

MODERNIZATION OF HISTORIC POLISH RAILWAY STATION BUILDINGS FROM THE INTERWAR PERIOD

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One of the greatest benefits of Poland's accession to the European Union was gaining access to new sources of funding for investments. Since 2004, major infrastructure projects in the fields of transportation and nature conservation have been co-financed from the Cohesion Fund.¹ One of the biggest beneficiaries of these funds is the Polish national railway company Polskie Koleje Państwowe (PKP SA), which has used them, among other things, to renovate railway stations.

PKP SA's website² showcases the effects of train station modernization projects implemented after 2004. Most of the stations were built before 1945 and are of historic value. The website features photographs of strikingly lit buildings with commentaries regarding the objectives of the modernization and restoration process, namely enhancing the visual attractiveness and quality of service. However, browsing through press releases concerning the renovated stations reveals numerous mentions of one problem PKP has evidently not paid enough consideration – the decline of the stations' original functions. It is very common for a restored historic station to lose its accompanying services or even core ones such as ticket offices and waiting rooms. Newspapers have described several instances where a station was never reopened following the restoration works.³ The scale of the problem can be observed in the "Real Property Sale and Rental" section of the website.⁴ Nearly every renovated station has unused usable space, in some cases the entire floor area of the building has remained empty. Conducting business at a railway station is a chal-

lenge, mostly due to the location and the functional arrangement characteristic of this type of venue – in spite of the efforts to adapt it to contemporary technologies and functions. Re-developing a station or introducing new functions is only a part of the challenge. Another issue, less commonly debated, is the nature of the transformation and the outcome of modernizing historic stations in the context of conservation theory. In the case of legally protected buildings it usually means restoration of the historic form of the edifice. There are instances, however, where designers seem to go beyond the limit imposed by the Venice Charter and direct their efforts towards renovation and pseudo-historical creation without any historical basis. The transformations which took place in Koło and Łęczycza are examples of such free interpretation of the roof shapes, details and colours (Figs. 1–4). While the results are commonly approved by conservation authorities, they make the site lose some of its historic value if such value is never properly defined at the pre-project planning stage.

Both PKP and state administration are aware of the problem. In October 2015, a conference was held under the title "Spatial Planning in Railway Areas".⁵ The conference discussed the contemporary issues connected with modernization of railway facilities, including the importance of proper spatial planning, functional planning, the role the local governments should play in the process and case studies. Nevertheless, the presentations did not address the issue of historic buildings, despite how numerous they are. Cooperation with conservation

¹ Infrastructure and Environment Operational Programme.

² PKP SA – Inwestycje – Modernizacja dworców kolejowych: <http://pkpsa.pl/dla-pasazera/inwestycje/inwestycje.html> [viewed: 05.2016].

³ These are, for example, stations in Zgierz, Psie Pole, Luboń. Source: *Włoszczowa – wyremontowany dworzec zamknięty od lat* [Włoszczowa – renovated rail station unused for years], [in:] "Rynek infrastruktury": <http://www.rynekinfrastruktury.pl/wiadomosci/wloszczowa-wyremontowany-dworzec-zamkniety-od-lat-47867.html> [viewed: 05.2016]; *Wyremontowali dworzec by stal zamknięty* [Rail station renovated only to stay closed], [in:] „Gazeta Wyborcza”: http://wroclaw.wyborcza.pl/wroclaw/1,35771,13585998,Psie_Pole__Wyremontowali_dworzec_by_stal_zamkniety.html [viewed: 05.2016]; *Wyremontowany dworzec w Luboniu stoi pusty* [Renovated rail station in Luboń still empty], [in:] "Głos Wielkopolski": http://www.gloswielkopolski.pl/artykul/686991,wyremontowany-dworzec-kolejowy-w-luboniu-stoi-pusty-na-co-komu-ten-budynec_id,t.html [viewed: 05.2016].

⁴ PKP SA – Nieruchomości – Wynajem – Oferty: <http://pkpsa.pl/nieruchomosci/wynajem/oferty.html> [viewed: 05.2016].

⁵ Organized by PKP SA and the Ministry of Development on 13 October 2015 in Warsaw.

authorities seems to be considered as just one of the stages in the investment process, which has no bearing on planning and functional analyses.

Between the years 1945 and 2005, PKP was reluctant to engage in any costly renovations. Its reasons were mainly of financial nature. Only in 2010 did the company's restructuring process of 20 years, co-financed from the EU funds, produce an effect in the form of profit.⁶ Before that, any renovation or conservation effort would only have been undertaken if the technical condition of a building made it impossible to postpone it any longer, if a building disaster happened or if the conservator ordered to have the building secured. Years of inaction and neglect resulted in a deterioration of the aesthetic and functional value of the station buildings, and passengers became disinclined to use the dirty, neglected or simply devastated interiors. In recent years, however, the idea of how a station should function has changed. Historically, the basic function of a train station was to ensure a place where passengers could find shelter and obtain information, buy tickets, leave their luggage and travel. Today, in the wake of the information revolution, these functions have to a large degree disappeared. Ticket booking and sales can be done online; the style of travelling has changed and with the abundance of applications gathering information from many different carriers one's itinerary can be optimized to eliminate waiting time at the station. The computerization of traffic control and the introduction of self-service ticket machines has made it possible to reduce employee headcount at train stations down to zero. The building – at least in theory – has ceased to be indispensable both to passengers and PKP management. It is not uncommon that the only argument against tearing it down is its historic value and legal protection status.

