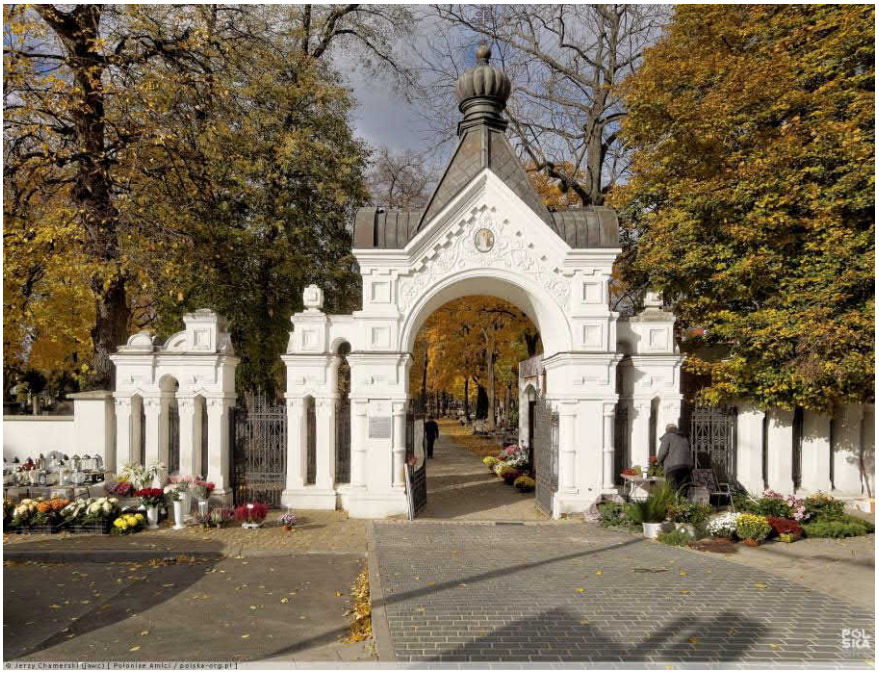

Figure 31 Historyczna brama prowadząca do najstarszej lubelskiej nekropolii przy ulicy Lipowej i jej prawosławnej części. Brama powstała w 1903 roku wg projektu G.Artynowa. W roku 2014 brama poddana została konserwacji. (J. Chamerski, źródło: https://polska-org.pl/10662511,foto.html)

Another group of fences are small structures, which in public spaces - primarily symbolically - were to protect certain elements of the arrangement of these spaces. Examples include fences for monuments, fountains or the so-called front gardens. Such fences were not to completely limit access to the secured elements, but to clearly show the boundaries that should not be crossed. Such a function meant that they were usually low (in the order of one meter). These fences were not higher also so as not to cover the surrounding element. Therefore, they were usually made of metal and set on a small foundation.

The form of such fences was usually simple. However, if there are many of them – for example, front gardens on important avenues, they are a characteristic element that co-creates the identity of such a space. On the other hand, when it was a single element, its form was usually more individualized and developed, which drew attention and also gave the space individual features. In any case, the forms of such fences should be maintained, also when missing elements need to be reconstructed.

