

PAPER MILL IN DUSZNIKI-ZDRÓJ – VALUE ASSESSMENT AND MANAGEMENT PLAN

BOGUSŁAW SZMYGIN, ANNA FORTUNA-MAREK, ANDRZEJ SIWEK



LUBLIN UNIVERSITY OF TECHNOLOGY

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Table of contents

Introduction	7
Smart Value system for evaluation of monuments and Plan for the management of the most valuable monuments	9
PART 1 – DIAGNOSIS	20
1 Formal description of the property	21
1.1 Historical analysis of the property	21
1.1.1 Historical context of paper production	21
1.1.2 History of the paper mill	23
1.2 Formal description of the property	28
1.2.1 Location	28
1.2.2 Short description of the paper mill premises	28
1.2.3 Boundaries	30
1.2.4 The purpose of the property	30
1.2.5 Ownership	31
1.3 Conclusions and recommendations	31
2 Analysis of the values of the property	33
2.1 Analysis of the features crucial for establishing a comparative group	33
2.1.1 Location and the surrounding area	33
2.1.2 Composition layout of the paper mill premises	33
2.1.3 Buildings of distinctive external form	35
2.1.4 Internal historical form of the structures	39
2.1.5 Decorations inside the paper mill	45
2.1.6 Materials, substances and the structure	48
2.1.7 Paper mill equipment – original elements being preserved and additional museum exhibits	51
2.1.8 Function of the property	52
2.2 Defining the type of the property and selecting comparative group	54
2.3 Valuing criteria and value assessment of the property, based on the reference group	56
2.4 Analysing the values of the paper mill - defining value attributes as well as assessing their authenticity and integrity	61
2.5 Conclusions and recommendations for conducting further research studies on the paper mill premises	70
2.6 Conclusions and recommendations for handling the property	70

3	Description of the premises	75
3.1	Preservation of elements of historical significance	75
3.2	Technical condition	76
3.3	Conclusions and recommendations for conservation and heritage preservation actions to be taken – based on the property value analysis	77
PART 2 – DESCRIPTION OF THE PROTECTION AND PROPERTY MANAGEMENT SYSTEM		78
4	Description of the protection and property management system	79
4.1	Description of elements falling within the scope of the state protection and property management system	81
4.1.1	Regulatory conditions and the status of the property	81
4.1.2	Conclusions and recommendations	84
4.2	Description of the local protection and management system (levels: local, district, and regional government)	85
4.2.1	Conclusions and recommendations	93
5	Threats and monitoring	97
5.1	Description (determination) of threats to be identified and monitored	97
5.2	Description of the property monitoring system	109
5.3	Conclusions and recommendations	117
PART 3 – DESCRIPTION OF THE USE OF THE PREMISES		118
6	Description of stakeholders	119
6.1	Description of the primary groups of stakeholders influencing the premises and the way they are operated	119
6.2	Stakeholders: defining main areas of cooperation	120
6.3	Conclusions and recommendations	121
7	Presentation, Accessibility, Tourism	125
7.1	Description of actions to be taken, needs and possibilities with regard to the display of the property and making it as accessible to as many visitors as possible.	125
7.2	Description of activities, opportunities and needs related to development of tourism based on visits to the property	132
7.3	Conclusions and recommendations	135
8.	The concept of a system of action plans	139
9.	Bibliography	141

Introduction

The beginnings of the paper mill era date back to the 13th century. In the period stretching over five hundred years Europe saw a few thousand paper mills coming to life. Although a small number of paper mills still operated in the twentieth century – some exist even today – the fact remains that ancient paper-making technologies, based on simple water-powered devices and manual handling of paper pulp on screens gave up in the nineteenth century to factories, using paper making machines for paper production process. Some mills were retrofitted and became paper factories operating paper making machines, a small number of paper mills switched to other products, but most of them simply ceased to exist. The only trace of paper mills are the sheets of paper deposited in archives or old prints stored in libraries. To this day just a little number old paper mill has survived, witnessing the historical production technology. One of such surviving, preserved historical objects – and one of more interesting – is the paper mill in Duszniki-Zdrój. The origins of the paper making industry are hidden in the darkness of history. The fact remains that in the present location of the mills paper was manufactured already before 1562 and that the existing building was built in 1605, on the walls of an earlier paper mill. Paper makers from Duszniki were famous for diligence and honesty, a virtue appreciated by many clients but also by rulers. In 1607, Emperor Rudolf II granted the coat of arms to Gregor and Georg Kretschmer, and soon also the title of nobleman. Anton Benedikt Heller, of the next generation of paper makers as well as his son-in-law and his son-in-law, Joseph Ossendorf, received their title of royal court paper makers from the Prussian king. Both the Kretschmer family as well as the Heller family did not spare money on expanding and modernising the paper mill, a process carried out for centuries. The first half of the 18th century saw construction of the western

peak, decorated with volute rafts; after 1743 a wooden drying house and an entrance pavilion were erected next to the paper mill, while the turn of the 18th and 19th centuries was the time when the northern and western facades of the paper mill were beautifully decorated. These investments made it possible for the paper mill to survive for almost one hundred and fifty years. Production ceased as late as in the 1930s. of the twentieth century. The museum, created in the historical building opened its door when Duszniki became part of Poland, with financial support of the state paper industry. The visitor center was opened in 1968 and quickly became the most important tourist attraction in Duszniki-Zdroj and its surroundings.

Today the paper mill is one of the hallmarks on the cultural and tourist map of Kłodzko land, the place where numerous cultural and scientific undertakings are pursued, the site attracting tens of thousands of visitors every year. With the commitment of several generations of museum employees it was possible to make the paper mill a home for unique collections, of which the most important are the collection of watermarked sheets produced in paper mills throughout Poland (for some paper mills these sheets are the only material artefacts of their activity), collection of identification documents (passports, personal ID cards) and a collection of Polish banknotes issued from the Kosciuszko insurrection time to the present day.

This way the paper mill evolved from its manufacturing function to a cultural one. But – 1971 saw a successful reopening of paper pulp manufacture so that visitors could witness how paper used to be produced these hundreds and hundreds years ago. Today whoever visits the museum may put on a special paper maker's outfit and make a sheet of paper themselves, just as it used to be made in Duszniki for centuries.

The responsibility for the paper mills was behind the efforts to award this unique monument the status of

a Historic Monument, and is now the motivation in pursuing the entry of the site in the UNESCO World Heritage List. In order to ensure a sustainable use of this historic site, the team led by prof. Bogusław Szmygin has developed a *Management Plan for the Historic Monument of Duszniki-Zdrój – the paper mill*. The Plan, presented in this publication, features a diagnosis of

the cultural heritage – namely the historic paper mill, describes the system of protection and management of the site and determines the way in which it can be used. Behind publishing this document is the hope of promoting the issues associated with managing cultural properties of special value, including the paper mill in Duszniki-Zdrój.

Maciej Szymczyk, Ph.D.

Director of the Museum of Papermaking

Smart Value system for evaluation of monuments and Plan for the management of the most valuable monuments

The protection of monuments is primarily associated with technical measures, aimed at maintaining the proper state of the substance and form of the historic building. Such measures, however, should be called the maintenance of the monument, while its protection is a far more complex task. Works on the building undertaken by conservators are in fact only the finale of the whole series of earlier decisions and actions.

The protection of individual monuments is generally a function of the efficiency of the national protection system, which consists of many elements. Functioning of such a system requires, among others, defined set of monuments, rules for their maintenance, functions they perform, their sources of funding, organisation of security system, convincing the public to support the protection of monuments. All these activities are of course very difficult, because there are many monuments, their maintenance is costly, adaptation to modern functions is difficult, their owners do not have sufficient resources for proper maintenance and support from public funds is always insufficient.

In such conditions, effective protection of individual monuments requires first of all to solve the two problems – precise determination of their historic value and creation of appropriate system for their management. Determination of historical value allows to identify such elements and features of the monument that should be protected in a necessary process of its adaptation to modern utility functions. A clear determination of value is also an important argument justifying the need for monuments protection. In turn, the Management Plan for a monument is a form of a comprehensive plan of actions aimed at its long-term protection. Management Plan for the monument is meant to ensure the protection of its values, so determination of these values is basis for its development.

However, current conservation practice still lacks the standard for assessing the historical value and standard

Management Plan. This problem was clearly recognised in the UNESCO World Heritage system, covering the most valuable cultural and natural goods worldwide. Qualification of goods nominated for UNESCO World Heritage List requires an assessment of their value (based on 10 criteria), and every good entered on the list must already have the Management Plan developed. However, despite these requirements, even the World Heritage system lacks precise and standard methodology for determining the value of monuments or the structure of the Management Plan. This is mainly due to the fact that both the features of particular goods and the conditions for their protection in the whole world are very different. Far-reaching standardisation of their valuation and the Management Plans is therefore not possible and purposeful. Nevertheless, publications and documents prepared for the World Heritage contain a range of information that should be used in developing methodologies for assessing the value of monuments and developing Management Plans.

In Poland, the register of monuments contains nearly 70,000 items. Among them, the group of the most valuable objects and complexes is distinguished, and we call them the Historic Monuments. Selected Historic Monuments are nominated for the UNESCO World Heritage List. Therefore, this group of goods needs the best protection, both in terms of their value, and the system requirements of UNESCO. This, in turn, requires an accurate assessment of their value and development of the Management Plan.

The issue of assessing the value of heritage was dealt with intensively for several years by the Polish National Committee of ICOMOS. This work led to the organisation of a research project funded under one of the European research programmes. The result of this project is methodology for the assessment of value of monuments, called the "Smart Value system". The SV

system was used to evaluate three typologically different monuments, one of which was the paper mill in Duszniki-Zdrój¹.

1. SMART VALUE MONUMENTS EVALUATION SYSTEM²

Functioning of the system for the protection of monuments requires several types of activities – primarily resource identification, indication of the scope of protection, the plan of conservation works, justification for the need to protect monuments. The nature of these activities varies. Part of the activities only requires to determine the overall value of the monument (for example: assessment of the object to determine whether it should be given a monument status). Additionally, part of the activities also requires determining the relationship between values and their physical carrier (e.g., evaluation of the monument in order to determine the scope of the interference). Consequently, the evaluation process of the monument should provide various information, depending on the different needs of the protection system.

Different characteristics of the activities comprising the system and monument protection process are included in the SV evaluation system. Monument evaluation process in the SV method consists of two main levels (stages)³.

Level 1. Determination of the value of a monument – overall determination of the value of the monument (without indications for its protection).

Level 2. Analysis of the value of the monument – assessment of the values of the elements of the monument by identifying value attributes (in order to determine protection method and the scope of possible interference).

1 Characteristics of the SV evaluation system and evaluation of selected goods was presented in the publication – B. Szmygin, A. Fortuna-Marek, A. Siwek, *Wartościowanie dziedzictwa w systemie SV – metoda i przykłady zastosowania* [Evaluating heritage in the SV system – the method and examples of use], Lublin University of Technology, Lublin 2017.

2 Description of the SV evaluation method has been entirely cited from the chapter: *SV heritage assessment system – conditions and assumptions*, op. cit., pp 18-21

3 The first level of evaluation is the basis for the activities in the discipline dealing with the overall analysis of the monument – referred to as heritology. The second level of evaluation provides information used in the discipline dealing with the technical maintenance of the monument, known as conservation.

1st level of evaluation of the monument – overall determination of the value of the monument.

Determination of the value of the monument (overall value) consists of comparing it to a set of monuments that have been designated as competent reference group. Evaluation, or comparison, may only be made on the basis of the criteria adopted. Therefore, the comparison requires establishing criteria, against which we can assess (mechanism used in the UNESCO World Heritage system)⁴.

Monument evaluation is relative in nature, as it always (and only) takes place in the context of a specific set of historical monuments.

Evaluation requires determining the reference group and features (criteria) against which the comparison is made.

Features selected for the needs of comparison are considered values, and object representing them are valuable (in the light of the adopted group and criteria).

Valorisation of the monument is a process carried out in several stages. This is due to the need for an individual determination of criteria for the evaluation of the monument and the relevant reference groups. These activities must be performed in a particular order.

Stage of evaluation /within level 1/:

1. Characterisation and analysis of the monument in order to select the features/elements, against which the reference group will be identified
2. Identification of the reference group (which will provide a comparative context)
3. Determination of assessment criteria (verification of the features determined as the basis for evaluation by comparing them in the evaluated object and the adopted reference group).
4. Assessment of the value of the good in the light of the adopted criteria against the reference group

Assessment of value in the SV system requires the establishment of the so-called reference group (comparison group). Reference group is a group of monuments against which the value assessment is made (forming

4 Value assessment method of the World Heritage system was the model for the method of evaluation of the goods competing for the status of the Historic Monument used in the Polish monument protection system.

the context of comparison). Reference groups may be established according to various criteria, for example: typology, territory, construction period. Reference group may be created on the basis of one or more criteria; most often the reference group is created based on the typology, while taking into account the criteria of territory and chronology⁵. A monument may be evaluated against one or more reference groups.

In the existing monument protection systems, reference groups are not established as a standard – comparative analysis is not conducted⁶. If the reference group is not established, monument value assessment is made based on “default reference group”. Default reference group is most often unspecified set of monuments (without indicating the entire set and without indicating its features), in the area covered by the activity of the evaluating conservation office (country, region, city). Determining the reference group is an essential element of the evaluation process – it determines the evaluation process, and therefore it requires special qualifications (knowledge of the appropriate set of monuments and its essential features).

Determining a reference group requires criteria to identify its components. Based on the adopted criteria, we can specify the reference group – the more elements (monuments) that make up the group, the more accurate and reliable the evaluation. Only in exceptional circumstances, it is possible (and necessary) to identify all the elements making up the reference group. This means that the evaluation of the monument is made only on the basis of identified monuments making up the reference group.

An example of the comparative analysis based on identified reference group of monuments is the assessment of the nominee for the UNESCO World Heritage List. The current procedure assumes the determination of a reference group, consisting of monuments belonging to the same typological group as the assessed good⁷. In addition, the area is identified where the monuments from the reference group are located. The minimum scale is a region (the area must be larger than country), maximum (and desired) scale is the whole world.

The specificity of the World Heritage system’s assessment means that nominations are assessed by the ICOMOS International Scientific Committees, specialising in individual typological groups of monuments.

Documentation of the World Heritage also provides the division of heritage into typological groups. For certain groups of monuments, the so-called thematic studies were conducted, which contain their analysis. Therefore, these are studies that depict the analysis of reference groups for a particular type of monuments. Determining the reference group should be accompanied by establishing of the criteria based on which the comparison/evaluation of the monument takes place against other monuments belonging to the group.

The criteria are established primarily on the basis of material characteristics of the good and its qualities perceived in the context of the whole reference group. Therefore, the criteria may include e.g. age, impact, size, quality, innovation, creator.

Each group of monuments (reference) has certain features, due to which we need to specify the criteria for it. Establishment of the criteria is an individual process (within a certain range we may use the criteria used in the system of the World Heritage)⁸.

5 It is most natural to compare the monuments against groups consisting of objects with similar functions – castles, churches, townhouses. Usually, additional criteria are introduced to narrow down the reference group – e.g. castles in Poland (territory), stone castles (material), medieval castles (construction period). Narrowing reference groups helps to provide criteria that allow for greater objectification of comparison of individual objects (within the reference group).

6 In the case of nominees for the status of the Historic Monument in Polish monument protection system, comparative analysis is conducted, aimed at identifying values that make the assessed monument distinctive against existing domestic monuments. This analysis is carried out on the basis of the criteria specified for the Historic Monuments. In some decisions on the entry into the register of monuments, we find justifications that can be considered fragmented comparative analyses. These activities, however, have a small range, which allows to conclude that the Polish monument protection system does not provide for comparative analysis as a standard.

7 Categories of goods (typological groups) for the purpose of entering into the UNESCO List are set out in *Working Guidelines (Annex III – guidelines on the inscription of specific types of properties on the world heritage list)*. The procedure of evaluation of the monument inscribed on the UNESCO List assumes its comparison within the framework of the appropriate typological group.

8 In the World Heritage system, 6 criteria are used for assessment of cultural goods. These criteria do not relate to specific physical characteristics of the goods, but to their perception in the scale of the resource of monuments (Art. 77 *Working guidelines*).

Establishment of the criteria should be accompanied with the principles for their measurement (measurable criteria are optimal, as they create greater opportunities to objectify the assessment).

Monument assessment carried out on the basis of more than one criterion should be accompanied with determined scale of assessment of their importance to each other. However, in the case of numerous criteria, meeting this requirement is very difficult. For example, comparing the age of the object and its formal features, since there are not objective measures.

It is broadly accepted that authenticity (state of preservation of the historic substance and form) and integrity (completeness) of features/elements should not be used as criteria. Evaluation of authenticity and integrity of the elements/features of the monument (Assumption 2) belongs to the next stage of the assessment.

It should be added that the criteria for defining the reference group and the criteria for assessing the monuments within the reference group are not the same (although in some cases they may be similar or even overlap).

Valorisation made at level 1 leads to an overall assessment of the value of the monument in the context of the resource, in line with the accepted criteria. Such assessment at the same time allows to make a global valorisation of the resource, which in this case is the reference group.

The simpler the assessment criterion, the easier the valorisation; the simpler the criterion, the larger resource of monuments can be assessed.

Sample criterion easy to apply is age of the object. Easy use of this criterion makes it the most frequently applied one in the valorisation of the whole resource of monuments (even without typological grouping). In many countries, this criterion is used as a basis to select a resource of monuments from other objects – in such a situation, it is a criterion constituting the monument. The main drawback of such simple criteria is their general character – application of such criteria does not provide indications as how to protect the monument (level 1 of assessment).

Therefore, in order to obtain information specifying a way to protect the monument, more evaluation criteria should be used, which also reduces the set of evaluated objects (reduces the reference group). Information on how to protect (intervention) the monument can be achieved through analysis on 2 level of assessment.

2nd level of evaluation of the monument – analysis of monument's value (analysis of monument as a carrier for value)

The 2nd level of monument assessment is to point to elements/features that are *attributes* of the values allocated to that monument (fixed at level 1).

Analysis of the monument within level 2 is therefore to determine the attributes of values. Attributes can be tangible or intangible in nature.

Analysis of value of the monument in order to determine its attributes does not require comparisons outside the monument (does not require comparison to the reference group).

Establishment of attributes of value is to determine those elements of the monument, which are essential (necessary) to maintain its overall value. It assumes in fact that not all parts of the monument are equivalent, since not all have the same importance for the value of the monument (set at level 1).

Analysis of values of the monument and establishment of their attributes is required when intervention is planned, that is, when it is planned to violate the historical form and substance. In such a situation, it is necessary to identify the elements to be protected. This is the basis for determining how to protect and use the monument.

Stages of valorisation /within level 2/:⁹

1. Characteristics of attribute of values (indicated at level 1)
2. Determination of physical carrier of the attributes of values
3. Delimitation of limits of possible interference in the monument
4. Formulation of guidelines for the protection of the monument

Attributes are the features or elements of the monument crucial for its value (which determined the granting of the status of the monument). Attributes of values

⁹ *Determination of limits of possible interference in the monument* (point 3), and *formulation of guidelines for the protection of the monument* (point 4) substantially do not belong to the evaluation process. However, these steps have been included in the monument evaluation process, as they are relevant to its management.

may be tangible in nature – if it is part of the monument, or intangible – if it is a feature of the monument. Feature of the monument considered an attribute of its value may be tangible – then it is the so-called attribute carrier. In some cases, materially existing element of the monument may be an attribute of value and, at the same time, attribute carrier, as is the feature it materialises. For example, a log frame structure or half-timbered construction in a wooden object is an element of the monument and, at the same time, a feature that may distinct the object in a set of other wooden monuments.

Individual values of the monument can be represented by one or more attributes; one attribute may represent different values. Tangible attributes can be assessed from the point of view of authenticity and integrity.

Carriers of attributes of values are materially existing elements that embody the attributes of values of the monument. Tangible attribute can simultaneously be the same as its carrier. Carriers of attributes of values, as well as the very attributes, may be assessed from the point of view of authenticity and integrity.

2. STRUCTURE OF THE MANAGEMENT PLAN FOR MONUMENTS OF HIGHEST VALUE¹⁰

The SV system is used to determine the value of the monument considered as a historical document, which is analysed by a qualified monument expert. However, the assessment of the value of monument is not the goal itself. Assessment of the value of monument should be the basis for determining the forms of its protection and use. Ways of protection and use of the monument should be specified in the Management Plan, which should be a mandatory document in the protection of monuments. The information obtained in the process of evaluation of the monument in the SV system allows to develop the Management Plan. Still, it should be said that the evaluation of the monument made in the SV system should be complemented by the preparation of the Management Plan;

evaluation of the monument should be treated as part of the Management Plan.

Based on the analysis of requirements and assumptions relating to the protection and management of monuments with the highest value, a model structure of the Management Plan has been created. This model takes into account the principles adopted in the UNESCO World Heritage system, as the Management Plan in the first place should be developed for all goods nominated and already inscribed in the List. The structure of the plan consists of three parts, corresponding to the main issues that should be included in the Management Plan.

The first part of the plan contains a synthetic presentation of the good, with particular regard to the parameters relevant to the World Heritage system (Part 1 – *Characteristics of a World Heritage good*). It is a technical report describing the good in its physical form, but which also contains the basic data characterising its surroundings (tangible and intangible). The key in this is characteristics of value of the good and its technical condition.

The second part of the plan includes a comprehensive description of the system for the protection and management of the good (Part 2 – *Characteristics of the system for the protection and management of the UNESCO good*). It is a description of the institutions and procedures (items largely intangible), which govern the functioning of the goods, with particular reference to the protection system. This part also includes the characteristics of hazards and monitoring, as these are the elements of management system for the good.

The third part of the plan describes the problems related to contemporary use and functioning of the good (Part 3 – *Characteristics of the use of the UNESCO good*). It is the presentation of non-maintenance elements and factors affecting the good that should also be identified and taken into account in its management. The main issues include stakeholders, sharing, and contemporary use of the good.

The three parts of the Management Plan, divided into 8 chapters, form a comprehensive and coherent description of the issues that are important for the protection and management of goods with the highest value. This structure takes into account the fundamental assumptions and requirements indicated in the documents of the World Heritage, as relevant to its protection and functioning. Because it meets the standards laid down for the World Heritage goods, it can be element of the

10 Structure of the Management Plan has been fully quoted from the publication – B. Szmygin, *Światowe Dziedzictwo Kultury UNESCO – charakterystyka, metodologia, zarządzanie* [UNESCO World Cultural Heritage – characteristics, methodology, management], ICOMOS-Lublin University of Technology, Warszawa and Lublin, 2016 pp 222-232

nomination documentation, it also meets the requirements of Periodical Reports.

The proposed model of Management Plan can also be used for monuments not nominated to the UNESCO List, e.g. Historic Monuments. In such case, titles of individual chapters will change, while the structure and substantial scope of the Plan remain valid.

Model of the Management Plan is a programme document, a comprehensive and general one. However, the information collected and developed in the Management Plan can form the basis for the development of working papers – Action Plans. This is possible thanks to the summary of individual chapters of the Management Plan with *Conclusions and recommendations* that should indicate the tasks that require development in the form of Action Plans. In accordance with the contemporary tendency to

objectify the assessments, model of the Management Plan assumes the use of a methodology of attributes and indicators. This is possible thanks to the use of the SV system, which matches the values of the monument with their physical attributes. In a result, it is also possible to identify indicators that help to monitor the monument.

Preparation of the Management Plan entails collection of many information. Their general source should be the analysis of the existing system of good management – which is why it should precede the implementation of the Management Plan.

Model of the Management Plan is presented in the tables below. This model, along with the SV system, was applied to the assessment of the value and the preparation of the Management Plan for the paper mill in Duszniki-Zdrój.

MANAGEMENT PLAN MODEL

Introduction	/Introduction, introductory word, etc./
Assumptions	/Information concerning the assumptions, purposes and the structure of the Management Plan/

PART I – CHARACTERISTICS OF THE WORLD HERITAGE SITE

1. GENERAL CHARACTERISTICS OF THE WH SITE

/General characteristics of the site and the context of its functioning/

1.1 Historical characteristics of the WH site	Basic historical information presenting the site – among others key events, facts, dates	/source: materials on the history of the site / a few pages /
1.2 Formal characteristics of the WH site	Basic information characterizing the site as a material, contemporary object / set in the most important aspects: <ul style="list-style-type: none"> – location (in the spatial context) – material characteristics of the site (elements it includes) – determination of the borders of the site and buffer zones (in compliance with the documentation – maps) – functional characteristics of the site – ownership characteristics of the site 	/source: nomination documentation of the site, retrospective documents and periodic reports + official documents concerning the site/ a few pages/
1.3 Characteristics of the function and the context of the WH site	Characteristics of the most important factors from the surroundings of the WH site which are significant, and which affect its management and protection: <ul style="list-style-type: none"> – economic characteristics (of the site and its surroundings) (among others tourism) – cultural characteristics – social characteristics (among others demographic) – functional characteristics (of the surroundings) – characteristics of the management system (within which the UNESCO site functions) 	/source: information and materials presenting specific issues, among others elaborations, development plans, strategies/ a few to a dozen pages/
1.4 Information concerning documentation of the UNESCO site	List of documents concerning the UNESCO site, in particular formal documentation required in the World Heritage system.	/source: nomination documentation of the site, retrospective documents and periodic reports + official documents concerning the site/ a few pages /

CONCLUSIONS AND

RECOMMENDATIONS /item 1/

- Conclusions and recommendations concerning potential operations related to technical parameters of the site – e.g. ownership, borders, buffer zones, documentation of the site (including the documentation required by the WH Committee).
- Conclusions and recommendations concerning completion of the formal documentation of the WH site (no reference to the content of such documents).

2. CHARACTERISTICS OF THE VALUES OF THE WH SITE (OUV +AI)

/Characteristics of the site from the perspective of the system (of terms) of the World Heritage/

2.1 Characteristics of the site as a subject of entry	<ul style="list-style-type: none"> – Determining the type of the site (one of three categories and division into typological groups). – Characteristics of the historical context of the site (significant for determination of the OUV value – most of all characteristics of reference groups). – In the case of serial sites, characteristics of the complex and determination of the value of a given site in relation to the whole. 	/source: nomination documentation of the site, retrospective documents and periodic reports concerning the site / a few pages/
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<p>2.2 Determination of the value of the site (OUV)</p>	<ul style="list-style-type: none"> – Characteristics of criteria to enter the site on the WHL. – Determination of the OUV (content approved by WHC). – Determination and characteristics of OUV attributes (considering the division into particular criteria recognized in the determination of the OUV value). 	<p>/source: nomination documentation of the site, in particular <i>Statement of Significance, Statement of OUV, retrospective OUV Decisions</i> / a few pages/ /note: an approved <i>OUV Decision</i> should be quoted in full/</p>
<p>2.3 Determination of the authenticity and integrity of the site (quality of the site)</p>	<ul style="list-style-type: none"> – Authenticity certificate (approved content or the content should be formulated as a working material) – there can be separate certificates for particular criteria. – Characteristics of attributes (and other elements) for which authenticity is determined (authenticity as a feature of attributes); it is recommended to differentiate attributes for particular criteria (there should be a separate authenticity certificate for attributes of particular criteria). – Integrity certificate (approved content or the content should be formulated as a working material) – there can be separate certificates for particular criteria. – Characteristics of attributes (and other elements) for which integrity is determined (integrity as a feature of attributes); it is recommended to differentiate attributes for particular criteria (there should be a separate integrity certificate for attributes of particular criteria). 	<p>/source: nomination documentation and retrospective documentation of the site – if it contains such information; if there is no such information – specify it for the needs of the Management plan / a few pages/ /note: determining authenticity, consider the scope and evaluation of renovation and maintenance works performed in the past, etc./</p>
<p>CONCLUSIONS AND RECOMMENDATIONS /item 2/</p>	<ul style="list-style-type: none"> – Conclusions and recommendations concerning potential completions or changes in the content of formal documents of the site required in the WH system (e.g. changing the content of particular certificates in terms of the considered attributes – due to authenticity and integrity). – Conclusions and recommendations concerning the need to carry out further studies to become familiar with the site (e.g. comparative, archaeological and architectural research). 	
<p>3. CHARACTERISTICS OF THE CONDITION OF THE UNESCO SITE AND MAINTENANCE TASKS /Characteristics of the technical condition of the site (as a material object) and description of other elements significant in the evaluation of the condition of the site and maintenance tasks resulting from such evaluations/</p>		<p>/note: studies and maintenance tasks should be determined by maintenance specialists based on the evaluation of the technical condition of the site/</p>
<p>3.1 Characteristics of the technical condition of the site as a material entirety – description of the basic problems considering the factors affecting the condition of the site (e.g. use, renovation, maintenance, changing functions)</p>		
<p>3.2 Characteristics of the technical condition of OUV attributes, referring to the impact on the evaluation of authenticity and integrity</p>		<p>/source: evaluation of the technical condition based on previously developed materials (among others periodic reports, monitoring reports) and analyses made for the needs of the Management Plan/</p>

CONCLUSIONS AND RECOMMENDATIONS /item 3/

- Conclusions and recommendations determining maintenance tasks resulting from the evaluation of the technical condition of the site (as a material entirety), in particular taking its attributes into account /Maintenance tasks involve preservation of the historical substance and form/
- Conclusions and recommendations concerning the need to carry out further studies aimed at determination of the technical condition of the site (e.g. construction evaluation, humidity, geotechnical and durability tests).

PART II – CHARACTERISTICS OF THE PROTECTION AND MANAGEMENT SYSTEM OF THE UNESCO SITE**4. CHARACTERISTICS OF THE PROTECTION AND MANAGEMENT SYSTEM OF THE SITE**

/Characteristics of the protection and management system used to maintain the site, in particular considering the requirements specified in the WH system – legible distinction between the national and local system/

/source: characteristics made based on available information and analyses of the functioning of protection systems/

– characteristics of the element of the national protection and management system directly affecting protection of the site /maintenance supervision, law, finances, etc./

– characteristics of the local protection and management system – created for the needs of protecting the site / characteristics of the administrator, organization of the system, financing, stakeholders, local law/

CONCLUSIONS AND RECOMMENDATIONS /item 4/

- Conclusions and recommendations concerning improvements and increasing effectiveness of the protection and management system – for implementation purposes they should involve operations possible to undertake at the level of the local protection and management system.
- Conclusions and recommendations should separately specify operations for the most important elements of the system to manage the site – organization of the administrator and management, law, financing.

5. THREATS AND MONITORING OF THE WH SITE

/source: documentation of the site as well as studies and analyses made to evaluate threats in all aspects/

5.1 Attributes: characteristics of attributes (elements and features), which should be the subject of monitoring due to the values of the site (OUV) and its features (A+I) (item 2.2), (item 3.2)

5.2 Threats: characteristics (determination) of threats which should be identified and monitored

Characteristics should include threats affecting:

- the site/attributes directly (item 2),
- the protection and management system (item 4),
- the surroundings and the environment (where the site is).

Indicators (direct and indirect) should be determined for each specific group of threats.

/note: the analysis should involve the actual and forecasted threats – in particular threats resulting from using the site should be taken into account/

5.3 Monitoring: characteristics of the monitoring system involving all threats (direct and indirect) (item 5.2)

/note: monitoring should be based on direct and indirect indicators/

CONCLUSIONS AND RECOMMENDATIONS /item 5/

- Conclusions and recommendations concerning elimination of threats (recognized) in all aspects – the site, the protection system, use.
- Conclusions and recommendations concerning monitoring in terms of recognized and possible threats (recognized) in all aspects – the site, the protection system, use, environment.

PART III – CHARACTERISTICS OF USING THE UNESCO SITE

6. CHARACTERISTICS OF STAKEHOLDERS OF THE WH SITE

/source: documentation of the site and analyses concerning the evaluation of possibilities to cooperate with stakeholders/

6.1 Characteristics of basic groups of stakeholders who are related to and who affect the functioning of the WH site

- Presenting problems, possible operations and expectations related to the site (each area requires separate characteristics)

6.2 Determining areas of cooperation with stakeholders (among others educational and promotional actions, fundraising, protection programs implemented based on stakeholders – e.g. city movements, parish councils)

CONCLUSIONS AND RECOMMENDATIONS /item 6/

- Conclusions and recommendations concerning recognition of opinions, problems and possibilities of stakeholders in terms of protection and use of the WH site.
- (in particular conclusions and recommendations concerning organization of specific actions for the WH site in cooperation with stakeholders).

7. PRESENTATION, SHARING, TOURISM

7.1 Characteristics of needs, possibilities and operations in terms of presenting and sharing the WH site (information, exposure, protection of the site) – in particular emphasizing the values deciding about the WH status

/source: documentation of the site, evaluation of the condition of the site from the perspective of presenting and sharing the site, and all studies, analyses, statistics concerning possibilities and limitations in the touristic use of the site/

7.2 Characteristics of the needs, possibilities and operations related to development of tourism based on the WH site

CONCLUSIONS AND RECOMMENDATIONS /item 7/

- Conclusions and recommendations in terms of presenting and sharing the site.
- Conclusions and recommendations concerning recognition of the needs, problems and possibilities of touristic use of the WH site (in particular taking limitations ensuring protection of the value of the WH site into account).

<p>8. USE (AND DEVELOPMENT) OF THE UNESCO SITE</p>	<p>source: documentation of the site and all studies, analyses, statistics, plans concerning possibilities and limitations of use (and development) of the WH site/ /note: using the site can constitute a threat for its value, therefore parameters related to it may require monitoring – determination of indicators is recommended/</p>
<p>8.1 Characteristics of utility functions (other) of the site (e.g. residential, service, communication, religious) and factors related to their implementation (e.g. demography, political situation, transport accessibility).</p>	
<p>8.2 Analysis of problems and possibilities to implement specific functions (taking principles of sustainable development into account)</p>	
<p>CONCLUSIONS AND RECOMMENDATIONS /item 8/</p>	<p>– Conclusions and recommendations concerning operations related to the use (and development) of the site – implementation of other functions of the site (in particular taking relations and limitations related to protection of the value of the UNESCO site into account).</p>
<p>ATTACHMENTS:</p>	<ol style="list-style-type: none"> 1. List of conclusions and recommendations (to be developed in Action Plans – based on <i>Conclusions and recommendations</i> of particular items) 2. Survey for the site management system analysis 3. Bibliography

PART 1

DIAGNOSIS

1 Formal description of the property

1.1 HISTORICAL ANALYSIS OF THE PROPERTY

1.1.1 Historical context of paper production¹

Invention of paper and using it as a basic carrier of information is widely regarded as one of the most important civilisational achievements. The history of papermaking dates back to the early 2nd century A.D. and the paper itself was invented in China. In the next centuries, the subject process was diffused across Asia and, in the 8th century, the Arabs diffused it further to Asia Minor and Middle East. In the 10th century, paper started to be produced also in north-African countries.

The first workshops in Europe were established in the 12th century – in the lands conquered by the Arabs (Iberian Peninsula) and, probably, in Sicily. The first paper manufactures in Spain and Italy were opened in Valencia and Fabriano already in the year 1100 and 13th century respectively. In France, the first papermaking workshops were founded in the early 14th century. Gradually, papermaking was becoming increasingly popular in North and East Europe. The first paper mills in Germany are dated at the early 14th century, e.g. the workshops in Cologne and Mainz.

In the 15th century, paper was also produced in Poland, England, and Switzerland.

The papermaking method was spread from China through Islamic world was considerably changed, improved, and modernized in Europe. In Europe, the laid paper production method was developed in the 13th century, in Fabriano, Italy. Paper was laid on wired screens and identified with watermarks. Implementing the screw-based printing press allowed for improving the paper pressing process. Implementing the hammer grinder powered by water wheel was a revolutionary change in the papermaking process. The moment this machine was introduced into papermaking is considered the beginning of paper mills. All these changes resulted in production being more effective and the quality of paper being improved.

In Poland, papermaking traditions are dated at late Medieval. Paper mill in Prądnik Czerwony outside Cracow built in the late 15th century (construction works started in 1491) is considered the first Polish paper production workshop. In Rzeczpospolita, papermaking was developing rapidly – until mid-seventeenth century, at least 112 paper mills had been built. In the period of Old Poland, papermaking centres included areas outside Cracow and Gdansk, as well as Greater Poland and Masovia regions. According to information being available, in the years 1650–1770, approximately 75 paper mills used to be in operation in Rzeczpospolita. The first laid paper production workshops were established in the late 15th century. In Wrocław, a paper mill was functioning already in the year 1490. In subsequent centuries, there were over 100 papermaking workshops in Silesia.

A number of conditions, i.e. social, economic, cultural, and natural ones influenced the development of the papermaking business in the pre-industrial era. In order to be provided with hydropower, paper mills, as any other mill, needed to be located at a river or

¹ This chapter is based on published and non-published material, including in particular: *Młyny papiernicze na świecie – analiza porównawcza*, J. Bałchan, A. Chudziak, B. Dębowska, K. Jankowski, D. Kacperowska, M. Nowicka, ed. dr. hab. M. Szymczyka Ph.D.; collection of the Museum of Papermaking in Duszniki-Zdrój, Duszniki-Zdrój 2015; K. Małczyńska, *Dzieje starego piernictwa śląskiego*, Warsaw-Wrocław, Cracow, 1961

a larger stream. As quality of paper was contingent upon quality of water, clean current water was critical in the production process. As paper production required using a number of complicated machines and pieces of technical equipment, highly-qualified labourers needed to be employed in paper mills. Paper could not be produced without rags which were used for making paper furnish. The rags were purchased from inhabitants of the local areas, however, following the development of paper mills, this source turned out to be insufficient. In some periods, paper makers suffered from the lack of rags. Therefore, local authorities granted paper mills various privileges under which paper makers enjoyed exclusive right to collect and purchase rags in a certain area. Furthermore, paper mills were situated in close proximity to cities, which, because of being populous, were not only great sources of rags but also good market for selling paper. What was also of considerable importance to papermaking business was good distance to routes and roads. The paper mill in Duszniki was satisfying all the aforementioned conditions for a few hundred years and, therefore, it could function, develop, and enjoy prominence.

Once machine production was popularized in Europe, the rapid development of handmaking paper was no longer stimulated. Industrial revolution in the papermaking industry started in France in the late 18th century and followed from introducing the paper machine. What distinguishes paper factories from paper mills is that water wheels and handmaking were replaced with paper machines using e.g. steam engines or water turbines as sources of power. Paper machine, after having been improved in England, was growing in popularity. Machine production of paper developed rapidly in Europe in the period of 1930s and 1940s. Consequently, paper mills declined in trade and had to be closed – they had no competitive advantages over the modern workshops.

The paper mill in Duszniki-Zdrój, considered a material that is relevant by its use or its invention, Polish listed monument, and wooden property of outstanding architectural significance is put into the context of the old European tradition of handmaking laid paper. It is also worth emphasising that it was mentioned by travellers already in the 17th century as the famous paper mill. For several centuries, the paper mill was famous not only for products of outstanding quality but also of its architectural value. Generations of researchers and historic preservation specialists found its beauty

and outstanding historical value greatly significant. At present, the premises function as a museum where paper is still produced for demonstration purposes by deploying old medieval methods.

塘漂竹斬



Photo 1. Chinese drawing depicting the papermaking process, Source: https://pl.wikipedia.org/wiki/Papier#Historia_papieru_na_C5.9Bwiecie

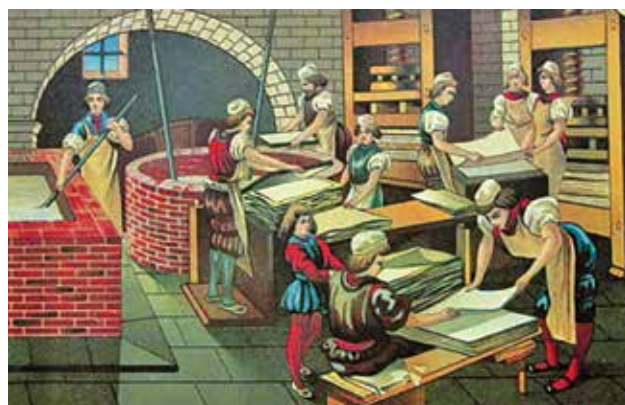


Photo 2. Papermaking in Europe, source: <http://www.peapaperproject.org/dardhunter.html>

1.1.2 History of the paper mill²

It is unknown when exactly the first paper mill in Duszniki was built. Archive documents confirm that the manufacture dates at the second half of the 16th century. In 1562, Ambrosius Tepper the papermaker, sold the mill to Nicolaus Kretschmer, member of a family of royal paper makers of Saxony. It is, however, presumed that the paper mill in Duszniki had been functioning long before 1562. Gregor Kretschmer, who inherited the paper mill in 1588, is credited with economic development of the manufacture. Since 1599, in paper production, Gregor had been using crystal-clear spring water running in pipes from his neighbour's estate. This allowed for increasing the quality of paper made in Duszniki. In the second half of the 16th century, the paper mill developed successfully, along with the city where it was located. In Duszniki, it was the time when the cloth industry developed, the trade boomed, and iron ore extraction grew. The development of the city was also reflected in building brick-and-mortar town

hall and parish church, establishing a hospital, and purchasing, by the town authorities, the Homole Castle from emperor Rudolph II. The oldest watermark depicting Saint Peter, which was used in the paper mill in Duszniki, dates back to the late 16th century. Following the outbreak of the Thirty Years' War, the city could not develop so rapidly any more.

Although the paper mill was destroyed in flood which hit Duszniki in 1601, Gregor Kretschmer managed to rebuild the premises in 1605. This date is displayed on the lintel on the north-facing external wall of the building. A different year, i.e. 1606, and a monogram were engraved on an anemometer installed on the chimney, which was dismantled in 1912.³

It is possible that for rebuilding the premises the remains of the sixteenth-century building were used, i.e. a part of the masonry-made lower ground floor and parts of the floor of the current paper mill, e.g. the part featuring a sixteenth-century fascia portal and the bay latrine supported with stone-made corbels.⁴ Dendrochronology analyses of the wooden elements of the building being conducted in the last few years confirmed the date of rebuilding the premises.⁵ The age of wood cut in the early 17th century (1602–1605) was confirmed in testing samples collected from ceiling and floor beams. It was also confirmed that the seventeenth-century wooden elements have never been displaced. R. Eysymontt is of the opinion that the transformations taking place in the subject paper mill in the 17th century were not consistent. Judging by different elements of architectural detailing, Eysymontt assumes that "there were two construction stages in the 17th century: one in the early time (lower ground floor walls, a part of beam ceiling) and one in the late 17th century (wall rustication, vaults). The double window in the lower ground floor may be dated at the early 18th century⁶."