When modernizing a historic railway station there emerges a question of effective adaptation which would be in line with the conservation guidelines.

Currently there are no well-defined valorisation principles or criteria for historic sites and buildings. Facilities that are considered technological heritage require a more comprehensive analysis of their functional, social and historical circumstances. The issue of technological heritage, which includes means of transport, was raised in the 2004 document "Filling the Gaps,"⁷ which addressed the disregarded areas of world heritage protected by UNESCO. A useful source for studying the historic value of old railway facilities can be found in documents published by the International Council on Monuments and Sites (ICOMOS) and The International Committee for the Conservation of the Industrial Heritage (TICCIH). These include "The Dublin Principles"⁸ and "The Nizhny Tagil Charter"⁹, both defining the principles of handling industrial heritage transformation. These two documents emphasize the special value of industrial heritage which documents the evolution of technology and the social transformation that accompanied it. This kind of heritage is understood to comprise buildings, infrastructure and equipment. Attention is also paid to the importance of studying and documenting buildings and furnishings, also in terms of their function and the organization of processes taking place in or through them. It is also reiterated after the 1994 Nara document¹⁰ that authenticity is a fundamental value that qualifies an object as cultural heritage. The notion of authenticity is extended, however, to include not only physical matter, but also function and process organization. Elements of industrial heritage also include industrial and manufacturing facilities, such as power lines and infrastructure used for the transportation of goods.

The preserved railway stations reflect the technological evolution of rail transport and bear witness to a hundred years of its history. Its first developmental peak was the interwar period, when most of today's historic stations were created or remodelled. At that time railroads were the principal means of

⁶ Presently, the annual profit of the entire group amounts to approximately PLN 200 million, with sales of PLN 200 billion, whereas PKP's financial result at year end 2003 was a loss of over PLN 2 billion and in 2006 – a loss of approx. 118 million. Source: PKP SA's annual financial reports available at the group's website: <http://pkpsa.pl/grupa-pkp/raport-finansowy.html> [viewed: 05.2016].

⁷ International Council on Monuments and Sites (ICOMOS), *The World Heritage List: Filling the gaps – an Action Plan for the future*, Paris 2004.

⁸ International Council on Monuments and Sites (ICOMOS), *Joint ICOMOS – TICCIH Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes – "The Dublin Principles"*, Paris 2011.

⁹ The International Committee for the Conservation of Industrial Heritage (TICCIH), *The Nizhny Tagil Charter for the Industrial Heritage*, 2003.

¹⁰ International Council on Monuments and Sites (ICOMOS), *the Nara Document on Authenticity*, 1994.

mass transportation on land. The recession came after World War II. The destruction of war and the increasing availability of road transport caused a slow decline in the numbers of passengers, and consequently in the revenues of rail carriers. This decline was particularly acute in western countries,¹¹ where cars gained popularity. Meanwhile, in post-war Poland, railroad transport was heavily promoted by the state authorities, even though its development was hindered by the profound destruction of the infrastructure and the fact that a lot of the rolling stock had been stolen first by the German aggressor during the war and then by the Soviets afterwards. The tracks, given their extensive nature, required enormous amounts of money just to keep them in service. The authorities looked for savings and made them at the expense of the station buildings. In the western countries, this process took place in 1950s and 1960s. In Communist Poland, for strategic reasons, a working infrastructure – tracks, traffic management and the rolling stock – was considered a priority. The accompanying architecture was rarely modernized, rather fixed as needed. As a consequence, the technical equipment installed at different points in time to be used for passenger service and traffic control is still present at many stations. On their facades and in interiors one can still notice a chaotic mixture of clocks, information boards, lights and loudspeakers (Fig. 5). The doctrinal documents mentioned above emphasise the importance of maintaining both the integrity of a building complete with its fixtures, as well as its functional integrity¹² as two of the principal carriers of value. These guidelines are, however, only complied with to a limited extent.

A great challenge in the process of modernization and adaptation of a train station is balancing the demands of technical regulations, user and management needs and the complex nature of the procedure, comprising pre-project, design, construction and maintenance efforts. The challenge is not

only meeting the requirements, but even identifying them. Today's technical and ergonomic standards are completely different from those applied in 1800s and early 1900s, when most Polish train stations were designed. Nowadays users are accustomed and expect to be given clearly legible information available at first sight. This is why modern railway stations feature large numbers of direction boards and screens pointing to passageways, specifying departure and arrival times, suggesting connections. The need to ensure wheelchair access is indisputable, and so is meeting the requirements provided for in technical regulations applicable to functional buildings. While the law does make exceptions for buildings of historic value (for instance, technical specifications¹³ release historic buildings from energy saving obligations), the demands and expectations of stakeholders¹⁴ regarding the final shape of the modernized facilities might be very different, and sometimes contradictory, even within the same group of interested parties. For example, there is a conflict of interests between striving to protect the authentic architectural form and providing better wheelchair accessibility. The latter requires introducing new structural elements inside and outside the building, including ramps between different levels, lifts and e.g. removing doorsills. All these efforts are tantamount to disrupting the historic fabric of the building – new openings must be made in walls and ceilings, and the construction system of the building must be disturbed. For example, during the modernization of the station in Koło¹⁵, installing lifts in side avant-corps of the building to serve the 3 floors necessitated a complete replacement of old but well preserved wooden ceilings with reinforced concrete. Along the entire front of the building, ramps were installed joining the ground floor and the driveway (Fig. 6). Similarly, the installation of a lift at the train station in Rabka Zdrój¹⁶ also made it necessary to replace ceilings, and the long staircase was dismantled to make room for a new