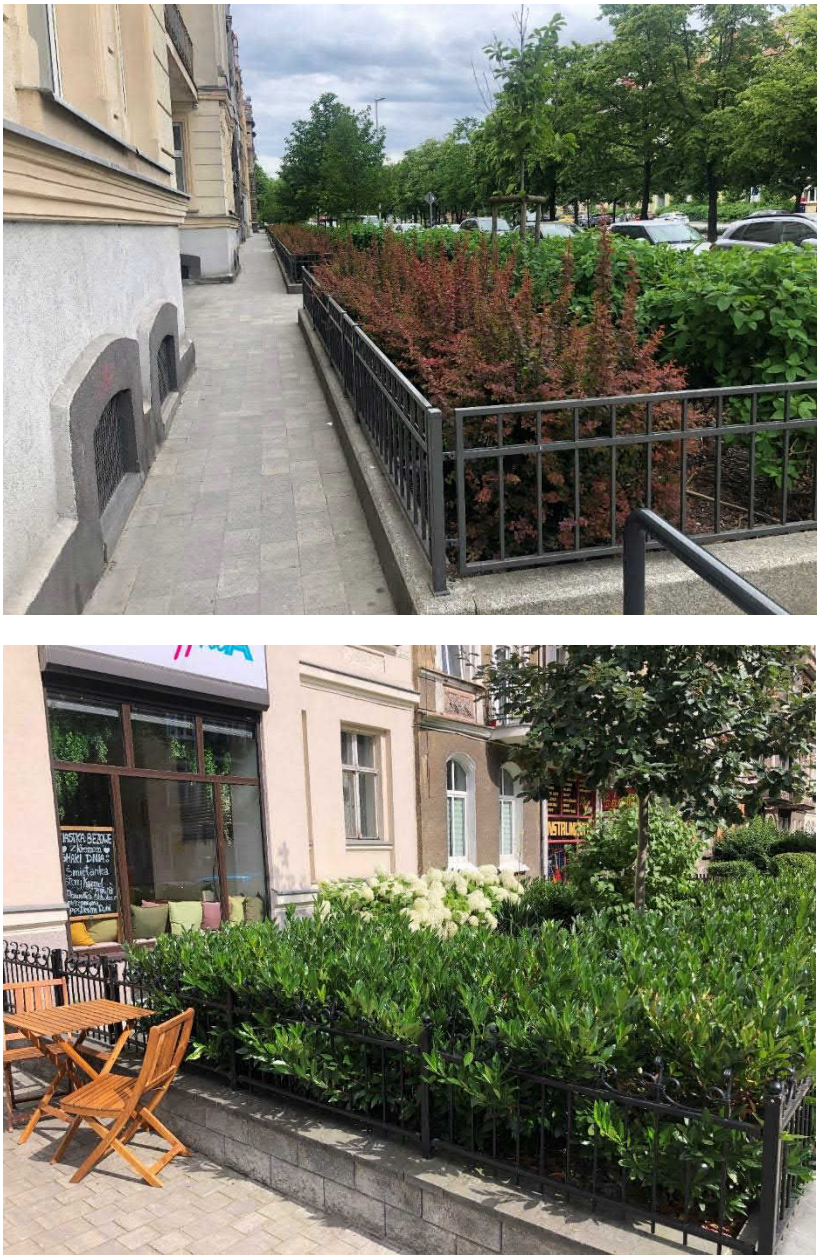

Figure 32 Metalowe, historyczne ogrodzenie w przedogródkach w Aleii Jana Pawła II w Szczecinie, (fot. B. Szmygin).

Figure 33 Metalowe, historyczne ogrodzenie fontanny w Poznaniu na Rynku, (fot. K. Boguszewska)

A different group of historical partitions are the walls separating the plots. In the historical quarters of buildings, such walls were separated primarily by courtyards belonging to individual tenement houses. In large cities, on larger plots, the boundaries between them were usually closed by the development of outbuildings (side or located at the back of the plot). However, when these buildings did not exist, plots were often separated by walls. The border walls were at least high to limit visibility from the courtyard level. They had the simplest form, often they were not even plastered.

The walls separating plots in the building quarters retain their function – they make it easier to separate private space, which is why many of them have survived. Nowadays, however, there is a growing tendency for courtyards in blocks of flats to have a communal or even semi-public character (access to these spaces is sometimes open). In such cases, the walls should be preserved, but passages between courtyards can be built in them. This allows the historical wall to be preserved, parcel divisions are clear, the availability of common space is ensured, and at the same time a certain intimacy of the courtyards is maintained. Border walls can also be used for technical shelters (garbage cans, bicycle shelters) and attractive greenery development.

When the boundary walls are not complete, they can be preserved (or) reconstructed) in the form of small walls close to ground level or only signaled in the floor. Such modern solutions are justified because they show the former boundaries of plots and mark a certain distinctiveness of individual spaces.

Figure 34 Mur pełny rozdzielający dawne podwórka w kwartale zabudowy w Zamościu. Na fotografii widoczne przejścia w murze zapewniające swobodną komunikację pomiędzy działkami, (fot. K. Boguszewska).

Figure 35 Niski murek, funkcjonujący jako ławka i rozdzielający działki w kwartale zabudowy w Zamościu, niski murek formujący donicę na zieleń (fot. K. Boguszewska).

Symbolically marking a non-existent wall or fence is a solution that is quite commonly used. The physically existing wall is obviously a limitation in the modern arrangement of public spaces. Therefore, in intensively used places, there are no conditions for its restoration. To show the old arrangement of the area, it is helpful to make the course of the former fence in the land cover clear. The diversity of the

material or color of the covering is a sufficient meaning of the historical wall, and does not limit movement around the area at all.