² The history of the paper mill has been recorded as a result of studying published and non-published materials, including: R. Eysymontt and A. Szelać, D. Eysymontt (collaboration), *Młyn papierniczy w Dusznikach Zdroju – ocena wartości historycznej i artystycznej budynku dusznickiego młyna papierniczego wpisanego na listę Pomników Historii wraz z analizą historyczno-ikonograficzną polichromii zdobiących ściany pomieszczeń papierni na trzeciej kondygnacji oraz analizą historyczno-stylistyczną portretów dusznickich papierników ze zbiorów Muzeum Papiernictwa w Dusznikach Zdroju*, Papermaking Museum in Duszniki Zdrój, Wrocław 2016; R. Eysymontt, "Przemiany architektoniczne młyna papierniczego w Dusznikach na tle przemian ekonomicznych miasta Duszniki do początku XIX w." in *Rocznik Muzeum Papiernictwa*, vol. 10, Duszniki-Zdrój 2016, pp. 9–41, G. Grajewski, "O podejmowanych przed 1945 rokiem próbach ratowania młyna papierniczego w Dusznikach-Zdroju," *Rocznik Muzeum Papiernictwa*, vol. 9, Duszniki-Zdrój 2016, pp. 9–30; Kwapis K., "Młyn papierniczy z suszarnią i pawilonem wejściowym," *Karta Ewidencyjna Zabytków Architektury i Budownictwa*, NID Archive, 2007; Maleczyńska K., *Dzieje starego papiernictwa śląskiego*, Wrocław 1961; Sarnecki K., "Papiernia w Dusznikach," *Przegląd Papierniczy*, 1964, vol. 12; Szymczyk M., "Stan badań nad historią papiernictwa na ziemiach polskich," *Rocznik Muzeum Papiernictwa*, vol. 1, Duszniki-Zdrój 2007, pp. 11–26; Tomaszewska W., "Historia zabytkowej papierni w Dusznikach," *Przegląd Papierniczy*, 1959, vol. 11; Tomaszewska W., "Z dziejów zabytkowej papierni w Dusznikach," *Przegląd Papierniczy*, 1966, vol. 5; Windyka T., "Młyn papierniczy w Dusznikach," *Muzealnictwo*, vol. 41, 1999; *Application for Listing the Paper Mill in Duszniki Zdrój in the List of Polish Listed Monuments*, developed by A. Stefaniszyn, T. Windyka, M. Szymczyk, ed. M. Szymczyk, Duszniki-Zdrój 2009.

³ G. Grajewski, *O podejmowanych przed 1945 rokiem...*, p. 14. At present, a replica of the anemometer is fixed on the entrance pavilion.

⁴ Dating provided by: R. Eysymontt, "Przemiany architektoniczne młyna...."

⁵ M. Krąpiec, *Dendrochronologiczne datowanie drewna z Muzeum Papiernictwa w Dusznikach Zdroju*, Cracow, 2015.

⁶ R. Eysymontt, "Przemiany architektoniczne młyna....," *Rocznik Muzeum Papiernictwa*, vol. 10, Duszniki-Zdrój 2016, p. 20.

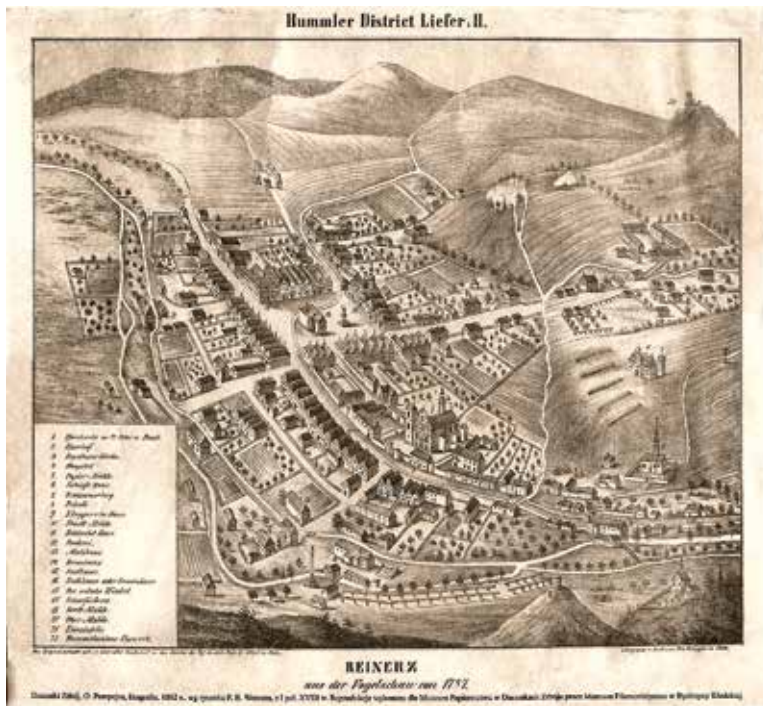


Photo 3. Duszniki Zdrój, O. Pompejus, litograph (1862) inspired by F. B. Wernera, source: <https://dolny-slask.org.pl/942837,foto.html>



Photo 4. Duszniki. Litograph by W. Steinmentz, 1838, source: <https://dolny-slask.org.pl/4745315,foto.html?idEntity=519097>

Gregor Kretschmer is credited with making the paper mill in Duszniki famous. He had sufficient funds to rebuild the premises having been destroyed in the flood and enhance the quality of paper through improving the papermaking process. In recognition of his accomplishments in the 17th century, Emperor Rudolf II of Austria bestowed gentry title von Schenkendorf upon Gregor Kretschmer. A document Emperor Rudolf issued on 13 August 1607 in Prague, confirming granting Gregor Kretschmer and his brother a coat of arms, has been preserved.⁷ The document is enclosed with a portrait of Gregor – Christian Wilhelm von Schenken-Dorf dated at 1671.⁸ Gregor Kretschmer became a part of the history of Duszniki – not only as the owner of the famous paper mill but also as the citizen who rendered great service to the town. In honour of his achievements, a Holy Cross church was built on the hill adjacent to the paper mill. The church, where

Kretschmer was buried, has not been preserved today.⁹ Next generations of the Kretschmer von Schenkendorf paper makers family developed the paper mill and maintained high quality of paper. In 1623, after Gregor had died, his son Samuel purchased the paper mill from his step mother. After his death, the workshop was run by his wife. In 1657, the paper mill was owned by Christian Kretschmer, Samuel's son. Christian, who was also the mayor of Duszniki, supplied all offices in Duszniki with paper. In 1685, he was granted a monopoly on collecting rags from the entire Kłodzko County. After Christian had died in 1689, his wife Zuzanna inherited the workshop. This was later owned by his son, Christian Wilhelm – the last member of the Kretschmer family to own the paper mill.

In the late 17th and 18th century, the town was developing again. It was the time when new buildings made of masonry material were built around the Market and along Kłodzka Street, which connects the Market with the paper mill. In the late 18th century, Duszniki were also known as a health resort, rapidly developing in the first quarter of the 19th century.

⁷ This document, mentioned in the literature pertaining to the research subject is stored in the department of National Archive in Wrocław (Archive of the City of Duszniki, vol. 100)

⁸ R. Eysymontt, *Młyn papierniczy w Dusznikach Zdroju*, mps, Wrocław 2016, p. 10.

⁹ The church was dismantled in 1950s. Tombstones of the Kretschmers, mentioned in the literature, have not been preserved.



—AUST— H. W. — K. —

Photo 5. Paper mill in Duszniki, 1919. Etching stored in the Museum of Papermaking in Duszniki-Zdrój

In 1706, the paper mill was purchased by Johann Anton Heller of Frýdlant in the Czech Republic. For over a hundred years, the paper mill was owned by the Hellers and their heirs, the Ossendorfs (until 1822).

The Hellers extended the paper mill and modernised paper production. In 1709, Anton Heller purchased the 'lower mill', where he intended to organize a smithy and, later, lumber mill. The building, however, was used for warehousing and production purposes and was dismantled in the 1950s.

It is still not certain when exactly the wooden drying house adjacent to the east wall of the paper mill was erected. In literature, two different dates are provided: 1709 and 1747. T. Windyka has strong reasons to believe that the drying house was built in the first quarter of the 18th century, whereby the building existed already in the 1737 (it is presented in a drawing provided with this date).¹⁰ Although two

dendrochronology analyses were conducted in the subject premises, the exact date of their construction is still unknown.¹¹ In the first study, it was determined that construction elements of the building are made of wood, which was cut in the period between Autumn 1742 and Spring 1743. The second study revealed that the subject premises feature secondary and primary wood dated at the early 17th and 18th century respectively. The eighteenth-century wooden beams having been analysed were dated at 1705, 1708 (secondary wood) and the 1840s (used in load-bearing columns in the drying house). As it was impossible to determine the exact date of cutting the younger wood, it was assumed that *terminus post quem* dated at 1746, as per the age of the youngest sample. R. Eysymontt, having analysed the aforementioned information, dated the drying house building at the period of 1743–1747. Like authors of other analyses, he distinguishes the older part of the building (of log-frame structure), which might have

¹⁰ T. Windyka, "Młyn papierniczy w Dusznikach," *Muzealnictwo* vol. 41, Warsaw 1999, p. 16 The lithography entitled *Reinerz aus dre Vogelschau* (1737) was published in 1862 in F.A. Pompejus, *Album der Grafschaft Glatz...* However, in *Młyn papierniczy w Dusznikach Zdroju*, p. 34. It is not, however, certain when Werner painted the view which inspired Pompejus.

¹¹ M. Krąpiec, *Wyniki analizy dendrochronologicznej prób drewna z siedziby Muzeum Papiernictwa w Dusznikach Zdroju*, Cracow 2007, Archive of the State Museum; M. Krąpiec, *Dendrochronologiczne datowanie drewna z Muzeum Papiernictwa w Dusznikach Zdroju*, Cracow 2015, Archive of the State Museum.

been used as the rag laundry and is dated at the turn of the 16th and 17th centuries.¹²

Additionally, following the studies conducted to date, it was impossible to determine the chronology of the representative entrance pavilion. Most frequently, the edifice is dated at the early 18th century – the dates vary from 1709 to 1769, when the premises were substantially renovated after the flood.

It was in the 18th century when the property was most prosperous. The owners implemented a number of state-of-the-art technological solutions and installed modern production machines, e.g. overshot wheel (1719), the 'Dutchman' (1737) used to make paper furnish of rags (the first device of this kind on the territory being currently within the borders of Poland)¹³, as well as machinery used for chopping rags and smoothing paper. These innovative solutions resulted in the quality of paper produced in Duszniki being considerably enhanced. The value of this unique product was appreciated and, hence, Frederick II appointed Anton Benedict Heller, who inherited the paper mill from his late father in 1742, and ¹⁴ his son-in-law, Johann Joseph Ossendorf, the official suppliers of paper to the Prussian court. Anton Benedict Heller, who owned the paper mill in the period of 1742–1772, was also the landlord.¹⁵

In the first half of the 18th century, further renovation and adaptation works are carried out: the wooden voluta gable in the west part of the building, the large wooden garret room in the north part of the roof, the staircase, and, presumably, the walls and ceiling parts supported by voluta-like struts above the corridor on the second floor¹⁶.

Once Prussia started to hold domination over Silesia and Kłodzko Land, supply of rags became severely depleted. This posed serious problem for the paper mill in Duszniki. In 1769, the premises were damaged after heavy floods swept through Duszniki. It is, however, unknown how seriously the paper mill suffered. Some researchers claim that it was when the entrance pavilion was built.¹⁷

In 1772 (or, according to other sources – in 1769), soon after the paper mill had been damaged, Johann Josef Ossendorf, paper maker of Czech nationality and married to Antonia Josefa, Benedict Heller's daughter, was appointed the supervisor of the facility. Johann Ossendorf serves only a short time – after his untimely death in 1779, his wife inherited the workshop, which she renovated. The date '1802' (which may be the time of completing renovation works) and Mrs Ossendorf's initials are displayed above the entrance to the lower ground floor in the north-facing part of the building (A. O. H. 1802).

W początkach XIX w., w wyniku wojen napoleońskich, produkcja papieru uległa zahamowaniu. In 1806, Antonia Josefa Ossendorf sold the paper mill to her son-in-law, Johan Leo Königer. In 1822, Johann Leo Königer, who was the last owner related to the Hellers, sold the facility to Joseph Wiehr, a miller from Żąbkowice. It was until 1939 that the Wiehrs had been the owners of the paper mill – in the period of 1842–1847, the building belonged to Joseph's widow and from 1847 to 1899 – to Carl I Wiehr and Carl II Wiehr.

In the second half of the 19th century, the paper-making industry underwent revolutionary civilizational changes – once automated machinery was adopted, production of hand-made paper was no longer profitable. In 1905, the paper mill in Duszniki gave up production of laid paper. Consequently, Carl Wiehr decided to modernize the paper mill

¹² R. Eysymontt, *Młyn papierniczy...*, p. 34; The authors of the nomination proposal to accord the paper mill the status of the Polish Listed Monument believe that the drying house was built approximately in 1747 and its construction followed from extending a small seventeenth-century building situated at the flume, east of the paper mill.

¹³ The information on introducing the 'Dutchman' in the production process and the fact that it was the first device of this kind used on the territory being currently within the borders of Poland can be found in the nomination proposal for according the status of the Polish Listed Monument to the premises in question. M. Szymczyk, Ph.D., recommended that it is critical to determine when exactly this happened. As implementation of this device was a quantum leap in technological development (see: R. Eysymontt, *Przemiany Architektoniczne...*, footnote 25), the date must be proven by reliable sources. This will be also of great importance for assessing values of individual components of the subject serial property with the purpose of inscribing it on the UNESCO List.

¹⁴ The time when Prussia held dominion over Kłodzko County.

¹⁵ In Podgórze, he owned Bronnendorf manor, also known as 'Papiermacherhof' or 'Papierhof'; see: R. Eysymontt, "Przemiany architektoniczne młyna....,"

¹⁶ R. Eysymontt, "Przemiany architektoniczne młyna....,"

¹⁷ E.g. M. Kutzner, R. Eysymontt

through adoption of a state-of-the-art paper and cardboard paper production machinery, redevelopment of the production room, deepening of the flume, and replacement of water wheel with the turbine. The changes, however, did not keep the paper mill competitive with large, modern factories. In the early 1930s, the area surrounding the paper mill was changed extensively, following the erection of the bridge over the Bystrzyca River, east of the subject facility (Photo 5 and 6).

Allegedly, in 1937 production was stopped and in 1939 the paper mill was acquired by municipal authorities in order to open museum of material that is relevant by its use or its invention. However, once the second World War broke out, the idea of opening the paper-making museum was given up.

The seventeenth-/eighteenth-/early-nineteenth-century spatial and architectural forms of the paper mill premises (paper mill, drying house, entrance pavilion) have been well preserved. Renovation works conducted in the 19th century did not affect the body of the building; they only concerned changing the functional layout of the interiors. In the early 20th century (around 1905), the new papermaking machinery required the interior of the ground floor of the paper mill to be redeveloped. As the water wheel was replaced with the water turbine, it was not only the production process but also the area surrounding the paper mill that had to be adapted. The works involved, e.g. deepening the flume. Economic and financial standing of the owner resulted in the premises falling into disrepair. As historical significance of the subject property increased in the early 20th century, it was possible to receive financial aid to renovation works. In 1912, only a few of these works were carried out – roof shingles and decorations on external walls were repaired. Additionally, the chimney at the north wall of the paper mill was dismantled. This decision was challenged as impoverishing the general expression of the building, the loss of valuable evidence of the past and the characteristic architectural element. The wooden balcony on the south-facing wall might have been attached to the building in the 1930s. In the early 1940s, a number of necessary renovation works were carried out: the roof was protected and repaired, which resulted in its form being changed (large, rectangular, non-original dormers in the north part were replaced with eyebrow dormers; eyebrow dormers in the south part were shortened); the west gable was renovated, as was the roof of the



Photo 6. Paper mill before WW2

entrance pavilion; the south wall was supported with buttresses¹⁸.

After WW2, despite the works having been carried out, the building was dilapidated. Moreover, constantly changing entities being responsible for the premises (in the period of 1945–1952: city authorities, paper-making business, city authorities) as well as the lack of decision on the use and development plans for the paper mill (re-launching paper production or opening a museum) were also disadvantageous.

After WW2, the technical condition of the badly maintained paper mill was deteriorating. Conservation, renovation, and adaptation works were launched in the late 1950s and led to opening The Museum of Papermaking in 1968. This saved the historic site from being reduced to rubble and opened a new chapter in its history.

¹⁸ Detailed information is provided by G. Grajewski in "O podejmowanych przed 1945 rokiem....", pp. 9–30.

1.2 FORMAL DESCRIPTION OF THE PROPERTY

1.2.1 Location

The paper mill premises are located in Duszniki-Zdrój, Kłodzko District, Lower-Silesian Region. They are situated on the outskirts of the city in its north-east part at the Bystrzyca Dusznicka river (tributary of the Nysa Kłodzka), which sections the premises off Kłodzka Street. The premises in question are situated at the crossroads of Kłodzko-Kudowa Zdrój (national road no. 8) facing the North and Sprzymierzonych Street running towards Zieleniec and facing the East, several metres below their level. Several metres north of the paper mill premises, there is the Bystrzyca Dusznicka River. Further north, behind the river, there is national road no. 8. East of the drying house, along Sprzymierzonych Street, there is a bridge dating back to the inter-war period. South of the premises of historical significance, on the tract of land where the Museum of Papermaking is situated, there are contemporary buildings, including an exhibition pavilion and a boiler house. In the west and south-west part, one can find a fibre crop garden. The area where the paper mill is located is sectioned off with contemporary fencing. Further south, there is Chopin Estate with several blocks of flats and, in the west, there are old tenement buildings.

1.2.2 Short description of the paper mill premises

The paper mill premises consist of two conjoined buildings: drying house built in the 18th century and the main building referred to as the 'paper mill', which was initially used for manufacturing and residential purposes. Analysis of its structure allows us to find traces of several phases of construction works carried out between the 16th and the early 19th centuries. In the north, before the main paper mill building, there is an entrance pavilion which was presumably built in the second half of the 18th century. It conjoins the paper mill by a roofed passage and is accessed from the street by a bridge over the Bystrzyca Kłodzka river. Furthermore, in the north-east part of the mill, there is an extension which might have been built in the 19th century.

The ground plan of the main edifice of the mill is that of a prolonged rectangle. It is a two-storey building with high, stone-made lower ground floor and mostly wooden, beam construction of the second



Photo 7. Paper mill in the cultural landscape of Duszniki-Zdrój. Museum of Papermaking Archive in Duszniki-Zdrój



Photo 8. Paper mill premises Photo by A. Fortuna-Marek



Photo 9. Paper mill premises Photo by A. Fortuna-Marek



Photo 10. Paper mill facing west Photo by A. Fortuna-Marek



Photo 11. Drying house facing south-east
Photo by A. Fortuna-Marek



Photo 12. Entrance pavilion facing east
Photo by A. Fortuna-Marek

floor (south-west part of the storey is made of brick). The property is covered with a distinctive high, shingled, gable roof with several rows of continuous vent bores located along the roof, which are typical of paper mills. In the north part of the roof, there is a large wooden garret room covered with gabled roof. Two wooden gables crowning the side walls of the subject building are of different design – the east one is triangular in shape, whereas the west one features impressive volutes on sides and a triangular tympanum on top provided with wooden moulding. This volute-ornated gable typical of masonry Baroque buildings makes the mill a truly distinctive property.

Both the north (front facade) and the west side of the building are richly ornated. The decorations include the following elements in particular: rusticated lower ground floor and arches ornamented with small rosettes and half-rosettes. These decorations are made in light-red and sand-coloured plaster and indicate floor divisions. On the south-facing side of the building, half-timber framing. Next to it, there is another distinctive element, i.e. a bay latrine supported by profiled stone trusses.

The impressive paper mill building tells of the past glory and prosperity of the workshop and is the evidence of importance and wealth of paper maker families of Duszniki.

The interior of the mill was used not only for production but also residential purposes. Paper itself was made on the ground floor, where living and cloth sorting rooms might have been situated. Upper floors, except two rooms on the first floor used for residential purposes, were used as draining space. Wall and ceiling paintings depicting ornamental, floral, architectural, and human-shape compositions dated at the 17th, 18th, and 19th centuries have been preserved as well¹⁹. As it is uncommon to find polychrome paintings in mills and other industrial buildings, the ornaments in the paper mill in Duszniki are considered unique. Some rooms on the ground floor have both barrel and groin vaults. Well-preserved, sixteenth- and seventeenth-century portals are valuable, original decorative elements. At the moment, on the lower ground floor, laid paper is produced for demonstration purposes. Other rooms function as exhibition rooms and offices.

¹⁹ Polychrome paintings dated according to the most recent and not yet published analyses conducted in 2017 by Andrzej Koziół and Adam Szląg.

Construction of the drying house attached to the mill in the 18th century incorporates framing. This is a compact building with high roof and vent bores typical of paper mills. The walls are wooden, dark-brown, with no decorations. Initially, the ground floor of the building in question used to be used for warehousing raw materials, whereas paper used to be drained on the upper floors. Currently, the interior is being adapted for exhibition, office and education purposes.

Another element of great importance for the composition of the paper mill premises is the entrance pavilion of peculiar shape and form. It is a two-storey building of small size, octagonal in plan and covered with a dome. The walls are decorated much like the main walls of the main building.

The architectural form of the paper mill in Duszniki Zdrój is typical of paper mills in general. It is a property that is relevant by its use or its invention, whose spatial composition, architectural form, and floor plan of particular rooms were determined by the function it used to serve initially – laid paper production plant. The mill and the entrance pavilion were made more visually attractive by being richly painted and provided with ornaments in Baroque²⁰ style.

1.2.3 Boundaries

The boundaries of the legally protected area where the Paper Mill is situated, which are set forth in the Regulation of the President of the Republic of Poland on listing Polish historic monuments and sites, are as follows: In the west and north part, the boundary of the area being analysed is marked along the bank of the Bystrzyca Dusznicka river, excluding the river itself. It reached Sprzymierzonych Street, turns south and is set along the fencing in the east part of the parcel no. 186 (Centrum Area), the south-west borderline of the tracts no. 187/13, 187/11 and 187/10 (Centrum Area), the south-east and south-west boundaries of the tract no. 186 (Centrum Area) and, again, reaches the bank

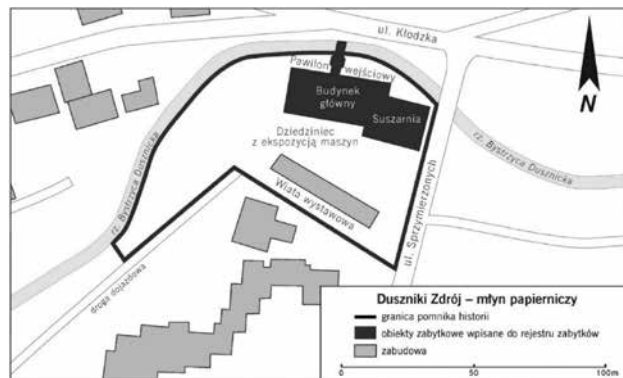


Photo 13. Paper mill in Duszniki-Zdrój – the subject matter and the boundaries of the Polish listed monument; Annex to the Regulation of the President of the Republic of Poland of 20 September 2011, (Dziennik Ustaw no. 217, item 1282)

of the Bystrzyca Dusznicka River.²¹ These boundaries coincide with the boundaries of the paper mill area entered into the Register of Historic Monuments and Sites of Lower Silesia Region.²²

1.2.4 The purpose of the property

The paper mill museum was opened in the premises being presented in 1968. It functions as papermaking Museum – the only papermaking museum facility in Poland where not only the history of hand-making but also industrial production of paper is studied. Museum staff collects, conserves, and displays objects related to the history of papermaking in Poland and studies the history of papermaking. The museum, as an institution, is responsible not only for the exhibits it owns but also for taking care of the paper mill premises of great historical significance, which are protected under the Polish law.

The mill building is used predominantly as museum and exhibition venue. Furthermore, the mill building functions not only as offices but is also used for producing paper for demonstration purposes; the hand-made laid paper being produced is sold as souvenir and the

²⁰ Having applied comparative analysis and conducted iconography studies, R. Eysymontt claims in "Przemiany architektoniczne młyna..." (p.19) that the architectural decorations date back to the year 1800 and, hence, he defines them as being more typical of classicism.

²¹ Regulation of the President of the Republic of Poland of 20 September 2011 on according the status of Polish listed historic site to the Paper Mill in Duszniki Zdrój, Dziennik Ustaw no. 217, item 12533.

²² Decision of the Historic Preservation Officer for Lower Silesia, no. of the register of historic monuments and sites: A/2073 of 19 April 2010 on registering the Paper Mill in Duszniki Zdrój.

production process itself attracts tourists and provides insight into how papermaking used to look like in the past. Following the renovation and conservation works conducted in 2016, the drying house will function as a museum and exhibition venue. The museum rooms will be also used as offices and classrooms for delivering classes and workshops. The primary function of the entrance pavilion has not been changed.

After World War II, the premises were converted into the Museum of papermaking. This allowed not only for protecting the site from dilapidation and destruction but also for preserving its authenticity and integrity. Additional advantage is the fact that the present manager of the site continues the tradition of hand-making laid paper. What is unique of the premises being presented is that in Poland, it is uncommon for a building to be used for museum purposes and serve its original function at the same time.

1.2.5 Ownership

The paper mill premises of great historical value protected under the Polish law by having been listed in the register of historic monuments and sites and recognised as Polish Listed Monument are owned by Museum of papermaking in Duszniki Zdrój – cultural institution governed by the Local Government of Lower Silesia Region. The paper mill premises are situated on the tract of land entered into the land register under no. 186/AM-5/, Centrum Area, owned by the Local Government of Lower Silesia Region. Within the confines of the area considered as Polish Listed Site, there are also tracts of land no. 187/11, 187/10, and 187/13 owned by Duszniki-Zdrój Municipality, whereby the Museum of papermaking in Duszniki Zdrój was granted the right of perpetual usufruct to the two latter plots. Moreover, in 2012, Museum management

purchased tract of land no. 187/12 with a boiler house being situated on it, which is located beyond the confines of the Polish Listed Site, yet being adjacent to its south borderline.

1.3 CONCLUSIONS AND RECOMMENDATIONS

- ✓ Designating buffer zone which would be larger than the current paper mill area listed on the register and providing it with protection by amending the local zoning plan.
- ✓ Writing an application for entering the Paper Mill in Duszniki Zdrój onto the Polish Information List as premises nominated for inscription on UNESCO World Heritage List – two starting properties: the paper mill in Duszniki Zdrój and paper mill in Velké Losiny in the Czech Republic, with the aim of inscribing other European paper mills.
- ✓ Writing a nomination proposal for inscribing the property on the World Heritage List as a serial cross-border property.
- ✓ Prior to writing the proposal, partners need to be selected – apart from the paper mill in Velké Losiny, further partners need to be found among managers of paper mills preserved in Europe.
- ✓ Acquiring a part of the tract of land no. 187/9 (part of the road) from Municipality of Duszniki-Zdrój. In the event of implementing the “Incubator of Culture” investment project, it is also recommended to acquire a part of the tract of land no. 187/22 (a small part of this parcel located between Sprzymierzonych Street and south-east boundary of the plot no. 187/12). It is recommended for the Museum to own the aforementioned areas adjacent to the Polish Listed Site, as this will result in the Museum itself functioning much better and serving its visitors more efficiently.

PART 1

DIAGNOSIS

2 Analysis of the values of the property

2.1. ANALYSIS OF THE FEATURES CRUCIAL FOR ESTABLISHING A COMPARATIVE GROUP

2.1.1 Location and the surrounding area

The paper mill is located within the confines of the city, in its north-eastern part, at the Bystrzyca Dusznicka river. It is situated at the crossroads Kłodzko – Kudowa-Zdrój in the north (separated by the channel of the Bystrzyca Dusznicka river and Kłodzka Street) and road heading Zielieniec (Sprzymierzonych St.) in the east.

Due to the nature of the manufacturing process, paper mills used to be built outside city centres, on the outskirts of urban settlements, between a river and a flume. In Duszniki, the old water system has not been preserved (no flume displayed). However, the mill's location on the river bank still provides an important historical context. It is also clear, despite the transformations having been made, that the mill was situated outside the original city centre, in close proximity to the former tract leading from Wrocław to Prague. The premises, in spite of a number of paper production-related elements being no longer displayed, e.g. the flume, is a clear, well-exhibited accent of historical significance in the cultural landscape of the city, contrasted with postmodern socialist architecture found further in the south.

The current form of the paper mill surroundings results from a number of works and transformations undertaken over the years – some of them were completed already in the pre-war period, e.g. the bridge over the Bystrzyca river built in 1930s, and others – between 1950s and the present. Most of the works involved adaptation the premises to a new use – the museum of papermaking. In 1959, the flume was filled with soil, which resulted in the premises being deprived of the

important functional system, which used to be the integral part of the property. This fact affected the authenticity and integrity of the site being analysed.

In the early 1970s, the paper mill was fenced (contemporary form, no elements similar to those of the early 20th century), the embankment facing Sprzymierzonych Street was cleaned and adapted, and stairs to museum courtyard were built.

In the years 1974–76, the 'exhibition shed' was built close to the paper mill, in the south part of the tract of land (the building where the museum shop, cafeteria, toilets, and boiler room are located).

Another contemporary element located in the paper mill is an outdoor exhibition showcasing paper production machines of large size, which were brought here from various parts of Poland.

Several years ago (early 21st century), a garden was opened west to the mill, where fibre crops used in crafting and paper making are grown.

The aforementioned changes and outcomes of works resulting in the present use of the paper mill as well as works carried out contemporarily can be assessed as positive, neutral, and negative.

2.1.2 Composition layout of the paper mill premises

The paper mill premises consist of three interconnected buildings – the main building, i.e. the paper mill, the drying house, and the entrance pavilion. Their layout and functional spaces result from their purpose (paper laying room) – jointly, as the entire complex, and individually, according to the function each building served in the manufacturing process.

In this layout, the paper mill and the drying house, which are rectangular in floor plan and partly conjoining one another, have their walls crowned with roof ridges facing the road. The entire composition is complemented by the octagonal pavilion, access to which is provided by a small bridge and which is connected



Photo 14. Aerial view over the paper mill Museum of Papermaking Archive in Duszniki-Zdrój



Photo 17. Paper mill surrounding area facing the south
Photo by A. Fortuna-Marek



Photo 15. Entrance pavilion facing east
Photo by A. Fortuna-Marek



Photo 18. Outdoor exhibition
Photo by A. Fortuna-Marek



Photo 19. New garden set-up with contemporary buildings in the background. Photo by A. Fortuna-Marek



Photo 16. Museum courtyard facing east
Photo by A. Fortuna-Marek



Photo 20. Aerial view over the paper mill – facing the South-West Museum of Papermaking Archive in Duszniki-Zdrój

to the paper mill by a roofed passage, as well as a low extension adjacent to the paper mill building and the drying house. In front of the paper mill building, where the paper used to be originally produced, there is an entrance pavilion, serving predominantly decorative function. As the amount of paper manufactured was strongly dependent on the size of the drying house, the eighteenth-century property, which was built later than the mill itself, is the evidence of development and prosperity of the paper mill. The drying house having been used for precisely defined purposes was conveniently conjoined with the paper mill, so that wet paper could be moved easily. The way of connecting the paper mill and the drying house was adapted predominantly to the technical use of the properties.

Although these buildings were erected in two different periods and of different materials, their spatial structure is coherent, logical, and, in spite of each building having different construction and having been used for different purposes, their functional relations are clear and easy to recognise. Even though the spatial composition of the premises and interrelations between individual buildings were determined by the industrial function they served, the predominantly functional layout stands out as clear, harmonious, and coherent. This increases the value of the paper mill premises as the architectural complex of historical significance. The premises are authentic and integral in terms of their layout.

2.1.3 Buildings of distinctive external form

The main building – paper mill

The most important and the oldest part of the premises is the stone-and-wooden paper mill building of hybrid structure (lower ground floor and a part of the first floor made of masonry material; part of the floors made of wooden framing). It is a magnificent five-storey building, rectangular in floor plan. Three storeys are located within the roof. The cuboid, compact, and rather 'squat' building has a high-rise, gable, steep, shingled roof. The vast roof is provided with three long 'rows' of vent openings covered with mono-pitched roofs. These functional elements are typical of not only paper mills but also architectural form of buildings of this type. What is a highly distinctive element in the north-facing field is wooden extension in form of large attic room covered with gabled roof, where staircase is located.

External walls of the paper mill are carefully designed.

The north-facing facade and the wall facing the West are distinguished by ornaments and architectural details meticulously designed in a baroque manner.²³ Having been painted bright and saturated colours, these walls attract particular attention. The facade is covered with plaster and, on the first floor, decorated with semi-rusticated elements.²⁴ On the lower ground floor, window frames are simple, stone-made, covered with plaster. Moreover, there is a distinctive doubled window in the west part of the building.²⁵ The peculiar ornamental elements on the wall at the height of the second floor of the main building prove that the wall decorations are artistic in nature. Symmetrically decorated wall in this part of the building is accentuated with regular, shallow pillars of different width, which support semi-circular arcades. Within the arcades, there are wooden return window framings. Above windows, in the areas marked off by the arcades, there are plaster-engraved rosettes and semi rosettes located in alternative order. Bright colours complement the design of the walls – iron-red marbled wall with bright (sandy) pilasters and areas above the arch crowns. The wall facing west, in the lower ground and second floor area features similar style, decorative elements and colours as the front facade. The ground floor is bossaged with three asymmetrically located windows in simple, painted, stone framing. On the level of the second floor, the colours as well as decorative and articulation elements correspond with the ones used on the front facade: arcade articulation, pilasters, rosettes and semi-rosettes, marbled elements. Windows and painted false windows are in return window frames.

²³ Having applied comparative analysis and conducted iconography studies, R. Eysymontt claims in "Przemiany architektoniczne młyna..." (p.19) that the architectural decorations date back to the year 1800 and, hence, he defines them as being more typical of classicism. Eysymontt also provides several analogical examples from Silesia, e.g. facade of the tenement house at 1 Rynek/Mikołaja Street in Wrocław and Prince Hohenlohe Palace at 12 Wita Stwosza in Wrocław.

²⁴ R. Eysymontt considered this decoration typical of the seventeenth century, when the paper mill was transformed – R. Eysymontt, "Przemiany architektoniczne młyna...", *Rocznik Muzeum Papiernictwa*, vol. 10, p. 19

²⁵ According to Eysymontt, "Przemiany architektoniczne młyna...", *Rocznik Muzeum Papiernictwa*, vol. 10, p. 20, this window may date back to the early 18th century.

What is unique in this wall is the large, three-storey, wooden gable sectioned with frames and panels, ornamented with large, wide volute and crowned with a massive triangle tympanum. In the tympanum, on the fifth floor, there is a protruding, profiled, wooden moulding featuring one vent opening provided with a wooden shutter. The peak of the paper mill building was designed in Baroque style and, according to results of dendrochronology tests having been conducted, is dated at the 1730s.²⁶ Given the paper mill in Duszniki Zdrój, the volute-ornamented peak typical of Baroque architecture is an extraordinary decoration – it is an adaptation of elements characteristic of Baroque religious and secular buildings to an industrial building which, additionally, is made of materials uncommonly used for this purpose.²⁷ Moreover, the decoration in question proves that the paper makers working in Duszniki Zdrój aimed at emphasising their social and economic position by ornamenting the building sumptuously. The wooden volute is, in the light of the current studies, a unique architectural element.

On the rear, south-facing wall (and its east part in particular), different solution was applied – there is no architectural detailing.²⁸ The formal means having been applied prove that this side of the building was used for different purposes – more use-related and being used for production instead of representation. The lower ground floor is plastered yet decorated with no bossaging. Different colours were applied

to distinguish it from the second floor. Windows and doors differ in size and shape (square, rectangular), they are placed asymmetrically, on various levels, without any particular order being preserved.

The colour of the second floor is juxtaposed with the colour of the ground floor (bright, sand-like colour). The masonry part (facing west) is clearly distinguishable and the longer part facing east has beam construction. Dark wooden elements of contrasted colours, e.g. pillars, and brightly plastered masonry are the main features of the building being analysed. The three outermost axes meet in the wooden bridge with a balustrade supported by wooden profiled trusses. This construction provides access from and to the building and it is connected with the drying house.

In the west part of this wall, on the level of second floor, there is a distinctive bay window, which was presumably created in the 16th century. It is covered with a small gabled roof, supported by stone corbels, provided with a stone drainpipe and projects considerably from the wall. Below the dansker in question, there used to be a flume. According to R. Eysymontt, this element was created in the 16th century and is “immensely archaic, representing medieval architecture design.” Furthermore, the scholar emphasises that “construction of corbels supporting bay window in Wojnowice Palace, which was built in 1513, is identical to the one applied in the paper mill in Duszniki.”²⁹ Eysymontt mentions also other similar bay windows supported by sixteenth-century corbels and notices that the corbels in Duszniki were built with less meticulousness.³⁰

Original portals and windows created in different periods have never been modified and, hence, they are important elements of the external design of the paper mill, e.g.

- ✓ stone-made portal on the ground floor on the north-facing wall carrying the following inscription in the lintel: „G.K.1605. A.O.H.1802”, which reads as initials of Gregory Kretschmer, the date of rebuilding the mill after the flood in 1601, initials of Antonina Ossendorf-Heller and the date of another renovation/rebuilding/extension?;

²⁶ R. Eysymontt, in “Przemiany architektoniczne młyna...,” suggests two periods in which the west-facing gable might have been built – either the first decade of the 18th century or the period after 1733. The dendrochronology test conducted in 2010 by M. Krąpiec indicated that the wood sample being analysed dates at winter 1732/33. It seems, however, that one sample is insufficient to be absolutely certain of the result. In his paper, R. Eysymontt provides several similar volute-ornamented gables in Silesia, the present Czech Republic, and Duszniki Zdrój itself, e.g. edifice of a former post office. M. M. Szmyczyk, head of the Paper Making Museum, mentions also volute-decorated gable of the Saints Peter and Paul church in Duszniki, nothing of which remained in place.

²⁷ However, in “Przemiany architektoniczne młyna...” on page 18 R. Eysymontt presents weaver houses in Chełmsk Śląski and Międzyzlesie, whose gables are covered with wooden boards. Even so, they are nowhere near reproducing decorative elements of Baroque buildings in wood.

²⁸ It is well-known, however, that architectural detailing of a small, west part of the south-facing wall on the second floor level is identical to the detailing applied on the north and west walls. This can be seen in pre-war photographs.

²⁹ R. Eysymontt, *Przemiany architektoniczne młyna...*, mps, p. 13

³⁰ As above, p. 13



Photo 21. The paper mill facing the North
Photo by A. Fortuna-Marek



Photo 22. The paper mill facing the North-West
Photo by A. Fortuna-Marek



Photo 23. Part of the north-facing wall
Photo by A. Fortuna-Marek



Photo 24. Rosette – element of architectural decor
Photo by A. Fortuna-Marek

- ✓ semi-circle stone-made portal, partly covered by wooden casing of the bridge connecting the mill with the pavilion, located on the central axis on the second floor of the north-facing wall;
- ✓ double window on the ground floor of the north-facing wall, probably built in the 18th century;
- ✓ small door frame with stone-made jamb in the west part of the ground floor on the south-facing wall.

The distinctive elements and architectural detailing which particularly accentuate the two walls of the main building, make the premises exceptionally unique and truly representative – as for a paper mill building. The detailing consists of the following elements in particular: bossaged lower ground floor and distinctive arcade-like sections of the wall (both carved in plaster and painted) ornamented with rosettes and semi-rosettes. Wall decorations are complemented with peculiar colours – bright red and beige colour with marbleized elements. The lack of any distinctive decorations on the rear wall proves for which purposes the building was used. The facility is provided either with use-related elements, e.g. the bay window, or with the ones that emphasise the half-timber construction of the edifice. Nevertheless, even this wall is divided into two sections reflecting the internal use of the building – window frames and stone-made profiled dansk consoles prove that in this particular part, the mill was used for residential purposes. On the other side of the wall, one can notice beam construction, which is the evidence that this part of the mill interior was used for production. Arcade-like ornaments in the west part of this wall, which we know from archive photographs, are no longer displayed. Side walls of the paper mill are accentuated by high, yet differently designed gables. The east gable is triangular, partly covered by the adjacent drying house; the west gable is distinguishable by its size and the voluta decorations crowned by triangular, corniced band.

On one hand, the external architectural design of the mill features elements typical of paper mills. However, on the other hand, it includes components characteristic of brick residential buildings of representative design. Ornately decorated architectural detailing exemplifies the former social status and wealth of the paper mill owners. The fact that the paper mill used to serve both manufacturing and residential purposes (production workshop and pre-industrial age residence) is still reflected in the external architectural form of the building in question. The solutions and forms of artistic

media embody the essence of the perfect fusion of functions and forms.

The paper mill in Duszniki, with its distinctive form resulting from the purposes for which the premises were used in the past, is a perfect example of an architectural structure featuring ornately decorated walls uncommon for buildings of this type. For this reason, its value should be analysed not only in terms of being an industrial building of historical significance but also in terms of being an architectural masterpiece of the Baroque style typical of Czech and Silesia.