¹¹ For example in the UK the annual number of passengers served has dropped from 1.3 billion in 1945 to 0.7 billion in 1980s. Source: *Billion Passenger Railway from 1830 to 2001*, The UK Office of Rail Regulation, 2002.

¹² The Nizhny Tagil Charter, op. cit.

¹³ Regulation of the Minister of Infrastructure of 12 April 2002 on the technical specifications to be met by buildings and their locations, Journal of Laws no. 75, 2002, item 690.

¹⁴ Stakeholder – an entity (a natural or legal person) which is capable of influencing the operations of a company or institu-

tion and which is itself influenced by the consequences of these operations, (translated from: *Słownik Języka Polskiego*, PWN, Warszawa 2012). This means these entities are vitally interested in the success of such operations and will seek to adjust possible solutions to their own needs.

¹⁵ Modernized in 2012.

¹⁶ Conservation and construction work was completed in early 2015.

passageway at the first floor level in the main hall. Local people have been praising the renovators for making the station more easily accessible to people with reduced mobility, but on the other hand they have also criticized the poor visual appeal of the building.

Involved in the modernization processes are a number of entities, either interested in the outcome or legally obliged to participate. These are primarily the participants of the construction process defined in the Construction Law Act¹⁷ – the owner, the designer, the contractor and the competent construction and conservation supervision authorities. This is the standard for historic buildings. But when such building is a train station, the number of involved and cooperating parties is even greater. From the investor's side, the project is prepared by central management (responsible for the operation, investment and commercialization of railway real property) and field management (OGN – Real Estate Management Divisions, WTUN – Real Estate Technical Maintenance Divisions and building supervisors and managers). Moreover, each infrastructure change must be consulted, agreed upon, and approved by the competent industry representatives (e.g. those responsible for energy and computerization are PKP Energetyka and TK Telekom). The 'designer' according to Construction Law is also rather a numerous team. Apart from the architect and rail designers, it also comprises experts in the fields of historic buildings conservation, construction, mycology, and – as stipulated by relevant technical regulations – fire safety experts, occupational health and safety specialists and sanitary authorities. Owing to the requirements of the Public Procurement Act,¹⁸ the functional programme must be developed by a separate team.¹⁹ The site manager's team must also be expanded to include construction site managers specializing in historic buildings conservation and conservators responsible for details of trim, interior fitting and finishing. Working on a historic building requires a variety of complex additional work, e.g. implementing water

drainage systems or reinforcing the foundations and structural elements, which must be done by managers with a specific set of qualifications. Other stakeholders of the modernization process of a railway station include:

- Local government (city, village, city district), which wants the building to service rail traffic and considers it as an important element of the city fabric or the landscape, capable of serving promotional purposes. The local government can also seek to occupy some of the floor space – e.g. in Koło and Rabka Zdrój the station building also houses public libraries;
- Territorial administration of different levels (particularly provinces), which – depending on the status of the line serviced by the railway station – finances and manages connections in the region;
- Local residents who use the railway service to commute and who make use of the building's other functions;
- Local community which may have an emotional affiliation with the venue;
- Tenants and service providers who use the available space to provide core services connected with rail transport (franchise) or associated services and who want the building to meet the applicable standards;
- So-called entitled stakeholders,²⁰ e.g. railway enthusiasts or reconstruction groups who organize historic train trips and who attach great importance to preserving to the greatest possible extent any components that give testimony to past railway traditions, old technologies, traditional management and traffic control methods;
- Academic community studying the history of railroad engineering, architecture and conservation of historic sites and buildings.

The opinions of all these stakeholders are, however, often disregarded and the PKP management is rarely willing to engage in dialogue with them. Nonetheless, social participation in the conservation process is advised by a number of doctrine

¹⁷ Construction Law Act of 7 July 1994, Journal of Laws no. 89, 1994, item 414.

¹⁸ Public Procurement Act of 29 January 2004, Journal of Laws no. 19, 2004, item 177.

¹⁹ Developing a Functional and Utility Programme (PFU) is a separate public procurement. Entities that develop the documentation which will serve as basis of another tender are automatically excluded.

²⁰ Gustavo Araoz uses this term to refer to local communities whose cultural traditions rely on a given historic site or building. Cf. G. F. Araoz, *Tendencje dziedzictwa dziś i jutro – z perspektywy ewolucji filozofii i teorii konserwacji*, [in:] II Kongres Konserwatorów Polskich – tezy, red. J. Jasieńko, A. Kadłuczka, Wydaw. SKZ, NID, PK, Krakow 2015.

documents published by UNESCO and ICOMOS: the Washington Charter,²¹ the Burra Charter,²² the Nara Document²³ and the Nizhny Tagil Charter²⁴ all emphasize the necessity to identify and understand the meaning a historic site has for the local community, and to foster co-responsibility of the residents for managing such site.