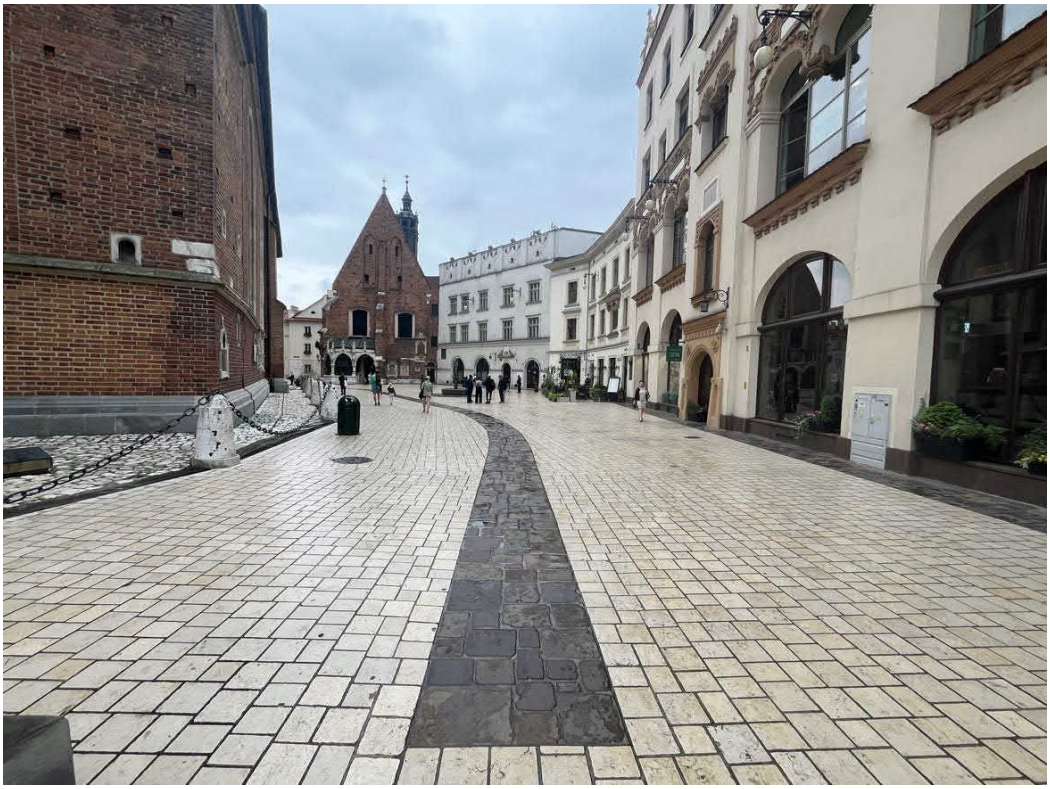

Figure 36 Innym kolorem kostki w nawierzchni zaznaczono przebieg muru, który w przeszłości wydzielał granice cmentarza okalającego kościół Mariacki w Krakowie, (fot. K. Boguszewska).

A separate group of fences – important from the conservation point of view – are structures with their own, significant documentary and symbolic value. Such a group consists of fences related to important historical places or events. These are cases when the fence – as a structure that in principle restricts access, is a carrier of a key meaning characterizing a specific historical event. Examples of such fences in urban space can be the walls separating ghettos or the wall separating East and West Berlin. Fragments of the original walls (of which it was not possible to preserve many in the urban space for functional reasons) and its symbolic commemorations in various forms are key material traces of these stories. The symbolism and functions of the wall make it a clear sign that consolidates the message about past events in the urban space. Of course, the original fragments of the wall are also historical documents that can be shown and studied.

A special case of historical fences are constructions that were a kind of scenery for important events. For example, in Gdańsk, the fence and the gate leading to the Gdańsk Shipyard, where the workers' strike in 1980 took place, gained such importance. The shipyard gate – as a separate element – became a symbol of the Solidarity revolution, and thus an important fragment of public space.

From the point of view of the protection of historic values, fences and walls with independent historical or symbolic significance should be identified and protected. They are monuments and important elements of the iconosphere of urban space.