The drying house, which was built probably in 1740s, is a wooden building of considerable size situated south-east to the paper mill and connected to it by an extension in the north. Additionally, there is also a wooden bridge in the south. The construction of the drying house incorporates framing and the building itself is cuboid, three-storey and rectangular in floor plan. It is crowned with high, steep, gabled, shingled roof within which there are three storeys. Along the roof, there are three distinctive rows of vent bores. All walls of the drying house are made of wooden boards in vertical, uniform layout interrupted by rows of rectangular and square windows on each floor. Modest wooden moulding between particular floors section off the building horizontally. The side walls are designed similar to the longer walls. Triangular gables slightly project from the walls. All walls and the shingle are painted dark brown. In terms of the purposes for which the subject building was used, the wooden, roofed bay construction projecting asymmetrically from the west-facing wall of the drying house is a very peculiar accent. It used to house a mechanism of a lift which, from the outside, served all floors of the building. Several windows feature wooden shutters.

Unlike the paper mill, the drying house has no particular architectural detailing and hence, it stands out due to its large and simple form reflecting the manufacturing purposes for which it was used. The high-rise, multi-storey drying house is tangible evidence of how prosperous the paper mill in Duszniki used to be.

It was also in 1950s that the south part of the building was 'suspended' over the flume running 'inside' it, along its south part. Nowadays, following multiple renovation works carried out in the drying house, nothing remains of that system.

The entrance pavilion, built presumably in 1740s, is a one-of-a-kind architectural element of the paper mill premises. It has distinctive floor plan, size, and architectural detailing. It has octagonal-shaped floor



Photo 25. Paper mill facing west
Photo by A. Fortuna-Marek



Photo 26. Mill gable facing west
Photo by A. Fortuna-Marek

plan, features two storeys and is covered with octagonal shingled dome. The first floor is stone-made, situated on the base course of the building and covered with plaster. It is sectioned off from the second floor by a simple moulding – beam construction. The walls are ornately decorated – their detailing and colours refer to the arcades on the north and west wall of the paper mill. Just like the paper mill, the pavilion also features return window frames. The drum of the dome is decorated with wooden, profiled moulding. It seems that the formal means having been applied aimed at making the paper mill premises more representative and hence, emphasising the social status and importance of the paper makers in Duszniki. The form of the pavilion reflects certain elements of garden structures of belvedere type.

It needs to be emphasised that, for a long time, the road to west of the paper mill used to be the



Photo 27. Paper mill wall facing south
Photo by A. Fortuna-Marek



Photo 29. Inscription on the north portal
Photo by A. Fortuna-Marek



Photo 28. Bay window in the south-facing wall of the paper mill
Photo by A. Fortuna-Marek

only open route – all transportation came from the town. Therefore, the architect and the investor might have designed the pavilion and the decorative walls to face west and south on purpose – in order to emphasise the rank and status of paper mill owners.³¹

2.1.4 Internal historical form of the structures

Paper mill

Nowadays, the interior of the lower ground floor of the paper mill, where the paper making process used to begin, features a hall covering a large part of the building at its entire width. It is supported by four brick pillars and, in its north-east corner, it features a room of small size. Additionally, there is a small room in the south-east corner. In the west, there are two rooms adjacent to this hall, which were re-adapted and divided along the crosswise axis of the paper mill into four. In the south part of the main hall, there is a wooden platform dividing the interior into two levels.

After the war, the functional division of the lower ground floor was changed several times. As before the war, the paper mill and its equipment were

³¹ I appreciate that Dr G. Grajewski paid attention to this aspect.



Photo 30. Paper mill facing south-east, 1938?, <http://dolny-slask.org.pl/860198,foto.html?idEntity=518292>



Photo 31. South-facing wall of the drying house
Photo by A. Fortuna-Marek



Photo 33. Drying house facing north-east
Photo by A. Fortuna-Marek



Photo 32. The mill and the drying house facing south-west
Photo by A. Fortuna-Marek



Photo 34. Entrance pavillion and the bridge facing north
Photo by A. Fortuna-Marek



Photo 35. Entrance pavillion facing north-east
Photo by A. Fortuna-Marek

already in poor condition and after the war a major part of tools and machines were destroyed, it is difficult to reconstruct the functions that individual parts of the lower ground floor used to serve before the war. Inventory of the paper mill made in 1960 provides insight into the purposes for which the lower ground floor used to be used: "Inside the main building, on its lower ground floor, there were manufacturing rooms (...). On the lower ground floor, there was a large hall stretching over the width of the entire building, covered with beam ceiling and binding joist running along the longer axis of the building. It was founded on masonry and wooden supports. In a part of the room, there was a wooden platform dividing the interior into two low levels. In the ceiling above the platform, there used to be two square chutes [*currently non-existent* – AFM]. In the south-west corner, there are small doors by which two conjoined pools are situated. In the floor, there was a channel running to the other room. There were also two smaller rooms conjoined to the main production hall: one in the front section, featuring a barrel vault, watch glass, four windows, and a stone-made pool in the centre; the second room was located at the back of the building and featured a cross-barrel vault and one window."³² T. Windyka also makes an attempt to reconstruct the functional division of the interior of the lower ground floor: "in the lower ground floor of the main building there were three production rooms. In the largest room, which is currently used as the main paper production workshop, important papermaking equipment, e.g. mortar, might have been operated. Presumably, that was also the place for washing rags, which were dropped through the chutes from the sorting room located on the upper floor. In the production hall, there were water channels carved in the floor supplying water to the paper mill equipment, e.g. the mortar. The adjacent room (at present, for example, a sand container can be found here) featuring barrel vault and watch glass, was used for rag maceration, which made it easier to garnet and grind the rags. The rags, once being macerated, were moistened and heated in a special container. This conclusion is based on the remnants of the flue duct removed in 1912. In the adjacent room

³² M. Kutzner, "Czeska papiernia w Dusznikach," in *Artem ad vitam*. Kniha k pocte Ivo Hlobila, H. Danova, K. Mezihorakova, D. Prix (eds.), Praha 2012, pp. 548.



Photo 36. Part of the hall in the lower ground floor of the paper mill. Photo by A. Fortuna-Marek



Photo 39. Polychrome decorations in the first room on the first attic floor Museum of Papermaking Archive



Photo 37. Dutchman used for. Photo by A. Fortuna-Marek



Photo 40. Paper mill attic, currently not used for any purposes. Photo by A. Fortuna-Marek

(currently printing room), which also features barrel vault and lunettes, there used to be a gluing room and dry press³³."

At present, in accordance with the original use, the lower ground floor featuring a large hall is used for hand-making laid paper. In the rooms located in the west part of the building, furnish was processed and purified. Moreover, there is a drying room of small size, staff area and a training room. On the lower ground floor, one can also find paper laying equipment. Original machines have not been preserved and the existing ones consist of both reconstructed and original elements

acquired from other paper mills located in Poland. The equipment includes in particular: grinding machine, also called the 'Dutchman', purifying equipment, paper laying vats, draining presses, and the smoothing press. There is also a contemporarily arranged training room for delivering museum science classes. Other rooms on the lower ground floor serve staff and warehousing purposes.

This layout is typical of a paper mill as a manufacturing workshop.

Spatial arrangement of the second floor: two-bay with entrance hall in the north bay. Bays in the east part are divided by a corridor. The building on this level was initially used for manufacturing and residential purposes – it is assumed that a rag sorting room and paper stock room used to be located here; Moreover, paper mill owners' flat was arranged

³³ T. Windyka, "Młyn papierniczy w Dusznikach," *Muzealnictwo* vol. 41, Warsaw 1999, pp. 16–17



Photo 38. The main foyer in the paper mill building Museum of Papermaking Archive



Photo 41. Portal on the second floor of the paper mill Photo by A. Fortuna-Marek



Photo 42. Contemporary display of a toilet in the bay latrine. Photo by A. Fortuna-Marek

in the three rooms situated in the west part of the building.

Currently, apart from the entrance hall, there are six office rooms and five exhibition rooms where collections covering the history of papermaking, i.e. of the paper mill in Duszniki, other mills in Lower Silesia, Poland, and around the world are showcased. Although the room layout on this floor has not been radically modified, conversion of the paper mill into museum resulted in the functional plan being altered. What visitors beginning their visit to the museum will find in the hall is collections and memorabilia covering the history of the paper mill – seventeenth- and eighteenth-century portraits of paper makers of Duszniki. Currently, rooms on this floor are used for office and exhibition purposes.

Nowadays, the residential rooms which used to be arranged on the second floor no longer serve their original purpose. Following the paper mill's conversion into museum, the functions served by the former sorting room and rag stockroom have changed as well.

Three upper (attic) floors were used predominantly for draining paper, except for two rooms on the first attic floor, which were originally used as owners' summer flat. Well-preserved wall and ceiling paintings are the evidence of the original use of these rooms. Currently, the entire floor is used for exhibiting museum collections. Its original layout is preserved, including

a large room in the part facing east, which covers nearly a half of the floor area, and six rooms seated in two bays along the east-west axis. Two most upper attic floors are arranged in form of open space and are not currently used.

Inside the mill, there are peculiar and unique stone-made portals – the fascia portal on the second floor is of particular importance as it is dated at the third quarter of the sixteenth century.³⁴

In the south-west room on the second floor, there is a peculiar structure projecting outside the building – a bay latrine dating at the 16th century, which features contemporary toilet display.

Analyses and date studies on certain elements of the interior, which were conducted by R. Eysymontt are of particular importance to the description of the original internal form of the building. This includes, for instance seventeenth-century vaults in the lower ground floor, the eighteenth-century staircase, walls and ceilings supported by voluta-profiled struts located above the corridor on the second floor. Furthermore, it is also worth noticing certain similarities between the layout

³⁴ R. Eysymontt, "Przemiany architektoniczne młyna...", *Rocznik Muzeum Papiernictwa*, vol. 10, Duszniki-Zdrój 2016, p. 26



Photo 43. Drying house – interior after renovation works
Photo A. Fortuna-Marek



Photo 44. Drying house – interior after renovation works
Photo by A. Fortuna-Marek

of the second floor and the design of two-bay palaces two-bay palaces³⁵.

The spatial plan of the interior of the paper mill as well as a number of elements of architectural detailing typical of old paper mills have been preserved. These include paper laying rooms where paper sheets were hand-formed, the structure of the rafter framing sectioning off large multi-storey attics used for draining paper, roofs with vent bores, and vent windows on gable walls. The distinctive architectural form of the buildings (the external form in particular) was neither affected by the richness of accumulated historical heritage created in different periods nor damaged by contemporary interventions to the historic site. The important combination of the form, function and materials applied is still very clear.

The seventeenth-century spatial and functional plans of the interior of the main building underwent considerable changes in the early twentieth century. The reason was that the laid paper was no longer hand-made – manual manufacturing was replaced by machines. In order to meet technical requirements imposed by the new production process, paper mill owners adapted the ground floor of the main building to new use by installing a small papermaking machine and equipment for making paper furnish out of

ground rags. Further changes were made during adaptation works and, afterwards, when the mill started to function as the museum. In spite of the changes, the building is still clearly divided into two areas – the production part on the lower ground floor and the residential part decorated with polychrome paintings (summer flat) on the first attic floor. What is, however, no longer displayed is the functional division of the first floor the subject paper mill into production and residential areas.

Drying house

In its west part, the drying house, rectangular in floor plan, is conjoined to the paper mill building by a passage. On the first and second floors, the drying house is divided into two bays. Other floors are open-space. Original functional plan is unknown. What we know, however, is that originally, the building was used for draining paper and keeping stock. Currently, the drying house is being adapted for new use.

³⁵ R. Eysymontt, "Przemiany architektoniczne młyna...", *Rocznik Muzeum Papiernictwa*, vol. 10, Duszniki-Zdrój 2016, p. 18

2.1.5 Decorations inside the paper mill³⁶

Wall and ceiling paintings decorating the former summer flat of the paper makers of Duszniki are the most valuable elements of the interior decor in the main paper mill building. The polychrome paintings are partly preserved in two rooms on the third floor of the paper mill, i.e. on the first attic floor. These paintings, most probably created in different periods, i.e. in the 17th, 18th and 19th centuries, reflect different styles in interior decor applied in residential rooms. Diverse and ornately decorated motives, i.e. ornaments, floral twigs, figures, and architectural forms make them stand out from other flats. These decorations were made by applying dispenser to wooden walls and ceilings.

No other decoration in the first room is as perfectly preserved as the tray ceiling paintings featuring dry acanthus twig. Wall paintings are 'enclosed' in a painted, marbled bordure. On the north wall, there is a genre scene – women and men having a stroll on a terrace provided with balusters, colonnade, and two column-supported domed garden houses. In the background, one can notice greenery and a blue sky. The scene is interpreted as depiction of the spa in Duszniki, as of late 18th or early 19th centuries. The west wall featuring two windows is decorated with architectural forms (columns painted on both sides of the windows), garlands, and a scene interpreted as *Joseph and Potiphar's Wife*, taking place indoors, under a baldachin. On the south wall, there is a conch painted above the door to the second room. The east wall features various architectural forms and an eagle, which refers to the filigree used by the paper makers of Duszniki in 1756.

In the second room, the preserved paintings decorate the ceiling and two walls. The seventeenth-century painting on the north wall is considered the oldest in the paper mill premises. It reaches half of the wall and features floral elements such as flowers and dry acanthus twig. The polychrome painting on the west wall which is dated at the late 19th century features ornately decorated window framings and painted 'frames' alternating with decorations featuring geometrized floral elements and strongly coloured 'regent grating'. Moreover, polychrome-painted board with hardly visible paint layer featuring fruit garlands has been

preserved as 'evidence' of richness of accumulated historical heritage from different periods. The ceiling is framed with geometrized floral ornament.

The ceiling is ornated with rather unsuccessful forced perspective in form of an oval divided by pilasters between which there are recesses and panels. Its approximate age is dated at late 18th century.

The following factors determine the value of painting decorations in the paper mill premises in Duszniki Zdrój:

- ✓ The polychrome painting is unique in buildings of this kind.
- ✓ Paintings done in different periods represent changing styles in Silesian art, from the early seventeenth-century and late seventeenth-century early baroque paint layers, throughout the eighteenth-century Baroque paintings to late nineteenth-century paintings featuring the 'regent grating' motive.
- ✓ Being ornately decorated, e.g. with floral twigs, genre scenes, and architectural details.
- ✓ Interesting iconographic scenes, e.g. the eagle referring to the filigree used by the paper makers of Duszniki since 1756; allegedly a biblical scene – *Joseph and Potiphar's Wife*; allegedly a view over Duszniki of late 18th (?)³⁷ or early 19th (?) early 19th (?) centuries³⁸.
- ✓ Art technique – dispenser applied on wood.
- ✓ Rich colours applied in certain scenes and motives.

³⁶ The following description is based on S. Szoc's findings (co-author of conservation and preservation works as well as author of polychrome inventory survey). While working on this study, A. Szeląg recorded different findings.

³⁷ Dating analysis by S. Szoc, co-author of conservation and preservation works and author of polychrome inventory.

³⁸ According to T. Windyka, park furniture depicted in this painting refers to structures designed by construction inspector, Ch. Geisler of Wrocław, and installed in the local nineteenth-century spa park in 1802. T. Windyka, "Młyn papierniczy w Dusznikach," *Muzealnictwo* vol. 41, Warsaw 1999, pp. 17–18.



Photo 45. Part of painting decoration on ceiling in the first room. Photo by A. Fortuna-Marek



Photo 47. Part of polychrome paintings on the north-facing wall in the first room. Photo by A. Fortuna-Marek



Photo 46. Part of polychrome paintings on the north-facing wall in the first room. Photo by A. Fortuna-Marek



Photo 48. A part of painted decoration in room 2 ("Under the dome" room). Museum of Papermaking Archive



Photo 49. Painted ceiling in the "Room under the dome" Photo by A. Fortuna-Marek

It must be added that, in addition to the aforementioned paintings, a painting above the current ceiling was uncovered in the "room under the dome." On the walls between the ceilings, there is an ornamental frieze dated at the 17th century.³⁹ The polychrome paintings preserved in two rooms in the paper mill, which were initially studied by art conservators in terms of their age, style, and iconography as part of conservation works carried out, until recently, had not fallen within the scope of art historians' interest in the broader aspect of style-related,

comparative or iconographic studies. A. Szeląg was the first to make such an attempt.⁴⁰ According to him, the paintings in Duszniki were done in the same period, i.e. approximately 1800. The only exception is the polychrome painting on the north wall in the "Room under the dome." In the latter case, Szeląg points out the decoration's similarities to selected works of art created at the turn of the 16th and 17th century and in the early 17th century. At present, A. Koziół and A. Szeląg are studying the paintings in the paper mill in Duszniki.⁴¹

³⁹ A. Szeląg, "Dekoracja malarska papierni" in R. Eysymontt, A. Szeląg, D. Eysymontt, op. cit., p. 54.

⁴⁰ As above, pp. 45–55.

⁴¹ According to A. Koziół, polychrome paintings date at 1770–1780. He is also of the opinion that they were done by Caspar Rathsmann for Johann Josepha Ossendorf. He considers theatre decorations engraved in copperplate as being models for the genre scenes with illusionistic architecture in the background. Koziół also emphasizes that although these pieces may not be exquisite works of art, they are interesting in terms of their iconography. Additionally, the biblical scene, *Joseph and Potiphar's Wife*, is the only one or one of the very few pieces of art of this theme in Kłodzko County and Silesia. The decoration on the north-facing wall in the "Under the dome" room as well as on the museum exhibition is dated at the 17th century. The authors are grateful to Professor Andrzej Koziół for providing fundamental information on the studies being conducted as well as their preliminary results.



Photo 50. Paper mill building – barrel vault with lunettes in the lower ground floor. Photo by A. Fortuna-Marek



Photo 51. Roof framework of the paper mill building
Photo by A. Fortuna-Marek

2.1.6 Materials, substances and the structure

The structure of the paper mill is not uniform. It is built predominantly of wood, natural stone and ceramic brick. Foundations and external walls are made of masonry material and ceramic bricks. Mortar applied in foundations and in the lower ground floor is composed of sand and clay, and lime respectively. Longer walls of the second floor have beam construction and are filled with ceramic bricks joined by lime mortar. Internal walls on the ground floor are made of crushed rock gravel held by lime mortar (original) and brick held by cement and lime mortar (contemporary). Rooms with thick stone walls have barrel vault with lunettes and cross vault. The ceiling of the main room in the paper laying area has beam construction. Above the lower ground floor, the internal wooden load bearing structure is of frame type and consists of pillars and binding joists. The internal frame structure of the upper floors is filled with brick, partly covered with wooden boards and slaps. The roof framework is wooden, its structure consists of collars and purlins, and it involves three queen posts. The collars are the beams of the ceiling of the third and fourth floor. This type of construction followed from functional reasons. It allowed for sectioning off multi-storey attics used for draining paper. Wooden dowels (original) and nails (non-original) join individual elements of the roof framework. Some original elements of the structure are preserved, including inscriptions and fixing marks. Other elements include parts and pieces either fixed in different periods or attached contemporarily.



Photo 52. Staircase structural column in the paper mill building. Photo by A. Fortuna-Marek



Photo 53. Log cabin structure of the oldest part of the drying house. Photo by A. Fortuna-Marek

R. Eysymontt supposes that the vault of the lower ground floor in the paper mill was built in the 17th century. *What is worth noticing is the sharp cross vault, which continues the style of the gothic rib vault. Presumably, it replaced wooden ceilings. Although these vaults may be of different age, when compared to closely located correlative examples, they may be dated at 17th century.*⁴² Barrel vaults with sharply framed lunettes in the lower ground floor are dated at the same period. What makes the paper mill distinctive is the varied structure of each floor and the variety of materials having been applied. Original elements and materials are preserved, as is the richness of accumulated historical heritage. One can also see changes in which contemporary conservation and preservation works resulted – both to the construction itself and to the materials applied, e.g. strengthening the construction on the lower ground floor level with binders and steel pillars, modifications to the roof structure made in 1960s and present-time works.

The original material dated not only at the period of erecting the paper mill premises but also at subsequent periods in which further richness of historical heritage was accumulated, has been confirmed by dendrochronology dating.

In certain rooms, elements of the cross-joint construction have been preserved uncovered in order to show the original structure of the walls:

- ✓ north-facing wall in the hall on the second floor – beam construction with straight brackets,
- ✓ beam construction of the walls in two other rooms on the second floor,
- ✓ What has been preserved on the third floor, between the second and third room housing temporary exhibitions, is not only the wall of cross-joint construction with uncovered part of the filling but also queen posts of the truce provided with straight brackets.



Photo 54. Flaps for regulating air flow
Photo by A. Fortuna-Marek



Photo 55 Paper laying equipment – the 'Dutchman'
Photo by A. Fortuna-Marek



Photo 56. Paper laying equipment – the press
Photo by A. Fortuna-Marek

⁴² R. Eysymontt, "Przemiany architektoniczne młyna...", *Rocznik Muzeum Papiernictwa*, vol. 10, Duszniki-Zdrój 2016, p. 19

Vaults and ceilings:

- ✓ barrel vault with lunettes and cross vault in the lower ground floor
- ✓ barrel vault in the room facing south-west, located on the second floor,
- ✓ in the paper laying room on the lower ground floor – wooden beam ceiling supported by wooden longitudinal binder and walls.

Stairs:

- ✓ half landing staircase, stairs made from reinforced concrete, running from the lower ground floor to the second floor,
- ✓ wooden stairs of winder type, running from the second to other floors, supported by walls and a central post with a date engraved in its upper part, "1721",
- ✓ two quarter landing stairs made from reinforced concrete, adjacent to recently built elevator in the extension.

The drying house is made of wood and has frame construction. The foundations are made of brick, stone, and reinforced concrete (foundations of the east-facing wall were replaced after flood in 1998). The load-bearing frame construction consists of pillars and binders seated on wooden sill plates. In the lower ground floor, the construction is reinforced with wooden columns. The oldest and most interesting element is a part of the lower ground floor featuring log cabin structure dating at the late 16th century. All floors have wood-beamed ceilings provided with binders. The roof framework is wooden, its structure consists of collars and purlins, and it involves triple queen post.

Between the lower ground and the second floor, there is a contemporarily-built half landing staircase made from reinforced concrete. Other floors are connected with straight wooden stairs.

All buildings are shingle-roofed. Windows are wooden, non-original and feature sections known from nineteenth- and early twentieth-century iconography.



Photo 57. Portraits of the papermakers of Duszniki displayed in the hall in the museum. Museum of Papermaking Archive

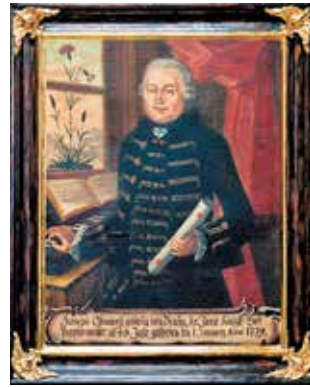


Photo 58. Portrait of Joseph Ossendorf. Museum of Papermaking Archive



Photo 59. Portrait of Anna Francesca Heller. Museum of Papermaking Archive



Photo 60. Alleged portraits of the Wiehrs Photo by A. Fortuna-Marek

2.1.7 Paper mill equipment – original elements being preserved and additional museum exhibits

Manufacturing equipment

A certain part of the original equipment showing hand production in the Duszniki paper mill was removed in 1905, following modernisation of the subject property. Consequently, interior of the lower ground floor was rebuilt and provided with tar paper devices as well as with cylindrical paper and cardboard making machine. Currently, only a small part of the original paper laying equipment has been preserved. These pieces include:

- ✓ 19-century paper laying moulds with riddles;
- ✓ eighteenth-century wooden paper draining hangers;
- ✓ nineteenth-/twentieth-century metal cardboard draining clip hangers;
- ✓ cart for transporting paper within the drying house;
- ✓ crane for moving wet paper between the floors of the drying house.

Vent bores installed on the roof of the paper mill and the drying house, which were provided with air flow regulation flaps, used to be of considerable importance in the paper making process. They are typical of paper mill buildings. In Duszniki, they have been preserved in their original form.

Other machines and production equipment, which are still used for making paper for demonstration purposes, have been either brought from various papermaking and printing workshops located across Poland or reconstructed from original tools. Before the idea of relaunching production of the laid paper was put into effect in 1970, technology pipelines and production equipment had been installed. The paper laying equipment was imported from Jeziorno workshop and the "Dutchman" used for preparing paper furnish – from Jelenia Góra.

Moreover, the present papermaking equipment consists of handicraft papermaking tools, which are a part of the museum collection. These include, for instance: Seventeenth- and eighteenth-century paper smoothing presses, e.g. press from printing house in Trzebnica (17th century).

The museum collection includes also a number of machines and tools used in industrial production.

The number of hand-laid and machine-made paper sheets stored in the Papermaking Museum in Duszniki is two thousand. These include also hand-laid paper

sheets decorated with watermarks of Duszniki and Silesia dated at the 17th and 21st century.

Residential equipment

The most important elements which are related to the residential function of the paper mill include several portraits of the paper mill owners, painted in the 17th and 18th centuries. At present, they are displayed in the entrance foyer in the paper mill building.⁴³ These oil paintings portray: Samuel Kretschmer, Wilhelm Kretschmer, Joseph Ossendorf, Anton Benedict Heller and his wife, Anna Francesca Heller. The portrait of Anna Francesca Heller is signed by Caspar Rothsman, Silesia-based painter of the late 18th century. Recently, the portraits of Anton Benedict Heller and Joseph Ossendorf have been considered to have been painted by the same artist.⁴⁴

Additionally, there are two other oil paintings in the museum exhibition rooms – alleged portraits of Maria and Joseph Wiehr, which are claimed to have been painted in the early 19th century.

In 1937, Günther Grundmann, who had been historic preservation officer in Lower Silesia since 1932, called for preserving the paper mill in Duszniki: "Seven oil paintings hanging in the entrance hall bridge the three families with the present time".⁴⁵

The residential function is also represented by museum collections representing the history of Duszniki, e.g. furniture, paintings, dishes, medals depicting citizens' material culture. Eclectic furniture of Duszniki made in 1880s complement the interior design of the flat of the paper makers of Duszniki.

⁴³ More on the paintings, i.e their dating as well as statistical and comparative analyses can be found in A. Szelağ's study.

⁴⁴ A. Szelağ, "Zespół portretów właścicieli dusznickiej papierni w zbiorach Muzeum Papiernictwa w Dusznikach-Zdroju;" *Rocznik Muzeum Papiernictwa*, vol. 10, Duszniki-Zdrój 2016, pp. 43-56.

⁴⁵ G. Grajewski, „Um die Erhaltung der Papiermühle in Reinerz” – „O zachowanie młyna papierniczego w Dusznikach” in *Rocznik Muzeum Papiernictwa*, Vol. 19, Duszniki-Zdrój 2015, p. 117

2.1.8 Function of the property

Production and its continuity

The traditional process of making paper depended on the need to power the machines being operated. Specific location of paper mills, i.e. between a river and a flume, was determined by acquisition of hydropower. Flume, i.e. branch of a steep watercourse (usually in form of an artificial canal, sometimes as a shortcut between river bends) was of considerable importance. Hydropower was used for propelling water wheel, which was essential for generating power.

Only a small part of the former system consisting of watercourses and papermaking equipment has been preserved in the paper mill in Duszniki. In the early 20th century, during modernisation works which resulted in switching from handmaking to industrial production, the flume was redeveloped by lowering the channel and replacing the old wheel with the Francis turbine in 1959, the flume was filled with soil, which resulted in the premises being deprived of the important functional system, which used to be the integral part of the paper mill premises. At present, the location of the paper mill at the Bystrzyca Dusznicka river is the only preserved element of the former water system. Nowadays, nothing of the flume has remained and the location of the old water wheel is unknown. Museum management planned to reconstruct the flume channel and the water wheel already in the 1960s.

The medieval technique of manufacturing laid paper in the European system had not changed until the late 18th century, in spite of introducing progressively advanced equipment. In the paper mill in Duszniki, the laid paper had been produced until 1905. At present, this old method is still used in the museum in Duszniki, in spite of different technology, raw materials, and source of power being used. Papermakers in Silesia used predominantly linen rags (yet, there were also cotton and hemp ones), which were sorted by colour into white and multi-coloured ones, then cut and putrified. Afterwards, this material was used for making paper furnish in mortar propelled by water power. In the 18th century, the mortar was replaced by the 'Dutchman', where the rags, after having been soaked with water, were grounded down and pounded. Consequently, the furnish was smoother and more homogenous. The 'Dutchman', as the mortar, was also propelled with hydropower. Those days, this innovative solution was first introduced in Silesia, possibly already in 1737.

Paper furnish was sieved to form paper sheets, i.e. to make laid paper. Subsequently, paper sheets were decorated with filigrees, drained under the press and hanged on special hangers. The draining process required the drying rooms to be of considerable size. Hence, paper mills used to be provided with vast, multi-storey attics with vent bores. In order to make the sheets smooth, they needed to be dunk in gelatine size (later, the size started to be added to furnish) and then smoothed with stone or hammer. In spite of changing the purpose of the paper mill (paper laying manufacture), the former functional layout of the rooms – which is of key importance to the papermaking process – has been preserved. The paper mill is provided with laid paper production workshop and multi-storey attics provided with vent bores critical to the draining process.

Moreover, what additionally makes the Museum in Duszniki of great significance is the fact that, in addition to being used for exhibition purposes, the premises are used for demonstrating the old laid paper production process. Although the paper mill was not used for manufacturing purposes for several years, preserving its original function is of considerable importance to assessment of its authenticity and integrity of place. The laid paper being currently produced in Duszniki is made of raw materials other than the ones used in the past, i.e. wheat straw furnish, eucalyptus, and cotton. Moreover, hydropower propelling the machines was replaced with electricity. Nevertheless, the museum staff still deploys the medieval techniques of producing paper, i.e. spreading paper furnish evenly over the sieves provided with filigrees, press moulding, manual draining, and manual pressing. At present, the entire production process, including draining, takes place in the lower ground floor. The rooms in the paper mill and the drying house used for such purposes in the past, no longer serve their original function.

Nowadays, the paper mill in Duszniki is the leading Polish manufacturer of laid paper. It produces paper sheets made of pine, eucalyptus, and cotton used for handwriting, typography and digital printing, as well as for graphic arts. Furthermore, it is the only museum in Poland to design and create sieve patterns independently. This allows for producing watermarked paper by using the eighteenth-century technique developed in Fabriano and deployed in most paper mills, including the premises in Duszniki.

At present, the paper mill being analysed continues the fifteenth-century Polish traditions of producing laid paper, which in the 19th and 20th centuries was supplanted by machine-made paper.

Residential and representative functions

The rooms in the paper mill premises which already in the 17th century were used for residential purposes are of considerable historical, artistic, and scientific value. These include two rooms on the first floor of the attic (referred to as the 'paper makers' summer flat') with well-preserved wall and ceiling decorations. It is not unlikely that residential rooms might have been located on the second floor as well. However, according to K. Maleczyńska, "Silesian paper mills would usually consist of a one- or two-storey building and a number of extensions or smaller buildings which were built in over time. The premises usually housed master's and journeymen's flats⁴⁶." Therefore, we can see that other paper mill premises in Silesia were also used for residential purposes. However, the polychrome paintings and portraits of papermakers of Duszniki decorating the premises being analysed make the paper mill premises unique, rare, and, to some extent, exceptional. Additionally, the residential function is also emphasised by the ornaments on the exterior walls of the mill. These functional aspects as well as elements of the external architectural form and detailing (entrance pavilion of certain structure, ornately decorated walls) and exquisitely painted rooms make the paper mill in Duszniki a pre-industrial historic site being relevant by its use or its invention. Moreover, its values need to be analysed from the perspective of being representative premises designed in Baroque style.

Museum and related purposes

The historical value and importance of the paper mill in Duszniki was accepted by historic preservation milieu a long time ago. It was already in the early 20th century when, following the efforts to preserve the paper mill as property of considerable historic importance, public authorities allocated financial resources to the premises with the aim of carrying out critical conservation and renovation works. In 1930, the first ideas for changing ownership rights emerged – the aim was to convert the private property into state-owned museum. Furthermore, in 1940s, initiative on re-launching production of laid paper was

undertaken.⁴⁷ These efforts of German historic preservation specialists aiming at saving the historic site of great significance were put into practice several years later, in 1968, when the Museum was opened. This non-original purpose which the premises serve as a museum can be considered an added value. The Museum of Papermaking produces laid paper by employing old medieval methods, collects evidence of papermaking history, conducts studies in this field, and runs education and cultural activities pertaining to producing and using paper

The above description of the premises allows for listing the most important values of the paper mill in Duszniki. These include in particular:

Values of historical significance – description of the location

- ✓ Representation – one of the few well-preserved paper mills, representing numerous premises used for this purpose located in Silesia, Poland, and Europe in the pre-industrial period.
- ✓ Civilizational processes – producing paper for several centuries – product of considerable importance for development of civilisation, i.e. science, culture, and arts.
- ✓ Economic processes – paper mill as a 'witness' of continuous improvement of the product being made there, i.e. technological development of the production of laid paper.

Values of historical significance – functional context

- ✓ Function – it was rather uncommon in the pre-industrial age that one building was used for both production and residential purposes. Additionally, the premises, having been a workshop and a residence at the same time, features representative artistic forms.
- ✓ Tradition and continuation – producing laid paper by adopting the archaic medieval method. Reconstructing and teaching production of laid paper
- ✓ Product – the premises where paper was produced – a significant invention contributing to civilizational and cultural development; valuable paper sheets decorated with filigrees stored in the museum.

⁴⁶ K. Maleczyńska, *Dzieje starego papiernictwa śląskiego*, Wrocław-Warsaw-Cracow, 1961, p. 66

⁴⁷ Detailed information on initiatives and actions undertaken before the war broke out, which aimed at protecting the paper mill, can be found in article by G. Grajewski, "O podejmowanych przed 1945 rokiem próbach ratowania młyna papierniczego w Dusznikach-Zdroju," *Rocznik Muzeum Papiernictwa*, vol. 9, Duszniki-Zdrój 2016, pp. 9–29.

Architectural and artistic values

- ✓ Paper mill premises as material being relevant by its use or its invention – specific location and layout of the premises, distinctive architectural form and structure following from the use of the site.
- ✓ The paper mill as a residential property of representative form and interior design – it reflected owners' social position and prominence.
- ✓ Material that is relevant by its use or its invention and 'residence' of the preindustrial age – the premises used for production and residential purposes, which are reflected in its architectural form.
- ✓ Historic site, still being an important element of the cultural landscape of Duszniki Zdrój.

Intangible values

- ✓ Historical and industrial evidence – unique evidence of old methods applied in paper production; one of the very few well-preserved historic sites being the evidence of how thriving the papermaking industry used to be in Europe and how it contributed to development of science, culture, and fine arts.
- ✓ Connection with individuals who played crucial role in history – prominent individuals of local, regional, and international renown.
- ✓ History of the Museum, including relaunched production of laid paper and installation of old production machinery.
- ✓ Museum collections – evidence of rich papermaking traditions in Poland.

Defining the predominant value – the paper mill premises are not only a material being relevant by its use or its invention but also a residence of the pre-industrial age – the site being used for both residential and production purposes; these two functions are clearly reflected by the external and internal architectural forms, decor, and the pieces of equipment being preserved. The solutions and forms of artistic media embody the essence of the perfect fusion of functions and forms. Value of continuity – producing laid paper by employing medieval papermaking method; 'living' evidence of the traditional production of laid paper.

2.2 DEFINING THE TYPE OF THE PROPERTY AND SELECTING COMPARATIVE GROUP

In order to define a reference group for the paper mill in Duszniki, which could provide a comparative context (essential for assessing the value in comparison to other sites of similar type and purpose), it is of great importance to place the subject premises in a certain typology group. According to the typology being applied to world heritage assets, the paper mill in Duszniki Zdrój is – pursuant to the Convention Concerning the Protection of the World Cultural and Natural Heritage (in which the entire cultural heritage is divided into historic monuments, groups of buildings, and sites) – a group of "separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science". The features typical of this typology group include not only attributes characteristic of works of architecture but also elements determining mutual relations between particular buildings of which the group of buildings consists.

What can also serve as reference points are typology groups defined in document "Criteria and procedures for considering an asset a Polish Listed Monument", developed in the State Monument Study and Documentation Centre and adopted and approved in 2005 by the Monument Protection Council under the Minister of Culture.⁴⁸ In addition to typology groups (categories of monuments) of assets which can be considered Polish Listed Monuments, this document also provides insight into their features and values. The paper mill in Duszniki Zdrój can be analysed according to guidelines specified under two categories, i.e.:

Works of architecture and construction engineering or a group of such works having similar design, construction, and being used for similar purposes, which:

- ✓ *have unique architectural detailing,*
- ✓ *present examples of applying innovative or unique construction and engineering solutions,*
- ✓ *have uniform style or clear and harmonious layers,*
- ✓ *have unique decor and elements of original equipment;*

and

⁴⁸ http://www.nid.pl/pl/Dla_wlascicieli_i_zarzadcow/opieka-nad-zabytkami/pomniki-historii/kryteria-wyboru/, accessed on 12.11.2016

Industrial and civil engineering assets which:

- ✓ *represent traditional or unique branches of industry deeply rooted in the Polish industrial culture,*
- ✓ *are groups of industrial and working-class buildings with clear urban arrangement,*
- ✓ *house original production equipment, e.g. production lines, machines, etc., of historical significance, which allow for studying and recreating traditional production techniques,*
- ✓ *are works of engineering housing technological equipment in its original spatial and landscape arrangement.*

The paper mill in Duszniki is unquestionably an industrial property of great historical value – an element of industrial heritage. Pursuant to The Nizhny Tagil Charter for the Industrial Heritage (TICCIH), industrial heritage “consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills and factories, mines and sites for processing and refining, warehouses and stores, places where energy is generated, transmitted and used, transport and all its infrastructure, as well as places used for social activities related to industry such as housing, religious worship or education.”⁴⁹

In comparative analyses of works of architecture, construction engineering, and industrial heritage, the most frequently applied comparison criteria include: typology and function, chronology, style, materials used, and reference to certain areas where the specific types of historic monuments or sites are located.

Depending on the comparison scale being adopted, the paper mill in Duszniki can be compared, in terms of its location, to historic monuments and sites in Silesia, Poland, Central Europe or, in broader context – entire Europe.

Given the period in which the paper mill premises were built, references will be made to buildings erected in the 17th, 18th and early 19th centuries. Nevertheless, it does not mean that in the event of nominating a serial asset to be inscribed on the UNESCO List, older assets will not be included in the comparative group.

Given the construction materials used in the paper mill in Duszniki and the issues arising from their application, the premises are categorised as wooden properties, even though the main building and the entrance pavilion are partly made of masonry material.

With regard to functional categories, mills, including the paper ones, due to specific production techniques applied and the necessity to provide power, are a peculiar type of material that is relevant by its use or its invention – they are categorised as assets which can be located only in close proximity to specific sources of water, i.e. rivers or flumes. Well-preserved machines and tools as well as reconstructed technological processes are important to consider an asset relevant by its use or its invention. These elements should be also subject to comparative analysis. The period in which the paper mill was built as well as the type of production methods applied there (hand-making) determine the reference group for the premises being analysed in this article – pre-industrial assets.

At the same time, the paper mill premises in Duszniki is also a work of architecture and construction engineering which was used not only for manufacturing but also for residential purposes. Given its peculiar form and architectural detailing, it should be juxtaposed with Baroque properties built in Silesian and Czech cross-border areas.

Recapitulating the aforementioned deliberations, one can state that combination of the following elements is what determines the selection of reference properties:

Analysis area:

- ✓ historic monuments and sites in Silesia/Poland/Central Europe/Europe

Construction time:

- ✓ 16th, 17th – 18th/ early 19th centuries

Functional description:

- ✓ material that is relevant by its use or its invention
- ✓ industrial properties
- ✓ historic civil engineering landmarks and monuments
- ✓ paper mills
- ✓ technological processes /continued and discontinued/
- ✓ craft and pre-industrial manufacturing /gradual improvement/
- ✓ being used for both residential and production purposes at the same time

Production equipment – devices, machines, tools, production lines, etc.

⁴⁹ The International Committee for the Conservation of Industrial Heritage (TICCIH) The Nizhny Tagil Charter for the Industrial Heritage, July 2003 5.

Materials applied:

- ✓ wooden/wood and masonry buildings

Style:

- ✓ Baroque architecture
- ✓ Baroque polychrome paintings.

The reference group is a resultant of the said elements, which are used for defining the scope of interest.

Reference group: /paper mills/wooden/craft/continuous production/valuable decor/Central Europe/seventeenth- and eighteenth-century Baroque monuments/

2.3 VALUING CRITERIA AND VALUE ASSESSMENT OF THE PROPERTY, BASED ON THE REFERENCE GROUP

Developing general description of the paper mill premises, analysing them as well as defining elements to be used for determining the reference group provide foundations for indicating features which influence the property's values. With regard to the paper mill premises in Duszniki, the predominant value assessment criteria include:

- ✓ form of the property
- ✓ function of the property
- ✓ equipment
- ✓ decor
- ✓ construction date

The paper mill in Duszniki, although considered a property of unique historical values in Poland, until recently, had not been subject to any comparative analyses. Its importance was confirmed in 2011, when the premises were accorded the status of Polish Listed Monument. This concerns not only studies in the history of arts and architecture but also analyses in which problems pertaining to materials that are relevant by their use or their invention would be discussed. Article by M. Kutzner is the first study aimed at setting the paper mill premises in a broader context of the Baroque and assessing their value.⁵⁰ Moreover, recently, R. Eysymontt has published study on assessment of the historical value and artistic merit of the paper mill in Duszniki. The study also features A. Szelağ's analyses of

polychrome paintings and portraits of the papermakers of Duszniki.⁵¹ By applying the comparative method, R. Eysymontt provided deeper insight into the subject matter by juxtaposing the premises in question with Silesian and Czech works of art and indicating analogies between the particular elements of their structure, i.e. plan, architectural detailing, portals, etc.

M. Kutzner describes the premises in the following way: "It is a 'factory' inside a large bourgeois house. Despite being of considerable size, it bears resemblance to a shed with a mill and a drying house. The paper mill reflects features of Czech buildings built in the 17th century in terms of shape, proportions, decor, colours. The paper mill can be categorized under semi-folk buildings, yet aspiring to take Czech masonry manors as a pattern by being provided with volute-decorated gables and architectonic articulation of the walls. The paper mill in Duszniki can be therefore called 'of Czech origin' – not only due to the Kłodzko Valley being referred to as the Czech territory."⁵²

R. Eysymontt, on the other hand, provides more details for dating the historic site by indicating elements created in certain periods, e.g. fragments dated at the third quarter of the 16th century; major construction and transformation works – 1605, 1727, 1802. Having recapitulated the results of his analysis of the architectural and design structure of the premises, Eysymontt claims that:

"Construction phase taking place in the early 18th century, when the property was provided with a wooden volute-decorated gable, changed the shape of the building into what we know nowadays. In the late 18th and early 19th century, the external decorations of the walls were created. Moreover, the 18th century was also the time when the entrance pavilion was built.