Presently, PKP S.A. manages approximately 2,500 facilities; of that number, around 600 actively service passengers. A comparison of the list of railway stations published by PKP²⁵ with the data of the National Heritage Board of Poland²⁶ reveals that over half of the train station buildings were erected before 1945 and qualify for conservation. Some 200 of these are legally protected and registered as national heritage, many more are listed in local historic buildings inventories. Numerous as they are, they are still poorly explored for conservation issues, despite the interest shown by architecture historians. The total of approximately 1000 historic stations are highly diversified. One of the reasons for this diversity is the fact that they were designed and erected under different legislations; though now Polish, these facilities were built at the time of partitions by the three occupying administrations (Russia, Austria, and Germany), and only after 1918 by Polish state authorities. Different designers had different political and strategic priorities and implemented architectural and functional solutions accordingly (for Russia, the primary objective was military and industrial transportation, for Germany – passenger traffic and communication/postal service, for Austria – industry and tourism). What is more, all three occupants used public architecture as a way to impose their cultural policies and introduce their national architectural style. After 1918, the newly emerged Polish National Railways set themselves the goal of connecting and unifying the

divergent rail systems inherited after the occupying powers. While reconstructing what had been damaged by World War I, the company implemented a historic policy to make new station buildings reflect the Polish national style. To this end, designers drew from what they believed was traditional Polish architecture – mannerism and baroque.²⁷ The approach changed again during World War II, as aggressors rebuilt the railway infrastructure to suit their military needs.

The conservation issues connected with the process of modernizing and adapting railway stations will be illustrated here on the examples of the stations in Modlin, Radziwiłłów, Żyrardów, Koło, Łęczyca, Biała Podlaska, and Rabka Zdrój.²⁸ All these were built in 1920s, after Poland regained independence, and modernized in the years 2005–2015. The designs were drafted right after the end of World War I, between 1919 and 1925, at the design offices of National Railways District Directorates, but they could only be brought to life after a time due to the outbreak of the Polish-Soviet war of 1920. The origins of the facilities followed two distinct development patterns. The first kind were those erected on existing rail stations in an effort to reconstruct the war-ravaged infrastructure.²⁹ Characteristically, they mirror the previous arrangement of walls and facade axes, the outline of walls and the placement of windows and doors. The 1928 monograph *Dziesięciolecie Polskich Kolei Państwowych*³⁰ (10th Anniversary of Polish National Railways) dubbed this approach ‘building on old walls’. The reason behind this strategy was lack of funds. Renovators adapted the preserved fragments of buildings and shaped them into new architectural form. This was the case in Radziwiłłów, Żyrardów and Biała Podlaska. The pavilion-based, eclectic architecture characteristic of the former Russian partition was replaced by a national

²¹ ICOMOS, *Charter for the Conservation of Historic Towns and Urban Areas*, Washington, 1987, Article 3.

²² Australia ICOMOS, *The Burra Charter – The Australia ICOMOS Charter for places of cultural significance*, Burra 1979, Article 12.

²³ ICOMOS, *The Nara Document on Authenticity*, op. cit.

²⁴ The Nizhny Tagil Charter, op. cit., Article 4, Item VIII.

²⁵ Nasze dworce [Our train stations] – PKP SA’s official website: <http://pkpsa.pl/pkpsa/nasze-dworce/> [viewed: 05.2016].

²⁶ Historic Real Property Register, official website of the National Heritage Board of Poland: http://www.nid.pl/pl/Informacje_ogolne/Zabytki_w_Polsce/rejestr-zabytkow/zestawienia-zabytkow-nieruchomych/ [viewed: 05.2016].

²⁷ Cf.: *Dziesięciolecie Polskich Kolei Państwowych 1918–1928*, published and financed by the Ministry of Communications, Warsaw 1928, p. 85.

²⁸ The design documentation of these sites was made available to the author as part of a 2014 research: J. Krzyczkowski, *Dworce kolejowe dwudziestolecia międzywojennego* [Train Stations of the Interwar Period] (dissertation no. 504M/1010/913/14 written as part of a project grant), Faculty of Architecture, Warsaw University of Technology, 2015, original typescript in the archives of the Faculty.

²⁹ Modlin on the Vistula line, Radziwiłłów and Żyrardów on the Warsaw–Vienna line, Biała Podlaska on the Warsaw–Terespol line.

³⁰ *Dziesięciolecie Polskich Kolei Państwowych*, op. cit.

style derived from the Polish manor house, with a high sloped roof, a passage on the axis and mannerist, baroque or classicist detail.

The other kind are train stations which emerged on new tracks built for newly designed connections, e.g. the Kutno–Strzałków line (which connected Warsaw and Poznań) and Łódź–Sierpc. Here, too, insufficient funding was a factor, which forced the management to opt for repeatability. As a result, the stations in Łęczyca, Gostynin, Ozorków, Sierpc and Płońsk are actually simplified versions of the one in Koło. Repeatable designs were also used later on the so-called ‘coal main line’, the missing section of the direct connection between Silesia and Gdynia: Herby Nowe–Inowrocław.³¹ This type of building also drew from the national style, especially the typical tops of the avant-corps brought to mind the sloping Dutch gables so popular in Mazovia and Podlachia.