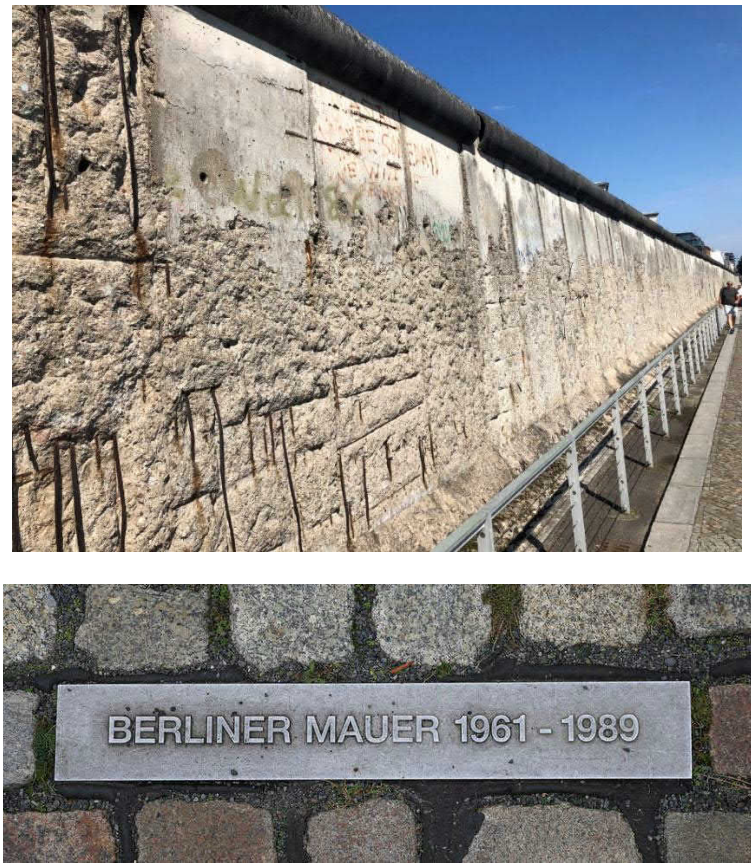

Figure 37 Fragmenty muru berlińskiego z widocznymi śladami zniszczeń z roku 1990, metalowa tabliczka upamiętniająca historyczny przebieg muru, (fot. B., Szmygin, źródło: https://www.podrozepoeuropie.pl/mur-berlinski/).

Figure 38 Symboliczne zaznaczenie przebiegu muru getta w Lublinie,(fot. K. Boguszewska).

In some historic cities, fences and border walls can be a coherent, important element of their identity. Such a situation occurs when a certain building material or a characteristic way of its use has dominated in a given area for a long time. There are usually many fences and walls, so as a whole they can effectively preserve the image (characteristic features) of this space.

Such situations took place especially in smaller historical cities, where small buildings dominate. In towns, saturated primarily with vernacular architecture, houses and properties are individually fenced. Fences are therefore a characteristic, significant element of public spaces and an important component of the urban landscape. In such complexes, fences were built for centuries from local rocks, often supplemented with wooden elements. Preserving old fences and building new ones, in accordance with local tradition (materials and forms), is a very important factor in protecting local identity.