The paper mill in Duszniki perfectly exemplifies combination of features typical of gentry manors built in Kłodzko areas and Baroque bourgeois tenements or Baroque church gables from Silesia or Czechia. The entrance pavilion follows the design of Baroque garden

⁵⁰ M. Kutzner, "Czeska papiernia w Dusznikach," in *Artem ad vitam*. Kniha k pocte Ivo Hlobila, H. Danova, K. Mezihorakova, D. Prix (eds.), Praha 2012, pp. 543–552.

⁵¹ R. Eysymontt and A. Szelağ, D. Eysymontt (collaboration), "Młyn papierniczy w Dusznikach Zdroju..." ; R. Eysymontt, "Przemiany architektoniczne młyna..." Rocznik Muzeum Papiernictwa, vol. X, Duszniki-Zdrój 2016, pp.9–41; A. Szelağ, "Zespół portretów właścicieli dusznickiej papierni w zbiorach Muzeum Papiernictwa w Dusznikach Zdroju," Rocznik Muzeum Papiernictwa, vol. X, Duszniki-Zdrój 2016, pp. 43–45. At present, Andrzej Kozieł and Adam Szelağ are conducting further analyses of the polychrome paintings in Duszniki.

⁵² M. Kutzner, "Czeska papiernia w Dusznikach," p. 551.

structures.⁵³ The author also emphasizes that the premises in Duszniki are one of the oldest paper mills in Europe and the oldest industrial building in Lower Silesia. In spite of the aforementioned findings, R. Eysymontt's support for various hypotheses and establishing previously unknown facts, there are still several issues to be explained, e.g. the date of construction of the paper mill, its design and formal features, as well as its provenance. It is therefore worth claiming that such comparative analyses and archive studies should be continued and architectural studies need to be launched.

Moreover, authors of the nomination proposal for according the status of the Polish Listed Historic Site to the paper mill premises made certain attempts to set the property in question in the context of Polish and Central European papermaking plants. They considered the premises in Duszniki the oldest and the most original paper mill in Poland and one of the oldest workshops of this kind in Central Europe.⁵⁴ The following Polish paper mills have been mentioned: 18th-century premises in Konstancin-Jeziorna, where a shopping mall is housed at present, paper mill in Barlinek dated at the mid-eighteenth century, and a paper factory in Dąbrowica outside Jelenia Góra, which, in spite of having been established in the early 18th century, features only buildings dated at the late 19th and early 20th century. Two industrial plants, which are still in operation, were not forgotten either: one in Pilchowice outside Jelenia Góra and another one in Nowa Ziemia outside Chojnow. Nowadays, both plants make cardboard. However, as the authors notice, the premises being still in operation were constructed at the turn of the 19th and 20th centuries, i.e. much later than the paper mill in Duszniki Zdrój.

The paper mill in Duszniki is the oldest preserved paper mill in Poland. The date of construction also places the premises among several preserved paper mills in Europe. This fact increases its value and importance. At the national level, the historic paper mill premises in Duszniki are unique by all criteria. The paper mill being analysed is the only well-preserved building of this type in Poland – made of wood and masonry material,

where laid paper is still produced for demonstration purposes by using archaic medieval technique, and representing pre-industrial paper mills, a great number of which used to be located across Silesia, Poland and Europe. This criterion of being unique and rare follows from the specific nature of this category of properties. Paper mills, for functional reasons, used to be located in close proximity to rivers and, hence, they used to be struck by devastating floods. Moreover, the most common building material used at the time of building the paper mill in Duszniki was wood, the main problem of which was fire risk. As laid paper became obsolete once modern industrial production methods were introduced, most paper mills widespread across Silesia, Poland (present borders), and Europe, were either closed in the 19th century or converted into factories. When former paper mills started to be adapted to modern industrial production techniques, changes to architectural forms, interior layouts, equipment, and production technology were inevitable.

The paper mill in Duszniki is a well-preserved historic site with a great number of original elements, e.g. external architectural form being a result of historical heritage being accumulated in the period of 16th – early 19th centuries; architectural detailing, e.g. sixteenth- and seventeenth-century portals, the bay latrine; interior design including seventeenth-, eighteenth-, and nineteenth-century polychrome paintings and equipment used for paper production and residential purposes (portraits of subsequent owners of the premises).

It is a historic site with premises of distinguishable architectural form following not only from the use of the building but also the specific nature of the product having been produced there. The form consists of the following elements in particular: spatial composition of the buildings and the similarities between them; steep, shingled gable roofs with distinctive vent openings; interior layout with clear division into production and residential zones; multi-storey attics.

Furthermore, in the paper mill in Duszniki, the form is distinguished by artistic merit, i.e. ornamental entrance pavilion, exterior wall decor including Baroque elements accentuating two walls of the mill and making them more representative, as well as unique wall paintings decorating the residential rooms. The latter feature was rather uncommon in buildings of this type. In light of the information being available as well as the paper mills being still functional historical groups of paper-making facilities in central Europe, it can be said that the interior design of the paper mill in Duszniki is truly

⁵³ R. Eysymontt, "Przemiany architektoniczne młyna...", Rocznik Muzeum Papiernictwa, vol. 10, Duszniki-Zdrój 2016, p. 26.

⁵⁴ Nomination for inscribing the paper mill in Duszniki on the list of Polish Listed Monuments was developed by A. Stefaniszyn, T. Windyka, M. Szymczyk, ed. M. Szymczyk, Duszniki-Zdrój 2009.



Photo 61. Velke Losiny. Paper mill. Photo A. Fortuna-Marek



Photo 64. Velke Losiny. Paper mill. Photo A. Fortuna-Marek



Photo 62. Velke Losiny. Paper mill. Photo A. Fortuna-Marek



Photo 65. Velke Losiny. Laid paper production room
Photo A. Fortuna-Marek



Photo 63. Velke Losiny. Paper mill. Photo A. Fortuna-Marek



Photo 66. Velke Losiny. Museum exhibition
Photo A. Fortuna-Marek

unique. All these elements and features make the historic site truly unique and individual. Architectural detailing, interior wall and ceiling paintings, as well as elements related with residential use of the building, i.e. portraits of three families of paper makers prove that the property was also used for residential purposes.

The paper mill in Duszniki is therefore something more than only material being relevant by its use or its invention built in craft manufacturing era. In addition to its primary function, i.e. paper production, the premises were also used for residential purposes and hence, their owners, wealthy and respected citizens of Duszniki

Zdrój, wanted the site to have distinctive and unique character. They wanted the facility to reflect their social position and affluence. It was rather uncommon in the pre-industrial age that one building was used for both production and residential purposes. Additionally, the premises, were used both for production and residential purposes, the latter of which are accentuated with artistic forms of representative character. The representative form of the property as well as the paintings that can be found inside the residential rooms rank the paper mill in Duszniki high among the most prominent buildings of this type. The external architectural form of the premises still reflects both uses of the paper mill functioning as a workshop and a pre-industrial residence. The solutions and forms of artistic media embody the essence of the perfect fusion of functions and forms.

The paper mill in Duszniki, in addition to being a museum, still functions as a workshop where traditional laid paper is produced on small scale. Although only a few of original machines are preserved, the production method being used is identical to the one used in the past. Although, in the past, there used to be a considerable number of paper mills in Poland, the property in Duszniki is the only mill still being used for its original purpose. Nowadays, however, the production is not profit-oriented. It was the manager's conscious decision to demonstrate the process of handmaking paper – for demonstration purposes and for keeping the old tradition alive. Continuing the tradition of producing laid paper aims at preserving and emphasising the original function and use of the premises, in spite of irreversible functional changes. This aspect can be analysed in terms of intangible values, under which the tradition of producing laid paper falls – it is an integral component of the tangible value of a property that is relevant by its use or its invention; preserving and sharing technological know-how of producing laid paper. Combination of these values makes the historic site integral, authentic, and particularly valuable.

In terms of assessing values of the paper mill in Duszniki, the fact that nowadays the property functions as a museum can be considered in two aspects: On the one hand, adapting the premises for new use resulted in reducing its value and making it necessary to carry out works affecting the original structure of the subject buildings. Several unwelcome changes followed from changing the production and residential function of the paper mill by converting it into a museum and offices and, hence, adapting it to contemporary use and opening it to public. On the other hand, this non-original purpose which the

premises serve after having been converted into a museum can be considered an added value. In the past, the paper mill used to be an important and special part of the papermaking business in Silesia. High quality of paper produced there made it well-known and highly valued. At present, the paper mill, now the Museum of Papermaking, is the most important venue in Poland where the history and techniques of papermaking are presented.

In the museum, there are collections devoted to the past glory of the mill and allowing for studying the history of papermaking extensively. The museum is also the largest Polish centre where Polish papermaking traditions are documented. A large collection of filigreed sheets of paper from most paper mills across Poland, west Pomerania, and Silesia is also of great significance and value. It proves that the number of laid paper workshops was considerable in Europe.

Additionally, the objects of historical value which are showcased in the paper mill in Duszniki also carry intangible values – they provide unique evidence of the former craftsmanship traditions, past glory of papermaking, and technological development of the production of laid paper. The paper made in Duszniki was of superior quality – it was even referred to as 'being made to last forever'. In recognition of his accomplishments in the 17th century, Emperor Rudolf II of Austria bestowed gentry title von Schenkendorf upon Grzegorz Kretschmer, the then owner of the paper mill. The workshop held monopoly over supplying paper to public institutions in Wrocław. In the 18th century, the paper mill in Duszniki was the first workshop in Silesia and most probably in Poland to introduce the 'Dutchman', a ground-breaking device used for producing paper furnish derived from rags. The paper mill in Duszniki contributed to development of culture and arts, e.g. Frederic Chopin wrote letters and music on sheets made in Duszniki.

High value of the premises was noticed already in the early 20th century. It received recognition as a site of great historical value which requires protection. First attempts at opening papermaking museum in the premises being presented had been made before the outbreak of World War II. As Silesia used to be a historically multicultural area where different cultures met and merged, the location of the paper mill makes it of even greater value.

Given the historic monuments and sites in Poland, it must be agreed that the paper mill in Duszniki is a truly unique property representing the highest historical, artistic, and scientific values.

What is, however, more difficult at this stage of studies and analyses is to assess the value of the premises in light of the selected criteria and against the reference group



Photo 67. Paper mill in Basel Currently: The Swiss Museum for Paper, Writing, and Printing. Source: <http://www.papiermuseum.ch/museum/#GALERIE>



Fot. 68 Paper mill in Homburg. Source: [http://www.papiermuehle-homburg.de/seite/zeiten.html#prettyPhoto\[pp_gal\]/0/](http://www.papiermuehle-homburg.de/seite/zeiten.html#prettyPhoto[pp_gal]/0/)



Photo 69. Paper mill in Alte Dombach, Germany; Source: http://www.industriemuseum.lvr.de/de/bergisch_gladbach/schauplatz_3/papiermuehle_alte_dombach.html

defined in accordance with the typology (material that is relevant by its use or its invention), including additional comparative criteria, i.e. broader area (Central Europe) and chronology (mills built in the pre-industrial age).

With regard to the countries in Central Europe, the authors of the aforementioned nomination indicated: a) paper mill in Velke Losiny (Czechia), which cherishes longer traditions than the workshop in Duszniki, yet its buildings were constructed in the 19th century only; b) German premises in Niederzörnitz – constructed in the 17th century but converted into cardboard production plant in the 19th century⁵⁵. The paper mill in Velké Losiny, located in the valley of the Desna river in Olomouc Region (Moravia), consists of eight buildings most of which are conjoined in accordance with the technical use of the premises. The mill in Velké Losiny was operating as corn mill already in the late 16th century; later, it was converted into paper mill. However, the preserved properties, including the main building, are dated at 19th century. The present neoclassical design follows from extensive redevelopment works carried out after 1823. The paper mill is a few-storey building made of masonry material and features a mansard roof with four rows of vent openings. Walls are decorated, symmetrically, feature semi-rusticated stripes, profiled mouldings, and window framings. Velke Losiny is proud of the centuries-long and unbroken tradition it has been cherishing since 1596 – the laid paper production methods have not changed since then. The property is still used for its original purposes, i.e. producing paper. In the 1980s, paper-making museum was opened in a part of the premises, yet this function is not predominant in mill's operations.

The historic site in Velké Losiny was nominated for inscription on UNESCO Tentative List in 2001. For several years, initiatives have been undertaken for preparing cross-border serial nomination application for the paper mills in Velké Losiny and Duszniki-Zdrój. Following initial comparative analysis of these paper mill premises, it can be stated that both sites are unique examples of sixteenth-century industrial heritage and great tradition of producing laid paper, which in both cases contributed to stimulating and facilitating civilizational and cultural development. Moreover, it seems that the historical values these premises have made them distinctive and unique. However, the attributes and importance of these values differ in both cases. Nevertheless,

⁵⁵ Nomination for inscribing the paper mill in Duszniki on the list of Polish Listed Monuments developed by A. Stefaniszyn, T. Windyka, M. Szymczyk, ed. M. Szymczyk, Duszniki-Zdrój 2009.

it can be stated that these values complement each other. The paper mill in Duszniki is older than the property in Czechia and its walls and interiors are elaborately decorated with, for instance, unique polychrome paintings. What makes the paper mill in Velke Losiny unique is the fact that the laid paper has been produced here continuously for several centuries since the workshop was opened. Additionally, there are more elements of the original papermaking equipment in the paper mill in Czechia than in the workshop in Duszniki. They provide insight into different stages of the production of hand-made paper, e.g. three 'Dutchmen' with iron vats (app. 1800), wooden press (late 18th century), calendar used to smooth paper (1883) and steam heater (20th century).

Recently, R. Eysymontt has conducted tentative analyses of other European paper mills. These premises were indicated as worth considering in terms of selecting partners for making a cross-border, serial inscription of paper mills on the UNESCO World Heritage List. These suggestions allow for comparing the paper mill in Duszniki to similar properties located in: Homburg am Main (at present – an estate in Triefenstein), Arnstadt and Alte Dombach in Germany, Auvergne in France, Basil in Switzerland, and Arnhem in the Netherlands⁵⁶. The paper mill in Duszniki-Zdrój represents several attributes which can be considered unique and greatly authentic. Therefore, the subject facility ranks very high when compared to the paper mill in Velké Losiny or other paper mills in Europe. The workshop in Duszniki Zdrój has a number of distinctive features which make it truly outstanding, i.e. architectural detailing and interior paintings which are rather uncommon in buildings of this type. The paper mill in Duszniki is not only the material that is relevant by its use or its invention but also the work of architecture. This unusual combination of forms and functions results in the subject site being ranked very high among other assets falling under this typology category. At the current stage of the analysis, it can be hypothetically assumed that given the aforementioned valuing criteria, the paper mill in Duszniki, when compared to other assets in Central Europe, can be considered a property of significant historical value. It must be, however, taken into consideration that in order to achieve this, further more detailed studies and analyses must be conducted.

2.4 ANALYSING THE VALUES OF THE PAPER MILL – DEFINING VALUE ATTRIBUTES AS WELL AS ASSESSING THEIR AUTHENTICITY AND INTEGRITY

What was defined in the value analysis conducted for the paper mill in Duszniki are attributes, regarded as key features and elements of the property which are of key importance in the value assessment process. Additionally, it was also verified how the detailed and shortly-described attributes satisfy the conditions of authenticity and integrity, which are of great significance in assessing values of any historic monument or site. The attribute table shows systematized list of these attributes placed under several categories: spatial scale, architectural scale, the scale of movable properties, and functional scale. Each set of attributes consists of individual attributes, their elements, short description, as well as assessment of authenticity and integrity. The most important aspects affecting the unique character of each attribute or its element have been provided in the description of attributes (for more detailed description, see chapter II.1). Description of features taken into account in indicating a comparative group. In the juxtaposition table, several features and elements which, with regard to the paper mill in Duszniki are not regarded as attributes understood in the usual manner, are highlighted in blue. This pertains to the immediate *surrounding area* of the property, where, at present, there are no original elements reminding of the former use of the property, any *collections of artefacts* and *museum-related functions*. It has been assumed that the contemporary use of the surrounding area exerts direct influence on how other attributes are perceived. Furthermore, the use of the premises, which is different from the original one, is a specific added value of the property. Pursuant to value assessment standards applied to properties and sites of the highest value, the value analysis to be conducted for the paper mill in Duszniki aims at revealing different values of the site in question, linking them with its tangible form, improving understanding of its complex nature, as well as learning more about the historic site in a more systematized manner (given the aspects of great importance to the protection of the site). Elements of the historic site, values of which are analysed in this way, provide basis for selecting protection measures to be applied as well as the scope of intended works to be carried out.⁵⁷

⁵⁶ R. Eysymontt and A. Szeląg, D. Eysymontt (collaboration), "Paper mill...", pp. 40-44.

⁵⁷ B. Szmygin, "System wartościowania Smart Value," mps

Attribute category	Attribute	ATTRIBUTE ELEMENTS	DESCRIPTION ATTRIBUTE ELEMENTS	AUTHENTICITY	INTEGRITY
Spatial scale	Location	Location, given the city layout	Location on the outskirts of urban settlement	The specific location of the paper mill is still clear, in spite of the city being developed The historic site being analysed is authentic in terms of its location – at the river and historic trail connecting Wrocław to Prague (Kłodzka Str. at present). Being situated at the road heading to Zieloniec (adjacent to Sprzymierzonych Str.), which was built in 1930 following the construction of the bridge on the Bystrzyca Kłodzka River) is an important element of accumulated history and heritage. The lack of flume, which is an important feature of location of any paper mill, negatively affects examination of authenticity.	The integrity requirement is partly satisfied. Lack of flume, which is typical of paper mills.
		Location, given the watercourses	Distinctive location at the river (resulting from the use of the premises) and the flume (removed in the past)		
		Location, given the roads	Location where two roads cross, including original (pre-served) trail from Wrocław to Prague		
	Spatial layout Paper mill premises	Size	The size of the premises has not been modified – the paper mill, the drying house and the pavilion of large and small size respectively.	High degree of authenticity in terms of the layout, the size, and access to different parts of the properties. The spatial composition of the paper mill premises has not been changed since the 18 th century. Changing the use of the building, however, resulted in the need for introducing other modifications, to technological solutions in particular.	The condition of integrity being satisfied to high degree. The attribute components being preserved reflect the original composition layout
		Composition layout	Distinctive, unique composition of the premises being dominated by two buildings: the paper mill and the drying house, which are rectangular in floor plan and partly conjoined with each other with an extension in the north and a wooden bridge in the south. The entire composition is complemented by the octagonal pavilion, access to which is provided by a small bridge and which is connected to the paper mill by a roofed passage. It is interesting how the drying house is situated – moved to the south, relatively to the longitudinal axis of the paper mill and situated at an angle.		
		Access to and from the buildings	The original access routes connecting the paper mill and the drying house as well as the mill and the entrance pavilion have not been changed.		
	Functional and technological connections	Changing the use of the building, from production- to museum-related resulted in the functional connections between the paper mill and the drying house declining in importance. The crane in the west part of the drying house, which was used for moving wet paper to certain floors of the building, is tangible evidence of the former technological solutions applied. What is also still clearly visible is the functional connection between the mill and the pavilion, which must have been used as the main representative entrance.			

Spatial scale	Surrounding area				Not applicable
Scale	External form of the paper mill	The building	<p>Contemporary design of the surrounding area and its elements: Fencing, auxiliary building located south to the paper mill premises; outdoors exhibition showcasing papermaking machines of considerable size dated at different periods and collected from different places; garden where fibre crops used in crafting and papermaking are grown, situated west to the paper mill.</p> <p>Made of wood and masonry materials, being of considerable size, featuring distinctive elements, i.e. steep gable roof with three rows of vent openings reflecting the level of each attic floor; large 'garret' in the north part of the roof, wooden gables on side walls.</p> <p>On the lower ground floor, the doors and windows are situated asymmetrically, unlike on the second floor, where the layout is organised more meticulously. Forms of detailing reflecting the purposes for which certain parts of the premises were used – more representative decor of walls facing the street and the city (north- and west-facing), and ungenerously decorated walls enclosing production rooms (south- and east-facing).</p>	<p>No original elements of the surrounding area have been preserved. The form of the surrounding area is contemporary and adapted to the current use of the premises – museum of papermaking. At present, the flume is no longer displayed.</p>	The premises are greatly integral. Nearly complete selection of solutions and forms of artistic media embody the essence of the perfect fusion of functions and forms.
		External walls	<p>External walls of representative detailing: articulation (distance between particular pilasters supporting the arcades) Decor and detailing follow the Baroque style, e.g. voluted gable, semi-rusticated lower ground floor, arcades with rosettes and semi-rosettes. Elements of external walls being used for 'functional' purposes, e.g. bay latrine, stone drainpipe.</p>	<p>Positive results obtained in analysis of authenticity – the property is greatly authentic; most original features and elements have been preserved: the body of the buildings, distinctive roofs with ventilation outlets; sections, articulation, external wall decor and colour, materials used, as well as construction. The premises feature both original (e.g. masonry portals, bay latrine) and reconstructed (e.g. voluted gable, architectural detailing) elements. Original colours of the external walls of the paper mill, reconstructed in accordance with outcomes of stratigraphy studies, chemical analyses, and pigment spectroscopy analyses. The altered form of the extension structure barely affects the results of the test of authenticity. The chimney, which used to be a distinctive element of the paper mill being analysed and of considerable importance in paper production, is no longer displayed. The lack of it affects the original form of the property. The architectural detailing in the west part of the south-facing wall, which is shown in archive photos, is no longer displayed.</p>	
		Architectural detailing	<p>External walls – bold, highly vibrant colours contrasting light elements of articulation and decor. External walls being marbleized. Light and dark window frames on the lower ground floor and the second floor respectively. South-facing wall of cross-joint construction featuring light-coloured plaster and dark-brown wooden construction elements. Dark brown gables and roof shingle complement the aesthetic qualities of the premises being analysed.</p>		
		Colours	<p>Stone-made portals – a stone-made portal carrying the following inscription in the lintel: "G.K.1605. A.O.H.1802" and a stone-made semi-circle portal in the central axis of the north-facing wall on the second floor. Windows and painted fake windows are framed by wooden and simple stone-made framings. Contemporary doors and windows.</p>		
Other elements making the form					

	<p>External architectural form of the drying house</p>	<p>The building</p> <p>External walls and the use of colour</p>	<p>Large, solid building with steep gable roof featuring few rows of air outlets.</p> <p>Simple building of considerable size used for production purposes.</p> <p>East-facing triangular gable of large size.</p> <p>All walls of the drying house are made of wooden boards in vertical uniform layout interrupted by rows of rectangular and square windows on each floor. Furthermore, the external walls are divided horizontally by modest inter-floor mouldings.</p>	<p>Authentic architectural form being congruent with original iconography presenting the property.</p> <p>In spite of reflecting the form, size, and sections of the building, the contemporary windows and the historic character of the building do not quite match.</p> <p>The preserved crane which was used for moving paper is one of the original elements of the premises.</p>	<p>Most features and elements of the drying house meet the conditions of integrity for the external form of the building.</p>
	<p>External form of the pavilion</p>	<p>The building</p> <p>External walls and architectural detailing</p> <p>Colours</p>	<p>Unique floor plan and body of the building (octagonal two-floor building with octagonal dome)</p> <p>Baroque design of the external walls is congruent with their architectural detailing. They fit together into a harmonious whole.</p> <p>Individual colours and the colours applied on the representative external walls are identical.</p>	<p>The external form of the building is greatly authentic in terms of the body, articulation of walls, architectural detailing, as well as the colours and materials applied.</p> <p>In this case, the modifications, i.e. enlarged windows on the first floor, have no significant impact on the results of the test of authenticity.</p>	<p>The premises are greatly integral – nearly all attribute elements affecting the cohesiveness and completeness of the external form have been preserved.</p>
	<p>Internal form of the paper mill</p>	<p>Spatial arrangement</p> <p>Functional layout of the paper mill</p>	<p>The lower ground floor features one room of considerable size (laid paper production workshop) and several auxiliary rooms.</p> <p>Spatial arrangement of the second floor: two-bay with entrance hall in the north bay. Bays in the east part are divided by a corridor.</p> <p>Moreover, on the first floor of the attic, there is a large open space room stretching across the entire width of the building in its east part and several rooms in the west part of the property arranged in two-bays.</p> <p>Both the second and the third floor of the building in question are of open-space type and feature clearly displayed roof framework.</p> <p>The original use of the lower ground floor of the building has not been changed – it is where the laid paper is still being produced.</p> <p>On the second floor, there is an entrance hall, staircase, offices as well as exhibition rooms located east and west to the hall respectively. The first attic floor features an exhibition area.</p> <p>The second and the third attic floors are not used.</p>	<p>No interior on either floor has undergone profound alterations in terms of their spatial arrangement. Following adaptation works and converting the premises into the museum, spatial arrangement of certain rooms had to be changed. This, however, does not affect the high results obtained in the test of authenticity in which this attribute element was analysed.</p> <p>Following the change of the use of the property, in order to meet new standards, the functional layout had to be changed. The premises, which were originally used for residential and production purposes, currently function as the museum. The long-established tradition of paper 'production' cherished by the Museum in Duszniki, the original paintings preserved in the papermakers' flat, as well as interior design (although non-original, yet of great historical importance) reflecting the former residential use of the building have positive influence on the result of the test of authenticity of the functional layout.</p>	<p>The spatial arrangement is highly integral, yet, given the changed function, it is difficult to examine the integrity of the functional layout. Some elements of this layout are still displayed in the paper mill building – the lower ground floor housing the laid paper production workshop and the papermakers' flat; in the drying house, the functional layout is not integral.</p>

Scale

Scale	
Internal form of the paper mill	<p>In spite of the changes having been made to it, the functional layout is clearly authentic in the lower ground floor, where laid paper is still produced. In spite of the changes, division of the building into two areas is still clearly displayed – the production part on the lower ground floor and the residential part decorated with polychrome paintings (summer flat) on the first attic floor. What is, however, no longer displayed, is the functional division into the production and residential areas on the first floor of the paper mill being analysed.</p> <p>Access to the floors is provided by stairs in the north part of the building.</p> <p>The chute connecting the former sorting room on the second floor with the lower ground floor is no longer displayed, although it was displayed in the 1960s.</p>
Internal architectural form of the drying house	<p>Two-bay layout of the first and second floor; other floors are of open space type.</p>
	<p>Adaptation works in progress: ground floor – museum workshops; floor – offices; third floor – exhibition room</p>
Internal form of the paper mill	<p>As the use and the spatial layout of the building have changed completely, it is difficult to analyse integrity of the building in question.</p>
Interior design of the paper mill	<p>The interior of the building has been altered not only with regard to the room layout, as a result of which such contemporary elements as the lift were installed, but also with regard to materials being applied, e.g. drywalls, new flooring, glass casing for drying house windows, etc., which affect the character of the interior and its authenticity.</p> <p>The aesthetic qualities of the interior, which it has displayed since the last renovation works, have negative impact on the authenticity of the property.</p> <p>In most cases, contemporarily applied materials fail to match the historical character of the interiors and the original purpose for which the premises were used.</p> <p>Although the painted wall and ceiling decorations are not fully preserved and have been reconstructed to a certain degree, they are greatly authentic, especially in terms of their form and substance. Moreover, as these polychrome paintings are material evidence of the residential use of the premises, they are of great importance in the test of authenticity.</p>
Interior design of the paper mill	<p>Polychrome works painted in different periods by artists representing different degrees of skill depict changes in Silesian art occurring in the 17th century as well as in the period of 1770 – 1780. Works of particular iconographical significance:</p> <ul style="list-style-type: none"> – eagle – reference to the filigree used by the paper makers of Duszyniki since 1756; – allegedly a biblical scene – Joseph and Potiphar's Wife; – allegedly a view over Duszyniki of 18th century. <p>Rich colours applied in certain scenes and motives</p>

Scale	
<p>The paper mill – material and structure</p>	<p>The construction of the paper mill is mixed. It is built predominantly of wood, natural stone and ceramic brick. The lower ground floor and the second floor (in part) are work of stone masonry. Most of the second floor is made of wood, has beam construction, and is filled with ceramic brick held by lime mortar. The roof framework is wooden, its structure consists of collars and purlins, and it involves three queen posts. The collars are the beams of the ceiling of the third and fourth floor. The roof is shingled. Original sixteenth-, seventeenth-, and nineteenth-century portals are well-preserved early 19th centuries Structural elements of wooden stairs of the 1720 s are preserved. Non-original window framing, reconstructed as shown in works of iconography. Most doors were reconstructed contemporarily.</p>
<p>Construction of the drying house and materials applied therein</p>	<p>Wooden building with frame construction. The load-bearing frame construction consists of pillars and binders seated on wooden sill plates. In the lower ground floor, the construction is reinforced with wooden columns. All floors have wood-beamed ceilings provided with binders. The roof framework is wooden, its structure consists of collars and purlins, and it involves a triple queen post. The roof is shingled. Most doors, window frames, flooring, and finishing materials are contemporary.</p>
<p>Construction of the entrance pavilion</p>	<p>In terms of construction and materials, the pavilion resembles the paper mill – the lower ground floor is made of brick and construction of the second floor is of cross-joint type. The roof is shingled.</p>
<p>The paper mill was renovated several times and its poor condition in the post-war period resulted in a number of conservation and renovation works needed to be carried out. Some of them also involved replacing elements of historical significance. In spite of the works affecting the subject facility, the paper mill premises are greatly authentic in terms of structure and material. Original elements and materials have been preserved; richness of accumulated historical heritage and outcomes of contemporarily conducted renovation works are clearly displayed – both with regard to the structure and materials being used. Original elements dated at the 16th century, which were presumably used in the paper mill, e.g. the sixteenth-(?)century portal.</p>	<p>Authentic construction and materials – original and reconstructed Contemporary works affecting the structure, e.g. replacing some parts of the foundations, ceiling, and roof framework had no major influence on authenticity of this attribute. Interior finishing materials, i.e. flooring, wall plaster, were subject to most extensive changes affecting authenticity.</p>
<p>The materials and elements of historical significance are greatly authentic.</p>	<p>The materials and elements of historical significance are greatly authentic.</p>

<p>Production equipment: – elements from the paper mill in Duszynki – elements acquired and reconstructed</p>	<p>Only a small amount of the original equipment has been preserved in the paper mill, i.e.: 19-century paper laying moulds with riddles; eighteenth-century wooden paper draining hangers; nineteenth-/twentieth-century metal cardboard draining clip hangers; cart for transporting paper within the drying house; vent openings provided with air flow regulation flaps crane for moving wet paper between the floors of the drying house; Other machines and devices either reconstructed or acquired after the war from different paper mills across the country. In 1960s, this collection of artefacts allowed the prominent papermaker of Jezioro, Theodor Chojnowski, to re-open laid paper production workshop in Duszynki.</p>	<p>The original equipment is greatly authentic, yet only a few parts of it have been preserved. These artefacts are showcased in the museum and are not used for production purposes. The acquired and reconstructed equipment, which is a creative combination of tools and machines used for producing laid paper by applying traditional methods, seems to be a material carrier for authenticity of function (paper mill) and tradition (the old production method).</p>	<p>The entire set of laid paper production tools and machinery formerly used in the paper mill is integral (complete) only to small extent. However, when the equipment acquired from other laid paper production workshops is taken into consideration as value added, the integrity of this attribute can be considered of great importance in assessing the value of the subject premises. Some production equipment collected from the paper mill in Duszynki needs to be presented in more details.</p>
<p>Residential equipment</p>	<p>Seven portraits of members of three papermaker families of Duszynki Museum artefacts, e.g. furniture of great historical value, which remind of the residential function the building used to serve, complement the equipment.</p>	<p>Residential equipment is greatly authentic – original paintings which used to hang in the paper mill are complemented by museum artefacts representing material culture of the residents of Duszynki.</p>	<p>It is difficult to achieve concrete results in the analysis of integrity. Obviously, the original and non-original (museum artefacts) elements being preserved, fail to satisfy the requirement of completeness. Nevertheless, the fact that even a part of these elements exist, has positive influence on the outcomes of the test of integrity.</p>
<p>Museum artefacts</p>	<p>The collection of various papermaking artefacts and items related to the history of Duszynki is of considerable size. Laid paper sheets with filigrees produced in Duszynki are of particular significance.</p>	<p>There is no doubt that the artefacts are authentic, although given the original use of the premises, they are non-original and somewhat 'alien'. Since the paper mill started to function as the museum, these elements complement its historical and scientific value.</p>	<p>Given the collection of artefacts, it can be stated that the paper mill in Duszynki was of particular significance. It is the evidence of papermaking traditions in Poland and allows for studying the history of papermaking.</p>

Functional scale	Function	
Production and its availability	<p>As paper mills utilize hydropower, a river is the essential trait about their location. In the subject paper mill, paper is produced by using old methods, even though the raw materials and the production equipment are no longer the same. Rooms playing an important role in the production process have been preserved – multi-storey attics and laid paper production workshop on the lower ground floor where completely reconstructed production line can be found. Several tools and machines originally found in the paper mill in Duszniki have also been preserved.</p>	<p>The requirement of authenticity is partly satisfied:</p> <ul style="list-style-type: none"> – no flume being displayed – the mill no longer utilizes hydropower; the raw materials currently used are different from the ones utilized in the past. However, the medieval method is still employed – laying the furnish on sieve screens, hand-pressing, hand draining. <p>The layout of important production rooms has been preserved to large extent – the entire lower ground floor formerly used as laid paper production workshop as well as multi-storey attics featuring vent openings in the roof and special windows critical to the draining process.</p> <p>The use of most rooms playing an essential role in the production process has been changed – multi-storey attics in the paper mill building and the drying house were particularly affected.</p> <p>What is greatly authentic is the laid paper being still produced in traditional way for demonstration purposes.</p> <p>The tools and equipment are greatly authentic – although there are only a few original tools and machines, the reconstructed production line allows for producing laid paper by employing past methods.</p>
Residential and representative functions	<p>Two residential rooms on the first floor of the paper mill attic featuring well-preserved wall and ceiling paintings. It is possible that the rooms in the west part of the second floor, which are currently used as exhibition rooms, would be used for residential purposes in the past.</p> <p>Opulent architectural detailing of the front wall, the form of the west-facing gable, the entrance pavilion whose architectural form, i.e. the octagonal floor plan, the dome, the wall decor, served representative function. Portraits of paper makers of Duszniki displayed in the entrance hall ‘comment’ the representative function of the interior.</p>	<p>The decorations and equipment pertaining to the residential and representative function of the paper mill are clear evidence of the original purpose for which the premises were used. The portraits, polychrome paintings and wall decoration are original, although some of them are reconstructed. The second floor no longer serves its original function.</p>
	<p>Although the use of the paper mill was changed, positive outcomes of the test of integrity follow not only from the layout and type of important production rooms being preserved but also from laid paper being still produced for demonstration purposes. The paper mill is no longer a production plant and it currently functions as a museum. Obviously, given the ‘production function’ attribute, the requirements of authenticity and integrity cannot be fully satisfied.</p>	<p>Residential function is partly integral. Although there is some evidence of the ‘residential function’ attribute, the former flats are currently used for different purposes. In the formerly residential rooms, there is no sign of their past function. No original furniture and equipment is displayed. The representative function is greatly integral – the external form of the paper mill, including the entrance pavilion, still reflect the former glory of the paper mill and the prominence of its owners.</p>

		Museum and related purposes	Given the change of the original use of the paper mill, the fact that the premises function as a museum is considered to be value added.	Not applicable	Not applicable
Intangible scale	Historical and professional traditions	The paper mill, dated at pre-industrial age, is where laid paper is still produced for demonstration purposes and where museum collections are showcased.	Papermaking tradition is documented and preserved. Unique evidence of manufacturing hand-made paper.	Important authenticity factor of place attachment	Important factor of perception integrity related to the unique character of the site being a place still being used for its original purpose.
		Papermaker – the profession: continuing the tradition and teaching skills	Continuing the tradition and teaching skills of laid paper production.	Important authenticity factor of place attachment	Important element of place perception integrity.
	Individuals related to the place	Generations of prominent royal paper makers Caspar Rathsmann, the painter. Frederic Chopin	Individuals playing important role in development of Duszniki-Zdrój and Silesia. Local guild artist related to the family of the papermakers of Duszniki; author of the polychrome paintings and portraits of the papermakers. Letters and musical compositions written on paper sheets produced in Duszniki.	Critical element of authenticity, which 'evokes' the feeling of identity among local communities. Authenticity factor being of considerable importance in studying Baroque paintings in Silesia.	Important place perception integrity factors.
	Emotional attachment to the place and richness of accumulated historical heritage	Paper mill as paper production workshop The paper mill as a 'residence' of the papermakers of Duszniki Museum	The feeling reflected by a number of attributes. The atmosphere and perception reflected by a number of attributes, e.g. the entrance pavilion, ornately decorated external walls, polychrome paintings in interiors.	Important authenticity factor of place attachment Important authenticity factor of place attachment	Important place perception integrity factors.
			The feeling of historical character of the premises and the role that paper played in development of civilisation, culture, and arts.	Results from authenticity of the premises and museum collections.	

2.5 CONCLUSIONS AND RECOMMENDATIONS FOR CONDUCTING FURTHER RESEARCH STUDIES ON THE PAPER MILL PREMISES

- ✓ Conducting preliminary research on source materials, i.e. archive, iconography, and cartography evidence and analysing it with the aim of examining controversial issues and establishing facts critical in value assessment, e.g. the date of using the 'Dutchman' for the first time.
- ✓ Conducting architectural analysis of each building. The results of dendrochronology analyses having already been conducted should support the architectural studies. Given the numerous periods in which the premises were damaged, converted and transformed, the renovation works involved replacing wooden parts of the properties. It therefore seems that dendrochronology analysis alone is insufficient for dating the premises more precisely and, ultimately, uncovering layers accumulated in certain periods. Cross-disciplinary approach, i.e. architectural, archaeological, iconographical studies utilising specialist methods, e.g. dendrochronology, analysing mortar, plaster stratigraphy, etc., can make the assessment of elements of historical significance more objective, allow for uncovering layers accumulated in certain periods more precisely, as well as confirm or specify chronological dating carried out so far. It is planned to use the results of specialist studies and analyses already conducted, e.g. dendrochronology. Moreover, it is also intended to encourage closer cooperation between a dendrochronology specialist and architectural investigator who will indicate the 'areas' to be sampled and the number of samples of wood needed for deciding when the paper mill premises were built and when they underwent architectural transformations.
- ✓ Continuing studies on polychrome paintings (archive, comparative, conservation, technological studies) with the aim of, for instance, precisising iconography identification and providing more details on divergent opinions on the results of dating studies and style and formal assessment.
- ✓ Conducting specialist analyses of polychrome paintings in order to provide more details on their dating (analysis of polychrome pigment) – the studies will be carried out only upon art conservator's consent.

- ✓ Identifying and analysing older polychrome paintings currently covered by the ceiling in the room referred to as the 'Room under the dome'.
- ✓ Continuing comparative studies according to which the paper mill being analysed belongs to a group of properties designed in Czech and Silesian architectural style.
- ✓ Conducting further studies and comparative analyses in the broader territorial (paper mills preserved in Europe) and periodical (all paper mills built in the pre-industrial era) context, including value assessment criteria indicated in this study; the aim is to nominate such properties and sites that would be of outstanding universal value for inscription on the World Heritage List.
- ✓ Conducting landscape analysis which would allow for establishing historic preservation zone (buffer zone) for the premises in question and developing guidelines for preserving the existing landscape links and relations.

2.6 CONCLUSIONS AND RECOMMENDATIONS FOR HANDLING THE PROPERTY

Superior value which should determine actions to be undertaken in the paper mill premises:

Defining the predominant value – the paper mill premises are not only a material being relevant by its use or its invention but also a residence of the pre-industrial age – the site being used for both residential and production purposes; these two functions are clearly reflected by the external and internal architectural forms, decor, and the pieces of equipment being preserved. The solutions and forms of artistic media embody the essence of the perfect fusion of functions and forms. Value of continuity – producing laid paper by employing medieval papermaking method; 'living' evidence of the traditional production of laid paper.

Attributes which should be preserved (it is possible to reconstruct them)

All attributes, regardless of their importance and the role they play in value assessment, should be preserved. Describing attributes and their elements as well as testing their authenticity and integrity allows for indicating features and elements which exert major influence on the value of the paper mill premises. It should be a general and fundamental rule that all

attributes should be preserved and displayed, including their original, authentic elements affecting integrity of the entire premises and each building individually. Serious attempts should be made to preserve all authentic elements intact, i.e. not transformed.

Given the described attributes and their elements, these attempts involve:

With regard to the attribute:

✓ Spatial layout

- preserving the layout of the buildings and connections between them intact.

✓ External form:

- making no changes to the body of the buildings, divisions, wall articulation, the entire architectural detailing, portals, and window frames;
- It is prohibited to conduct any extension or re-development works affecting the architectural structure of the subject premises;
- prior to commencing works aimed at renovating and conservating the external walls of the paper mill, reconstruction of the decorations on the southern wall (depicted in the archive photographs) is worth giving consideration. In the event of the decision on commencing such works being positive, it should be ensured that the reconstructed decorations will be clearly distinguishable from the original ones, e.g. by applying brighter colours.

Window frames in the drying house – in future, the present window frames should be replaced with windows of more traditional design.

✓ Internal form of the paper mill:

- it is recommended not to change its current form;
- It is prohibited to conduct any extension or re-development works in the interiors;
- original and authentic elements should be displayed.