The functions of train stations were determined by the technology and travelling styles of the time. The latter depended, among other things, on the social relations in late 19th and early 20th centuries. Mass rail transport had quickly developed class division by wealth, which was strictly adhered to not just on-board trains, but also at the stations and on platforms. Designers devised separate waiting rooms for each class (as per the then-applicable travelling standards), spacious left-luggage offices and office spaces for administration employees, technicians and other staff. The upstairs was usually used as lodgings for the station personnel. Every station was equipped with a telegraph line, used, among other things, for traffic control. The passage of trains through the station was controlled manually via a system of semaphores from a control room located in a separate building. Passenger announcements were delivered orally and the timetables were displayed in glass cabinets. From a traveller’s point of view, the most important piece of equipment at a railway station was the railway clock, often crafted by local clockmakers, and therefore quite unique. As years passed by and technologies progressed, new developments piled up on station walls in the form of automatic information boards, sound

amplification systems, lighting. Bits and pieces of some of these installations have been preserved to this day but are being removed during renovation works and replaced by uniform types of equipment. Today, the rail traffic control function has been largely reduced owing to technological progress and both traffic management and passenger service have been to a large extent automated. In most cases, however, the general shape of the interior – a hall with passages to the platforms and ticket offices located around it – is preserved (Fig. 7).

Preparatory stage

The decision to undertake modernization of a the sites under discussion was usually motivated by the very poor technical condition of the station building, which posed a threat to its safety, by image considerations, or by a conservation order issued by the relevant authorities. PKP headquarters and the competent OGN analyzed the usability of the facility, its economical circumstances (costs of maintenance, revenue), its importance for rail traffic, passenger service and the company’s image. Then they would proceed to assess whether adaptation was feasible and make appropriate cost estimations. Different scenarios were contemplated – renovation, general modernization, but also demolition and sale. Based on the findings, the fate of the site was decided. Unfortunately, the process never involved people specializing in the conservation of historic buildings, heritage protection or even the history of railroad transport and engineering (which it should have, according to the Dublin Principles³²). All the arrangements were only based on economic calculations.

Once the decision to modernize a station was approved by PKP’s management, the company would proceed to draw up the necessary tender documentation.³³ According to the law, a construction project must be formulated in a document called a Functional Programme (PFU), which contains all technical, architectural, material and functional specifications (Article 31 of the Public Procurement Act). This is the first stage of the project, whose

³¹ Cf.: K. Uchowicz, *Architektura dworców kolejowych w dwudziestoleciu międzywojennym*, [in:] *Obiekty kolejowe*, Academy of Finance and Management in Białystok 2005, p. 161–172.

³² ICOMOS, TICCIH (...) *The Dublin Principles*, op. cit.

³³ As has already been mentioned, due to PKP’s status as a state treasury company, works at the subsequent stages of the investment project and the overall course of the process were organized in accordance with the Public Procurement Act.

Table 1. Scope of pre-project documentation for each of the railway stations under consideration

	Railway stations						
	Modlin	Radziwiłłów	Żyrardów	Biała Podlaska	Rabka Zdrój	Koło	Łęczycza
Type of protection							
National register	x	x	x	x	x		
Local inventory						x	x
Document title							
Heritage record sheet	+	+	+	+	+		+
Preliminary analyses	+					+	
Conservation order	+	+					
Stock taking	+	+	+	+	+	+	+
PFU	+	+	+	+	+	+	+
Conservation recommendations	+	+					+
Technical specification	+	+	+	+	+		
Architectural research			+		+		
Conservation research					+		
Building valuation					+		
Concept project	+						
Conservation project			+				
Concept – interior design							
Concept – artistic solutions design							
Concept – tasks by industry							
Conservation considerations	+	+	+		+	+	+
Conservation works schedule			+				
Consultations with prospective users					+		
Negotiations with tenants				+	+	+	
Architectural and conservation concept							

result is drafting the investment project documentation. Appended to the PFU is the initial architectural concept with functional instructions and a general outline of the projected works by type. Depending

on the level of detail of the PFU and the preliminary concept, some projects included building inspections and architectural research. For legally protected buildings, the competent Provincial Heritage Monuments Protection Office (WUOZ) was requested to provide instructions on the right conservation approach and heritage conservation specialists were entrusted with the preparation of conservation documentation (including the conservation works programme). On the basis of all these data an initial cost estimation was drawn up to make it possible to assess the approximate spending needs. Meanwhile, negotiations took place with prospective tenants in order to consider the building's commercial potential on the one hand and to define the nature and direction of the necessary adaptation changes on the other. The differences in the documentation drafted for each of the example stations are outlined in Table 1.

Of the above-listed documents only two are required pursuant to the Public Procurement Act – the stock taking and the PFU. The other documents are drafted or not according to the designers and conservators' discretion. Often disregarded are documents considered indispensable by conservationists (among them ICOMOS, TICCIH,³⁴ as well as J. Tajchman³⁵ and many others). While it is common to have a heritage record sheet prepared for a building and apply to WUOZ for conservation recommendations, from the point of view of the guidelines and requirements defined by ICOMOS and TICCIH one is bound to notice an absence of legal obligation to consider conservation issues, which should be appended to the PFU. There is a disjunction between the architectural concept design and the conservation work schedule, no detailed valuations are performed or historic sources consulted. The scope of the concept design is very narrow and, in line with a long tradition of Polish conservators, it contains plans of artistic solutions, interior designs, conservation requirements and tasks divided by industry. It lacks analysis of functional demands in a broader sense, in terms of location, external considerations and reference to the needs and opinions of the local community.