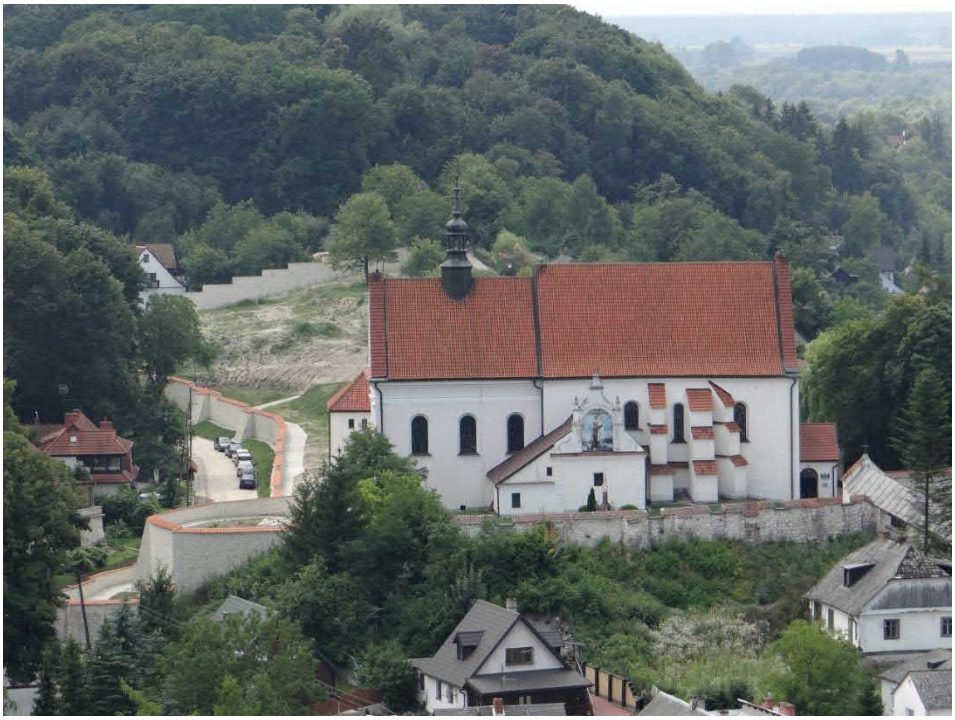

Figure 39 Ogrodzenie zespołu klasztornego Franciszkanów Reformatów w Kazimierzu Dolnym. Ogrodzenie wykonano z lokalnego kamienia wapiennego, (fot. J. Dyr., źródło: www.zabytek.pl)

The preservation of historical fences and walls should be a standard when modernizing public spaces. However, it often happens that fences are in poor technical condition, incomplete or some sections of them are completely destroyed. In such cases, it is necessary to decide on the method of repairing or supplementing the missing fragments of the fence. The conservation theory determines the legitimacy of supplementing (reconstructing) the missing fragments of a monument with documented knowledge of its original form and the degree of its individualization (as a whole work). In the case of fences – relatively simple and repeatable elements – these conditions are often met. Therefore, without major doctrinal disputes, fences are repaired/supplemented in historical forms. Such actions can be considered correct.

From the conservator's point of view, there is one more argument in favor of maintaining the character of all components that make up the historical fences. The relatively large scale of the fences and their exposure in the space makes the contemporary interventions very clear and significant in the overall perception of the historic complex. Therefore, when supplementing existing or building new fences in historical complexes, forms, materials and colors significantly different from the old ones should be avoided. What is more, if the old fences had characteristic and repeatable features on the scale of the entire complex, they should be carefully protected (in authentic fences) and even preserved (in new fences).

Figure 40 Ogrodzenie z kamienia wapiennego w Kazimierzu Dolnym, które jest czytelnie współczesne, ale zachowuje tradycję lokalną, (źródło: https://photo.nocowanie.pl/photo.php?f=2842864&gal_v2=2&p=1&la=1)

The second group of walls are structures built to shape and consolidate areas that are located on different levels. Such walls were needed in many historical cities built on hills. The old terrain has often survived in the old town areas, so it is still useful to secure places at different levels. In such places, the so-called retaining walls were built, i.e. structures that stopped landslides between areas on different levels. Retaining walls are therefore another element of the arrangement of public spaces.

Retaining walls are linear structures, made of brick or stone, on the one hand to stop the pressure of the adjacent soil. The other side of the wall – its face, is visible from the lower ground. Retaining walls are usually massive structures, as they must withstand horizontal forces from soil pressure, and sometimes also from the weight of structures erected on the ground surface. The height of retaining walls varies, as it results from the difference in levels between the adjacent areas. The height of the wall affects its construction. When the difference in levels is large, the soil is not cohesive and presses against the wall, its construction is more complicated, because it includes elements that allow to maintain the pressure of the soil (the soil pressure is greatest at the base of the wall). High retaining

walls can be wider closer to the base or set on the so-called offset. Diagnostics and repair of such walls is a complex and expensive engineering job. In low structures – but these are the majority in Old Town areas, retaining walls are similar to fence or border walls.