- ✓ Internal form of the paper mill – renovation and adaptation works recently conducted in the drying house – the scope of works as well as the techniques and materials applied exerted negative influence on authenticity of the interiors. The current functional layout differs from the original one. All the modifications and works affected the buildings,

some rooms and floors which, as a result, have lost their original character;

✓ Interior decor – polychrome paintings

- it is recommended to carry out comprehensive conservation and preservation works not affecting the premises and, subsequently, to preserve the real estate in good condition.
- furthermore, it is also recommended to study the condition of polychrome paintings in the 'Under the dome' room and preserve them in accordance with the previously developed schedule of conservation works;
- technical condition of polychrome paintings should be monitored by professionals. The manager of the premises should take appropriate actions aimed at removal of any changes or damp.

✓ Material and structure:

- it is recommended to preserve and conserve all original elements of this attribute, which are dated at the time of building the paper mill and which provide evidence of the richness of accumulated historical heritage.
- there are sound reasons behind removing secondary paint layers from the oldest part of the drying house (wall of log cabin structure);
- in the event of conducting renovation and conservation works in the staircase in the paper mill building, all original elements dated at 1720s must be preserved.

✓ Equipment:

- carrying out preservation and conservation works
- preserving, conservating, and improving the display of the very few preserved pieces of equipment formerly used in paper production;
- carrying out works aimed at conservation of equipment used for residential purposes – five portraits of the papermakers of Duszniki displayed in the entrance hall;
- undertaking initiatives aimed at including the recently found document confirming that a noble title, von Schenkendorf, was conferred on Gregor Kretschmer into the record of museum collections, together with a metal plate featuring a portrait of Christian Wilhelm Kretschmer (alternatively: making copies).

- ✓ Function:
 - it is greatly important to continue production of laid paper (even on small scale) – this attribute (industrial function and its continuance) results in a property ranking high in value, integrity, and authenticity assessments;
 - at present, the contemporary function of each property being a part of the premises, i.e. the paper mill, the drying house, and the pavilion, should reflect the original use of each building. It is therefore recommended to continue production of laid paper in the lower ground floor of the paper mill building as well as use the drying house for its original purpose, i.e. draining paper using old methods.

The functions that the rooms in each building serve at present should resemble, to the greatest possible extent, the original purposes for which these rooms were used.

- ✓ Surrounding area
 - the area surrounding the paper mill differs from its original form. This follows from contemporary alterations, arrangements, and change of the layout of the properties and functional areas. Nevertheless, this area plays significant role in enhancing and emphasising the positive aspects of the paper mill premises. For this reason, any actions or changes to the surrounding area should be aimed at showing the functions that each building originally served;
 - as a result of the planned investment involving transformation, extension (redevelopment) and adaptation works, the exhibition pavilion and the boiler hose must neither dominate other buildings of the paper mill premises nor compete with them in terms of size, architectural form, and function. It is recommended to conduct landscape analyses before extending the current building.

There are sound reasons behind the plans to reconstruct the flume (or its part) and the mill wheel.

- ✓ When planning alterations and re-arrangement of the area in the south part of the subject tract of land, not only flume reconstruction but also reference to original arrangement of the area should be

considered. These works should increase the value of the surrounding area, e.g. by emphasising original use of the land.

- ✓ It is recommended to obscure the existing disharmonious facilities in the south, for instance, by planting greenery and/or redeveloping/extending the exhibition pavilion and the boiler house.

It is also recommended to change the unattractive road signs at the crossroads of Kłodzka and Sprzymierzonych Streets. Posts and road signs made of high-quality materials and standardized in terms of colour should be designed and made.

General recommendations pertaining to conservation and restoration works

- ✓ It is strongly recommended to involve preventive conservation in any restoration and conservation works carried out in the subject paper mill premises (including interior and equipment).
- ✓ Before undertaking any actions affecting the architectural structure of the buildings, their decor and equipment, the properties should be thoroughly analysed and identified; the works should follow from individually arranged schedules and be aimed at preserving and protecting the authentic elements of historical significance in particular.
- ✓ Moreover, studies fitting the scope of planned alterations should be conducted prior to conservation and restoration works;
- ✓ The conservation and restoration works should be carried out by experienced and reliable conservation companies;
- ✓ Any earthworks should be supervised by an archaeologist.

General recommendations on the use of the property

- ✓ The values of the premises must not be affected by development of the museum.
- ✓ The contemporary use and possible works aimed at adapting specific buildings and rooms for new uses should clearly reflect the original functions they used to serve.
- ✓ New investment projects to be carried out in the closest proximity to the paper mill premises must result in the size, architectural form, and functions of the premises of historical significance being preserved.

PART 1

DIAGNOSIS

3 Description of the premises

3.1 PRESERVATION OF ELEMENTS OF HISTORICAL SIGNIFICANCE⁵⁸

Once the paper mill was listed in the register of historic monuments and sites in 1956, works aimed at preserving the facilities could be carried out. First, the property was temporarily preserved and afterwards, in the period of 1959–1971, thorough renovation and conservation works were conducted. To certain extent, they affected the form and elements of great historical significance, e.g.: redeveloping the passage connecting the drying house with the paper mill, replacing structural elements of the truss, replacing a part of the structure of the west gable. In order to support the structure of the paper mill, pillars made of materials of masonry construction were erected in the former production rooms.

In the years 1962–66, several renovation and adaptation works were conducted, e.g. concrete foundations were laid, stone-made walls were rebuilt, structural elements of the drying house were conserved and partly replaced, the doors and window frames were replaced. In the next years, rooms on the ground floor were adapted for producing laid paper; process piping was laid and production machinery was installed (some parts were collected from other facilities

and some – reconstructed), which allowed for relaunching production of laid paper on small scale. The structure of the drying house was reinforced once again by installing compression braces. Walls of the drying house were provided with new formwork, identical to the previously installed one.

In the 1990s, wooden structural elements of the ceilings were replaced with steel beams, new wooden flooring was laid, and external walls were plastered. Renovation works, e.g. strengthening the wall structure, were also conducted in the entrance pavilion.

In 1998, the paper mill premises were severely affected by flooding. In order to repair the damage, a number of different renovation works needed to be carried out. These involved reinforcement of structural elements of the drying house, renovation of the external walls, replacement of windows and installations, as well as renovation of the interior (including replacement of flooring) of the paper mill building.

After 2002, new plaster was laid on the external walls of the paper mill. Its colour was different from the previously applied one and its selection was based on results of stratigraphy studies, chemical analyses, and spectroscopy analysis of pigments. Further renovation works were carried out in the period of 2007–2008 and involved adapting the attic in the paper mill building – which used to serve paper draining purposes – for a new use – as an education, exhibition, and conference room. The change of the former use of the building as well as the assessment of the technical condition resulted in the original structure of the building being affected – the works involved building a new staircase featuring an elevator for the disabled, raising the floor level, replacing selected structural elements of the ceiling, and reinforcing ceiling beams with contemporary materials. In the years 2014–2016, comprehensive renovation works involving adaptation of the drying house for new uses (workshop, offices, exhibition

⁵⁸ The text is based on the following publications and documents: J. Bałchan, "Zarys dziejów papierni w Dusznikach-Zdroju w latach 1945–1968 w świetle źródeł archiwalnych," *Rocznik Muzeum Papiernictwa*, vol. 1, Duszniki Zdrój 2007, pp. 157–164; Jan Bałchan, "Muzeum Papiernictwa pod kierownictwem Władysława Kazimierczaka w latach 1969–1981," *Rocznik Muzeum Papiernictwa*, vol. 3, Duszniki Zdrój 2009, pp. 19–26.

rooms) were carried out as part of the project named “Renovation and Adaptation of the Drying House for Culture-Related Purposes and Providing the Museum of Papermaking in Duszniki Zdrój with Fire Protection, Including Preservation and Digitalization of the Collected Assets”.

A number of extensive renovation, conservation, and adaptation works carried out in the paper mill premises concerned also polychrome paintings (1970s) in two rooms in the paper mill building. These involved, e.g. comprehensive restoration works (1986–87) which resulted in making the subject rooms available to museum visitors, as well as conservation works carried out in 1997. Polychrome paintings were also subject to minor conservation and preservation works carried out in 2000, 2002–2004, and 2007. As of yet, no painting conservation works have been carried out in the ‘Under the Dome’ room.

Short reports being provided with insufficient number of photographs or the lack of such documents make it difficult to assess how original the paintings are, i.e. which parts are reconstructed or designed and applied by conservators. However, information provided in documents produced in the period of 1986–87 concerning preservation of the polychrome paintings sheds some light on the subject matter: “In room no. 1, 70%, 40%, and 35% of paintings on the ceiling, on the west and north wall, and on the east wall has been preserved respectively (per 1 square metre) ... In room no. 2, 70% of paintings on the north wall has been preserved. There are no boards in the space between windows.⁵⁹

Since listing the paper mill in the register of immovable historic monuments, preservation of the distinctive features and elements of the architectural form of the buildings has not been deteriorated. The most extensive adaptation works were carried out in the interiors – not only with regard to the room layout, as a result of which such contemporary elements as the lift were installed, but also with regard to materials being applied, e.g. drywalls, new flooring, glass casing for drying house windows, etc., which affect the character of the interior and its authenticity.

3.2 TECHNICAL CONDITION

Although each building is in good technical condition, the properties vary in terms of degree of preservation. The drying house, where a number of renovation and conservation works were carried out in the last few years, ranks first in terms of the technical condition. The condition of the paper mill building is satisfying and the condition of the entrance pavilion requires improvement. The first floor of the latter building needs to be treated as a priority – due to its location, it is affected by damp.

The paper mill building – general technical condition is good. The condition of structural elements, i.e. foundations, ceilings and the roof framework was improved in 1990s and 2000s. Although the external walls are in acceptable condition, plaster requires fixing in certain places. The protective paint layer in the formwork of the wooden gable in the east part of the building has visible defects. There is moss on the north part of the shingled roof. On the lower ground floor, plaster on the interior walls needs fixing – the defects may follow from high humidity being the consequence of the purpose for which this part of the facility was used. The staircase, which has not been renovated for a long time, is in poor technical condition.

The condition of the polychrome paintings in the two rooms on the first attic floor should be assessed by a fine art conservator.

The technical condition of the ceiling polychrome paintings in the ‘Under the Dome’ room is unknown as it has not been assessed by any specialist yet.

The condition of the equipment of historical significance is good, yet it varies from piece to piece.

The drying house – the technical condition of the structure is good, which follows from the last extensive renovation works (ceilings, walls, roof structure). Roof shingles need impregnation. Interior finishing elements are predominantly contemporary.

Entrance pavilion – general condition of the lower floor, which is particularly exposed to damp, is acceptable. The upper floor, which provides access to the Museum, is in good condition.

⁵⁹ Documents on conservation works, ed. S. Szoc, Wrocław 1997, tspt in the archive in the Museum of Papermaking, p. 7

3.3 CONCLUSIONS AND RECOMMENDATIONS FOR CONSERVATION AND HERITAGE PRESERVATION ACTIONS TO BE TAKEN – BASED ON THE PROPERTY VALUE ANALYSIS

Renovation and conservation works scheduled by the Manager and resulting from the findings of the building condition assessment:

- ✓ The bridge between Kłodzka Street and the entrance pavilion – it is intended to recreate the form of the bridge as it stood before WWII (based on iconography being preserved) – works to be completed in 2017.
- ✓ Renovation and conservation works in the external walls of the paper mill building – preventive conservation recommended which would protect aesthetic values.
- ✓ Roof shingles on all the paper mill buildings need to undergo maintenance and preservation works.
- ✓ Conducting comprehensive renovation and conservation works in the entrance pavilion. Furthermore, along renovation works, architectural studies need to be conducted as well.
- ✓ Renovation of the plastered surface of walls in the rooms in the lower ground floor in the paper mill building – in production rooms in particular – and in the lower floor of the entrance pavilion.
- ✓ Conducting comprehensive conservation and preservation works on the polychrome paintings in two rooms on the first attic floor in accordance with the conservation works schedule
- ✓ Removing paint layers from the oldest part of the drying house, which affect authenticity of the elements of historical significance
- ✓ Renovating exhibition rooms in the paper mill building, including replacement of exhibits.
- ✓ Studying the condition of polychrome paintings in the 'Under the dome' room and preserving them, including preventive conservation, in accordance with the previously developed schedule of conservation works;
- ✓ technical condition of polychrome paintings should be monitored by professionals. The manager of the premises should take appropriate actions aimed at removal of any changes or damp.
- ✓ Conducting conservation and maintenance works on paper mill equipment used for production purposes (elements collected from the paper mill in Duszniki), i.e. paper draining rails and hangers, wooden trailer used for moving paper, etc.
- ✓ Carrying out works aimed at conservation of equipment used for residential purposes – five portraits of the papermakers of Duszniki displayed in the entrance hall.

PART 2

DESCRIPTION OF THE PROTECTION
AND PROPERTY MANAGEMENT SYSTEM

4 Description of the protection and property management system

Preliminary assumptions:

Management Plan for the Polish Listed Monument covers an area falling under a certain form of protection; It is aimed to develop an action plan for protecting historical values of outstanding significance defined in part one, /diagnosis/. The objectives fall within the scope of the Act of 23 July, 2003 *On the Protection and Guardianship of Monuments* and are in line with the historical preservation doctrine and pragmatics.

Management Plan is not a universal document concerning social, economic, and planning issues, except a scope directly related to actions aimed at protection of historically significant values.

The Management Plan for the Polish Listed Monument may be useful in devising other strategic plans, e.g. in urban revival – as an element providing information on the existing needs and possible works which may affect elements of historical significance – or urban planning – as a foundation for defining actions being recommended or prohibited in zoning-related actions taken within the confines of a conservation area. It must not, however, replace legally required revival or urban planning studies being part of the local legislation.

In order to provide more details on certain types of documents, it is necessary to refer to selected legal definitions:

1. **Act of 23 July 2003 On the Protection and Guardianship of Monuments**

Art. 4. In particular, **protection of monuments and sites** involves public administration bodies taking actions aimed to:

- 1) provide legal, organizational, and financial conditions allowing for permanent preservation, management, and maintenance of historic monuments and sites;
- 2) preventing dangers which may adversely affect the value of a historic monument or site;

- 3) reducing the number of cases which result in properties of great historical value being damaged, destroyed, or used in an inappropriate manner;
- 4) preventing theft, loss, and illegal export of properties of great historical value
- 5) ensuring that historic monuments and sites are preserved in the right condition and used for an appropriate purpose;
- 6) including protection-aimed measures in devising zoning plans as well as shaping the environment

Art. 5. When a historic monument or site is taken care of by its owner, it is his obligation to provide favourable environment for taking the following actions:

- 1) carrying out scientific studies and backing a monument or site up with photographs and analyses;
- 2) carrying out conservation, maintenance, renovation, and construction works on a historic monument or site;
- 3) protecting and maintaining a property of great historical value in the best condition possible;
- 4) using a historic monument or site in a way which would ensure permanent preservation of its values;
- 5) popularizing the historic monument or site itself and promoting its importance to history and culture

2. **Act of 27 March 2003 on Zoning and Spatial Management**

Art. 1. 1. The act provides information on:

- 1) how the spatial policy should be shaped by local and state government bodies,

- 2) scope of actions to be taken with regard to conversion of land to be used for different purposes and to establishing land use principles (spatial order and sustainable development being laid as foundation for these actions).
2. Zoning and spatial management include, predominantly:
 - 1) requirements of the spatial order, including urban planning and architecture;
 - 2) architectural and landscape values;
 - 3) environmental protection requirements, including water management and protection of agricultural lands and forests;
 - 4) requirements imposed by protection of cultural heritage, historic monuments and sites, and contemporary cultural properties;
 - 5) requirements to be met in the area of health care, human and property protection, as well as the needs of the disabled;
 - 6) economic values of the surrounding areas;
 - 7) ownership right;
 - 8) needs resulting from national defence and security;
 - 9) needs resulting from public interest;
 - 10) needs to be addressed in terms of development of technical infrastructure – broadband networks in particular;
 - 11) ensuring that the society participates in works aimed to develop land use plan for a municipality or commune, local zoning plan, and regional zoning plan, by means of electronic communication.
 - 12) ensuring that planning procedures are clear and easy to follow
 - 13) providing enough water of good quality

3. *Urban Revival Act of 9 October 2015*

Art. 2. 1. **Urban revival** is a process aimed to overcome crises in degraded areas; it is conducted in a comprehensive manner through integrating actions involving local societies, space, and economy, which are concentrated in one area and carried

out by revival stakeholders, in line with a municipal urban revival programme.

2. Urban revival stakeholders, hereinafter referred to as 'stakeholders' include, in particular:
 - 1) residents inhabiting areas covered by urban revival programmes, owners of properties and perpetual usufructuaries of properties located in these areas, including housing associations, housing cooperatives, and social housing associations;
 - 2) residents of communes, other than specified in item 1 above;
 - 3) entities running or intending to run business within the confines of the municipality;
 - 4) entities running or intending to run social activities, including NGOs and informal groups;
 - 5) local government bodies and their organizational units;
 - 6) public authorities;
 - 7) entities other than specified in item 6 above, which represent the Treasury in areas covered by the urban revival programme.

Conclusion: Heritage protection actions are of fragmentary and specialist nature; At the same time, they are closely related to elements of historical significance of a property being protected as well values identified in the value diagnosis. Value attributes are used for emphasizing and materializing values of a property/group of properties of outstanding historical value. Simultaneously, they provide logical framework for devising protection plans aimed at preserving values of historical significance.

Management Plan for Polish Listed Monuments is a strategic document in which objectives and actions aimed at protecting values of historical, artistic, and scientific significance are defined and prioritized.

Management Plan for Polish Listed Monuments should be therefore an important starting point for updating planning studies and producing urban revival documents covering the area occupied by the Polish Listed Monument. However, it must not be used as their replacement.

4.1 DESCRIPTION OF ELEMENTS FALLING WITHIN THE SCOPE OF THE STATE PROTECTION AND PROPERTY MANAGEMENT SYSTEM

4.1.1 Regulatory conditions and the status of the property

Listing in the register of immovable historic monuments

From legal perspective as well as from historic preservation practice, listing a property in the register of historic monuments and sites is a fundamental form of protecting properties of great historical significance in the Polish body of law. Additionally, it is a basic tool for shaping historic preservation policy. The paper mill in Duszniki Zdrój is listed in the register of immovable historic monuments located in Lower Silesia Region, which, pursuant to provisions of Polish law, is one of the four forms of monument protection. The paper mill was accorded this status already in the 1950s (decision on listing the property in the register of immovable historic monuments located in Lower Silesia Region No. A/4053/336 of 6 November 1956). The decision is highly laconic – it provides information that the following premises are considered a historic site: *Paper mill in Duszniki, Kłodzko District, built in 1605*. Justification for the decision provides that *it is the only seventeenth-century paper mill with wooden structure still standing in Wrocław Region, which represents old and vanishing industrial buildings of outstanding historical significance*. Presumably, the person listing the subject premises in the register intended to cover the

entire property with protection. However, the text of the decision raises doubts whether what is listed in the register is exclusively the main paper mill building only (dated of the early 17th century) or the premises, i.e. the drying house, entrance pavilion, and the passage which were built later. Additionally, this fact is also thrown into doubt because of the list of historic monuments and sites located across Lower Silesia Region. On the website of National Heritage Board of Poland, under the Immovable Historic Monuments category, one can find the following information: *paper mill, wooden, 1605, 1709, 20th century, register no.: A/4053/336 of 6.11.1956 and the surrounding area, register no.: A/2073 of 19.04.2010*⁶⁰.

⁶⁰ http://www.nid.pl/pl/Informacje_ogolne/Zabytki_w_Polsce/rejestr-zabytkow/zestawienia-zabytkow-nieruchomych/; stan na dzień 30. 04. 2017r.



Photo 70. Paper mill buildings listed in the register of historic monuments and sites; Source: <https://mapy.zabytek.gov.pl/nid/>

On the map portal run by NHBP under the INSPIRE guideline, it is the main paper mill building and the drying house which are marked as being listed in the register of historic monuments and sites (excluding the entrance pavilion and the passage)⁶¹.

Moreover, according to information provided by Regional Historic Preservation Office in Wrocław, the following properties are listed in the register of historic monuments and sites: paper mill building, drying house being a part of the paper mill premises, and entrance pavilion being a part of the paper mill premises⁶². Identical list was also provided in *Studium uwarunkowań i kierunków zagospodarowania przestrzennego miasta Duszniki-Zdrój* (Land Use Plan for Duszniki Zdrój)



Photo 71. Drawing appended to the decision on listing the area surrounding the paper mill premises in the register of historic monuments and sites

Few years ago, under a separate decision, the area surrounding the paper mill premises was also inscribed in the list of historic monuments and sites (reg. no. A-2073 of 19 April 2010 r.)⁶³. Reasons behind the decision state that: *Protection of the 'surrounding area' aims to ensure that the paper mill building is displayed properly and the existing view corridors are well-preserved. This is achieved by providing the regional historic preservation officer with tools necessary to preserve viewing values of the historic site and protect it against adverse effects of external factors.* The following plots of land being adjacent to the paper mill premises were considered the *surrounding area*: 186, 187/10, 187/11, 187/13. In the land register drawing appended to the decision, confines of the surrounding area are marked.

It is also worth mentioning that, apart from the aforementioned decisions on listing the paper mill premises in its adjacent areas in the register of historic monuments and sites, the register of immovable properties of outstanding historical value in Lower Silesia region also features urban plan for Duszniki-Zdrój. Listing the urban plan for the city could be of significant importance to protecting not only the areas of great historical value which are adjacent to the paper mill premises (protected under a separate decision) but also to a wider spatial context, including view corridors, protection of panoramic views, and landscape. With regard to the urban plan for Duszniki Zdrój, it is difficult to apply this form of protection, which results from the fact that the decision on listing the urban plan for Duszniki Zdrój in the register of historic monuments and sites is not

⁶¹ <https://mapy.zabytek.gov.pl/nid/>; as of 30. 04. 2017r.

⁶² <http://wosoz.ibip.wroc.pl/public/?id=92696>; stan na dzień 30. 04. 2017r.

⁶³ Pursuant to the *Act on Protection and Guardianship of Monuments*, 'surrounding area' means the area around or at a historic monument or site, border of which was established under a decision on listing this property or site in the register of historic monuments and sites with the purpose of preserving viewing values of the property or site and protect it against adverse effects of external factors.

Tab. 1. List of historic monuments and sites in Kłodzko District. Source: <http://wosoz.ibip.wroc.pl/public/?id=92696>

paper mill building	, Kłodzka	442	A/4053/336	06.11.1956
entrance pavilion being a part of the paper mill premises	, Kłodzka		A/4053/336	06.11.1956
drying house being a part of the paper mill premises	, Kłodzka		A/4053/336	06.11.1956

included in the archives of both Lower Silesian Regional Historic Preservation Office and National Heritage Board of Poland. What can be found is only an entry to the Register Book in which, however, neither the scope of protection nor the confines of the subject property are specified. It is therefore unknown which part of the city and which elements falling within the scope of the urban plan are to be protected pursuant to the entry in the register of historic monuments and sites.

Polish Listed Monument

In 2011, when the subject property was accorded a status of Polish Listed Monument, it was confirmed that the paper mill has outstanding historical value (under the regulation of the President of Poland of 20 September 2011, Dziennik Ustaw no. 217, item 1282). It is written in the regulation that protection of the subject Polish Listed Monument, i.e. the paper mill in Duszniki-Zdrój, aims to "preserve the oldest seventeenth-century paper mill in Poland which is the evidence of the history of modern paper making – due to its outstanding artistic, scientific, technical, tangible and intangible values as well as its uniqueness and authenticity." According to the status of the Polish Listed Monument to the paper mill in Duszniki-Zdrój confirms that the subject premises rank very high in the legal monument protection system in Poland. At present, the subject property is one of the seventy Polish Listed Monuments – immovable historic monuments of outstanding value.⁶⁴ The boundaries of the legally protected area where the Paper Mill is situated, which are set forth in the Regulation of the President of the Republic of Poland on listing Polish historic monuments and sites, are as follows: "In the west and north part, the boundary of the

area being analysed is marked along the bank of the Bystrzyca Dusznicka river, excluding the river itself. It reached Sprzymierzonych Street, turns south and is set along the fencing in the east part of the parcel no. 186 (Centrum Area), the south-west borderline of the tracts no. 187/13, 187/11 and 187/10 (Centrum Area), the south-east and south-west boundaries of the tract no. 186 (Centrum Area) and, again, reaches the bank of the Bystrzyca Dusznicka River." These boundaries coincide with the boundaries of the paper mill area entered into the Register of Historic Monuments and Sites of Lower Silesia Region.

The Polish Listed Monument status is another form of heritage protection which functions within the Polish monument protection system. It needs to be emphasized that this does not implicate – apart from the entry in the register – any legal consequences.

Legal protection following from the use of the property as Museum of Paper Making

Apart from the aforementioned forms of protection, the legal situation and the protection itself is greatly influenced by the type of ownership rights to the property being protected as well as the purpose for which it is used. Since 1968, the paper mill in Duszniki-Zdrój has been functioning as museum. With regard to the paper mill equipment, provisions of the Museum Act for handling (storing, preserving, protecting, keeping a record of, studying, etc.) collectibles, i.e. movable and immovable properties owned by the museum and listed in the inventory, are an important aspect of the legal status of the museum. In the paper mill in Duszniki, this pertains, in particular, to production equipment of great historical value, e.g. nineteenth-century paper laying moulds with sieve, and to residential equipment, e.g. portraits of the paper makers of Duszniki, paper sheets with filigrees.

Historical preservation supervision

In the Polish legal system, protective measures are taken by owners of historic monuments and sites as well as by institutions and offices responsible for protection of cultural heritage. Owner of a historic monument or site, as a person taking care of the property, should ensure proper maintenance of the asset. Historic preservation offices offer professional supervision, take necessary preservation and protection measures and, in exceptional circumstances, provide funding for protection. Pursuant to the *Act on the Protection and Guardianship of Monuments*, conducting works in a property or

⁶⁴ The number of Polish Listed Monuments as of 30 April 2017 r. http://www.nid.pl/pl/Informacje_ogolne/Zabytki_w_Polsce/Pomniki_historii/Listy_miejsc/?PAGEN_2=7#. In the Polish legal system, the status of the Polish Listed Monument is accorded to immovable historic monuments entered into the register of immovable historic monuments as well as to culture parks of outstanding value and great importance to culture. What also confirms the superior rank of the status of Polish Listed Monument is the fact that it is accorded by the President of the Republic of Poland, under a separate regulation, upon the request of the Minister of Culture and National Heritage. Each regulation provides information on the historic monument or site being accorded the status of Polish Listed Monument, its confines marked on a draft map, protection purpose, and a general list of qualities which prove that the property or site is of highest value.

site listed in register of historic monuments and sites (conservation, preservation, renovation or construction works), studies (conservation, preservation, architectural, archaeological), change of the purpose or use of a historic monument or site entered into the register requires permit issued by regional historic preservation office. As a historic monument or site legally protected by being listed in the register of immovable historic monuments, the paper mill in Duszniki falls within the scope of duties of the Lower Silesian Historic Preservation Officer. The paper mill in Duszniki Zdrój is directly supervised by members of staff of the Regional Historic Preservation Office, branch in Wałbrzych.

Financing

Financing is another element of the national heritage protection system. Pursuant to the *Act on the Protection and Guardianship of Monuments*, it is an owner or proprietor who are responsible for allowing experts to produce documents backing the property up, spreading knowledge about the property, conducting conservation, renovation, and construction works, protecting and preserving the historic monument or site, as well as maintaining it and its adjacent areas in the best condition possible. Financial means for taking these measures falls within the scope of responsibilities of an entity having legal interest to the property of great historical significance. These activities can be financed from public budget, whereby the means are distributed as restricted grant awarded upon request of an owner, user, or an authorized entity.

Possible sources of public finance for taking measures in the paper mill premises in Duszniki – a property legally protected by being entered in the register of historic monuments and sites – include:

- ✓ Ministry of Culture and National Heritage – funds available as part of Programmes announced annually⁶⁵.

⁶⁵ As set forth in the National Strategy of Development of Culture for the period 2004–2020, the Ministry of Culture and National Heritage is provided with instruments which allow it to finance activities pertaining to protection of cultural heritage. Every year, the Ministry of Culture and National Heritage calls for proposals for implementing programmes it develops. The programmes, being announced on the decision of the MCNH, are the basis for applying for grants for taking actions aimed at culture and cultural heritage, which can be carried out by cultural institutions, universities, churches, congregations, NGOs, and business entities.

- ✓ Lower Silesia Regional Historic Preservation Office seated in Wrocław – public funds for conducting conservation, renovation, and construction works in historic monuments and sites listed in the register of historic monuments and sites located across Lower Silesia Region are distributed by the regional government authority.

4.1.2 Conclusions and recommendations

- ✓ Forms of protection – determined for buildings of great historical significance being a part of the paper mill premises and the adjoining areas situated within the confines of the area registered as Polish Listed Site and resulting from the state heritage protection system (being listed in the register of immovable historic monuments and recognized as Polish Listed Site) – protect values in terms of majority of attributes provided in the first part of the Management Plan.
- ✓ It is recommended to formally explain the subject of protection in the decision on listing the paper mill in question. In the decision on listing the *Paper Mill in Duszniki, Kłodzko District – building date: 1605*, the subject of protection is presented in a vague, unclear, and ambiguous manner. The subject of protection itself is particularly dubious as it is unclear whether the drying house, the entrance pavilion, and the passage linking the paper mill and the pavilion are also covered with protection. The owner of the paper mill premises, Museum of Papermaking, should inquire the Lower Silesia Regional Historic Preservation Officer about resolving doubts about the decision. In the event of the RHPO's unfavourable stand on the subject of the entry in the aforementioned register, the premises being discussed should be entered in the register of historic monuments and sites under a separate decision – either ex officio or upon the owner's request. Formal explanation of this decision seems to be critical, particularly in light of Museum's attempts to inscribe the paper mill in UNESCO World Heritage List – formal protection of sites like this should not be thrown into doubt.
- ✓ It is recommended to list polychrome paintings decorating the interior of the paper mill building in the register of movable historic monuments. Consequently, apart from the legal protection of assets of great historical value being formally confirmed, the entry will allow for acquiring – from various sources – funds for conducting conservation and renovation works on these paintings.

4.2 DESCRIPTION OF THE LOCAL PROTECTION AND MANAGEMENT SYSTEM (LEVELS: LOCAL, DISTRICT, AND REGIONAL GOVERNMENT)

SITE MANAGER

Museum of Papermaking in Duszniki-Zdrój is the owner and perpetual usufruct of the land listed in the Land and Mortgage Register kept by the District Court in Kłodzko: KW 59716, KW 66481 and KW 77093. Under the provisions of law, Museum of Papermaking in Duszniki-Zdrój – Cultural Institution of the Local Government in Lower Silesia Region is liable for managing the subject site. As an organisational unit being run in accordance with provisions of the Act on Museums of 21 November 1996, it serves statutory purposes and its activities are compliant with its charter which provides details on, for instance, the sources of financing. Dr hab. Maciej Szymczyk, Ph.D., as the head of the museum, is responsible for supervising the entity and its budget-related matters.

LOCAL LAW

Local land use plan

Information on protection measures provided in a local land use plan is a formal form of protection of historic monuments and sites, which is determined by a municipal government administration body – pursuant to the Act on Protection and Guardianship of Historic Monuments. This Act lists types of historic monuments and sites whose protection must be provided in a land use plan. These properties include, in particular, immovable historic monuments listed in the register of historic monuments and sites and their conjoining areas as well as culture parks and other immovable historic monuments and sites listed in a municipal record of historic monuments and sites (art. 19.1). Local government, through preparing local land use plans, is obliged to provide rules governing protection of both cultural landscape and historic monuments and sites. Planning-related measures aimed at protecting historic monuments and sites are taken in order to permanently preserve properties of outstanding historical significance through their appropriate management and development, prevention of risks which may result in their value being affected, as well as shaping the environment and including protection measures in

land use planning. Article 19.3 of the *Act on Protection and Guardianship of Historic Monuments* is particularly important as it allows for determining – in LLUPs – historic preservation zones covering areas where restrictions, prohibitions, and orders are introduced. Projects and amendments to LLUPs are subject to consultation with RHPOs.

The paper mill in Duszniki is not covered by any statutory form of protection which would be appropriate to what the local government authorities are responsible for. The area where the paper mill premises are situated has not been covered with a local land use plan yet. Municipal government's policy and measures pertaining to protection of cultural heritage are specified in a legally required document, i.e. a study of land use conditions and directions, which is not, however, an act of local law.

Culture park

Culture park is another form of protecting historic monuments and sites, which is enacted by a local government and was introduced under the *Act on Protection and Guardianship of Historic Monuments*. The status of a culture park is accorded under a resolution adopted by a city council, after consulting RHPOs. A culture park aims to protect cultural landscape and preserve areas – unique in terms of landscape – where immovable historic monuments and sites, characteristic of local construction and settlement traditions, are located (Art. 16.1 and 16.5). Culture park is a form of protecting cultural landscapes which allows for preserving outstanding historical and cultural values and, at the same time, protect natural environment. It is aimed at preserving continuity of landscape tradition and providing opportunities for landscape development in line with local traditions. In Duszniki-Zdrój, no culture park has been established yet. Recently, however, municipal government representatives have declared intention to establish a culture park and prepare a protection plan covering it. These plans result from the local government's attempts at improving aesthetic qualities of the old part of the city, especially in terms of reducing advertising clutter and improving advertisement standards. Not denying the need for taking these measures in Duszniki-Zdrój as well as seeing sound reasons behind them, it must be, however, born in mind that the purposes which establishment of a cultural park serves are far more extensive. Additionally, controlling the display of advertisements as well as formulating rules governing it should be enforced by

City Council through a resolution being in line with the Landscape Act.⁶⁶

Simultaneously, it must be emphasised that an initiative on establishing a culture park covering the old urban area in Duszniki – including Kłodzka Street running from Market Square and the areas adjacent to the paper mill premises – would be an important and necessary measure aimed at creating spatial order, also in the closest proximity to the paper mill. Analyses and studies aimed at assessing landscape, cultural, and natural values of the subject area – conducted at the stage of developing protection plan for the culture park – would be also useful for determining buffer zone for the paper mill. A culture park – when established and managed in the right manner – would also allow for reducing risks and threats – especially when it comes to adverse effects of changes (and intended works) to cultural landscape and view corridors. Moreover, it would also contribute to preserving and displaying landscape and spatial qualities of the paper mill area. The need for wide public consultations – suggested in the process of establishing the culture park – could also result in the importance and role of cultural heritage – including the paper mill in Duszniki – being understood much better. Additionally, it could also integrate the local community and a larger group of stakeholders in their attempts at protecting values of the cultural landscape of Duszniki-Zdrój. All aspects of these measures would be invaluable and useful in efforts made by managers of the Museum of Papermaking to inscribe the paper mill on the UNESCO World Heritage List.



Fot. 72 Excerpt from the analysis of historic urban structures

STRATEGIC DOCUMENTS PRODUCED BY MUNICIPAL GOVERNMENT ADMINISTRATION OF DUSZNIKI-ZDRÓJ

✓ Duszniki – the City and Spa. Studium historyczno-urbanistyczne (Analysis of Historic Urban Structures)⁶⁷

An analysis of historic urban structures is a pre-planning study providing historic preservation assumptions and conclusions pertaining to, inter alia, rules governing the process of shaping historical urban space. These should be included in the study of land use conditions and directions enacted by municipal government authorities. The subject study provides, for instance, rules governing protection of cultural urban space and its management in areas being subject to particular conditions – due to the historical values they convey. In the subject document, the premises of the Museum of Papermaking, including the adjacent areas are classified under Zone A – the strictest historic preservation overlay zone – covering the area of the

⁶⁶ Act of 24 April 2015 on amending selected acts following from improving landscape protection measures, Dziennik Ustaw 2015, item 774.

⁶⁷ Duszniki – Miasto i Zdrój. Studium historyczno-urbanistyczne, D. Eysymontt, R. Eysymontt, Wrocław 1994

former historical residential layout of the city.

Functions served by this area fall into two categories. The first one involves essential works to be conducted, *which will allow for preserving the fundamental spatial shape and architectural perception*⁶⁸; the second part *provides urban and architectural design principles*.⁶⁹ The list of essential works to be conducted contains, for instance, measures aimed to improve the technical condition of the buildings located within the confines of the zone – from the perspective of activities falling within the scope of paper mill management, works conducted in properties situated at Kłodzka street are of major significance. Predominantly, planning and spatial design rules applicable to the subject zone, as provided in the *Analysis*, are still up-to-date. Given the objectives of this analysis, the most important rules include: *preserving the original course of streets and shape of squares, preserving the original building alignment and, if need be, rising infill buildings in the places indicated in the map, preserving the size of all the existing buildings and drawing on the adjacent buildings for inspiration (maximum height must not exceed 3.5 storeys; steep roofs with small and medium slope not exceeding 45%; rooftrees facing the street (...); possibly, directing transit traffic outside the city centre, yet providing parking lots for tourists visiting the city; repaving all streets falling within the confines of the subject area with cobbles (Kłodzka, Mickiewiczza, and Zamkowa streets); revival of backyards (...) through opening and reopening pedestrian passages, reorganizing temporary cubbyholes and garages by adapting them for citywide uses (...), intensifying city-forming functions in the subject area through adapting lower ground floors for new uses, e.g. shops and service establishments, whereby the adaptation projects in buildings of great historical value must be approved by historic preservation office; (...) reorganizing and tidying the open air market at Kłodzka street by installing neat movable stalls – removed after the market's operating hours – which will be aesthetically designed by municipal authorities in consultation with historic preservation office; removing properties and assets whose form or location are not in line with architectural forms of the buildings of great historical value; upgrading architectural detailing of selected properties (plaster facing, chambranles, window forms, types of window frames); leaving the areas between the city and*

*the circular road undeveloped in order to leave the view corridor at the old city skyline.*⁷⁰

It must be noticed that before starting works on the study of land use conditions and directions, it is recommended to develop analysis of historic urban structures – currently most frequently referred to as the analysis of protection of cultural values. Its objective is, for instance, to define cultural environment resource. Its essence is embodied by:

- assessing its condition, i.e. analysing and describing richness of accumulated historical heritage and tradition of the place; analysing forms and functions;
- assessing its value on different levels, in the context of protection of a property of great historical significance;
- formulating rules and defining the scope of protection, i.e. drawing historical preservation conclusions pertaining to effective property management, depending on the value and preservation condition of a property;
- formulating rules concerning adaptations to be permitted, tearing down or removing properties, and avoiding conflicts resulting from these actions.

The recommendations and conclusions provided in the aforementioned analysis of historic urban structures should be updated by basing not only on analysis of changes which were made in cultural environment but also analysis of how other development changes which the municipality underwent, influenced cultural heritage (moved to the study of land use conditions and directions).

✓ **The study of land use conditions and directions for the city of Duszniki-Zdrój**⁷¹

The Study of Land Use Conditions and Directions adopted by resolution of the City Council is not an act of the local law but an exclusive planning document covering the entire municipality. It is binding for executive bodies either in procedures applied in development of the local land use plan or in defining the way and conditions for land development as provided either in decisions on land development conditions or in

⁶⁸ See there, p. 119

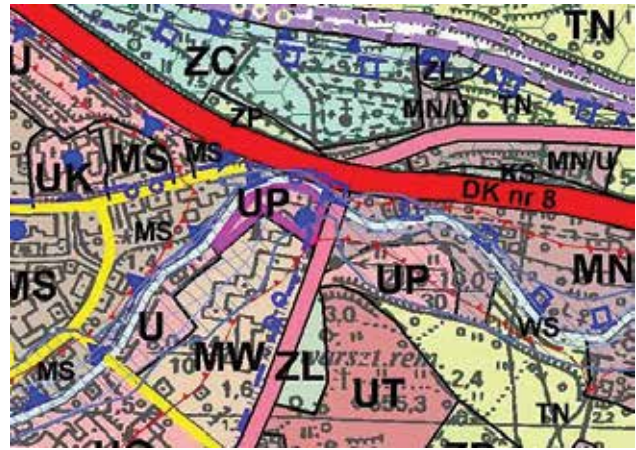
⁶⁹ See there, p. 119

⁷⁰ See there, pp. 120–121

⁷¹ The study adopted by resolution of the City Council no. XVIII/73/2012 of 26 January 2012. Full document available at: <http://www.bip.um-dusznikizdroj.dolnyslask.pl/dokument,iddok,1304,idmp,19,r,r>; stan na 30. 04. 2017r.

decisions on site location of a public-purpose investment project. Therefore, it is a document which, in the event of no local land use plan being available – as in the case of the area where the paper mill premises and its surrounding areas are located – is of primary importance in formulating spatial development policy for the municipality and shaping heritage protection by the local government authority. *The Study of Land Use Conditions and Directions* should provide information on development trends and long-term spatial policy of the municipality, whereby public interests – which should be co-furthered by other participants of spatial development – must be taken into account. Additionally, this document provides considerable amount of information on both the municipality and – as its name indicates – land use conditions, i.e. development factors and barriers, and directions. In the first part of the *Study*, which concerns land use conditions, one can read a summary of the present conditions, as analysed at the moment of starting the works on the *Study*. This part provides insight into the present threats, former uses, spatial layout, condition of the environment, the nature, cultural landscape, and condition of cultural heritage, including properties and sites covered with protection under separate regulations as well as requirements and scope of protection within which these elements fall. In the second part, one can find references to land use directions and – with reference to cultural environment – possible adaptations, uses, and protection directions of this cultural environment. Protection of cultural heritage being defined in the *Study* should be provided by applying measures – listed in this document – concerning, e.g.:

- direction of changes to spatial structure,
- development and use of areas, including the ones that are to be left undeveloped,
- the needs for indicating areas to be covered with protection as well as for formulating rules governing protection of cultural landscape, historic monuments and sites, and sites of great cultural value,
- indicated directions for development of transport and technical infrastructure systems
- site location of public-purpose investment projects of local and supra-local importance
- areas to be obligatorily covered with a local land use plan
- areas where it is necessary to conduct adaptation, revival, and rehabilitation projects, as well as other problematic areas.