³⁴ TICCIH, *The Nizhny Tagil Charter* op. cit., chapter 3, ICOMOS, TICCIH (...) *The Dublin Principles*, op. cit., item 7, 11.

³⁵ J. Tajchman, *W sprawie konieczności ustanowienia standardów wykonywania projektów dotyczących prac planowanych w zabytkach architektury*, *Wiadomości Konserwatorskie*, no. 24, 2008.

Project documentation drafting

The next stage of the process is drafting project documentation comprising details of the functional, technological and conservation solutions to be implemented by way of modernization. A particularly crucial stage is defining the scope of intervention in the historic fabric of the site for the purpose of adapting it to its new envisaged functions. The functional programme must be therefore defined and analysed in detail. If there is no analysis in terms of the new functions, designers tend to implement standard functional, sanitary, technological and ergonomic solutions.

When applying for the job, a designer is required to produce references, but otherwise the requirements are not very high. They usually demand experience with just one historic building of comparable size within the last three years. The successful bidder receives all of the previously drafted documentation and uses it to prepare the design as provided for in the Construction Law Act and technical regulations. At this point some additional detailed research is conducted, which reveals new information e.g. about the load-bearing capacity of the ground, the structure of the building, or its transformation history, all of which has a significant influence on the design works. The architect's job is to make sure the project fits within the limits of the projected costs. If any unexpected issues arise which necessitate additional expenditure, savings are sought elsewhere. Cuts are often made at the expense of restoration works, especially if restoration of an item would be more costly than replacing it with a modern equivalent. Even so, the importance of preserving the old, authentic fabric is strongly emphasized in the afore-mentioned documents and publications. A complete, cross-industry construction project must be approved by heritage conservation authorities. Obtaining a valid building permit is only one of the many objectives a designer aims for. Another one is to draft comprehensive documentation to serve as a basis for the next stage of the project set forth in the Public Procurement Act – the tender procedure for the construction work. Apart from the design itself, this procedure requires bills of quantities, cost estimates and technical specifications for the per-

Table 2. Scope of project documentation for each of the railway stations under consideration

Document title	Railway station						
	Modlin	Radziwiłłów	Żyrardów	Biała Podlaska	Rabka Zdrój	Koło	Łęczyca
Type of protection							
National register	x	x	x	x	x		
Local inventory						x	x
Document title							
Source material analysis	+	+	+		+		+
Architectural research	+		+		+		
Conservation research							
Cross-industry concept	+		+		+	+	
Building design			+	+	+		+
Building and execution design	+	+				+	
Building and conservation design							
Conservator's opinion	+		+		+		
Execution documentation	+	+	+	+	+		+
Conservation execution documentation			+		+		

formance and delivery of the construction works. Table 2 contains a comparison of the scope of this type of documentation in the projects under consideration.

The table above illustrates how the scope of project documentation differs from project to project. Not in every case were source materials consulted by the designers, only three of the sites had architectural research conducted, and none of them had any conservation research done. Nor was there a building and conservation design, as suggested by J. Tajchman³⁶, drafted in any of the examples. In some of the cases there were separate building and execution documentations, in others these were combined in just one design. In the former case, only the building design, which did not yet include all technical solutions (e.g. types of materials and details which were only specified as part of the execution design), was submitted for approval to conservation

³⁶ Ibid.

authorities. Importantly, execution specifications³⁷ describing the requirements regarding the construction work were not subject to approval. They were also not specific enough about the projected intervention in the historic fabric. The reason for that are the legal requirements of the Public Procurement Act regarding identifying the construction solutions to be implemented. The Act prohibits naming particular products and technologies – only reference examples are allowed. The decisions concerning the choice of technologies and solutions (including conservation-wise) belong to the contractor. The limited nature of the design appended with tender documentation can therefore be a source of misconceptions regarding the scope of the necessary work and, consequently, lead to some essential interventions to be disregarded due to their not being considered in the cost valuation.

Analysing the project phase of a construction process including modernization and adaptation, the following limitations can be identified:

1. Disregard of the special nature of a historic site or building in the applicable legislation. For example, neither the Public Procurement Act nor the Construction Law Act provide for public access to the data and documentation of historic buildings, which is a considerable hindrance during pre-project preparations.
2. No thorough examination and diagnosis of the historic building in terms of its evolution, both formal and functional, as well as other considerations emphasized in doctrinal documents by ICOMOS and TICCIH – its place in the local culture and relationship with the local community, the development of technological, technical and social solutions within the site.
3. No well-defined criteria for the assessment of architectural heritage, including transportation and railroad heritage, and consequently – no recognition of the value of a historic site.