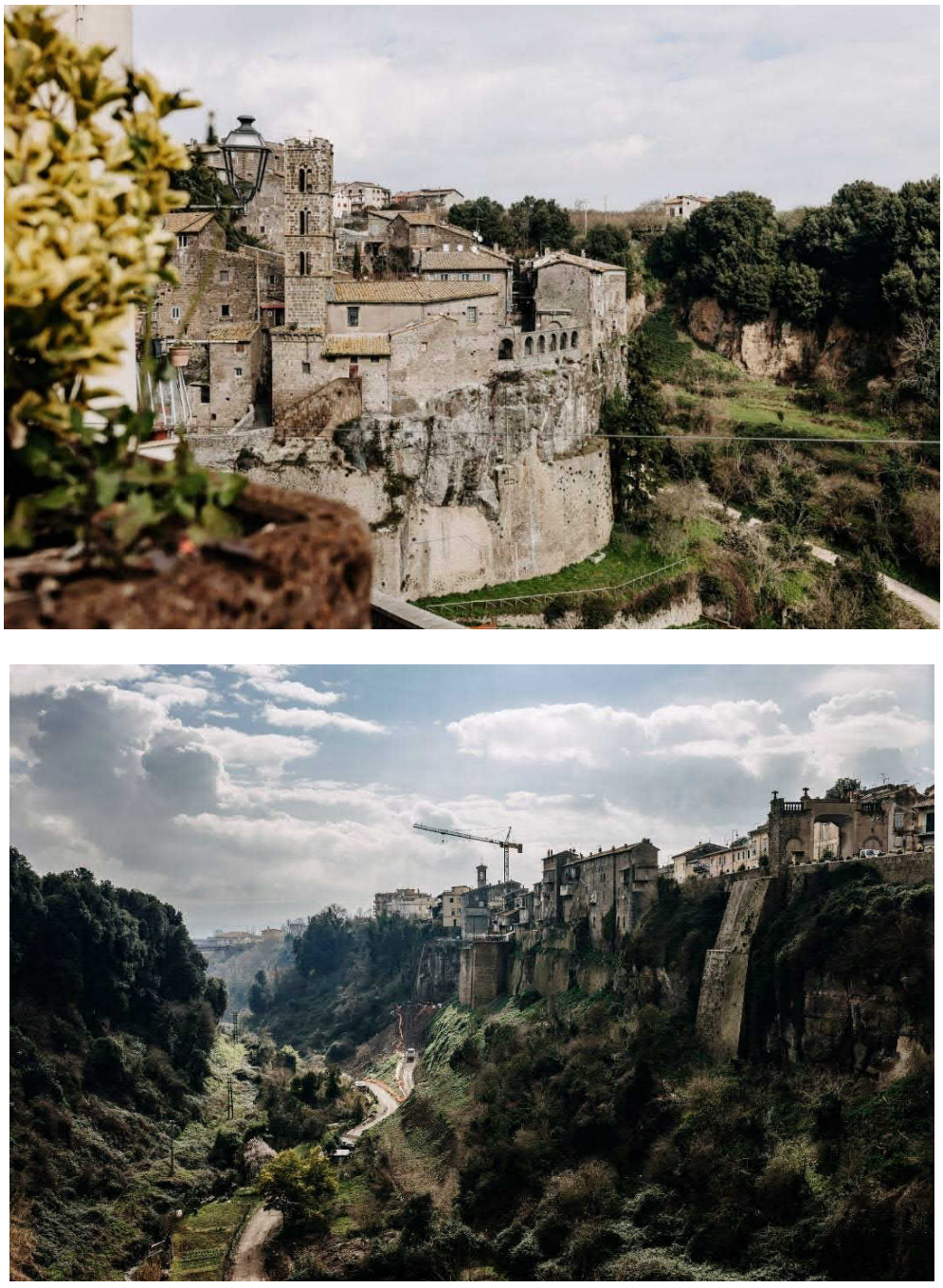

Figure 41 Wysoki, historyczny mur oporowy w Sighisoara w Rumunii, (fot. K. Drobek)

The problem of all retaining walls is water. Rainwater constantly penetrates into the ground adjacent to the retaining walls. Hydrostatic pressure increases the pressure on the wall structure, but above all, water penetrating through the wall causes its destruction. Therefore, drainage should be installed next to the walls to drain water, and water insulation should be installed on their surfaces in contact with the ground.

Old water protection systems – if they were made at all, were usually not effective. Therefore, retaining walls are usually damp. This is a serious problem, because the flowing water transports crystallizing salts in the outer layers of the walls, and the multiple processes of freezing water in their structure additionally support the destruction processes. These processes are particularly intense in the Polish climate, where there was a lot of rainfall and multiple freezing temperatures in winter.

A visible and frequent symptom of destruction processes is the destruction of the facing layers of retaining walls. They can vary depending on the intensity of the flowing water and the type and quality of materials from which the wall (or its face layer) is made. The face layer cracks and crumbles, because it is in this layer that the process of freezing water and salt crystallization takes place most intensively. This phenomenon occurs both in the material from which the wall was built, and in the mortar connecting individual bricks or stones (if the walls were laid on mortar). This process depends on the absorbability of the material, which is why heavier (igneous) rocks are more resistant to water. However, in such cases, the joints (mortar) can be destroyed, which also leads to the weakening of the wall.

Regardless of the damage to the structure of the retaining walls, penetrating water leaves traces on their surface. The flowing and drying water leaves traces on the faces of the walls. This is important for their reception in public space and is difficult to remove on an ongoing basis, especially with walls of greater height. Damp walls also facilitate the settlement of dust on the walls, and consequently the development of biological corrosion. This is another factor that destroys walls and reduces their aesthetics.