Fot. 73 Part of appendix to *The Study of Land Use Conditions and Directions*

In the part concerning landscape protection conditions it is emphasised that the original spatial layout of Duszniki-Zdrój has been preserved to a large extent. The most important components of the cultural landscape include: the old town part, including Kłodzka Street at which the subject paper mill is situated, and the spa part of the city. Furthermore, attention is also paid to great landscape values following not only from the city being conveniently situated in valleys of the Bystrzyca Dusznicka river – where the paper mill is located – and its tributaries, but also from the original urban layout of the city and urban fabric of the buildings being preserved. Additionally, the most significant areas to be provided with protection are also indicated in the pre-planning analysis (analysis of historic urban structures). Having referred to this documentation, it is emphasised that the group of old town buildings is categorised as zone “A”, i.e. an area to be covered with strictest protection. The area covered by the paper mill premises does not fall within the confines of the said zone, even though these properties of great historical value are included in the analysis of historic urban landscapes. The city skyline – as seen from national road no. 8 when travelling from Kłodzko to Duszniki-Zdrój and stretching to the south – featuring also the Papermaking Museum and Nawojowa Góra, falls within the boundaries of zone E (display protection). At the same time, it was noticed that the cultural landscape had been – to certain extent – spoiled as a result of rising buildings differing considerably in terms of size and architectural form from old properties typical of the old town part of the city. This concerns blocks of flats in Chopin estate – incongruous, panelák buildings situated south of the paper mill. This

diagnosis influenced decisions about which direction should be taken in the protection of cultural landscape. The most significant ones include: formulating appropriate rules governing land development (e.g. establishing historic preservation zones, restrictions concerning permitted density of buildings and their height, giving detailed information on architectonic form and colours to be applied, etc.) as well as adopting measures aimed to protect areas of great landscape and cultural values and to exhibit these values through, for instance, removing elements negatively affecting the landscape and prohibiting development of new buildings which are not congruent with their surrounding areas.

Provisions having been applied in designating current historic preservation overlay zones as well as provisions for land use directions which are provided in the *Study* are of considerable importance for protecting the areas surrounding the paper mill. The old town and the spa part of the city fall within the boundaries of the strict historic preservation overlay zone. The paper mill premises, including the areas surrounding it, however, fall within the confines of one of five basic historic preservation overlay zones. The paper mill is a part of *Suburban buildings at Kłodzka street, including Krzywe Zbocze cemetery and paper mill*. This zone is classified as an area covered with suburban buildings and it features typical wooden rural buildings and suburban properties put up in the interwar period. The following development conditions apply to the subject area:

- *it is permitted to build – north to the road – single contemporary buildings*. They should be similar in size to the existing buildings,
- *steep roofs must be installed*
- *the view corridor at the paper mill of great historical value, when looked at the road heading from Kłodzko, must be unobstructed.*⁷²

In the historic preservation overlay zone pertaining to the display of the property it is indicated that view panoramas (display of the city skyline), including the view from national road no. 8 over the Museum of Papermaking, must be protected. The following restrictions must be applied:

- *it is prohibited to build new buildings obstructing both the view over the city skyline as seen from road no. 8 when travelling from Kłodzko and the view over Nawojowa Góra and the slopes of Krzywe Zbocze hill,*

- *only low vegetation (lawns, shrubs), which does not obstruct the view over the city is permitted.*⁷³

✓ **Local Revival Programme for the Municipality of Duszniki-Zdrój for the period 2016–2020**⁷⁴

One of the important documents produced by the municipal government authority is *Local Revival Programme*, which concerns protection and management of the paper mill, particularly in terms of its future use and development. In this document, with regards to the area falling within the scope of our interest, the Papermaking Museum is considered a cultural institution of great importance for the city. It is also emphasised that the museum is the only Polish establishment of this kind, dealing with papermaking and being seated in a 17th-century paper mill of great historical value. Furthermore, the subject document also describes museum collections and notes that – in the context of analysing spatial and functional phenomena – in *Leisure Time Infrastructure (Culture, Sport, Recreation)* category, activities taken by the Museum's staff (educational, publishing, scientific and research) are ranked very high. The Paper Festival having been organized annually since 2001 is also indicated as an important cultural event attracting wide audiences⁷⁵.

Having consulted local leaders, analysed emergency situations, and surveyed residents of the city, the authors of the revival programme agreed that the area at Kłodzka street – where the paper mill is situated – is degraded and should be subject to revival. Reasoning of this diagnosis is worth quoting here. *In the course of the workshop works and basing on the results of the surveys conducted with the residents, it was decided to cover areas located in the central part of the city, i.e. the Market and its surrounding areas, and the area where the Museum of Papermaking in Duszniki Zdroj is situated, with the revival programme. This area is densely developed with residential buildings, including properties of great historical value. Additionally, institutions playing essential role in local development are also located there. This area is of considerable importance for stimulating economic development*

⁷³ *The Study of Land Use Conditions and Directions*, p. 93

⁷⁴ *Lokalny Program Rewitalizacji Gminy Duszniki-Zdrój na lata 2016–2020 (Local Revival Programme for the Municipality of Duszniki-Zdrój for the period 2016–2020)* adopted by Resolution no. XXII/130/16 of the City Council in Duszniki-Zdrój on 29 June 2016.

⁷⁵ *Lokalny Program Rewitalizacji...*, p. 115

⁷² *The Study of Land Use Conditions and Directions*, p. 93



Fot. 74 Area falling within the scope of the Local Revival Programme

of the municipality – for development of services provided to citizens, tourists, and spa visitors in particular. Tourism is of utmost importance to Duszniki-Zdrój municipality. At present, tourist traffic is generated mostly by spa visitors and, hence, builds up either in that part of the city or in Zieleniec. The Market and its surrounding area could become another important place for serving tourists. It has great functional and spatial potential shown by the interesting urban layout of great historical significance as well as concentration of restaurants, souvenir shops, and local service establishments. The area indicated as being subject to revival is distinguished by large accumulation of negative social phenomena, including poverty, unemployment, and population decline. The decreasing number of citizens proves that the subject area is not an attractive place to live. Further problems occurring in the area in question lie in low aesthetic qualities and poor technical condition of public utility and residential buildings. Therefore, the way in which Duszniki-Zdrój is perceived as a spa resort is negatively affected.⁷⁶

Improving and creating the image of the city is one of three objectives of the revival programme to be implemented in Duszniki-Zdrój. In order to use the existing natural, landscape, and cultural potential of the area, it is considered that development of the city should be

based on tourist and spa services. The Museum of Papermaking should play an important role in achieving this objective. What is also of great significance from the perspective of the management plan developed for the subject papermill are indications that the said objective will combine soft and organizational activities, e.g. taking actions aimed at tourism marketing, developing and providing cultural supply, as well as carrying out investment operations aimed to improve aesthetic qualities of the city, its functionality and safety of its residents.⁷⁷ Detailed objectives/directions of revival activities to be carried out with the purpose of achieving the primary objective are also of considerable importance for the operations of the historic paper mill. These objectives are as follows:

- 1.1 Detailed objective: Conducting an intensive marketing campaign aimed to promote the city and, in particular, the areas falling within the scope of the revival programme, in order to show depict them as attractive and citizen- and tourist-friendly places.
- 1.2 Detailed objective: Improving the image of the city and the area being covered with the revival programme through modernizing and developing the infrastructure and aesthetic qualities of the surrounding areas.

⁷⁶ Lokalny Program Rewitalizacji..., p. 169

⁷⁷ Lokalny Program Rewitalizacji..., p. 174

1.3. *Detailed objective: Improving quality of life of the citizens, especially in terms of safety, natural environment, as well as leisure and recreation infrastructure.*⁷⁸

Furthermore, the Muesum of Papermaking plays also a vital role in achieving the aforementioned objectives (as one of 38 activities enumerated in the List of Planned, Primary Revival Projects and Actions – List A), having been evaluated as being in line with the support provided as part of the Regional Operational Programme for Lower Silesia for the years 2014–2020⁷⁹.

✓ **Resolution on adopting the Charter of the Spa Resort in Duszniki-Zdrój**⁸⁰

The said resolution – in which information on the confines of the protection zone is provided, including restrictions on shaping the space and the rules underlying it – is another document which influences protection measures undertaken in the paper mill and the areas located in its closest proximity. Under the adopted charter, the area of the Spa Resort is divided into historic preservation overlay zones: A, B, and C. Furthermore, in this document, confines of these zones are also defined, together with a number of restrictions applied in each of them.

The paper mill premises are located within the confines of zone B, where it is prohibited to:

- build new and extend the existing: industrial premises, scrap heaps, and points of purchase of agricultural produce; commercial premises of floor area exceeding 400 square metres, including off-site facilities; overground car parks for over 50 vehicles, except for underground and overground multi-storey car parks; petrol stations; structures emitting electromagnetic waves which may negatively affect the natural environment, located no less than 500 m from the boundary of zone A; parks for storing and distributing chemicals, petroleum products and other products that are environmentally harmful;
- fell forest and park trees, except for pruning for health and preventive purposes;

- extract natural resources other than medicinal raw materials;
- conduct land reclamation and irrigation works resulting in adverse changes in the existing hydrographic conditions;
- undertake actions severely affecting either physical geography of the spa resort and its urban layout or curative properties of the climate.

In order to ensure proper functioning of the spa resort and preserve the curative properties of the climate, a detailed list of actions prohibited in each historic preservation overlay zone was compiled. With regard to sanitary requirements, it is forbidden in the entire spa resort area – irrespective of the zone – to apply asbestos-based products and products considered harmful to humans and the environment.

With regard to aesthetic qualities of the buildings, shops, service establishments, and cultural facilities, it is forbidden to take the following actions within the confines of the spa resort:

- ✓ install open-air courtyards, stalls, information boards, street furniture, etc., when documents required under separate provisions of law have not been obtained;
- ✓ conduct construction engineering works subject to construction notification or construction permit, which involve building a new property or changing wall faces in the event of renovating a property – without prior consent of the Municipal Government Administration of Duszniki-Zdrój, basing on documents – delivered by an investor – outlining the current condition of the property to be renovated and the planned outcome of the renovation works, including land development, matching adjacent buildings.

Furthermore, it is prohibited to carry out the following actions within the confines of zones A, B, and C, on historic preservation overlay zones defined in the local land use plan:

- ✓ install wire mesh and pre-fabricated concrete fences where they would conjoin public use areas;
- ✓ cover high-pitched roofs with tar paper;
- ✓ Apply finishing and decoration materials other than:
 - for wall facing: wooden, stone, ceramic, clinker, stucco, slate, glass;
 - for pavements: paving stone cubes as well as concrete setts imitating them, naturally paved surfaces and other, as agreed with the Municipal Government Administration in Duszniki-Zdrój.

The area on which the subject paper mill is situated – as well as its adjacent areas – have not been covered

⁷⁸ *Lokalny Program Rewitalizacji...*, p. 175

⁷⁹ More detailed analysis of this undertaking is provided in the chapter about the use and development.

⁸⁰ Resolution no. XLIV/226/09 of the City Council of Duszniki-Zdrój of 29 October 2009 on Adopting the Charter of the Spa Resort in Duszniki-Zdrój; http://edzienniki.duw.pl/duw/WDU_D/2009/205/3653/akt.pdf; access on 30.04.2017.

with any local land use plan yet. Therefore, although the aforementioned principles are not applicable, they must be taken into consideration in the event of Municipal Government Administration representatives starting to work on a local land use plan.

STRATEGIC DOCUMENTS – OF DISTRICT AND REGIONAL MEANING

✓ Kłodzko District Development Strategy for the years 2016 – 2020⁸¹

This document is binding on district level and it should detail objectives being of great importance from the perspective of managing the paper mill premises of outstanding historical value. However, apart from referring to the Museum of Papermaking as one of the few cultural institutions operating in the district and listing objectives and tasks aimed at development of tourism – within the scope of which the activity of the museum may also fall (*Supporting local initiatives aimed at development of tourism and taking actions aimed*

to develop tourist infrastructure; Opening new tourist routes based on regional traditions and cultural heritage assets located in the district) – the Strategy fails to mention anything about preserving, using, and developing the only Polish Listed Monument in the district.

✓ Programme for the Care of Historic Monuments and Sites in Lower Silesia⁸²

The Programme for the Care of Historic Monuments and Sites in Lower Silesia is based on analysis of the current condition of cultural heritage. Additionally, it details a number of objectives and directions of actions which directly influence the operating activity of the Papermaking Museum and the premises of great historical significance where it is seated. These matters pertain to protection, financial, documentation, research, and marketing matters. With regard to the attempts made by the Museum of Papermaking at inscribing the paper mill on the UNESCO World Heritage List, it is worth mentioning that the subject document acknowledges that the Polish Listed Monuments located across the

⁸¹ Kłodzko District Development Strategy for the years 2016 – 2020 adopted by resolution no. I/16/16 of Kłodzko District Council on 30 March 2016.

⁸² http://www.umwd.dolnyslask.pl/fileadmin/user_upload/Kultura/zabytki/Program_opieki_nad_zabytkami_województwa_dolnoslaskiego_projekt__4_.pdf

Table 2 Local forms of protection and protection of the paper mill and its surrounding areas in strategic documents produced by the local government authority

Form of protection or document	Responsible entity	Term	Is the area covered by a
Land use plan?	Municipal Government Administration	Not applicable	No
Culture park	Municipal Government Administration	Not applicable	No
The study of land use conditions and directions	Municipal Government Administration	Not applicable	Yes
Local Revival Programme for the Municipality of Duszniki-Zdrój for the period 2016 – 2020	Municipal Government Administration	2016-2020	Yes
Municipal Programme for the Care of Historic Monuments and Sites	Municipal Government Administration	covering the period of 4 years	No
Resolution on adopting the Charter of the Spa Resort in Duszniki-Zdrój	Municipal Government Administration	Not applicable	Yes
Kłodzko District Development Strategy for the years 2016 – 2020	Kłodzko District Council	2016-2020	Yes
Programme for the Care of Historic Monuments and Sites in Kłodzko District	Kłodzko District Council	covering the period of 4 years	No
Lower Silesia Development Strategy	Regional Government Authority	for the period until 2020	Yes
Programme for the Care of Historic Monuments and Sites in Lower Silesia	Regional Government Authority	2015-2018	Yes

region in question show considerable potential. It also indicates that according to the status of the Polish Listed Monument to a property or a group of properties is a precondition for nominating a property for inscription on the UNESCO List. Furthermore, given the fact that the paper mill in Duszniki will be nominated for inscription as a part of a serial nomination, the following action described in the Programme seems to be of considerable importance: *Encouraging and promoting interregional and cross-border cooperation on protection of historic monuments and sites and cultural heritage as part of which it is planned to take actions involving: building and fostering institutional relations (in the interregional and cross-border dimension) concerning protection and use of cultural heritage, stimulating the share of knowledge and best practices, sharing proven solutions in protection, renovation, and use of historic monuments and sites as well as management and revival of cultural heritage, as well as implementing joint interregional and international cultural heritage projects*⁸³.

FINANCING

The Museum of Papermaking in Duszniki-Zdrój – being a cultural institution operated by the Regional Government Authority of Lower Silesia – is financed, inter alia, from the budget of the Regional Government Authority of Lower Silesia. Specified-user subsidy granted from the budget of the Regional Government Authority of Lower Silesia and aimed to finance current operations of the institution (which result) from its charter – including property maintenance and renovation – is the main source of Museum's income. According to the data published by the Museum of Papermaking, in 2015, the basic subsidy of the organizer amounted to PLN 1,490,228. Further subsidies granted in 2015 include: subsidy granted by the District Starosty in Kłodzko (PLN 5,000) and by the Municipality of Duszniki-Zdrój (PLN 10,000), net sales income (PLN 830,210), other operating income (PLN 43,533).

In the last several years, financial means for renovation, refurbishment, adaptation, and preservation works conducted in the paper mill premises have been acquired from projects implemented by the Museum of Papermaking and subsidised by the European Union. Furthermore, possible sources of financing works to be conducted in properties listed in the record of historic

monuments and sites – from the budget of local and regional government bodies – include:

- ✓ Lower Silesia Regional Government Administration – financial resources are allocated annually for carrying out conservation, preservation, renovation and construction works in historic monuments and sites entered in the record of historic monuments and sites, located across Lower Silesia. The subsidy is granted under provisions of the Resolution no. XXVIII/788/12 of the Local Government Assembly of 8 November 2012 on formulating rules governing the process of granting subsidies for carrying out conservation, preservation, renovation and construction works in historic monuments and sites entered in the record of historic monuments and sites, located across Lower Silesia. It is of great importance to the Museum of Papermaking that it is adopted in the said resolution that *in the event of a historic monument or site being of outstanding historical, artistic or scientific value, a subsidy can cover 100% of the total amount of financial means needed for carrying out all necessary works*. Furthermore, what is also provided in the resolution is the maximum amount of a subsidy, not exceeding, however, PLN 200,000. In 2016, the total amount of subsidy was PLN 5 mln.
- ✓ Municipal Government Administration of Duszniki-Zdrój – subsidies.

4.2.1 Conclusions and recommendations

In the current legal situation, no statutorily defined forms of protection falling within jurisdiction of the municipal government authority are used (protection provided in the local land use plan, the culture park). It is necessary to improve protection of a property or site in the wider context of the historic Old Town and to manage it, both basing on local law and using the findings provided in the strategic documents of the municipal government authority. It is of utmost importance to include protection and development of the paper mill in the spatial, marketing, social, economic, etc. policies of the municipal government authority of Duszniki-Zdrój. For this purpose, the following actions are recommended:

- ✓ Developing and adopting a local land use plan covering at least the area falling within the confines of the previously established buffer zone of the paper mill (based on pre-planning documents – *The Analysis of Cultural Values* or the updated *Analysis of Historic Urban Structures* and including the use of landscape and view analysis). This need follows from the

⁸³ *Program Opieki nad Zabytkami Województwa Dolnośląskiego (Programme for the Care of Historic Monuments and Sites in Lower Silesia)*, p. 15

fact that the current protection measures – undertaken because the area surrounding the paper mill (within the confines of plots of land adjoining the paper mill premises) is listed in the register of historic monuments and sites – are insufficient to protect the wider landscape and spatial context of the paper mill premises;

- ✓ Establishing, by City Council's resolution, a Culture Park and developing a protection plan for it. The area of the culture park should also cover the paper mill premises, including their surrounding areas. The conclusions and recommendations provided in this study – with respect to matters pertaining to management of the area surrounding the historic site – should be included in the CP protection plan.
- ✓ Updating the *Study of Land Use Conditions and Directions* which will provide for inclusion of the other part of Kłodzka street – including the paper mill premises and their immediate surrounding – into the strict historic preservation overlay zone 'A', in line with the borders of zone A as set forth in the *Analysis of Historic Urban Structures*.
- ✓ Developing and adopting *Municipal Programme for the Care of Historic Monuments and Sites for the City of Duszniki-Zdrój* – an obligatory document required by law from a local government unit, under the provisions of the Act of 23 July, 2003 on the protection and guardianship of historic monuments and sites. It is recommended for the programme to list specific measures and tasks to be undertaken by the municipal government authority in order to support: protection of the most valuable property in the city, i.e. the paper mill, the process of acquiring financial means, marketing activities, and the use (e.g. the car park-related issue) of the premises. Other recommendations and conclusions presented in this management plan should be also taken into consideration in the Municipal Programme.
- ✓ Considering and prioritizing the paper mill in other documents adopted by the city, i.e. strategies, revival plans, projects, etc.
- ✓ Exercising the city's power granted by the 'Landscape Act' under which local authorities can use specific and more effective tools for formulating rules governing installation of street furniture, fences, advertising boards and signs, as well as setting out conditions applied to this process. It is of paramount need to write and adopt – by City Council's resolution – 'Standards in Displaying Outdoor

Advertisements and Signs'. It is of tremendous importance to formulate rules governing the display of advertisements and signs as the absence of these principles negatively affects the aesthetic qualities of the areas adjacent to the paper mill premises.

- ✓ Analysing the possibilities of increasing the amount of financial means to be acquired in form of subsidies. The current number of subsidies that the Museum receives from the regional government authority of Lower Silesia is insufficient. It must be considered whether there are any viable opportunities to increase the amount of financial means available to the Museum within the current formal and legal structure (organizational and financial dependence on the regional government authority of Lower Silesia) – not only for financing current operations, preservation and renovation works, and maintaining the properties of great historical significance, but also for development. In the event of no such opportunities being available, one should make serious efforts through which the Museum would be co-run and co-financed by the Regional Government Authority of Lower Silesia and the Ministry of Culture and National Heritage. The fact that the paper mill was accorded the status of the Polish Listed Monument should make these efforts successful – both in formal and financial aspects.
- ✓ Sufficient financial means should be secured for implementation of recommendations listed in this Management Plan, in particular the ones concerning: conducting architectural, preservation, and renovation works as well as producing nomination proposal documents – for inscribing the premises on the UNESCO List – and taking all preparatory actions related to this process, in particular: searching for partners to the serial and cross-border nominations, undertaking different marketing activities and publishing scientific and research papers. Regional Government Authority of Lower Silesia, as the founder of the Museum, should provide financial means for performing the said actions. Support from other sources of financing is also possible.
- ✓ Increasing the number of employees in the Museum of Papermaking. Currently, the number of the members of staff is insufficient to stimulate development of the Museum of Papermaking. According to the management of the Museum, in order to implement the 'Incubator of Culture' project, ten new employees will need to be hired.

PART 2

DESCRIPTION OF THE PROTECTION
AND PROPERTY MANAGEMENT SYSTEM

5 Threats and monitoring

The issue of factors which may have damaging impact on historic monuments and sites and, more broadly, heritage – as a matter of tremendous importance in the protection system – is frequently looked at in the Polish legislation. Additionally, it is a crucial element of the methodology of protecting and managing properties of the most significant value. Each property, regardless of its type, is exposed to different factors which may have damaging impact on its condition. These factors fall into two categories: anthropogenic and natural. In order to effectively protect and manage a property, it is necessary not only to define which factors – both the present and possible ones – may negatively affect the condition of an asset but also monitor these factors in order to take measures aimed at preventing or, at least, diminishing their damaging impact on the property and its value. In protection and management, it is of great importance to describe and monitor factors which may affect a property, as these actions are aimed at preventive protection in particular. Identification of factors which may exert adverse impact on a property or site, assessment of their possible occurrence and taking appropriate actions aimed at mitigating and preventing their harmful effects allows for avoiding the real risk, preventing destruction, and protecting the values of the property or site.

In the former pragmatics of protecting the paper mill in Duszniki-Zdrój as a property of outstanding historical value – also accorded the status of the Polish Listed Monument – possible factors which may exert

adverse impact on the subject property are identified and removed by applying provisions of the Act of 23 July, 2003 on the protection and guardianship of historic monuments. This act allows for countering and mitigating harmful effects that different factors exert on properties and sites of great historical value covered with legal protection. In the act, these factors include actions which either fall under the ‘It is prohibited’ category or require a permit issued by a Regional Historic Preservation Officer for their performance. They make up, however, only a small part of all possible factors which may have severe impact on a historic monument or site. These factors are identified by a property manager or historic preservation officers, yet no system-based measures falling within this scope are available at the moment. These actions seem to be insufficient in case of groups of properties of great historical value.

5.1 DESCRIPTION (DETERMINATION) OF THREATS TO BE IDENTIFIED AND MONITORED

A property or site and its different values can be severely affected by a number of factors – both natural and anthropogenic. The following identification and description of current (and possible) threats to the paper mill premises of great historical value falls into three categories. The description covers threats affecting:

- ✓ directly the property/attributes;
- ✓ protection and management system;
- ✓ the surrounding area and the environment where a property or site is located.

In the process of identifying and describing factors which may have deleterious effect on a property or site, references were made to the typology of threats indicated in the nomination proposal.

Direct threats to a property/attributes

The essence of protecting a property or site is to preserve not only its values represented by the attributes but also the features being the evidence of its authenticity and integrity (quality of the property or site). When the objective is defined in this way, assessment of potential threats should be based on identifying and describing all threats (the existing and the potential ones), which may affect preservation of values and attributes of the property or site. In order to optimize

protection and management actions, it seems appropriate to define specific threats to each attribute and assess these threats in terms of authenticity and integrity of the property or site. The table below shows factors which may have severe impact on the value attributes of the paper mill in Duszniki-Zdrój – indicators for each attribute are determined, threats to each attribute are listed, and, additionally, it is specified whether a particular threat has the same, smaller, or greater impact on how the property is authentic and integral.

Reference:

A authenticity

I Integrity

A/I references to both A and I are equally important.

A>I the attribute is of greater importance to how the property or site is authentic

A>I the attribute is of greater importance to how the property or site is integral

Relating threats to value attributes of a property or site and the impact which the threats exert on authenticity and integrity

Attribute category	Attribute	Attribute elements	Indicator	Threat	Impact exerted on preservation of authenticity and integrity
SPATIAL SCALE	Location	Location, given the city layout	Preserving the original connection between the paper mill and the market (Kłodzka street).	Urban pressure	A>I
		Location, given the watercourses	Preserving the former course of the Bystrzyca Dusznicka/reconstruction of the flume		
		Location, given the roads	Preserving the original street layout		
	Spatial layout Paper mill premises	Size	Making no changes to the current size of each building	Investment operations involving: overbuilding, extension, and redevelopment works	A
		Composition layout	Making no changes to the existing composition layout	Investment operations involving development: layout transformations	A>I
		Access to and from the buildings	Making no changes to the existing access to the buildings	Investment operations involving museum operations and development as well as visitor service.	A>I
		Functional and technological connections	Preserving/partially reconstructing the original functional connections	Investment operations involving museum operations and development as well as visitor service.	A>I
	Surrounding area	Surrounding area under Museum's ownership – all elements exerting impact on the character of the place: contemporary buildings, vegetation, roads and pavements, stairs, street furniture, fences, accessibility.	Either making no changes to how the area is currently developed and which investment operations are to be carried out or making changes to the current composition with the aim to restore the original character of the place and the purposes for which it was originally used.	Investment operations which involve increasing the tourist traffic and serving incoming visitors: modifications, upgrades and compositions dominated by functions and forms failing to fit the character of the place.	A/I

SCALE	External form of the paper mill	The body of the building	Making no changes to the body of the building; preserving all elements of the architectural form typical of paper mills.	Investment operations involving: overbuilding, extension, and redevelopment works Environmental threats, natural disasters in particular (flood, fire, gale); No alarm systems being available or poor condition of systems already installed; Vandalism.	A/I
		Wall faces	Making no changes to the original wall articulation and divisions; Making no changes to the original elements (portals, window frames, bay latrine); Preserving the distinctive character of the faces of representative and production-related walls, including possible reconstruction of the currently non-existing architectural detailing – in the west part of the south wall. Technical condition	Environmental threats, natural disasters in particular (flood, fire, gale); No alarm systems being available or poor condition of the systems already installed; Vandalism; Poor maintenance – no actions taken at all and/or conservation and restoration work conducted in an inappropriate manner	A/I
		Architectural detailing	Making no changes to the distinctive architectural detailing; Technical condition of the decorations.	Environmental threats: – air pollution, – harmful effects of weather conditions (rain, snow, hail, sun rays); – natural disasters (flood, fire, gale); Wear and tear; No alarm systems being available or poor condition of the systems already installed; Vandalism; Poor maintenance – no actions taken at all and/or conservation and restoration work being conducted in an inappropriate manner	A/I
		Colours	Making no changes to the existing distinctive colour design, reconstructed in accordance with plaster analyses.	Environmental threats: – air pollution, – harmful effects of weather conditions (rain, snow, hail, sun rays); – natural disasters (flood, fire, gale); No alarm systems being available or poor condition of the systems already installed; Poor maintenance – no actions taken at all and/or conservation and restoration work being conducted in an inappropriate manner	A

SCALE					
External form of the paper mill	Other elements making the form	Making no changes to the original elements (portals, window frames, bay latrine, drainpipe);	Environmental threats: – air pollution, – harmful effects of weather conditions (rain, snow, hail, sun rays); – natural disasters (flood, fire, gale); Wear and tear; No alarm systems being available or poor condition of the systems already installed; Poor maintenance – no actions taken at all and/or conservation and restoration work being conducted in an inappropriate manner	A/I	
	External architectural form of the drying house	The body of the building	Making no changes to the body of the building	Investment operations involving: overbuilding, extension, and redevelopment works Environmental threats, natural disasters in particular (flood, fire, gale); No alarm systems being available or poor condition of the systems already installed; Vandalism	A/I
		External faces of the walls and the use of colour	Making no changes to the existing wall divisions, articulation, windows and doors; colour design. Technical condition of all elements making up the architectural form.	Environmental threats: – air pollution, – harmful effects of weather conditions (rain, snow, hail, sun rays); – natural disasters (flood, fire, gale); Wear and tear; No alarm systems being available or poor condition of the systems already installed; Poor maintenance – no actions taken at all and/or conservation and restoration work being conducted in an inappropriate manner	A/I
	External form of the pavilion	The body of the building	Making no changes to the body of the building.	Investment operations involving: overbuilding, extension, and redevelopment works Environmental threats, natural disasters in particular (flood, fire, gale); No alarm systems being available or poor condition of the systems already installed; Vandalism.	A/I

SCALE	External form of the pavilion		External form of the pavilion	
	External faces of the walls and architectural detailing	Making no changes to the existing wall divisions, articulation, windows and doors; architectural detailing; Technical condition of all elements being a part of the architectural form.	Environmental threats: – air pollution, – harmful effects of weather conditions (rain, snow, hail, sun rays); – natural disasters (flood, fire, gale); Wear and tear; No alarm systems being available or poor condition of the systems already installed; Poor maintenance – no actions taken at all and/or conservation and restoration work being conducted in an inappropriate manner	A/I
	Colours	Making no changes to the existing, distinctive colour design, reconstructed in accordance with plaster analyses.	Environmental threats: – air pollution, – harmful effects of weather conditions (rain, snow, hail, sun rays); – natural disasters (flood, fire, gale); No alarm systems being available or poor condition of the systems already installed; Poor maintenance – no actions taken at all and/or conservation and restoration work being conducted in an inappropriate manner	A
	Internal form of the paper mill		Internal form of the paper mill	
	Spatial arrangement	Making no changes to the spatial layout	Development-related threats Management-related threats – changes to the spatial layout resulting from new concepts of use	A/I
	Functional layout of the paper mill	Preserving/reconstructing the original functional layout	Development-related threats: transformations Management-related threats – changes to the spatial layout resulting from new concepts of use	A/I
	Internal architectural form of the drying house		Internal architectural form of the drying house	
	Spatial layout of the drying house	Preserving/reconstructing the original spatial layout	Development-related threats Management-related threats – changes to the spatial layout resulting from new concepts of use	A/I
	Functional layout of the drying house	Preserving/reconstructing the original functional layout	Development-related threats Management-related threats – changes to the spatial layout resulting from new concepts of use	A/I

SCALE					
SCALE	Interior design of the paper mill	Polychrome paintings	<p>Degree showing how well the painting decorations being displayed in interiors are preserved</p> <p>Degree showing how well the decorations having been uncovered in the 'Under the dome' room are preserved.</p> <p>Humidity in rooms decorated with polychrome paintings</p>	<p>Environmental threats:</p> <ul style="list-style-type: none"> – changes in humidity, temperature fluctuations, air pollution; Threats following from poor technical condition of the property, e.g. flood, leaks, etc.; Threat of natural disasters, e.g. flood, fire; No alarm systems being available or poor condition of the systems already installed; Vandalism; Inappropriately conducted or faulty conservation works; Development-related threats 	A/I
	The paper mill – material and structure	Material and structure	<p>Preserving the original building materials, types of construction, technical solutions, historically accumulated layers of the elements of historical significance (materials and construction).</p> <p>Making no changes to the original elements of the building and construction structure accumulated in different stages of construction works.</p> <p>How faithful and, at the same time, distinctive are the elements replaced with new construction materials and elements.</p> <p>Type and method of processing the elements being replaced (using the same materials and techniques)</p> <p>Technical condition</p>	<p>Environmental threats:</p> <ul style="list-style-type: none"> – air pollution, – harmful effects of weather conditions (rain, snow, hail, sun rays); – natural disasters (flood, fire, gale); Wear and tear; No alarm systems being available or poor condition of the systems already installed; Vandalism; Poor maintenance – no actions taken at all and/or conservation and restoration work being conducted in an inappropriate manner Using inappropriate material Threats from increased number of visitors Threats from inappropriate use (e.g. excessively loaded ceilings) 	A/I
	Construction of the drying house and materials applied therein	Material and structure	<p>Preserving the original building materials, types of construction, technical solutions, historically accumulated layers of the elements of historical significance (materials and construction).</p> <p>Making no changes to the original elements of the building and construction structure accumulated in different stages of construction works.</p> <p>How faithful and, at the same time, distinctive are the elements replaced with new construction materials and elements.</p> <p>Type and method of processing the elements being replaced (using the same materials and techniques)</p> <p>Technical condition</p>	<p>Environmental threats:</p> <ul style="list-style-type: none"> – air pollution, – harmful effects of weather conditions (rain, snow, hail, sun rays); – natural disasters (flood, fire, gale); Wear and tear; No alarm systems being available or poor condition of the systems already installed; Vandalism; Poor maintenance – no actions taken at all and/or conservation and restoration work being conducted in an inappropriate manner Using inappropriate material Threats from increased number of visitors Threats from inappropriate use 	A/I

SCALE	Construction of the entrance pavilion and materials used therein	Material and structure	Preserving the original building materials, types of construction, technical solutions, historically accumulated layers of the elements of historical significance (materials and construction). Making no changes to the original elements of the building and construction structure accumulated in different stages of construction works. How faithful and, at the same time, distinctive are the elements replaced with new construction materials and elements. Type and method of processing the elements being replaced (using the same materials and techniques) Technical condition	Environmental threats: – air pollution, – harmful effects of weather conditions (rain, snow, hail, sun rays); – natural disasters (flood, fire, gale); Wear and tear; No alarm systems being available or poor condition of the systems already installed; Vandalism; Poor maintenance – no actions taken at all and/or conservation and restoration work being conducted in an inappropriate manner Using inappropriate material Threats from increased number of visitors Threats from inappropriate use	A/I
THE SCALE OF MOVABLE PROPERTIES	Paper mill equipment	Production equipment: – elements from the paper mill in Duszniki – elements acquired and reconstructed	Preserving/recreating/complementing furnishing and equipment	Environmental threats: – changing levels of humidity No alarm systems being available or poor condition of the systems already installed; Vandalism; Thefts; Preservation and renovation works being conducted in an inappropriate manner.	A/I
		Residential equipment and furnishing	Preserving/recreating/complementing furnishing and equipment	Environmental threats: – changing levels of humidity, temperature fluctuations, pollution; Natural disasters (fire, flood); No alarm systems being available or poor condition of the systems already installed; Vandalism; Thefts; Preservation and renovation works being conducted in an inappropriate manner.	A/I
		Museum artifacts	Preserving/complementing collections	Environmental threats: – changing levels of humidity, temperature fluctuations, pollution; Natural disasters (fire, flood); No alarm systems being available or poor condition of the systems already installed; Vandalism; Thefts; Preservation and renovation works being conducted in an inappropriate manner.	A<I

FUNCTIONAL SCALE		Function			
		Production and its availability	Continuing paper production in accordance with the original process of producing laid paper.	Threatening factors following from management operations – giving up paper production, e.g. fall in profitability, lack of qualified staff, change of the concept of how the property is to be displayed, etc.	A/I
		Residential and representative functions	Preserving, emphasising, and displaying residential and representative function of the paper mill premises (interior design, narration and display)	Threats following from management operations: – using the formerly residential rooms for purposes not compliant with the original function they used to serve, – the function being displayed in an inappropriate manner.	A/I
		Museum and related purposes	Making no changes to the profile	No threats	Not applicable
INTANGIBLE SCALE					
	Historical and professional traditions	The paper mill, dated at pre-industrial age, is where laid paper is still produced for demonstration purposes and where museum collections are showcased.	Papermaking tradition is documented and preserved. Unique evidence of manufacturing hand-made paper.	Giving up production of laid paper	A/I
		Papermaker – the profession: continuing the tradition and teaching skills	Continuing the tradition and teaching skills of laid paper production.	The papermaking craft disappearing for economical and social reasons	A/I
	Individuals related to the place	Generations of prominent royal paper makers	Keeping memory of individuals who played prominent role in the history of Duszniki-Zdrój and Silesia alive. Recording and sharing information about individuals linked to the site.	No or erroneous information policy being available	A/I
		Caspar Rathsmann, the painter.			
		Frédéric Chopin			
	Emotional attachment to the place and richness of accumulated historical heritage	Paper mill as paper production workshop	The feeling reflected by a number of attributes.	Transformations, upgrades, works, application of contemporary materials and elements. Giving up paper production in which original, old methods are applied.	A>I
		The paper mill as a 'residence' of the papermakers of Duszniki	The atmosphere and perception reflected by a number of attributes, e.g. the entrance pavillion, ornately decorated external walls, polychrome paintings in interiors.		
		Paper mill as the Museum of Papermaking – an important touristsit, cultural, and education centre.	The feeling of historical character of the premises and the role that paper played in development of civilisation, culture, and arts.		



Photo 75. Flood risk: once per one hundred years; Source: http://mapy.isok.gov.pl/pdf/M33057/M33057Dd1_RS_1.pdf



Photo 76. Flood risk: once per one hundred years; Source: http://mapy.isok.gov.pl/pdf/M33057/M33057Dd1_RS_1.pdf



Photo 77. Flood protection system in Kłodzko District Stream gauges, source: <http://isop.powiat.klodzko.pl/index.php?&link=DATA&opt=Opt-MAP&r=1946112479710194>

Compiling a list of current and potential threats to attributes and their elements allows for indicating negative factors which – as affecting most attributes – need to be presented more broadly and require elaboration on actions aimed to mitigate their deleterious effects. The identified factors which may negatively affect a property and its values include:

NATURAL DISASTERS:

Flood

Flooding is one of the primary threats to the paper mill premises, which follows from the property's immediate proximity to the mountain river. In primary sources, one can find information on the paper mill in Duszniki having been damaged by flood several times in the past. It was in 1998 when the paper mill buildings and its equipment were severely damaged by flood. At that time, paper production room in the paper mill building was flooded, water washed over the foundations of the drying house – which was a serious threat to the structure of the building – and destroyed the museum courtyard. Repairing flood damage translated into incurring major expenditure and replacing selected parts of the elements of historical significance.

In order to prevent possible flood damage in the future, walls along the channel of the Bystrzyca Dusznicka river were heightened. Water management in the area where the premises sit was improved and, hence, water outflow from the lower ground floor is far better. In 2008, the river channel along the area falling under Museum's ownership was cleaned and reinforced. The flood in 1998 was so severe for a part of the city that information about this event is provided in the *The Study of Land Use Conditions and Directions for Duszniki Zdrój*. In this document, it is stated that the areas which may be affected by flood are the areas intended for municipal investment operations, situated along the channel of the Bystrzyca Dusznicka river (the area spreading from the Museum of Papermaking, through Łąki Poborowinowe to the SPA park). According to risk assessment – conducted within the IT system of the Country's Protection Against Extreme Hazards (ISOK) developed by Institute of Meteorology and Water Management – National Research Institute (IMGW-PIB) – floods may strike the subject area once in a hundred years. Furthermore, as set forth in the *The Study of Land Use Conditions and Directions, Regional Water Management Authority in Wrocław ordered Analysis of Flood Protection Systems in Kłodzko Valley (Kotlina Kłodzka), Including Protection of the City of Kłodzko in Particular* (Wrocław Regional Development Agency, 2004). The analysis also provides information on the reach of flood waters from the Bystrzyca Dusznicka river, with a probability of occurrence Q1% and the status of area in particular danger of flooding Q10%. In the *Analysis of Flood Protection Systems (...)*, one can also find information on the reach of the flood which hit in 1998. In Duszniki Zdrój, the reach covers,

for instance, the housing estate at Sprzymierzonych street, the stadium at Chopina avenue, blocks of flats at Zdrojowa street, area along Zielona street, and the SPA park.

Furthermore, due to the area being at risk of flood, the Bystrzyca Dusznicka river is under permanent hydro-meteorological observation. As part of the Local Flood Protection System for Kłodzko District, a fully automated stream gauge and a precipitation station are installed at the Bystrzyca Dusznicka river and in Zieloniec respectively.⁸⁴

An important investment operation – which would strengthen security protection of the paper mill premises – would involve building dry reservoirs at the Bystrzyca Dusznicka river, outside Duszniki Zdrój. According to Kłodzko Starost, Maciej Awizeń, although this concept already exists, these reservoirs will not be built at the current stage of developing the flood protection system in Kłodzko District. From the perspective of protecting the paper mill from flooding, the reasons behind these reservoirs are sound.

Fire hazard

Fire poses serious threat to timber-framed buildings and may result in the entire building being brought to rubble in seconds. Possible causes of fire include natural (lightening) and anthropogenic (accidents during renovation works) factors as well as intentional acts

(arson). Timber is the primary construction material used in the paper mill premises. Therefore, fire hazard is one of the factors which pose threat to the paper mill. In order to reduce the risk of fire, the paper mill was provided with security alarms and fire detection system. The latter one is connected directly to the switchboard installed in the District Headquarters of State Fire Service in Kłodzko. Moreover, in order to offer better fire protection, a water mist fire extinguishing system was installed in the paper mill in 2016.⁸⁵ The system consists of internal and external nozzles (approx. 1200 pieces), a pump, water tank, and detectors. It is a state-of-the-art system, which not only allows for efficient use of water but also minimizes losses inflicted by water released to extinguish fire. Once fire is detected and the process of extinguishing it launches, a fire brigade is notified via the alarm system.

Most certainly, it will never be possible to completely eliminate potential fire hazard. With regard to wooden and timber-framed buildings of great historical significance, this factor is – apart from gradual wear and tear of construction materials – the second major reason behind the decreasing number of historic monuments of this type. However, the fire protection systems currently installed in the Museum of Papermaking – the FOGG system installed in 2016 – can provide effective protection when used and maintained properly.

DEVELOPMENT-RELATED THREATS

Development of tourism; Urban pressure; Adapting the interiors for new uses; Increased number of visitors

Development of tourism in the subject region benefits from a great number of cultural and educational activities offered by the Museum of Papermaking, marketing actions and works for the general public conducted by its members of staff, the status of the Polish Listed Monument. On one hand, there is a particular need for these activities, mainly for social and economic reasons. On the other hand, the increase in the number of visitors also poses certain threats. In properties of

⁸⁴ *Dramatic effects of floods as well as squalls and storms were the reasons behind installing the hydrometeorological monitoring system in Kłodzko District.* In 1997, local authorities made first attempts at introducing this system. The need became more urgent after the devastating flood in 1998 and resulted in launching design and construction works in 1999. The Local Flood Protection System was launched in Kłodzko District in April 2002 and, after having been upgraded several times, it currently consists of: 22 fully automated stream gauges, 17 precipitation stations, a dispatch post in District Crisis Management Centre, 14 dispatch posts in Municipal and Communal Crisis Management Centres, two posts in District Headquarters of State Fire Service in Kłodzko and in Hydrometeorology post of the Institute of Meteorology and Water Management – National Research Institute (IMGW-PIB) in Kłodzko. The data collected in the LFPS is sent in real time – every 15 minutes – to emergency rescue services, fire brigade, and Internet portal. Access to readings of water levels and the amount of rainfall is publicly available. This was the intention of the founders of the system, i.e. not to restrict access to any information which may increase the sense of safety of the inhabitants of the district.

źródło: <http://lsop.powiat.klodzko.pl/index.php?&link=DATA&opt=OptMAP&rl=1946112479710194>

⁸⁵ The system was installed as part of implementation of the project under the name “Renovation and adaptation of the drying house of great historical value for new uses and providing fire protection to the Museum of Papermaking in Duszniki Zdrój, including preservation and digital archiving of its collections,” financed from state budget, EEA and Norway Grants.



Photo 78. Water mist extinguishing system Archive of the Museum of Papermaking

small size – such as the subject paper mill – the increased number of visitors may considerably affect not only the safe use of the premises but also its values. The growth in the number of visitors and, hence, more extensive use of the properties pose a wide variety of threats to the premises. These include: increased humidity in interiors (which exerts negative influence on the condition of polychrome paintings), increased fire hazard, increased risk of damaging architectural elements, furnishing, and decorations, as well as of acts of vandalism and thefts. Other development-related threats can be posed by site manager's efforts aimed at changing the use of the properties, as a result of which the authenticity of the site has been affected. To some extent, the drying house was affected in this way. Another factor which may have deleterious effect on the subject premises is an investment project planned for implementation, which involves building new premises and tourist service infrastructure in close proximity to the paper mill.⁸⁶ The current heavy use of the building may exert damaging impact on load bearing capacity of the ceilings.

Additionally, a number of development-related threats concerns renovation and preservation works. When these actions are taken, fire hazard increases and works conducted in an inappropriate manner can be the reasons behind flooding or affecting elements of historical significance.

⁸⁶ More detailed analysis of this problem is provided in the chapter on displaying the paper mill properties, making them accessible to as many visitors as possible, and development of tourism.

Environmental threats (pollution, climate changes, etc.):

Environmental factors, e.g. air pollution or severe weather conditions may exert adverse impact on the subject paper mill premises – where timber is the predominant construction material. The main sources of air pollution affecting the paper mill in Duszniki Zdrój include: road transport, coal heating, pollutants from external sources and, to a smaller extent, industrial production – which plays minor role in the subject region. It is obvious how severely these factors may affect timber structures. Regional Agency for Environmental Protection in Wrocław is responsible for monitoring air quality in Lower Silesia. Air quality monitoring stations which are in the closest proximity to Duszniki Zdrój are the stations in Kłodzko and Kudowa-Zdrój.⁸⁷ At present, in Duszniki Zdrój, in the Spa zone A, there is a weather station where it is planned to install dust measurement equipment in August/September 2017. Results of the preliminary analysis of the air quality in Duszniki Zdrój will be published in September. At present, Duszniki Zdrój is not covered by any environmental protection programme.⁸⁸ Therefore, no up-to-date analysis of the current situation and possible actions to be taken with the aim of reducing air pollution in the city is available. In the last environmental protection programme covering Duszniki Zdrój, traffic pollution along the national road no. 8 (running in close proximity to the paper mill premises) was indicated as a serious problem. Moreover, transporting hazardous materials on this road was also mentioned as a potential threat. Precipitation and air pollution exert damaging impact especially on the external elements of the premises, i.e. roofs and wall faces, parts of which are replaced in regularly conducted conservation and restoration works.

⁸⁷ Real-time air quality measured in the aforementioned monitoring stations is available on <http://powietrze.gios.gov.pl/pjp/current>.

⁸⁸ The last Environmental Protection Programme for the Municipality of Duszniki Zdrój was in force in the years 2005–2011.

Factors which may have deleterious effect on the protection and management system

The property protection and management system presented in chapter 4 (national and local) provides reasons for indicating the primary threats in this area. As these threats can produce more unwelcome changes to property values, it is of considerable importance to identify factors which may adversely affect particular elements of the state and regional protection systems. It must be also emphasised that with regard to Polish Listed Monuments – as in the case of UNESCO properties – *measures undertaken on the national level lie, obviously, outside the scope of responsibilities of managers of specific properties and, hence, they are not subject to management plans. They must be taken into account in*

*management plans only as determinants.*⁸⁹ Due to this – although it was presented in the management plan – the state protection and management system is not the subject of the analysis. The most important threats to particular elements of the regional system are presented in the table and not provided with any detailed comments as the subject matters are discussed more exhaustively in chapter 4 in the Management Plan (including indication of conclusions and recommendations).

⁸⁹ B. Szymgin, *Światowe dziedzictwo kultury UNESCO – charakterystyka, metodologia, zarządzanie*, Warszawa-Lublin 2016.

The most serious threats to the regional protection and management system

ELEMENT OF THE REGIONAL PROTECTION SYSTEM	THREATS
Site manager	Employee turnover on decision-making positions Individuals demonstrating poor or no skills at all Poor management of human resources Failing to understand the meaning of the property value
Museum staff	Reducing the number of employees Employees failing to show the necessary skills Internal conflicts
Regional government authority acting as the organizer of the Museum of Papermaking	The Museum being provided with insufficient support or no support at all in its efforts to inscribe the paper mill on the UNESCO World Heritage List. Underestimating the importance of the paper mill and its value in the context of the entire cultural heritage in the region. No integrated tourism information and region promotion systems being available
Acts of local law and strategic documents	Insufficient or no information on property protection being provided in strategic documents and the local land use plan. No strategic documents concerning heritage protection and management on the local, district, and regional levels being developed and adopted. Omitting the issue of paper mill protection in strategic documents. No joint actions – complementing and being in line with the aims pursued by the Museum of Papermaking – carried out by the local government bodies with the purpose of protecting, promoting, and developing the museum.
Financing	Reducing the amount of the specified-user subsidy Failing to turn to external sources of finance

Factors exerting adverse impact on the environment and areas surrounding the property or site

There is a considerable number of factors which may have deleterious effect on the environment and areas surrounding the paper mill and the Papermaking Museum. These include, for instance economic, social, political, and demographic factors. Site manager has no opportunity to influence these changing conditions and determinants. However, decisions made by the municipal government administration of Duszniki Zdrój have major influence on running and developing the museum as well as protecting the values of the paper mill. This pertains to, for instance, the local government's policy on shaping and protecting the cultural sphere of the city, planning its development, carrying out educational policy and tourism development policy as well as on issues concerning regional economy and business. These matters are also discussed – although in slightly different contexts – in other chapters in the management plan. However, there seem to be sound reasons behind indicating the most serious threats which are presented by the activity (or a lack of it) of the local government bodies. These include, in particular:

- no local land use plan covering areas adjacent to the paper mill premises being available as well as failing to include views and view corridors at the paper mill premises in spatial planning – this results in the paper mill premises being inadequately protected against results of development-related activities, especially the ones that affect the areas surrounding the subject site. When no legal protection is available, there is a risk that properties not matching the design of the paper mill and, hence, badly affecting panoramic harmony and exhibition values of the paper mill, will be put up both in a longer and shorter distance from the subject premises.
- potential threat of investment pressure
- failing to perform actions provided in the revival programme; further decapitalization of buildings in closest proximity to the paper mill (this pertains to Kłodzka street in particular);
- stimulating spa and winter sport tourism whereby disregarding cultural heritage
- possible conflicts between the municipal government administration bodies and the Museum of Papermaking about, for instance, tourism development and tourism-related infrastructure (e.g. the issue of car park)

5.2 DESCRIPTION OF THE PROPERTY MONITORING SYSTEM

In general, monitoring is understood as qualitative and quantitative measurement or observation of a phenomenon performed regularly for a definite time.

As of yet, management operations performed in the paper mill, have not included comprehensive monitoring run in other Polish Listed Monuments. Obviously, this does not mean that the paper mill in Duszniki was not monitored as a site of great historical significance at all. Site manager, who supervises the subject site and can mitigate or counteract deleterious effects produced by various factors, is responsible for security of the site and protection of its values on a daily basis. Site manager has also a statutory duty to care for the property he is responsible for. This means that this individual should preserve and maintain the property of great historical significance in the best condition possible and use it in a way ensuring permanent preservation of its values. However, in order to fulfil these duties, the property needs to be monitored. Furthermore, the premises are also monitored by the staff of government administration offices and bodies responsible for protection of historic monuments and sites, i.e. historic preservation offices and National Heritage Board of Poland. Historic preservation offices monitor not only renovation and preservation works but also the condition in which a property or site is preserved and protection measures implemented in it. Additionally, they are obliged to take appropriate actions if they obtain information on any threat to a property or site of great historical significance. National Heritage Board of Poland is, however, responsible for recording all works conducted in a historic property or site – renovation, conservation and restoration works, alterations made in the area surrounding the asset (photographs taken from the same spots) in particular – as well as assessing threats and the condition of properties and sites. It must be, however, emphasised that these activities are not system-based. They are isolated operations performed more or less frequently.

Additionally, a number of threats – threats of natural disasters in particular – are being monitored either by local government bodies being statutorily liable for this process – on district level in particular – or by institutions appointed specially for this purpose. Actions aimed at minimizing effects of threats or repairing damage these factors caused fall within the scope of emergency event management procedures. Threats are monitored, for instance, by: State Fire Service

(fire hazards), National Water Management Board and its field offices (flood threats), District Construction Supervision Inspector (construction risks), Police and Municipal Guards (threats to public safety and order), Environmental Protection Inspection (ecological threats). With regard to protection of historic monuments and sites and heritage management in Poland, several different types of monitoring have been defined. These types function either as theoretical solutions or pilot attempts to monitor properties of great historical significance :

- monitoring of the record, which involves not only assessment of the condition in which elements of historical significance are preserved but also observation of changes occurring in this matter;
- monitoring of threats, which involves assessing how probable events which may have deleterious effect on a historic property or site are as well as identifying their nature;
- management monitoring understood as identification of changes in the use and management of a property or site as well as legal determinants related to them;
- monitoring of actions, which involves assessment of effectiveness of a specific programme, project, and process on the basis of selected indicators⁹⁰.

It must be born in mind that given the current structure of the museum's operating activity, it is actually impossible to perform monitoring actions in all the aforementioned areas. Therefore, for the purposes of this management plan – given both the power of the site manager and the practical aspects of monitoring – special effort was channelled into monitoring the condition of the property and its values being conveyed by isolated and previously described attributes. Monitoring of attributes offers real chances for noticing and recording changes occurring in a property or site and, hence, provides opportunities for counteracting and mitigating harmful effects that different factors exert on properties and sites of great historical value. Observing, measuring and/or analysing indicators defined

for each attribute allows for assessing the condition of these attributes and taking appropriate measures in the event of a threat. Indicators related to specific attributes are used, predominantly, for measuring and assessing factors determining the value of an asset. Indicators understood in this way are parameters used for monitoring specific attributes (or their elements) and assessing changes of these attributes, if need be. Monitoring conducted in this manner seems to be an effective method for early detection of threats and unwelcome changes which may exert adverse impact on the values of a property or site.

Furthermore, monitoring activities recommended to the site manager involve monitoring other factors affecting the property and the areas surrounding it.

Monitoring patterns are presented in the table below.

⁹⁰ All the aforementioned types of monitoring as well as the actions falling within their scope are presented in details by Andrzej Siwek in his article "Monitoring of Historic Monuments in the Context of Management of the World Heritage Site," in B. Szmygin (ed.), *Management of UNESCO World Heritage Properties and Sites on Polish territory – Selected Issues*, Warsaw, 2015, pp. 147–166.

Monitoring of a property with reference to each attribute

ATTRIBUTE CATEGORY	Attribute	Attribute elements	Indicator	Measurement/analysis method	Frequency	Responsible body	
SPATIAL SCALE	Location	Location, given the city layout	Preserving the original connection between the paper mill and the market (Kłodzka street).	Drone photographs Background maps Analysis of municipal investment operations	Every two years	Municipal Government Administration	
		Location, given the watercourses	Preserving the former course of the Bystrzyca Dusznicka/reconstruction of the flume				
		Location, given the roads	Preserving the original street layout				
	Spatial layout	Size	Making no changes to the current size of each building	Possible changes and transformations following from the most recent monitoring examination	Annual	Site manager	
		Composition layout	Making no changes to the existing composition layout				
		Access to and from the buildings	Making no changes to the existing access to the buildings				
		Functional and technological connections	Preserving/partially reconstructing the original functional connections				
	Surrounding area	Surrounding area under Museum's ownership – all elements exerting impact on the character of the place: contemporary buildings, vegetation, roads and pavements, stairs, street furniture, fences, accessibility.	Either making no changes to how the area is currently developed and which investment operations are to be carried out or making changes to the current composition with the aim of restoring the original character of the place and the purposes for which it was originally used.	Drone photographs Possible changes and transformations following from the most recent monitoring examination.	Annually	Site manager	
	SCALE	External form of the paper mill	The body of the building	Making no changes to the shape of the building; preserving all elements of the architectural form typical of paper mills.	Photographs Description of possible transformations and works to be conducted	Annually	Site manager
			Wall faces	Making no changes to the original wall articulation and divisions; Making no changes to the original elements (portals, window frames, bay latrine); Preserving the distinctive character of the faces of representative and production-related walls, including possible reconstruction of the currently non-existing architectural detailing – in the west part of the south wall. Technical condition	Photographs Analysis of how well the elements of historical significance are preserved and technical condition analysis; drawing conclusions verified in upcoming monitoring examination. List of historic preservation permits for conducting renovation, conservation, and restoration works	Annual	Site manager in cooperation with RHPO and Area Office of the National Heritage Board of Poland
Architectural detailing			Making no changes to the distinctive architectural detailing; Technical condition of the decorations.				

SCALE					
External form of the paper mill	Colours	Making no changes to the existing, distinctive colour design, reconstructed in accordance with plaster analyses.	Photographs	Every two years	Site manager
	Other elements making up the form	Making no changes to the original elements (portals, window frames, bay latrine, drainpipe); Technical condition	Photographs of the individual elements Analysis of how well the elements of historical significance are preserved and technical condition analysis; drawing conclusions verified in an upcoming monitoring examination. List of historic preservation permits for conducting conservation and restoration works	Annually	site manager in cooperation with RHPO and Area Office of the National Heritage Board of Poland
External architectural form of the drying house	The body of the building	Making no changes to the body of the building	Photographs Description of possible transformations and works to be conducted	Annually	Site manager
	Faces of the external walls and the use of colour	Making no changes to the existing wall divisions, articulation, windows and doors; colour design. Technical condition of all elements making up the architectural form.	Photographs Analysis of how well the elements of historical significance are preserved and technical condition analysis; drawing conclusions verified in an upcoming monitoring examination. List of historic preservation permits for conducting renovation and preservation works	Annually	Site manager in cooperation with RHPO and Area Office of the National Heritage Board of Poland
External form of the pavilion	The body of the building	Making no changes to the body of the building.	Photographs Description of possible transformations and works to be conducted	Annually	Site manager
	Faces of the external walls and architectural detailing	Making no changes to the existing wall divisions, articulation, windows and doors; architectural detailing; Technical condition of all elements being a part of the architectural form.	Photographs Analysis of how well the elements of historical significance are preserved and technical condition analysis; drawing conclusions verified in an upcoming monitoring examination. List of historic preservation permits for conducting renovation and preservation works	Annually	Site manager in cooperation with RHPO and Area Office of the National Heritage Board of Poland

SCALE	External form of the pavilion	Colours	Making no changes to the existing, distinctive colour design, reconstructed in accordance with plaster analyses.	Photographs	Every two years	Site manager
	Internal form of the paper mill	Spatial arrangement	Making no changes to the spatial layout	Photographs Floor plans of each storey Description of possible changes	Every two years	Site manager
		Functional layout of the paper mill	Preserving/reconstructing the original functional layout	Description of preservation or changes aimed at restoring original functions	Every two years	Site manager
	Internal architectural form of the drying house	Spatial layout of the drying house	Preserving/restoring the spatial layout	Photographs Floor plans of each storey Description of preservation or changes aimed at restoring the original spatial layout	Every two years	Site manager
		Functional layout of the drying house	Preserving/restoring the functional layout	Description of preservation or changes aimed at restoring original functions	Every two years	Site manager
	Interior design of the paper mill	Polychrome paintings	Preserving painting decorations being displayed in interiors Preserving decorations uncovered in the 'Under the dome' room Humidity in rooms decorated with polychrome paintings	Photographs Description of the present condition and factors which may have adverse impact on the subject premises, i.e. damp, mould, dirt, loosening and peeling of the painted layer, active zophobas morio, mechanical failures. List of conservation and restoration works having been conducted Humidity measurement	Annually and each time conservation and restoration works are conducted	Site manager in cooperation with RHPO and area office of the NHBP in Wrocław Historic preservation committee Conservators and restorers

SCALE						
THE SCALE OF MOVABLE PROPERTIES	Paper mill equipment	Production equipment: – elements from the paper mill in Duszniki – elements acquired from external sources and reconstructed	Preserving/recreating/complementing furnishing and equipment	Photographs List of new acquisitions Museum inventory List of conservation and preservation works	Annually	Site manager
	Construction of the entrance pavilion and materials used therein	Material and structure	as above	Photographs Description of the technical condition Description/list of materials/elements being replaced List of renovation, conservation and restoration works being conducted	Annually and every time renovation works are conducted	Site manager in cooperation with RHPO and Area Office of the National Heritage Board of Poland in Wrocław specialists
	Construction of the drying house and materials applied therein	Material and structure	as above	Photographs Description of the technical condition Description/list of materials/elements being replaced List of renovation, conservation and restoration works being conducted	Annually and every time renovation works are conducted	Site manager in cooperation with RHPO and Area Office of the National Heritage Board of Poland in Wrocław specialists
	The paper mill – material and structure	Material and structure	Preserving the original building materials, types of construction, technical solutions, historically accumulated layers of the elements of historical significance (materials and construction). Making no changes to the original elements of the building and construction structure accumulated in different stages of construction works. How faithful and, at the same time, distinctive the elements replaced with new construction materials and elements are. Type and method of processing the elements being replaced (using the same materials and techniques) Technical condition of the materials and structure	Photographs Description of the technical condition Description/list of materials/elements being replaced List of renovation, conservation and restoration works being conducted	Annually and every time renovation works are conducted	Site manager in cooperation with RHPO and Area Office of the National Heritage Board of Poland in Wrocław specialists

THE SCALE OF MOVABLE PROPERTIES	Paper mill equipment	Residential equipment and furnishing	Preserving/recreating/complementing furnishing and equipment	Photographs List of new acquisitions Museum inventory List of conservation and restoration works	Annually	Site manager
		Museum artifacts	Preserving/complementing collections	Museum inventory List of conservation and preservation works	Annually	Site manager
FUNCTIONAL SCALE	Function	Production and its availability	Continuing paper production in accordance with the original process of producing laid paper.	Yes/No Description of possible changes	Every two years	Site manager
		Residential and representative functions	Preserving, emphasising, and displaying residential and representative function of the paper mill premises (interior design, narration and display)			
		Museum and related purposes	Making no changes to the profile	Yes/No		
INTANGIBLE SCALE	Historical and professional traditions	Traditions of papermaking, improving the production process, high quality of paper made in Duszniki Zdrój.	Documenting and preserving the tradition of papermaking and production of hand-made paper	Yes/No Description of possible changes	Every two years	Site manager
		Papermaker – the profession: continuing the tradition and teaching skills	Continuing the tradition and teaching skills of laid paper production.			
	Individuals related to the place	Families of famous royal papermakers; Caspar Rathsmann (painter), author of portraits and polychrome paintings; Federic Chopin; others.	Keeping memory of individuals who played prominent role in the history of Duszniki Zdrój and Silesia alive. Recording and sharing information about individuals linked to the site.	List of initiatives, publications, etc.	Every two years	Site manager
	Emotional attachment to the place and richness of accumulated historical heritage	Paper mill as paper production workshop The paper mill as a 'residence' of the papermakers of Duszniki Paper mill as the Museum of Papermaking – an important tourists, cultural, and education centre.	The feeling of historical character of the premises and the role that paper played in development of civilisation, culture, and arts.	Tourist surveys	Every two years	Site manager

Monitoring other factors exerting impact on the site and its surrounding areas

Name of the element being monitored	Name of the indicator	Measurement method
Management system	changes to the ownership administrative changes changes to the legal classification /form of protection/ financing (sources of finance, amount of financial means, income structure – amount of financial means being received, profits, other subsidies) management plan being available/ up-to-date	Lists and verification of legal acts, analysis of financial statements
Documents, studies, and popularization	Publications and documentation research programmes events, conferences exhibitions tourist traffic teaching staff – tour guides involved in the subject site research base – involving the subject site	Lists, surveys, statistical data
Conservation and restoration	conservation and restoration works recognizing the need for conducting conservation and restoration works Conservation and restoration works: quality assessment	List of conservation and preservation works List of decisions on and permits for conservation and restoration works Surveys, synthetic data analysis
Use and development	access to the site congestion of tourist traffic functional changes	Quantitative analyses of tourist traffic: the current situation and future needs
Security and safety External factors/threats – environmental – antropogenic – functional /area described with attributes/	availability and condition of protection solutions availability and condition of scanning and measuring systems threats disasters	List of threats already posed Surveys and analysis of reports submitted by appropriate bodies

5.3 CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations on reducing threats and implementing monitoring

- ✓ Site manager needs to cooperate with bodies responsible for monitoring and forecasting the occurrence, intensity, and evolution of hydrometeorological extreme events on the Bystrzyca Dusznicka river.
- ✓ It is necessary for the Museum of Papermaking to develop a protection plan for museum collections and buildings.
- ✓ It is also necessary for the site manager to ensure that the existing fire protection systems work flawlessly. For this purpose, all requirements for maintaining the FOGG system, examining the lightning protection and all monitoring systems must be met.
- ✓ It is recommended to lighten the load affecting the ceilings in the paper mill building through arranging library and stockrooms outside the subject building.
- ✓ It is also recommended to discuss the influence that the planned investment project to be implemented – as part of the 'Incubator of Culture' – in close vicinity to the paper mill premises may exert on the subject site of outstanding historical value. Putting up large buildings in close proximity to the paper mill may have a deleterious effect on the authenticity of the site being discussed.
- ✓ Furthermore, it is necessary for the site manager and the staff of historic preservation office to ensure that the conservation, restoration, and renovation works are conducted diligently and that all attributes having been described as well as authenticity and integrity of the paper mill premises are respected.
- ✓ Moreover, the site manager is advised to exercise ongoing supervision of the technical condition of the material, structure, and preservation of the decor and furnishing of the subject premises as well as to immediately react to any, even minor changes.
- ✓ Additionally, in order to prevent threats, it is of considerable importance for the site manager to cooperate with all local government administration bodies on each level.
- ✓ Furthermore, the municipal government authority has to adopt local land use plan under which the paper mill premises will be protected against deleterious effects of investment pressure and the broader spatial context.
- ✓ It is also recommended to improve protection of cultural landscape through establishing a culture park.
- ✓ In addition, an agreement between the Museum of Papermaking and municipal government authority must be reached on the matter of building a car park (also for coaches) at Sprzymierzonych street.
- ✓ It is further recommended for the site manager to implement system-based monitoring of the property covering not only each attribute – accordance with the list provided in the table (subject, indicators, measurement method, frequency) – but also other factors exerting impact on the subject premises.
- ✓ Moreover, it is necessary to monitor the condition and efficiency of all devices protecting the paper mill – security alarms, fire protection, monitoring equipment, etc.
- ✓ Furthermore, district and regional government authorities are advised to take actions aimed at building reservoirs at the Bystrzyca Dusznicka river (outside Duszniki Zdrój), being a part of the flood protection system covering the Kłodzko Valley.
- ✓ Last but not least, it is recommended to conduct professional assessment of the reasons behind and possibilities of installing drains in the embankment beneath Sprzymierzonych street with the purpose of directing water off the paper mill premises and, hence, mitigating effects of floods.

PART 3

DESCRIPTION OF THE USE
OF THE PREMISES

6 Description of stakeholders

6.1 DESCRIPTION OF THE PRIMARY GROUPS OF STAKEHOLDERS INFLUENCING THE PREMISES AND THE WAY THEY ARE OPERATED

In the policy on protection and management of cultural heritage being pursued at present, it is commonly assumed that good and efficient management requires participation of a large group of stakeholder, i.e. practising participatory management. This practice, although being described and analysed also in Polish literature, is not commonly followed in Poland. However, protection and management of properties and sites of outstanding historical value in Poland (Polish Listed Monuments) as well as accepting the efforts made by the management of the Museum of Papermaking to nominate the paper mill premises for inscription on the UNESCO World Heritage List make identification of stakeholders and definition of the role they serve in protection and management of the site an essential part of the management plan.

In order to identify the groups of stakeholder broadly and in details, the subject term needs to be defined at first. *Stakeholders are individuals (also groups, institutions, organizations) with the most direct and obvious interest at stake in decisions concerning a certain issue.*⁹¹ It must be, however, born in mind that this definition encompasses not only a group of individuals or institutions actively

participating in a certain matter or the management process. Social participation experts claim that the term 'stakeholders' encompasses not only active individuals currently interested in the subject matter but also passive persons currently indifferent to the subject matter, yet having moral right to be interested and actively involved in it.⁹² This extra information is of considerable importance because narrowing 'stakeholders' down to the group of currently interested and active individuals only may result in serious misunderstandings. And, after all, conflict prevention is one of the primary objectives of participatory management. On the other hand, compiling an excessively long list of stakeholders may result in real cooperation being impossible – high cost of this collaboration being the most common reason. Therefore, when identifying stakeholders, on one hand it is recommended to select them in a way providing for real cooperation. On the other hand, however, the list of stakeholders should be updated in the management process, which translates into adding and removing items, depending on circumstances (political, business, social, and cultural) and actions being taken. Stakeholders fall into several different categories. With regard to management of sites of the most outstanding historical value, the structure of stakeholders presented by K. Pawłowska shows many possibilities for categorizing stakeholders, for instance, according to: the nature of their connection to the matter or site (stakeholders: legal, spatial, functional, cultural, business, emotional, professional), the role they serve in the management process, the scope of interests and needs, strength of their connection to the matter, etc.⁹³ In this study, stakeholders are identified in line with the structure and type of issues discussed in the management plan.

⁹¹ K. Pawłowska, "Stakeholders in Processes Applied in Managing Properties Inscribed on the UNESCO World Heritage List " in B. Szmygin (ed.), *Management of UNESCO World Heritage Properties and Sites on Polish territory – Selected Issues*, Warsaw, 2015, p. 10

⁹² See there, p. 11

⁹³ See there, p. 14

6.2 STAKEHOLDERS: DEFINING MAIN AREAS OF COOPERATION

In the below-presented stakeholder identification and definition of cooperation areas, the categories are established according to the role they serve – or may serve in future – given the structure of the Management Plan, conclusions following from analyses of each paper mill protection- and management-related issue

and recommended measures. In terms of objectives to be achieved by implementing this Management Plan, this categorization seems to be the most practical solution. The list of stakeholders provided herein does not contain all potential individuals, institutions and organizations. However, it is a selection of the most important persons and bodies whose participation in the management process seems to be essential.

Table. 3 List of stakeholders of the Museum of Papermaking

The role of stakeholders/ cooperation areas	Stakeholders
Learning about and analysing the property	Site owner, experts in different fields, including art historians, architecture researchers, art conservators and restorers (including expert of the Ministry of Culture and National Heritage), regional higher education institutions, National Heritage Board of Poland and its area office in Wrocław, the Association of Polish Papermakers, the Association of Polish Museologists, Polish National Committee of ICOMOS, regional museum, managers and owners of paper mills across Europe and worldwide, paper mill experts in Europe, paper mill in Velke Losiny and partners from Czechia, regional researchers and enthusiasts, historians, paper companies.
Preservation of the site and its surrounding areas	Owner of the site, Regional Historic Preservation Officer for Lower Silesia, Regional Historic Preservation Office – Wałbrzych office, Historic Preservation Council at Regional Historic Preservation Officer for Lower Silesia, regional government authority of Lower Silesia (founder of the Museum), District Construction Supervision Inspector, experts in different fields responsible for providing information on the technical condition of the site and the elements of historical significance, regional higher education institutions, external experts in different fields, expert of the Ministry of Culture and National Heritage, designers working at investment projects planned for implementation in close proximity to the subject site, contractors for renovation, conservation and restoration works.
State and local protection and management system (including sources of finance)	Owner of the site, Chancellery of the President of the Republic of Poland, Ministry of Culture and National Heritage, Regional Historic Preservation Officer for Lower Silesia, Regional Historic Preservation Office – Wałbrzych office, Marshall Office in Lower Silesia, National Heritage Board of Poland and its area office in Wrocław, District Starosty in Kłodzko, municipal government authority of Duszniki Zdrój, members of parliament and senators from the region, community caretakers of historic monuments and sites, entities running social activities including NGOs, informal groups, tourists, and sponsors.
Threats and monitoring	Owner of the site, Regional Historic Preservation Officer for Lower Silesia, Regional Historic Preservation Office – Wałbrzych office, National Heritage Board of Poland and its area office in Wrocław, Historic Preservation Council at Regional Historic Preservation Officer for Lower Silesia, local government authorities and their organizational units, including District Starosty in Kłodzko responsible for monitoring flood threats as well as municipal government authority responsible for spatial planning, municipal government authorities of Szczytno outside Duszniki, citizens of Duszniki Zdrój, community caretakers of historic monuments and sites, entities running social activities including NGOs, informal groups, tourists, and companies producing and maintaining security systems.
Presentation, Accessibility, Education, Tourism	Site owner, regional, district, and local government authorities and their organizational units, Lower Silesian Tourist Organization, Ministry of Culture and National Heritage, the Association of Polish Museologists, National Heritage Board of Poland, Polish Tourist and Sightseeing Society (PTTK), 'Turystyczna Trzynastka' Association, NOVUM: European Grouping of Territorial Cooperation, travel agents, tour guides, managers of Duszniki Zdrój Spa Resort, citizens of Duszniki, tourists (Polish and international), spa guests, children and secondary school children (using the educational offer), headmasters and teachers of schools in Duszniki Zdrój and across the region, International Chopin Festival Foundation in Duszniki Zdrój, the Association of Polish Papermakers, papermaking and stationery companies.
Use and development	Site owner, municipal government authority of Duszniki Zdrój, businesses being run or potentially run in the city and municipality, citizens, real estate owners and usufructs, managers of real estate located in close proximity to the paper mill, including housing co-operatives and tenants' associations.

6.3 CONCLUSIONS AND RECOMMENDATIONS

The Museum of Papermaking acting as the managing authority of the paper mill – being the subject of this management plan – cooperates with a great number of stakeholders in each of the aforementioned aspects. Participatory management – when a large group of stakeholders is involved – should be beneficial in all of the said cooperation areas, which are of considerable importance for achieving objectives provided in the Management Plan. In the recommendations provided herein – which concern identification of issues and analysis of stakeholders' capabilities in terms protecting and using the site (recommendations concerning organization of specific actions taken in cooperation with stakeholders) – these objectives are categorized in line with the structure of the Management Plan.

Recommendations on specific matters examined in the Management Plan:

- ✓ Acquiring knowledge about the site – it is recommended to enlarge the group of stakeholders in this field. This should produce measurable results with regard to acquiring sound, extensive, and comprehensive knowledge about the property and its values, improving the description of its attributes and assessing how much the property is authentic (including original elements of historical significance) and integral. In Museum's efforts to nominate the paper mill premises for inscription on UNESCO List, it is of considerable importance – apart from studying the paper mill more thoroughly – to intensify actions aimed at finding not only international experts and professionals but also legal and professional stakeholders from abroad, i.e. prospective partners for serial nomination. Moreover, it must be emphasised that the Museum is an important centre for studying the history of papermaking – its library has the most extensive collection of books on papermaking in Poland and the museum collections provide first-rate research material. The studies and analyses resulted in writing ten monographs and nearly 100 articles in the history of Polish papermaking. In this context, such stakeholders as the Association of Polish Papermakers and papermaking and stationery companies (financing the studies) play a pivotal role.
- ✓ The condition in which the subject premises and the areas surrounding them are preserved – given the outstanding historical value of the paper mill premises, it is of utmost importance to provide them with the best protection possible and the highest quality of renovation, conservation, restoration, and adaptation works conducted in historic buildings and their immediate surrounding. All works, especially the ones which may exert deleterious effect on the elements of historical significance, should be preceded by analysing whether no negative impact will be exerted on attributes of place indicated in this Management Plan as well as on their authenticity and integrity. It is therefore advised to consult all actions taken in the subject premises and their immediate surrounding with a large group of 'legal stakeholders', i.e.: Regional Historic Preservation Officer for Lower Silesia, Regional Historic Preservation Office – Wałbrzych office, Historic Preservation Council at Regional Historic Preservation Officer for Lower Silesia, National Heritage Board of Poland and its area office in Wrocław, and Regional Government Authority in Lower Silesia acting as the founding body of the Museum. It is called for cooperating with – at least the aforementioned – stakeholders when making decisions which may have an adverse impact on the premises of great historical significance as well as their values. It is also recommended to appoint independent external experts – not only in disputes but also in the event of making controversial decisions and decisions being of utmost importance for the operating activity of the museum and protection of the historical monument.
- ✓ State and local protection and management system – due to their marginal impact on the state protection system, the recommendations concern the local system. What is of great importance in this field is cooperation with municipal authorities in terms of not only the subject and scope of protection provided under resolutions passed by the City Council – as part of the local land use plan in particular – but also possible chances of establishing culture park. These local forms of protection should complement and support protection of broader landscape context whereby paying attention to outstanding values of the paper mill premises.
- ✓ Threats and monitoring – monitoring is crucial for counteracting the existing and potential threats – both in terms of the technical condition of the premises and preservation of their elements

of historical significance (given the identified attributes). In order to minimize and avoid the existing and possible threats, it is necessary to stimulate cooperation between the stakeholders indicated in the table. Site monitoring should be system-based and conducted regularly by site manager, in collaboration with National Heritage Board of Poland and its area office in Wrocław, i.e. institution responsible – under the NHBP's charter – for monitoring, e.g. Polish Listed Monuments.

- ✓ Presentation, Accessibility, Education, Tourism – the Museum of Papermaking cooperates with a great number of entities responsible for these areas. In order for the subject premises to operate properly, it is sufficient to continue the existing cooperation and take the recommendations provided in the Management Plan into account.
- ✓ Use and development – in this area, a fairly wide group of stakeholders can be indicated. It seems, however, that particular attention should be paid to developing good cooperation between the Museum of Papermaking and municipal government

authority of Duszniki Zdrój. Actions taken by representatives of local government are of considerable importance for development of the site and, in particular, areas surrounding it. Municipal government authority adopted *Local Revival Programme* and started to take actions provided there, which are of great importance for the use and development of the premises and its adjacent areas. Therefore, it seems essential to develop and implement – in the course of cooperation between the Museum and municipal government authority – a coherent action plan aimed at achieving common goals.

- ✓ It is also recommended to continue cooperation with the papermaking and stationery industry being a 'natural' base for the museum (the Museum of Papermaking was founded by paper industry entities who – for over 20 years – financed its operations). The Museum, studying and popularizing papermaking traditions, is also advised to apply for greater support from private papermaking and stationery businesses.

PART 3

DESCRIPTION OF THE USE
OF THE PREMISES

7 Presentation, Accessibility, Tourism

7.1 DESCRIPTION OF ACTIONS TO BE TAKEN, NEEDS AND POSSIBILITIES WITH REGARD TO THE DISPLAY OF THE PROPERTY AND MAKING IT AS ACCESSIBLE TO AS MANY VISITORS AS POSSIBLE

Display, promotion, educational actions, making the property as accessible to as many visitors as possible and development of tourism are closely interrelated issues. Therefore, the activities and methods presented below usually combine all these aspects. Activities in these areas allow for learning not only the history of the premises in question but also their various qualities and thus, can be an interesting educational offer possibly resulting in increased number of visitors. Activities taken by the property manager and a broad range of stakeholders in this area should be in line with the principles behind interpretation of heritage.

In the process of making heritage accessible (...), it is worth using assumptions about interpretation of heritage and rules governing this process, which serve the display of the property – in a reliable manner – to visitors. Interpretation does not aim at education. Its purpose is making changes in attitudes and behaviour, being an inspiration and motivation as well as coining a piece of information into a message that makes sense and, at the same time, is exciting. An appropriate interpretation is based on six principles:

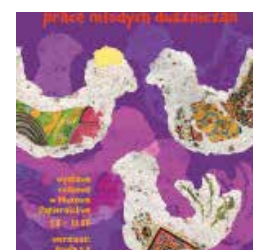
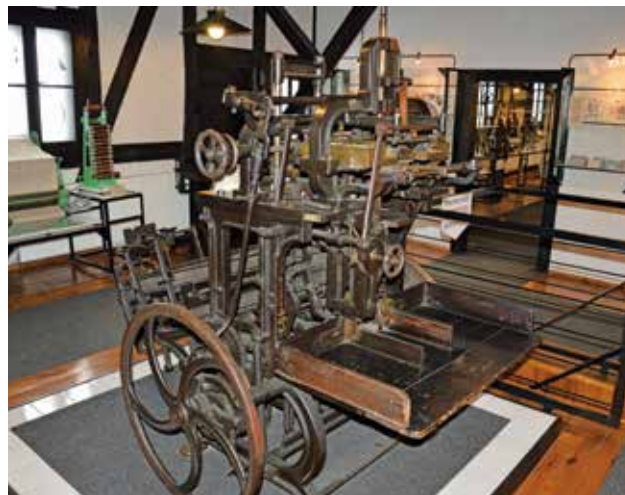
- ✓ *Interpretation should be provocative (...),*
- ✓ *Interpretation should be exploratory (...),*
- ✓ *Interpretation should refer to experience (...),*
- ✓ *Interpretation should be creative (...),*
- ✓ *Interpretation should be reliable (...),*
- ✓ *Interpretation should be tailored to the recipient (...).⁹⁴*

Due to the nature of the current use of the subject premises and their manager, issues related to tourism development, display of the property as well as making it as accessible to as many visitors as possible, are of great significance. It is obvious that these issues play an important role in every museum unit's activity, because making a historic property – the seat of the museum and the place where collections are showcased – as accessible to visitors, presenting and showcasing collections addressed to a wide range of recipients, and the directly related development of tourism, fall within the scope of primary duties of every museum. This matter is, to a large extent, conditioned by statutorily defined tasks and objectives of each museum. Because, in accordance with the *Act on museums*, the purpose of a museum – apart from collecting and permanently protecting properties – is *to inform about values and content of the collected items, disseminate fundamental values of the Polish and global history, science and culture, shape cognitive and aesthetic sensitivity and enable the use of the gathered collections* (Article 1). The said goals are achieved by popularizing information, showcasing collections, carrying out educational activities, which also permanently fall within the scope of duties of any museum. These tasks, laid down by the legislator, include, for instance: *organisation of permanent and temporary exhibitions, carrying out educational activities, promoting and carrying out artistic and culture-promoting activities, making the collections accessible for educational and scientific purposes, providing appropriate conditions for visiting and using the collections and gathered information* (Article 2). All the above-mentioned tasks and objectives directly involve issues of display and accessibility; They also have a direct impact on the initiatives undertaken by the museum, pertaining to development of tourism. At the same time, these tasks are carried out also – for various reasons – by many other stakeholders involved in property management.

⁹⁴ *Dziedzictwo obok Mnie – poradnik zarządzania dziedzictwem w gminach*, Warsaw 2016, p. 188

THE MOST IMPORTANT ACTIVITIES UNDERTAKEN BY THE MUSEUM OF PAPERMAKING, WHICH PERTAIN TO THE DISPLAY OF THE HISTORIC PAPER MILL PREMISES AND MAKING THEM AS ACCESSIBLE TO AS MANY VISITORS AS POSSIBLE, INCLUDE:

- ✓ providing access to permanent exhibitions, illustrating the history and development of hand-making of paper in the world, in Europe, in Poland and in Silesia, as well as illustrating the history and development of the paper industry;
- ✓ organization of numerous temporary exhibitions
- ✓ running an interesting, regularly updated website, containing, first and foremost – next to the history of the mill and the museum – information about the museum collections, exhibitions and events, education and trade opportunities (sales of paper products), as well as a photo gallery and video presentation on the museum;
- ✓ organising and co-organising academic conferences;
- ✓ carrying out publishing activities – booklets and folders, exhibition catalogues, monographic works, and publishing scientific journal, *Rocznik Muzeum Papiernictwa* (issued since 2007);
- ✓ organizing “Paper Festival” – an important annual event having been organized since 2001 that is recognisable not only in Lower Silesia, but also across Poland. Its principal aim is to spread knowledge about paper, its history and importance to development of civilization, as well as its contemporary use. The supra-regional nature of this annual cultural event is also a good opportunity to share information about the paper mill in Duszniki and its outstanding historical values;
- ✓ showcasing ‘wandering’ exhibitions aimed to disseminate information about the subject paper mill outside the Museum, in cultural institutions in Poland and abroad, e.g.: *Hand-laid paper made in Duszniki-Zdrój* (Hagen, Germany); *The history of paper and papermaking* (Kwidzyn, Warsaw, Wrocław, Kłodzko, Nysa, Wałbrzych, Jelenia Góra, Bielsk Podlaski, Lwówek Śląski, Prudnik); *40th anniversary of establishing the Museum of Papermaking* (jubilee exhibition in 2008, presented in Warsaw, Wrocław, Duszniki-Zdrój and Hoya, Germany); *Passports in the member states of the European Union* (presented in Schengen, Luxembourg in 2012);
- ✓ organising external lectures and papermaking shows, e.g. as part of the Science Picnic in Warsaw, the ecology fair in Gołuchów, and various events in





the country and abroad, e.g. in Warsaw, Wrocław, Jelenia Góra, Kłodzko, Brussels, Strasbourg, Nové Město nad Metují (in cooperation with the city of Duszniki-Zdrój, the District Starosty in Kłodzko, partners from the paper industry);

- ✓ organising various cultural events as part of the Night of Museums and the European Heritage Days;
- ✓ organising outdoor painting and drawing sessions (together with the Academy of Fine Arts in Wrocław) and outdoor sessions, exhibitions, workshops, meetings with papercrafting artists (Polish and international);
- ✓ conducting educational activities involving papercrafting, graphics, watermarks and others, related to the currently presented temporary exhibitions;
- ✓ delivering museum lessons to children and young people.