Once the project documentation was ready, the principals began the process of selecting the contractor for the construction and conservation work. Invited to participate in the tender procedure were companies who could produce relevant references, though that requirement was only generally outlined

and focused on the number and value of the work performed within three years before the tender, without the obligation for any such work to include restoration solutions to be implemented in the present project. In all the cases discussed here, the deciding factor in selecting the contractor was lowest price. Additional criteria for bid assessment are a rarity, since officials are generally unacquainted with the subject and fearful of being accused of favouring one of the bidders over the others.

Execution stage

At the construction stage, a company was also selected to provide investor supervision over the project and ensure that the order was being performed properly. Since there are very few companies that specialise in supervising investment projects within historic sites, these tasks were sometimes entrusted to people lacking the necessary knowledge in terms of both theory and practice of conservation work, as testified by their lack of involvement in this matter.

Once construction works started, all contractors at some point reported the necessity to perform work not envisaged in the initial design. This is typical and happens whenever a company declares too low a price to win the tender, while the cost of work is defined at a flat rate. In some cases discussed here, however, this was because the teams discovered some previously unknown details of decor or structural solutions, which made it necessary to make changes in the design. During the construction works, either due to an accident, negligence or inattention, there have been instances of inadvertently destroying historic elements of buildings or equipment. The only record of the work performed was construction site logbook where information about completed and delivered construction and conservation work was entered, but it never contained detailed descriptions of the scope and nature of some of the works, e.g. replacement or demolition of parts of the building or decor. This problem could be solved by introducing a “conservation logbook”, as suggested by J. Tajchman, to record this type of information.³⁸

³⁷ Technical specifications regarding the performance and acceptance of works are required by the Public Procurement Act (appendix to tender documentation) and define the requirements for the performance, assessment and acceptance of construction

works. In the case of historic buildings they should also contain a detailed description of conservation works provided for in the design.

³⁸ Ibid.

The final stage of modernization of a real property is commercialization. Available usable floor space at a modernized railway station is put on the market by PKP for rent or sale. This is when the expectations and assumptions made at the very beginning of the process meet reality. Due to fierce competition on the real estate market, finding tenants is sometimes difficult or even impossible. Of the seven investment projects discussed here, only three managed to introduce new functions to the full extent – in Rabka and Koło, municipal libraries have been established at the stations, in Modlin part of the station now serves as a hostel. In Żyrardów and Radziwiłłów, the ground floor is rented but higher floors are still empty. An extreme case is the station in Łęczyca, where, since the renovation, only security service has been put to operation, while all the other rooms – including ticket offices – are non-functional. In Biała Podlaska, an agreement with the city hall, which was to occupy the first floor of the station building, has been terminated. Since the work was financed from the EU cohesion programme, this space must not be rented out for another five years.

Railway stations which have not yet been transformed or sold are owned by PKP SA. The company is a massive entity owned by the State Treasury, and it manages both the entire railroad infrastructure and a number of subsidiaries responsible for carriage.³⁹ Companies that handle railroad connections and manage the infrastructure participate in the modernization process by debating on the functional programme and the designs. But the structure of PKP generates a number of substantial problems:

- The company's strategy as regards modernization of train stations and the objectives it is to serve is formulated at the central level by the Management Board headquartered in Warsaw;
- Managing rail infrastructure is the responsibility of field branches – OGNs, which receive instructions from the head office as to how to proceed with conservation and renovation works. Each and every modification in the approved plan needs to be reported to the head office, but OGNs

never share information and experience between one another;

- The investment project management process is a one-way track – the head office collects the necessary information from its subordinate companies and institutions, initiates the tender procedure, and then delegates the process to the competent OGN. This makes it difficult to introduce any modifications at a later stage, since it would entail a change of the subject of the order and a need to renegotiate its value;
- The large number of organizational units which issue guidelines or approve designs adds to the complexity of the process. Focusing on industry-specific technicalities, they often disregard completely the architectural and aesthetic aspects of the envisaged transformation. There is no investment coordinator who would have the necessary expertise or at least the support from experts in the fields of architecture and conservation of historic buildings and who would act as an intermediary between the many departments with their particular scopes of responsibility;
- The territorial ranges that fall under the authority of OGNs do not correspond to those of the conservation authorities (WUOZs), nor to the administrative regions of the country. For example, the OGN in Krakow has under its control sites that are subject to WUOZs in Lublin, Rzeszów, and even Warsaw (parts of Podlachia). This makes it extremely difficult to work out standard procedures for the management and planning of modernization works due to the differences in how different conservation offices construe legal provisions or what policies they abide by. There are no “good practices”, operation standards or model investment projects to draw from when planning a new modernization effort.
- As a market enterprise,⁴⁰ PKP is obliged to balance spending and revenue. Since it faces massive expenditure for investment projects (meant to make up for the backlog of 1980s and 1990s in modernization of the rolling stock and infra-

³⁹ These are, among others: PKP Polskie Linie Kolejowe – manager of rail tracks and infrastructure; PKP Energetyka – provider of the electric power necessary to operate the rolling stock; TK Telekom – ICT services for the railways; PKP Informatyka – IT systems; Natura Tour – manager of PKP-owned holiday resorts; Drukarnia Kolejowa Kraków – a printing house; CS Szkolenie i doradztwo – training and advisory services; PKP Intercity – long-distance carrier; PKP Cargo – a rail

freight carrier; PKP SKM w Trójmieście – local carrier in Tricity; PKP Linia Hutnicza Szerokotorowa – manager of line 65 (LHS) Sławków–Hrubieszów.

⁴⁰ It is defined as an enterprise owned by the State Treasury but whose operations are governed by market principles; any state aid it might be entitled to is restricted by EU legislation on prohibited state aid.

structure), it sometimes skimps on ongoing maintenance of less crucial elements of infrastructure. Hence the negligence and poor technical condition of many railway stations at the time of initiating the modernization process.

Conclusions

A railway station is a special kind of historic building. At the time the decision is made to start the modernization process, it usually still preserves, albeit rudimentarily, its original functions. Owing to years of neglect regarding ongoing conservation, most or even all of its structural elements are often authentic, making it a historically unique instance of preserving both historic fabric and historic function. There is, naturally, a lot of historic build-up connected with the evolution of rail technology, communication and traffic control – these are fragments of telegraphic lines, telephone lines, old information boards, inscriptions, clocks etc. A characteristic element is always the board with the name of the station, often in a unique typeface. All these are a testimony of years of technological development in railroad transport and engineering, both tangible and intangible, regarding information systems, management and passenger traffic control, as well as the use of railroad infrastructure. All these values and their carriers are often intuitively recognised by architects at the design stage, despite the blank spots in conservation documentation. As a result, some vital elements are preserved and exposed (Fig. 8). Still, however, selected rail transport heritage sites should undergo interventions which will allow the underlying meaning to be fully exposed. The selection criteria and the nature of such intervention should be the subject of a public debate. Architectural heritage valuation and categorization systems are presently under discussion but no programmes have yet been formulated that would allow the meaning of this heritage to be conveyed.

Sadly, the historic values of railroad architecture are not subject to careful study or detailed verifi-

cation. In theory, valorisation of a historic railway station should be conducted as part of the process of registering it as heritage in the national or local register and should follow the guidelines set forth in the Heritage Protection Act (analysis of the artistic value, historic value and research value of a given building or site)⁴¹ and in the Venice Charter.⁴² Unfortunately, historic values on whose basis a site is to be protected are not listed in record sheets of historic real estates, and conservation recommendations only define the carriers of these values – the particular parts of the building which should be protected or which can be transformed to a greater or lesser degree. Unless a separate, in-depth conservation document has been drafted for a given building (e.g. a conservation works schedule), its values remain a mystery to the teams working on the modernization project. Only two of the seven stations discussed here (Żyrardów and Rabka) could boast a document where their historic values are analysed and identified.

A railway station is not just a remnant of past technologies, but also a vital element of the local heritage and cultural landscape. On the one hand, the local community sees in it a characteristic feature of that landscape, inseparably associated with the place and even considered the gate to the town or city. On the other hand, it is a scenery, a space where people complete their travel rituals and engage in social interaction – welcomes, goodbyes, partings, first impressions of a new place. It is a common denominator that combines the regional or local heritage and the history of railroad engineering, and reflects social values (understood as a record of human experience connected with travelling) underlined in the afore-mentioned documents by ICOMOS and TICCIH (e.g. the Nizhny Tagil Charter,⁴³ the Dublin Principles,⁴⁴ the Nara Document⁴⁵), and in many others, quoted by W. Affelt in his publications regarding technical heritage.⁴⁶ The issues raised in all these documents are hardly ever addressed. No consultations are held with the local communities. The research of the site's history and particularities

⁴¹ Act of 23 July 2003 on Heiritage Conservation and Protection, Journal of Laws no. 162, 2003, item 1568, Article 3.

⁴² Venice Charter, *International Charter for the Conservation and Restoration of Monuments and Sites*, IInd International Congress of Architects and Technicians of Historic Monuments, Venice, 25-31 May 1964, transl. M. Bogdanowska, [in:] *Vademecum konserwatora zabytków*, Międzynarodowe Normy Ochrony Dziedzictwa Kultury, edition 2015, ed. B. Szmy-

gin, Polish National Committee of ICOMOS, Warsaw 2015, p. 41–44.

⁴³ TICCIH, *The Nizhny Tagil Charter*, op. cit.

⁴⁴ ICOMOS “*The Dublin Principles*”, op. cit.

⁴⁵ ICOMOS, *The Nara Document on Authenticity*, (...) op. cit.

⁴⁶ Cf.: W. Affelt, *Dziedzictwo techniki, jego różnorodność i wartości*, “Kurier Konserwatorski”, No. 5, 2009.

is extremely limited, especially in terms of intangible sources. None of the documents regarding the stations discussed contained any analysis of these problems.

It is generally accepted that adaptation is advisable where sustainability is pursued as the ultimate objective; making use of an existing structure built of natural materials is, by this token, a highly desirable approach. However, if the resulting restoration should disregard the original character of the building, its conceptual significance stemming from the preserved stratification of influences and pieces of equipment that constitute live testimony of its history and evolution, it would threaten the integrity of the historic building. Nonetheless, hardly anything is ever done to ensure reversibility of the changes introduced. The entire process could be called adaptation without respecting the heritage of the railway industry.

The outcome of the modernization and restoration process is recreating the facility's historical splendour, improving its appearance and enhancing its functionality. However, in more than half of the cases discussed here, adaptation resulted in limiting or even altogether losing the functions which used to be present beforehand.

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