The conditions of use meant that the retaining walls required periodic repairs. The scale of the damage (of the structure and materials) often required the replacement of many, or often even all, of the materials. Thorough repairs of retaining walls therefore consist in dismantling them to the foundations, laying insulation and drainage, and rebuilding the entire wall. Therefore, retaining walls in Old Town areas may not have material historic value – they primarily document the last renovation. This situation usually applies to small retaining walls, the reconstruction of which even a comprehensive reconstruction is an action on a small scale. Paradoxically, it may be different in the case of high walls protecting areas with a large difference in levels. Such walls usually protected hills built of cohesive rocks, where the wall levels, secures and effectively covers the slopes, rather than stopping the pressure of the ground. Such walls could be less exposed to water filtration, thus their destruction could be slower. In some historical towns, such high retaining walls are a characteristic and long-established element of the landscape. In such cases, the assurance of structural safety and the preservation of the wall can be combined by repairing it by anchoring it in the slope.

Retaining walls are structures that had the main function of forming the terrain and stopping the pressure of the ground. Technical and safety requirements mean that retaining walls repaired and built even in Old Town areas are made in accordance with modern standards (materials, technologies, structures). This is accepted by the conservation services precisely because of the nature of these structures. On the other hand, for the recipients using the Old Town spaces and for maintaining the historic features of these spaces, the facing layers of these walls are important. Repetition or reference to historical patterns is a justified but also sufficient action. On the other hand, an element

that can have an individual form – and therefore has a greater impact on the perception of public spaces – are balustrades protecting retaining walls.

Figure 42 Współczesny przykład wysokiego muru oporowego wraz z balustradą w Warszawie, (źródło: NID, www.zabytek.pl)

Elements of the Old Town public spaces are balustrades and walls protecting users using the spaces located on different levels. Railings are a form of protection placed on the edge of an element of a building or terrain. Balustrades were already used in antiquity, but generally they were elements of broadly understood buildings (inside and outside). As elements of architectural décor, they were adapted to the materials and stylistic forms of buildings. The railings could be solid or openwork – in such cases, the filling was made of elements made of various materials, e.g. stone balusters. The balustrades were crowned with various forms of handrails.

Balustrades were also introduced into public spaces, using the forms and materials used in buildings. In public spaces, balustrades and safety walls were built on stairs, driveways and as tops of retaining walls. In such places, they are still necessary as protection for users against falls, in some cases from great heights. Therefore, it is an important issue for the safety of users of public spaces.

Modern regulations define requirements for railings used in buildings and public spaces. The regulations state that if the structure is raised more than one meter above ground level, it is necessary to make a safety railing.[11] Regulations on safety in buildings can also be applied to public spaces. They require the installation of railings on stairs and driveways when they exceed the height of half a meter (in relation to the surrounding area). The height of the railings must be one hundred and ten centimeters. The railings should also prevent falling below the handrail, which requires the installation of safety elements

[11] The regulations on railings are contained in the announcement of the Minister of Development and Technology of 9 June 2022 on the Regulation of the Minister of Infrastructure of 12 April 2002 on the technical conditions to be met by buildings and their location (Journal of Laws of 2022, item 1225), section VII regulates the conditions for safety of use.

at a height of fifty centimetres. The method of setting the railings must be stable, which is specified in separate regulations (regarding technical conditions and installation).

The requirements for safety railings apply, of course, in historic public spaces. Historical railings must therefore be assessed from the perspective of historic values, technical condition and compliance with regulations. The assessment of these aspects should be the basis for decisions on how to act. As a rule, historic balustrades or safety walls should be preserved - if the functional requirements are met (m.in. height, "openwork", stability" fastening) and the technical condition allows it. Possible repairs of the technical condition should enable the preservation and consolidation of historic values. It is also justified to supplement the missing railings in accordance with the historical prototypes.