Numerous prestigious awards prove how the Museum has been committed to cultural and educational activities aimed at teaching history of paper and its use. The most important of them, received in the past 10 years, include:

- ✓ The Cultural Award of the Regional Lower Silesian Sejmik – SILESIA 2008, “for making an art from a craft” (2008);
- ✓ Victory in contest organised by the Lower Silesian Tourist Organisation “The Best of Lower Silesia” in the category ‘Tourist Attraction’ (2009);
- ✓ Second Prize in the Competition of the MCNH: The Museum Event of the Year – for the exhibition “Printing techniques of decorating paper and fabric” (2009),
- ✓ Certificate of the Polish Tourist Organization, Tourist Product of the Year 2009.
- ✓ Certificate of the Lower Silesian Tourist Organisation, Tourist Product of Lower Silesia (2010);
- ✓ Award of the Kłodzki Starost, the Rose of Kłodzko, in the category Culture Maker 2011;
- ✓ Honourable mention in the Polish edition of the competition for the “European Destinations of Excellence – EDEN” (2013);
- ✓ Nomination to the title of the Guardian of Heritage of the Republic of Poland organised by the Speaker of the Senate of Poland for preservation and revival of historic properties in the category “the National Award for Institutions”

- ✓ Nomination in the competition of the MCNH, Museum Event of the Year, Sybilla 2012, for the project “Protection and preservation of the historic premises of the Museum of Papermaking in Duszniki-Zdrój” (2013);
- ✓ Nomination in the competition of the MCNH, Museum Event of the Year Sybilla 2012 for the publication “Patterned Papers. Catalogue of collections of the Museum of Papermaking in Duszniki-Zdrój” (2013);
- ✓ The “Silesia” Silesian Cultural Award for protection of the paper mill of great historical value and dissemination of Polish culture in Germany and of German culture in Poland (2016).

A separate presentation should be made on the project implemented by the Museum of Papermaking in the years 2013–2016, entitled: *Renovation and adaptation for cultural purposes of the historic building of the drying house and fire protection of the premises of the Museum of Papermaking in Duszniki-Zdrój, along with maintenance and digitization of collections.*⁹⁵ What has been noticeable in the recent years is intensive development of activities the Museum undertakes in numerous areas of its operation and functioning, including measures aimed to enrich its exhibition, educational and workshop supply, etc., primarily in order to increase the number of visitors. Further progress in this area, however, was difficult, mainly due to the size of the property. The number of visitors to the paper mill, having been at a stable level of around 60 thousand for several years now, is very large for a place of this scale. Therefore, development in this scope was virtually impossible and began to pose possible threats to the historic site being discussed. Considering these circumstances, the Museum management undertook an initiative to enlarge the usable surface by implementing the above-mentioned project. It involved adaptation of the drying house for exhibition, educational and storage purposes, which resulted in obtaining new areas for running the museum’s statutory activities. The main objective of this



POLSKA
ORGANIZACJA
TURYSTYCZNA



GHESIE
ŚĄK



⁹⁵ The project was co-financed in the amount of approximately PLN 3 million from the funds of the „Conservation and revival of cultural heritage” Operational Programme, under EEA Grants 2009–2014 and Norwegian Financial Mechanism 2009–2014

implementation was to improve access to the paper mill premises being discussed and to make its offer more attractive to visitors. It should be noted that adaptation of the drying house certainly resulted in improving the day-to-day operations of the institution, enlarging areas where exhibitions and paper-making workshops can be organized, improving the working conditions and, to a certain extent, improving customer service. This investment, however, was insufficient to solve all the problems and it failed to create prospects for development that would both satisfy the manager of the property and be optimal for visitors. The implementation of the project has, to a certain extent, also brought negative changes to the historic values defined in Part I of the Management Plan. According to the authors of the management plan, the project involving adaptation of the drying house for new uses – although provided with sound reasons of functional nature (improvement of museum work standards, improvement of visitor services, increase in exhibition space, etc.) – exerted adverse effects on preserving and displaying the values of the property and its authenticity. As a result of the renovation, restoration and adaptation works, a number of solutions has been applied in the interior of the building – especially in respect of the materials being used and the internal form of the building, which are not suitable for the character of the drying house and the function it served originally (e.g. high-quality floor boards, plasterboard walls, glass wall, ‘bizarre’ interior glass window casings, secondary interior divisions). This influenced changes in perception of the interior of the drying house and the ‘loss’ of the feeling and understanding of the original function of this property. It seems that these works resulted in the values represented by attributes defined in Part I of the MP as the *internal architectural form of the drying house* and the *drying house function* being reduced to certain extent.

Although adaptation of the drying house resulted in the contemporary functioning of the institution being optimized, at the same time, it had a certain adverse effect on the values represented by the property in question. In view of the above, in the course of implementing subsequent changes (especially the planned “Incubator of Culture”) to the use and display of the museum, it is recommended to preserve all values represented by attributes, including the original function of the buildings and rooms inside them.

BELOW, ONE CAN FIND THE MOST IMPORTANT ACTIVITIES – PERTAINING TO THE DISPLAY OF THE HISTORIC PAPER MILL – UNDERTAKEN BY OTHER STAKEHOLDERS.

In the chapter on stakeholders involved in operation of the paper mill and the Museum of Papermaking, the group responsible for issues pertaining to the display of the property involves a great number of different entities that undertake activities in this area.

Certainly, an important role is played by local and regional authorities and their subordinate units which are statutorily responsible for the display, promotion and popularization of properties of great historical significance located on their territory which, at the same time – as the Museum of Papermaking – are important centres of socio-cultural significance. In this scope, the Museum cooperates with the Municipal Government Administration (e.g. the collaboration with the Municipal Cultural Centre in the organization of the annual “Paper Festival” and other major cultural events), with District Starosty in Kłodzko and, of course, with its founding body, i.e. Regional Lower Silesian Marshall’s Office. At the same time, presentations delivered by many organisations responsible for tourism development as well as associations handling with the socio-cultural development of the city and region show and discuss properties of outstanding historical value in their presentations.

With regard to the Paper Mill in Duszniki-Zdrój – property recognised as a Polish listed monument, that is, a historic monument with distinct values on a national scale – what is also significant are activities undertaken by the National Heritage Board of Poland, a central institution, subordinate to the Ministry of Culture and National Heritage, dealing predominantly with protection and management (including presentation) of historic monuments and sites of the highest value and building their brand. These tasks include: organizing annual (since 2011) meetings addressed to guardians of Polish Listed Monuments, historic preservation services, representatives of local and central authorities, owners and managers of historic monuments and sites, representatives of non-governmental organizations and scientists, whose goals include sharing best practices; building cooperation between guardians of properties; disseminating knowledge about the potential of Polish Listed Monuments and their role in local development. Additionally, the National Heritage Board of Poland also undertakes strictly marketing and outreach activities, for instance issuing publications

on Polish Listed Monuments, publishing information on the website or preparing promotional campaigns, which include, e.g. producing and broadcasting a film about the paper mill (produced by the NHBP and TVP Kultura in 2015).

THE MOST IMPORTANT NEEDS AND OPPORTUNITIES RELATED TO TOURISM DEVELOPMENT AS WELL AS PRESENTATION OF THE SITE AND MAKING IT AS ACCESSIBLE TO AS MANY VISITORS AS POSSIBLE ARE DISCUSSED BELOW.

The Museum of Papermaking is used, first and foremost, for museum purposes, i.e. collecting, showcasing and providing access to artefacts related, predominantly, to the history of papermaking. What is important is that activities taken by the Museum include educational projects and a number of initiatives aimed to create a rich cultural offer, not only for tourists but also for the local community and spa visitors. The need to display and share the property, therefore, in a way, falls within the scope of the Museum's activities. The Museum, in order to remain competitive in the travel and tourist industry, needs to extend the scope of the services it offers, especially the ones related to making the premises as accessible to as many visitors as possible as well as to development of tourism. Further development in this field, however, is deeply challenging due to the small scale of the property being discussed and, hence, difficulties in accepting larger numbers of visitors. At the same time, the specific nature of the Museum of Papermaking is also based on the fact that the seat of the Museum is located in buildings of high artistic, historical and scientific values. The paper mill is a Museum exhibit which is also a historic monument of national importance – property having been accorded the prestigious status of the Polish Listed Monument and being nominated for inscription – together with other European paper mills – on the UNESCO World Cultural and Natural Heritage List as part of a serial, cross-border nomination. In light thereof, the development of the property related, e.g., to expansion of the existing scope and use of the premises must be in line with the primary rule stating that the value of the property, its authenticity and integrity must be preserved and enriched.

Access to the Museum and the number of visitors to the property being discussed are to be improved by implementing the planned project, the "Incubator of Culture" (currently still in concept stage). Museum of Papermaking has been working on this project for the last several years and applying for funds for this purpose.

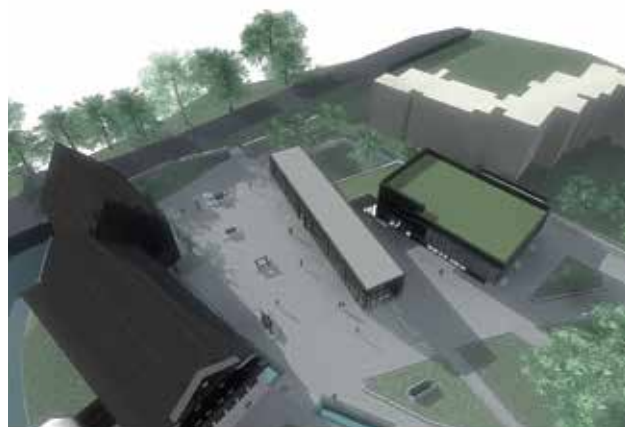
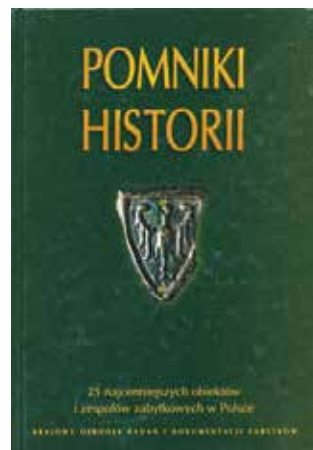


Photo 79. Visualisations of the new investment in the paper mill's surrounding area, according to the functional and spatial concept by SOWA-SZENK S.C.

In the project entitled *The Museum of Papermaking in Duszniki-Zdrój as an Incubator of Culture*, which is planned to be implemented in 2016–2020 and estimated value of which amounts to PLN 22.5 million, involves taking such actions as reconstruction, expansion and adaptation of two contemporary buildings of the exhibition pavilion and the boiler house, located south of the paper mill between the buildings of outstanding historical value and residential district buildings. Having been developed for the purposes of the future investment, the concept assumed – on the one hand – increase of the usable area of the museum, functional integration of the historic buildings of the mill with the newly constructed

buildings and – on the other hand – improving aesthetic values of the view corridors – especially regarding the views from the mill and the paper mill courtyard. The concept was framed on analyses of two proposals. The one that was rejected involved dismantling the existing exhibition pavilion, replacing it with a new building and connecting it with the reconstructed boiler house. The accepted alternative project involved adaptation, expansion and reconstruction of the existing buildings of the old boiler house and the exhibition pavilion, through application of modern architectural forms. It was planned in the concept that glass passages will connect the reconstructed property with the historic mill building. However, in the end, that solution was not adopted. The concept gained acceptance of the Regional Preservation Officer and the Regional Preservation Council. Nevertheless, the way of connecting the reconstructed properties with the paper mill still remains an issue. Construction of an underground passage is being considered. At the same time, the current layout of the museum courtyard is to be changed in order to adapt it to be used as the waiting area for visitors waiting to enter the museum. It is also planned to reconstruct selected parts of the flume.

According to the functional concept, the visitor centre, including a coatroom and a catering area, will be located in a part of the reconstructed pavilion. On the other hand, the reconstructed boiler house is planned to house administration and office space, a woodworking shop, lecture and exhibition rooms, and rooms for storing museum and library collections as well as products and materials. Key objectives of the investment project include: reducing the number of people staying at the same time in the paper mill (through moving selected administration staff out of the historical building as well as relocating the library and museum collections storage), improving the tourist service, creating new education and exhibition rooms, improving the functionality of the museum courtyard, separating the historic buildings of the paper mill from the urban residential area built in the 1980s.

This project is included in the revival programme adopted by the city council as one of items of the *List of the planned, fundamental projects and revival operations*. The main assumptions of the project – the objectives, scope and results, in the context of revival of the city of Duszniki-Zdrój – are shown in the table below.

Tab. 4 Project – the “Incubator of Culture” as part of the city revival program

OBJECTIVES	PROBLEM DESCRIPTION SCOPE OF THE TASKS PERFORMED:	THE PLANNED RREVIVAL RESULT
<p><i>Improvement of the city's image and the image of the area covered by the revival project through upgrading and developing infrastructure as well as improving aesthetics of the surrounding areas.</i></p> <p><i>Comprehensive revalorisation of the post-industrial facilities and their adaptation to serve cultural, tourism, educational and social purposes.</i></p> <p><i>Creation of a cultural centre for paper crafting.</i></p> <p><i>Increasing integration and social activity of the residents, as many Final Beneficiaries as possible, various social groups, including people at risk of exclusion. Promotion of cultural exchange in all fields between associations of creators and artists, cultural institutions and organisations.</i></p> <p><i>Consistency with the specific objectives of the revival project:</i></p> <p><i>3.2 Specific objective: Development of social infrastructure that will contribute to promoting social inclusion through better access to social, cultural and leisure services.</i></p>	<p><i>Problem:</i></p> <p><i>The city's cultural offer is one of the essential elements shaping the image of a spa and tourist city, as well as shaping the quality of life. Actions are needed to improve the quality of and access to cultural activities carried out in the city.</i></p> <p><i>Scope of the tasks to be performed:</i></p> <p><i>Adaptation and expansion of the destroyed, post-industrial buildings purchased by the Museum as well as spatial development of the area adjacent to the historic site being analysed.</i></p> <p><i>Scope of works:</i></p> <ul style="list-style-type: none"> <i>– Demolition of the existing pavilion and construction of a modern exhibition and educational pavilion.</i> <i>– Reconstruction of the old boiler house and its adaption for new uses.</i> <i>– Construction of a connecting passage to the premises (the current Museum seat, the boiler house and the pavilion).</i> <i>– Increase of storage space allowing for gathering collections, storing them in the appropriate manner, and making them available.</i> <i>– Launch of a modern cultural centre in the new facilities as an interactive centre of science and technology with diverse exhibition spaces, and art studies and workshops.</i> <i>– Creation of a congress and exhibition centre providing a comprehensive tourist offer.</i> <i>– Preparation of the Museum of Papermaking to carry out extended educational, cultural and integration activities.</i> <i>– Preparation of the Museum of Papermaking to implement extended educational, cultural and integration activities.</i> 	<p><i>Developing public spaces in the subject area and the post-industrial properties.</i></p> <p><i>Cultural revival through introduction of new cultural and educational functions in the facilities covered by the revival project. Stimulation of the public space through carrying out necessary functional, spatial and construction adjustments of the building and its surrounding areas, including reduction of disproportions in access to culture and cultural assets. Strengthening the role of the Museum of Papermaking as a centre increasing the cultural attractiveness of the city.¹</i></p>

The “Incubator of Culture” project is an important initiative both for the Museum of Papermaking and the development of the city. Analysis of the current use of the paper mill premises and making them as accessible to as many visitors as possible leaves no doubt that there is a need not only for making changes in this respect, especially the ones caused by efforts to minimise risks (e.g. relieving the load on the ceilings) but also for activities related to development of the tourist supply, making the museum as accessible to as many visitors as possible as well as showcasing museum collections. It seems, however, that the planned investment operation requires further discussion and searching for alternative solutions. Initially, it was suggested that the new investment project will involve only extension of the boiler house and concurrent dismantle of the exhibition pavilion. For this purpose, in order to provide food for discussion, new alternative concepts should be developed, including extension of the boiler house as well as production of an arrangement and management plan for the surrounding areas, in which the area left after dismantling the pavilion will be taken into account. In the development concepts, it should be also planned to obstruct the blocks of flats built in the residential areas seen from the paper mill buildings, e.g. through using high greenery. The fundamental aim of these recommendations is to ‘increase’ the distance of the new investment from the historic paper mill premises, as there are sound reasons behind a concern that the planned extension – especially the extension of the exhibition pavilion located only a little more than a dozen meters from the mill and the drying house – may become a competing, isolated property, failing to be harmonised with the historic buildings of the paper mill (in terms of scale, form and material), and, therefore, adversely dominating the subject premises.

To summarize, a brief description of the most important activities of the Museum of Papermaking and other entities, as well as of the needs for and opportunities of carrying out educational activities, showcasing collections, and making the museum as accessible to as many visitors as possible, clearly show that the paper mill premises and the Museum of Papermaking functioning within its borders, are a property with a high social and cultural potential. It is an important cultural centre; its diverse offer, addressed to various recipients – both local, national, and even international – is a very important element in development of the city. At the same time, as it is the only such a profiled museum in Poland located in a historic building – unique on national and exceptionally valuable on the European scale – the range of its influence can and should be supra-local. In this context, and taking into account the potential of the paper mill to be nominated for inscription on the UNESCO World Heritage

List, it seems essential to display the property and make it accessible so that attempts at improving access to the cultural offer would not negatively affect its historical values. Adaptation to developmental conditions – taking into account sustainable development, including the needs and aspirations of all stakeholders of this process – must not affect the value of the historic monument in a negative manner.

While analysing and assessing the current activities and the future plans of the Museum of Papermaking, it must be stated that showcasing collections, making the museum as accessible to as many visitors as possible, and conducting educational actions are the substantial foundations the entity’s activity. In collaboration with a great number of stakeholders, the Museum – as the property manager – carries out tasks related to these issues both through a number of activities that are traditional for museum entities, as well as through undertaking multidimensional initiatives and employing various methods. Their main goal is to disseminate information about the premises, its history, the role of paper in development of civilization and importance of the paper mill for development of the city and region over the course of several centuries, as well as undertake education actions in this field. All the activities carried out in this area also serve, to a large extent, development of tourism.

7.2 DESCRIPTION OF ACTIVITIES, OPPORTUNITIES AND NEEDS RELATED TO DEVELOPMENT OF TOURISM BASED ON VISITS TO THE PROPERTY⁹⁶

Recent activities related to the tourist service and tourism development based on the paper mill are carried out by the property manager and a number of stakeholders – on a local (the city of Duszniki-Zdrój, Kłodzko District), regional and national scale. In fact, all the activities undertaken by the staff of the Museum of Papermaking described in the chapter on presentation and accessibility are aimed at, to a large extent, expanding the tourist offer. In addition, the Museum also undertakes a number of initiatives aimed directly at development of tourism. These efforts produce measurable effects. The number of visitors to the Museum has, for several years, remained at a fairly stable level of approximately 60 thousand, as shown in the table below.

⁹⁶ Development of tourism based on the historic premises of the paper mill falls within the scope of interest of a number of stakeholders. The description provided below focuses on presenting the most important activities, opportunities and needs of the property manager and the local government of the city of Duszniki-Zdrój as entities, whose initiatives in this regard have greatest influence on creating favourable conditions for development of tourism based on the property and thinking up activities for prospective visitors.

Tab. 5 Number of visitors to the Museum of Papermaking in the years 2010–2016 (based on the museum's own data)

YEAR	VISITORS TO THE MUSEUM OF PAPERMAKING IN DUSZNIKI-ZDRÓJ IN GENERAL	INCLUDING MUSEUM LESSONS (VISITING + PAPERMAKING)	PAPER-MAKING WORKSHOPS
2010	64,279	11,359	2,788
2011	64,691	11,224	3,556
2012	59,319	11,761	3,574
2013	58,420	12,284	4,303
2014	63,368	14,305	4,842
2015	60,459	13,063	4,257
2016	64 138	15 448	4,888

Given the small scale of the premises and its capacity, even though the current number of visitors – oscillating around approximately 59–64 thousand per year – seems to be satisfactory, the property manager seeks to increase it. According to the assessment of the Museum management, optimal increase would amount to approximately 80 thousand visitors per year (provided that the accessibility and visiting system is changed after the implementation of the “Incubator of Culture” project). This would bring financial benefits to the Museum. With the current ticket price of PLN 12/16, the increase in income on this account would amount to approximately PLN 200 thousand, which constitutes approximately 13% of the current level of the basic subsidy. There are sound reasons behind the attempts to increase tourist traffic, however, it needs to be remembered that doing so may also pose a threat to the property and its values.

THE MOST IMPORTANT ACTIVITIES TAKEN BY THE MUSEUM OF PAPERMAKING AND OTHER ENTITIES CONNECTED WITH DEVELOPMENT OF TOURISM BASED ON THE PROPERTY INCLUDE:

Advertising the Museum of Papermaking and the historic paper mill premises:

- ✓ in national and local television and radio programmes and the press;
- ✓ on numerous websites, including the ones run by local authorities (City Hall in Duszniki-Zdrój, the Kłodzko District), based on heritage trails – the

paper mill on the Industrial Technology Heritage Trail – tourist trails of regional significance (decision of the Regional Lower Silesian Management Office of 2009) <http://www.szlakikulturowe.dolny-slask.pl/o-szlakach/szlak-objektow-dziedzictwa-techniki-przemyslowej/opis-glownych-objektow-na-szlaku> based on the Museum's participation in tourist fairs in Poland and abroad (e.g. the International Fair of Industrial Heritage and Underground Tourism).

Executing investment projects involving development of infrastructure, making the museum as accessible to as many visitors as possible, and increasing the usable area:

- ✓ the project – *Renovation and adaptation of the drying house for culture-related purposes and providing the Museum of Papermaking in Duszniki-Zdrój with fire protection, including preservation and digitalisation of collections* – implemented,
- ✓ the project – *The Museum of Papermaking in Duszniki-Zdrój as an Incubator of Culture* – in the course of implementation

Development of tourism, perceived as a source of social and economic development of the city, also falls within the scope of interest and aspirations of the local government. In the *Study on land use conditions and directions*, with regard to the needs and opportunities of development of the city, tourism was recognised as one of the most important areas shaping the city's economy: *The economy of the municipality*

of Duszniki-Zdrój is oriented (...) towards the service of tourist traffic primarily related to the city's spa, landscape and tourist values. It was also pointed out that development needs in the field of tourism can be categorized into two groups:

- a) spa visitors, where development needs are limited by the capacity of the city in Zdrój district and the downtown area (old city, Chopin neighbourhood, Wapienniki),
- b) landscape and sports tourism, where development needs are present both at the accommodation base and in the organization of the tourist traffic.⁹⁷

In this area, tourism supply in the city – aimed primarily at development of tourism based on the city's spa offer related to winter sports in Zieleniec – can and should be profiled more extensively. In the context of tourism development, it is desirable to promote the city more than it used to be in the past, also with regard to the resource of outstanding historical value – properties and groups of buildings of great historical significance, with particular emphasis on the role and importance of the paper mill – Polish Listed Monument and property to be nominated for inscription on the UNESCO World Heritage List, and a Museum unique on a national and European scale, showcasing rich collections of rare assets and offering interesting and professionally prepared cultural events. This would significantly expand not only tourism supply in the city, but also make it possible to reach another category of recipients, which may increase tourist traffic.

With regard to development of tourism as well as matters concerning the display, marketing and making the paper mill and the Museum of Papermaking as accessible to as many visitors as possible, collaboration between the property manager and the local government is extremely important.

The paper mill is a historic site accorded the status of the Polish Listed Monument. It is also a famous and active institution of culture which does and should serve a very important function in the city of Duszniki-Zdrój. It is crystal clear that the historic site, i.e. the paper mill, is of tremendous significance for the city itself. First, the mill is located in close proximity to the historical centre of the city, at the historical road (Kłodzka) running

from the city to the paper mill. Second, the Museum is currently the largest, most active and most popular cultural institution in the city and a well-known tourist destination. Third, the Museum plays an important educational role in tutoring children and youth from the city, region and – more broadly – Poland.

Both the city of Duszniki and its residents will benefit when the Museum functions properly and the historic paper mill buildings and their surrounding areas are maintained appropriately. Nevertheless, initiatives which local government representatives undertake in the vicinity of the paper mill premises and in the old town may have either positive or negative impact on development of the Museum and preservation of the values of the historic paper mill. What is of great importance in the context of the paper mill management are the issues concerning the use and development of the areas adjacent to the subject premises – that is beyond the confines of the area covered by the Polish Listed Monument (the area owned by various entities) – with particular emphasis on the role of the local government in creation of future functions and the final development and arrangement of the city's cultural space in the vicinity of the mill premises. Therefore, the vision of the use of the property, which assumes close collaboration of local authorities and the management of the museum in Duszniki, should not rise any doubts. This is what both parties declare. Additionally, they also cooperate in evaluations, analyses and measures provided, e.g., in the *Local Revival Programme*. Investment operations and activities of the city authorities taken in the area designated for revival will be important for improving the image of the areas adjacent to the paper mill. In the context of the Museum's operations, this concerns, first of all, revival and regeneration of Kłodzka Street. At the same time, it is just as important for further sustainable development of the museum that the local government aims to achieve the goals set out in the *Local Revival Programme* as *Revival of public space in the Old Town*. The most important objectives include: *Preserving the historical and cultural heritage of Duszniki-Zdrój for the present and future generations; Raising the integration and social activity of residents; Developing small businesses providing tourist services, also for spa guests; Increasing the economic and tourism potential; Supporting employment and creating new jobs; Improving the standard of living of residents in two ways – on the one hand, through improvement of their financial situation, and on the other hand, improvement of the quality of life in intangible*

⁹⁷ *Studium uwarunkowań i kierunków zagospodarowania przestrzennego miasta Duszniki-Zdrój (The Study of Land Use Conditions and Directions for Duszniki-Zdrój)*, p. 104

aspect; *The cultural and social revival of the Old Town; Bringing down social exclusion, e.g. through elimination of architectural barriers and involvement of persons with disabilities; Involving children, youth and senior citizens in a variety of activities (fostering relations between residents and spa guests); Establishing a new cultural, recreational and sports space; Supporting development of small businesses – tax benefits for entities running their activities in the Old Town and targeting the increase of the number of tourists, including spa guests.*

7.3 CONCLUSIONS AND RECOMMENDATIONS

The paper mill is recorded as Polish Listed Monument. It is a property of outstanding historical value accorded the highest status attached to historic monuments and sites in Poland. The Museum of Papermaking is a dynamically functioning cultural entity – the only Museum of this kind in Poland; it shows enormous potential and offers plenty of opportunities for creating rich cultural offer and developing tourist traffic. The Museum of Papermaking carries out multidimensional activities pertaining to presentation of the subject premises, making them as accessible to as many visitors as possible, as well as undertaking a number of educational activities. Currently, the main problem for the manager of the property – with regard to accessibility and further increase of the number of visitors to the property – is the limited capacity of the facility. This situation is to be changed and improved by carrying out adaptation projects implemented by the Museum in the subject historic buildings and implementing investment projects in the areas surrounding the paper mill.

Actions in these fields, as being important for the socio-economic development, are also undertaken – with varying degrees of success – by a number of entities. Hence, it is particularly important to involve local authorities of the city of Duszniki-Zdrój in implementation of these tasks, whereby all institutions and organisations subordinated to the local government, as well as associations and residents of the city, should be engaged too.

RECOMMENDATIONS FOR PRESENTING VALUES OF THE SUBJECT PREMISES:

- ✓ Assuming, as the fundamental principle (in all activities related to the presentation, accessibility and enrichment of the tourist offer), that preservation of authenticity and integrity of the property as well

as protection, preservation and the display of all attributes whose presence influences the values of the historic premises, are the supreme objective.

- ✓ In the display of the property, including (to a larger degree than before) – next to the history of the historic monument, the history of papermaking and information about the Museum exhibitions – exceptional values of the paper mill premises, as defined in this study.
- ✓ Maintaining and developing the offer in terms of presenting paper handmaking to visitors – presentation of the full production process (e.g. multimedia presentations).
- ✓ Displaying (to a greater extent than before) the element of the attribute defined as the historic *Manufacturing mill equipment– elements from the mill in Duszniki-Zdrój*. Due to the high historical value and the small preserved part of this equipment, these elements should be displayed, described, distinguished as original, preserved artefacts intrinsically related to the functioning of the paper mill.
- ✓ Considering the reasons behind and possibilities of moving and exhibiting the oldest interior polychrome paintings, currently covered with polychromatic ceiling in the 'Room under the dome', or displaying copies of these paintings.
- ✓ (Partially) reconstructing the flume.
- ✓ Considering the possibility of making a target change in the arrangement of the surrounding areas in the closest proximity to the paper mill, given the elements of the historical paper mill development, based on the available iconographic materials.

RECOMMENDATIONS CONCERNING ENRICHMENT OF THE OFFER CONCERNING THE PRESENTATION OF THE PROPERTY:

- ✓ Building a brand for the Museum of Papermaking based on the status of the Polish Listed Monument, including participation of a number of stakeholders.
- ✓ Taking advantage of opportunities provided by the Museum's efforts to inscribe the paper mill on the UNESCO World Heritage List.
- ✓ Using various tools and methods, including modern technologies, in the display of the property.
- ✓ Conducting research on tourists' needs and expectations (e.g. surveys) in order to adapt the cultural and educational supply and display methods

according to visitors' factual expectations.

- ✓ Serving, by the Museum of Papermaking, the current cultural and educational function being of great importance not only for tourists but also for the local community.
- ✓ Continuing publishing activity and publishing a monograph on the paper mill, focusing on the latest findings and scientific research in the field of history and architecture of the facility as well as interior painting decorations (also in foreign language versions).
- ✓ Encouraging cooperation between the Museum and city authorities in making the tourist supply more attractive by building a narrative incorporating the history of the mill into the city's history.
- ✓ Creating a more effective link between the promotion of the city and the Museum, for example by creating a tourist route linking the paper mill with the historical city centre (the city as a historical context for the mill, a link for the narrative).
- ✓ Implementing the proposed "Incubator of Culture" project and making any further changes in the way of use and display of the property should involve taking special efforts aimed to ensure proper protection of all values of the historic premises represented by the attributes, including the functions of the historic buildings and the rooms they house.

RECOMMENDATIONS ON DEVELOPMENT OF TOURISM AND MAKING THE PREMISES AS ACCESSIBLE TO AS MANY VISITORS AS POSSIBLE

- ✓ Improving tourist service through the planned efforts aimed to make the premises as accessible to as many visitors as possible and changing the existing sightseeing routes (the current number of visitors staying at once in the lobby is an inconvenience both for the Museum staff and the visitors).
- ✓ Searching for alternatives to the planned "Incubator of Culture" project:
 - development of new, alternative design concepts involving pulling down the exhibition pavilion and expanding the boiler house;
 - development of new, alternative concepts for managing the surrounding areas adjacent to the paper mill;
 - conducting studies on the expected impact of the project on the increase in tourist traffic.
- ✓ Aiming at an increase in tourist traffic with the assumption that these activities should be preceded by analyses and evaluations of the capacity of the place, also in the context of the tolerance of the attributes of the property's value to the increased tourist traffic.
- ✓ Conducting sociological research (through a professional company) in order to assess the potential of the Museum of Papermaking in terms of tourism development, preferences of the Poles in terms of the themes of the visited museums, display methods and preferred sources of information, as well as evaluating areas on which communication and promotion of the museum should be based.
- ✓ Promoting the paper mill in prestigious events in the city and region, e.g. the Duszniki International Chopin Piano Festival.
- ✓ Creating a common tourist supply and conducting joint marketing activities by the city and region authorities in order to use the values of the paper mill together with landscape and cultural qualities, e.g. through the Regional Lower Silesian Marshall's Office, the Lower Silesian Tourist Organisation, tourist entities.
- ✓ Creating a new image of the city, not only as a well-known spa city and winter sports destination (Zieloniec), but also as the only place in Poland where paper mill premises of such an outstanding historical value are located.
- ✓ Including the paper mill (to a larger extent than before) in the tourist supply provided by the authorities of Duszniki-Zdrój.
- ✓ Developing and modernizing sources of tourist information, also through application of modern information systems.
- ✓ Implementing, by the city authorities, revival activities at Kłodzka Street being in the closest proximity to the paper mill, in order to directing tourist traffic from the mill to the market square and vice versa.
- ✓ Providing support by the city authorities for development of local businesses located in the vicinity of the mill – Kłodzka Street as an area for founding various commercial establishments providing tourist services (especially by increasing catering supply).
- ✓ Paying greater attention to the aesthetics of the mill's vicinity – advertisements, surfaces, street

furniture, wall faces, possible new development:

- it is necessary to remove the existing signposts located on a small square at the intersection of Kłodzka with Sprzymierzonych;
- as part of the revival, it is recommended to: change the surface of Kłodzka by studding it with cobblestones; carry out renovation, (with regard to contemporary objects), repair and maintenance works (with regard to historic objects) of the faces of walls of the buildings located at Kłodzka Street;
- ✓ Building parking space at Sprzymierzonych Street, including parking lots for coaches.
- ✓ Considering the possibility of introducing changes to road traffic (at the national road), e.g. by introducing traffic lights and, in the long term, aiming to divert heavy vehicle traffic in order to improve tourists' safety and making the subject premises as accessible to as many visitors as possible.

PART 3

DESCRIPTION OF THE USE
OF THE PREMISES

8 The concept of a system of action plans

In protection and management of the paper mill, the Management Plan should be given highest priority as a document comprehensively covering all the key issues relating to the property – describing and understanding its value as well as the broad issue of protecting, maintaining, using, and displaying the space. What is formulated in the Management Plan is the conduct policy and the attempt to organize and guide management actions, whose primary objective is to ensure that the unique value of the property and its quality, evidenced by integrity and authenticity, are maintained or enriched over time.

The Management Plan is also a long-term document and, by definition, it is a form of a generalized study. *In terms of practice, it therefore needs to be complemented by action plans, which are short-term and which provide detailed provisions on implementation plans relating to the sectors of activity outlined in the management plan.*⁹⁸

The following assumptions are made in relation to development and implementation of action plans for the paper mill premises in Duszniki-Zdrój:

- ✓ Dependence and subordination of the action plans to the Management Plan.
- ✓ Correlation of action plans with recommendations of the Management Plan. The action plans should respond – in a practical manner – to the Conclusions and Recommendations provided in each part of the Management Plan (implement them).
- ✓ The action plans can be developed and implemented by various entities – responsible for or interested in a given problem, but the role of the property manager is to coordinate these actions and to ensure that each action plan is consistent with Conclusions and Recommendations provided in the Management Plan.
- ✓ With regard to the Management Plan, individual action plans would be, by definition, of fragmentary nature (even though the scope of each plan may be different) – they would relate to (a) specific problem(s), topic(s), but not the entirety of the issues listed in the Management Plan. The sum of all action plans should, however, correspond to the whole spectrum of issues identified in the Management Plan. The responsibility for fulfilling all the areas (tasks) included in the Management Plan with action plans should be entrusted to property managers.
- ✓ Action plans may have different implementation periods and timetables, depending on the type and nature of actions which they concern.
- ✓ Action plans – as implementation documents – should not have extensive, descriptive structures. Being rather fragmentary studies and serving the performance of specific tasks, they should focus on a few essential elements. Action plans, besides indicating (referring to) the Conclusions and Recommendations of the Management Plan, should define task(s), which are the subject matter of a specific action plan and should formulate its implementation, period (schedule), specify the responsible entity, provide a source of funding and specify indicators that will be used for evaluation of the plan.
- ✓ It should be assumed that Action Plans would be not only different kinds of tasks, works, activities, which are carried out within the framework of the existing system, structures and activities, but also new activities arising from the Conclusions and Recommendations of the Management Plan.

⁹⁸ A. Fortuna-Marek, A. Siwek, "Plany działania – jako element systemu zarządzania miejscem światowego dziedzictwa", B. Szmygin (ed.), *Wybrane zagadnienia zarządzania dobrami UNESCO w Polsce*, Warsaw 2015, p. 76.



9 BIBLIOGRAPHY

1. Bałchan J., "Muzeum Papiernictwa pod kierownictwem Władysława Kazimierczaka w latach 1969–1981," *Rocznik Muzeum Papiernictwa*, vol. 3, Duszniki-Zdrój, 2009, pp. 19–26;
2. Bałchan J., "Zarys dziejów papierni w Dusznikach-Zdroju w latach 1945–1968 w świetle źródeł archiwalnych," *Rocznik Muzeum Papiernictwa*, vol. 1, Duszniki-Zdrój, 2007, pp. 157–164;
3. Eysymontt R., Szeląg A., Eysymontt D. (collaboration), *Młyn papierniczy w Dusznikach Zdroju – ocena wartości historycznej i artystycznej budynku dusznickiego młyna papierniczego wpisanego na listę Pomników Historii wraz z analizą historyczno-ikonograficzną polichromii zdobiących ściany pomieszczeń papierni na trzeciej kondygnacji oraz analizą historyczno-stylistyczną portretów dusznickich papierników ze zbiorów Muzeum Papiernictwa w Dusznikach Zdroju*, typescript in the Museum of Papermaking in Duszniki-Zdrój, Wrocław 2016;
4. Eysymontt R., *Przemiany architektoniczne młyna papierniczego w Dusznikach na tle przemian ekonomicznych miasta Duszniki do początku XIX w.* in printing;
5. Grajewski G., "Um die Erhaltung der Papiermühle in Reinerz" – "O zachowanie młyna papierniczego w Dusznikach", *Rocznik Muzeum Papiernictwa*, vol. 9, Duszniki-Zdrój, 2015, pp. 115–126;
6. Grajewski G., "O podejmowanych przed 1945 rokiem próbach ratowania młyna papierniczego w Dusznikach-Zdroju," *Rocznik Muzeum Papiernictwa*, vol. 9, Duszniki-Zdrój, 2015, pp. 9–30;
7. Krąpiec M., *Dendrochronologiczne datowanie drewna z Muzeum Papiernictwa w Dusznikach Zdroju*, Cracow 2015, typescript in the Museum of Papermaking Archive;
8. Krąpiec M., *Wyniki analizy dendrochronologicznej prób drewna z siedziby Muzeum Papiernictwa w Dusznikach Zdroju*, Cracow, 2007, typescript in the Archive of the Museum of Papermaking;
9. Kutzner M. "Czeska papiernia w Dusznikach," in H. Danova, K. Mezihorakova, D. Prix (eds.), *Artem ad vitam. Kniha kpocte Ivo Hlobila*, Prague, 2012;
10. Kwapis K., *Młyn papierniczy z suszarnią i pawilonem wejściowym*, Record of the Historic Monuments of Construction Engineering and Architecture, Archive of the NHBP, 2007;
11. Maleczyńska K. *Dzieje starego papiernictwa śląskiego*, Wrocław, 1961;
12. Marchlewska J., "Z dziejów nowszych i najnowszych Dusznik," *Przegląd Papierniczy*, 1971, vol. 7;
13. Sarnecki K., "Papiernia w Dusznikach," *Przegląd Papierniczy*, 1964, vol. 12;
14. A. Szeląg, "Zespół portretów właścicieli dusznickiej papierni w zbiorach Muzeum Papiernictwa w Dusznikach Zdroju," *Rocznik Muzeum Papiernictwa*, vol. 10, Duszniki-Zdrój, 2016, pp. 43–56.
15. Szymczyk M., "Muzeum Papiernictwa u progu XXI wieku," *Rocznik Muzeum Papiernictwa*, vol. 3, Duszniki-Zdrój 2009, pp. 47–58
16. Szymczyk M., "Najnowsze inwestycje w Muzeum Papiernictwa w Dusznikach Zdroju," *Muzealnictwo*, pp. 116–125
17. Szymczyk M., *Stan badań nad historią papiernictwa na ziemiach polskich*, *Rocznik Muzeum Papiernictwa*, vol. 1, Duszniki-Zdrój 2007, pp. 11–26;
18. Tomaszewska W., "Historia zabytkowej papierni w Dusznikach," *Przegląd Papierniczy*, 1959, vol. 11;
19. Tomaszewska W., "O papierze, który zyskał miano wiecznotrwałego," *Przegląd Papierniczy*, 1968, vol. 8;
20. Tomaszewska W., "Z dziejów zabytkowej papierni w Dusznikach," *Przegląd Papierniczy*, 1966, vol 5;
21. Windyka T., "Młyn papierniczy w Dusznikach," *Muzealnictwo*, vol. 41, 1999;
22. Windyka T., "Zbiory Muzeum Papiernictwa," *Rocznik Muzeum Papiernictwa*, vol. 3
23. A. Stefaniszyn, T. Windyka, M. Szymczyk, *Nomination for inscribing the paper mill in Duszniki-Zdrój on the list of Polish Listed Monuments*, M. Szymczyk, ed., Duszniki-Zdrój, 2009;
24. M. Szymczyk, "Źródła do dziejów dusznickiej papierni. Marian Kutzner, Studium historyczno-architektoniczne papierni w Dusznikach," *Rocznik Muzeum Papiernictwa*, vol. 5, Duszniki-Zdrój, 2011, pp. 79–126

(Footnotes)

- 1 *Lokalny Program Rewitalizacji...*, pp. 183–184



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