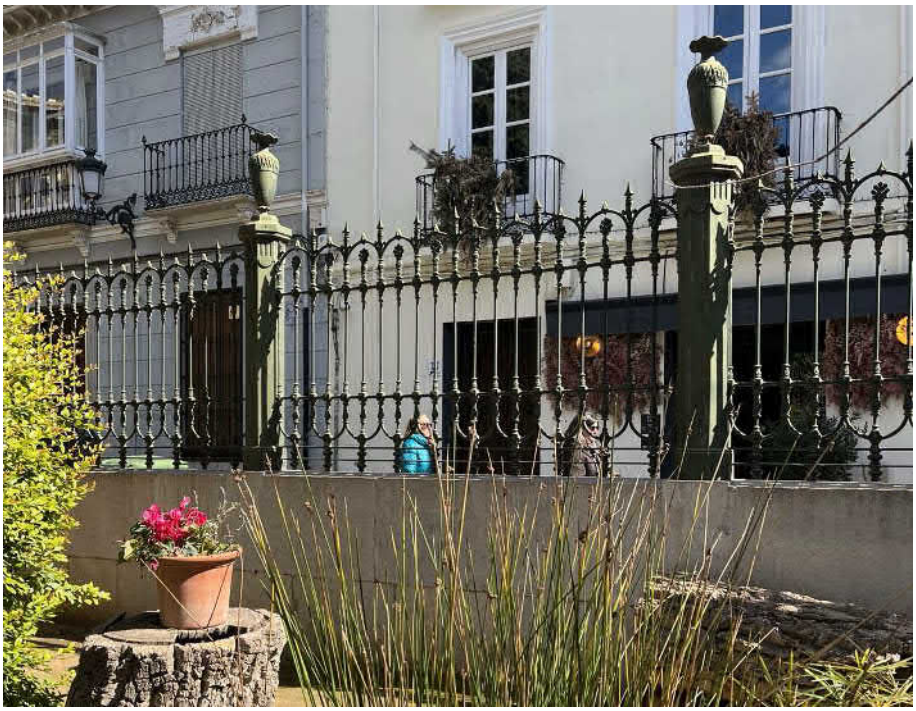

Figure 43 Historyczna balustrada – na murze zabezpieczającym stanowiąca ogrodzenie ogrodu botanicznego w ścisłym centrum Granady, (fot. K. Boguszewska)

Balustrades in public spaces were generally built when it was necessary to secure with a large difference in height, primarily as a crowning of high retaining walls. In such places, the railings were often solid, solidly set and high. In urban spaces of prestigious importance or where they were exhibited, they were treated as an element of décor and given an extensive form. Such balustrades were usually elements of a larger architectural and spatial concept (similar to bridge railings), therefore they should be treated as an integral element of such assumptions and protected together with them (subjected to conservation works). Railings in such places must also meet safety requirements.

Most railings, however, protect places with a relatively small difference in levels, often in Old Town complexes where there is little space. In such cases, less massive and openwork railings are more appropriate - saving space occupied by railings and a kind of visual neutrality are desirable

features. For these reasons, the balustrades over the low retaining walls in the Old Town space were made of metal (durability) and had simple forms.

Over the small retaining walls, the solution used was balustrades in the form of several dozen centimeter walls with overbuilt posts and a handrail. Walls about a meter high do not constitute a visual partition, and at the same time can be used as a seat. Such solutions are useful in places visited by many users – for example, at tourist attractions.

Figure 44 Balustrady na Wałach Chrobrego w Szczecinie, (źródło: Wikipedia)

Figure 45 Balustrady zabezpieczające niewielkie murki oporowe na Placu po Farze w Lublinie, (fot. B. Szmygin)

New balustrades in the Old Town space should, of course, be adapted to the form and material of the surroundings. There are no rules that define the rules of action in such cases. However, it is usually considered that masonry, stone balustrades (posts, panels, balusters, handrails) are suitable for exposed places, for example as protection on high retaining walls. A massive fence technically and visually creates a sense of security. In such places, full railings in the form of walls of the right height are also the right solution. Such railings are also a visual closure of exposed, open spaces. On the other hand, with a smaller difference in levels and generally a smaller scale, openwork railings may be more appropriate. In such cases, simple metal railings are placed on low foundations (they do not constitute a visual partition).

Walls that are elements of railings should be built of materials referring to the surroundings and local building traditions – material, shape, color. In the Polish climate, due to weather conditions, plasters or cladding boards made of tight materials will be impermanent.

Figure 46 Współczesne balustrady w przestrzeni Rzymu, (fot. K. Boguszewska)

Summing up the characteristics of the elements of the permanent arrangement of historical public spaces, it can be stated that for functional reasons and material characteristics (durability) they can be preserved. This is also supported by their historic values and relatively high importance in maintaining the historical identity of these spaces. Therefore, they should be the subject of careful conservation protection, preserving the authenticity and integrity of these elements to the greatest extent possible. Therefore, these elements should be identified and inventoried – this should be a priority in the management and modernization of these spaces.

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V. LIST OF DRAWINGS: