Contemporary transformation of traditional Polish health resorts against the background of changes observed in balneological centers around the world

Abstract
The dynamic development of health resorts is cause for the comparison of the tendencies in the changes observed in terms of the development and arrangement of the space in therapeutic complexes and their adjacent localities. Studies demonstrated differences both in the programme of these complexes, as well as in their formal solutions. There are the result of civilizational differences, conditions of the natural environment or of the state of affluence of citizens. there can constitute an inspiration for the development of Polish layouts of spa. In conditions of competitive development, the increase in the wealth of society and the care for health and good physical fitness, the fully justified are improvement of standards quality of public spaces and increasing the amount of green areas.

Keywords: health resorts, spatial development, urban planning

Streszczenie
Dynamiczny rozwój uzdrowisk jest przyczyną porównania tendencji zmian obserwowanych pod względem rozwoju i aranżacji przestrzeni w komplexach terapeutycznych i przyległych miejscowościach. Badania wykazały różnice zarówno w programie tych complexes, jak i w ich formalnych rozwiązańach. Są one wynikiem różnic cywilizacyjnych, warunków środowiska naturalnego lub stanu zamożności obywateli. Może to stanowić inspirację dla rozwoju polskich układów uzdrowiskowych. W warunkach konkurencyjnego rozwoju, wzrostu zamożności społeczeństwa oraz dbałości o zdrowie i dobrą kondycję fizyczną w pełni uzasadnione są poprawa standardów jakości przestrzeni publicznych i zwiększenie ilość terenów zielonych.

Słowa kluczowe: uzdrowiska, zagospodarowanie przestrzenne, urbanistyka
1. Introduction

The sudden increase in the amount of health, rehabilitation, spa, wellness and other types of resorts associated with the improvement of man’s physical and psychological fitness that has been observed since the 1990’s around the world is based on varied spatial layouts – including traditional, restored and completely new ones, erected in various locations. At around the same period Poland saw the beginning of changes to its economic system and ongoing changes to the principles of the functioning of balneological therapeutic centres. The goal of the article is the comparison of efforts that are being undertaken around the world towards the improvement of the attractiveness of these types of centres, the localities tied with them, their competitive development and urban planning tools that are used in the achievement of this development, with Polish examples. The article demonstrates differences in tendencies in the development and arrangement of main public and urban spaces between balneological therapeutic centres in our country in relation to health resort layouts in other parts of the world. The article also notes the standards of the organisation of these spaces in both groups of examples that were compared. Conclusions can be useful in the planning and spatial development of health resort localities in Poland.

2. The essence of a health resort

When discussing spatial changes that have been observed in recent years in health resorts, it would be appropriate to remind ourselves what health resorts are and what the goal of their establishment has been. Even though the first of these types of centres were established in ancient times\(^1\), the overarching principle of their founding has always been the need to cure various illnesses with the use of natural materials. Such was the case in some centres that operated in ancient times, such as Asclepeion\(^2\) on the Greek island of Kos or Epidaurus, located in the eastern part of the Peloponnesse. Therapies were being provided in therapeutic centres arranged specifically for this purpose. Health resort complexes were often placed on several terraces and were made up of a number of buildings, such as, for instance, a temple or medical schools, complexes of sports pitches and stadiums, as well as areas of greenery like flowery meadows combined with places of residence, like in the aforementioned complex on the island of Kos.

During subsequent periods a clearer increase in the precision of the shape of the space of health resorts took place, while divisions and classifications were introduced as well, however, the main idea behind the establishment of these types of complexes remained unchanged – the providing of conditions for conducting therapy through the use of natural curative

\(^1\) Numerous treatment centres were established in ancient times that are today described as health resorts. Particularly many were established in areas occupied by Rome, both on the Apennine Peninsula, as well as in the entire area of Europe, Asia Minor and North Africa. Many of them fell to ruin after the fall of the Roman Empire.

\(^2\) Asclepeion was a name used for Greek sanctuaries of the god Asclepius, who focused on curing people. These types of complexes were built near thermal or mineral water springs, as well as in places with a special climate.
materials in rather attractive spaces. This is because patients, as a rule, should reside in a healthy environment, spending a lot of time in an open space filled with attractively arranged areas of greenery. This is why today places where the use of various natural curative factors – mineral, climatic, natural and aesthetic ones – is possible are considered the basis for the operation of these types of centres. Therapies are conducted in conditions of high comfort, ensured both by highly effective technical machinery used to obtain the curative elements, as well as to secure the natural environment from destruction, and high-quality open spaces and structures. This is why health resorts are currently considered places of balance between natural and cultural factors.

3. Contemporary directions of the development of health resorts

The intensive development of curative complexes using natural materials has currently been observed around the world since the two final decades of the twentieth century. A number of general directions of the transformation of historical and traditional centres and the establishment of new complexes can be distinguished in these efforts, such as:
  ▶ the restoration and regeneration of historical complexes,
  ▶ the competitive development of health resorts associated with the globalisation of the phenomenon,
  ▶ the construction of unique, avant-garde complexes designed by outstanding designers,
the establishment of health resort therapeutic centres in natural surroundings,
the establishment of multi-functional centres combining health resorts, tourist and
holiday destinations [see: 10, p. 112].

The article presents the main tendencies that are being applied in all sorts of variants. However,
the most essential is the fact that in the aforementioned period a clear return to spending time at
the baths has taken place, although it currently has a different dimension than it had during the
period of the belle époque. Another phenomenon that is being observed is the globalisation in
both the establishment of centres of balneological treatment and various complexes meant for
relaxation, rehabilitation and herbal medicinal treatment around the world.

4. The restoration and regeneration of historical complexes

It is based on the restoration of historical and traditional health resorts and their
modernisation, reconstruction and urban regeneration in numerous European countries.
The end of the twentieth century, perhaps on the wave of ecological interests, was a period
of a return to natural treatment methods, including balneotherapy, hence interest in health
resorts and their one or two-hundred-years’ worth of history and their past. During this
time there has not only been a large number of books published on the occasion of round
anniversaries of the founding of these structures, but efforts were being made concerning
the conservation and renovation of historical structures and complexes within health
resorts, such as, for instance, the meticulous renovation of the water drinking space, casino
and imperial baths in Baden-Baden, Gellert’s Hotel and the Szechenyi baths in Budapest or
the systematically performed renovation and partial reconstruction of the Czech health
resort Františkovy Lázně, which was severely neglected during the period of socialism,
and has been carried out since the 1990’s, as well as the restoration of numerous buildings
in the health resorts of the former GDR that has been ongoing in the twenty-first century,
such as the Baltic baths at Bad Heringsdorf, Bad Albeck and others. The most interesting
efforts covering not only the health resort centre itself, but the entire city of Vichy and its

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3 Health resorts and particularly spas (centres in which the main therapeutic factor is water) have been established in Europe for centuries and the set of behaviours associated with spa therapies, as well as the principles of the design of such centres were developed here.

4 For instance, such efforts were conducted in the 1970’s and the 1980’s in France, as well as in the 1980’s in Styria, Austria, where several new centres of spa-treatment were established as a result of drilling in search of thermal springs, fully taking the principles of competitive development into consideration. In Campania, Italy, in turn, a project from the start of the twenty-first century, funded by the Regional Operational Programme, featured the regeneration of ancient health resorts located in the vicinity of the Bay of Naples, such as Oplontis, Pozzuoli, Stabie and others.

5 The building was thoroughly cleaned and the entire complex on Gellert’s Hill was restored in accordance with the original plans by A. Sebastyen, A. Hegedus and I. Stark from 1911, including the modernist changes from the 1930’s.

6 In this case prof. G. Czigler’s original design was faithfully restored.

7 The southern lands of Germany financially participated in the renovation of the health resort from the start.
agglomeration have been made with varying intensity since the 1960’s. In recent years the redevelopment has been based on strong economic foundations due to the extension of the Lardy university and technology pole located in the immediate vicinity of the baths park. The income the city receives from innovative operations constitutes the basis for its renewal and redevelopment. In many health resorts, due to the improvement of the quality of therapy conditions, historical complexes are being adapted to other functions and therapy is being administered in newer and more comfortable facilities.

5. Competitive development of health resorts associated with the globalisation of the phenomenon

The globalisation of the phenomenon of the development of baths, thermal baths and therapeutic complexes is primarily based on the fact that complexes used for such therapies, rehabilitation and the improvement of the physical and psychological fitness of man have started appearing in many areas of the world in which such activity has never been performed, such as work associated with the establishment of health resorts in the 1970’s in Juzan and Al-Lith near the Red Sea in Saudi Arabia, as well as in the mountainous and highland areas of Iraq, in addition to Algeria, Venezuela and Ecuador. They were also associated with the results of geological studies conducted in the search of energy resources, as well as due to civilisational changes resulting in the increase of the amount of free time, the promotion of youthful fitness, the mass character of recreation and the widespread care for one’s appearance.

One interesting example of marketing activities in the competitive development of health resorts was the French project Chaine Thermale du Soleil Compagne, undertaken at the turn of the 1970’s and the 1980’s, which featured the promotion of systemic solutions supporting economically weaker health resorts through having some of them form a sort of consortium. Economic efforts in these complexes were based on encouraging patients to undergo therapies

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8 It was then, during the term of mayor P. Coulon, during the turn of the 1960’s and the 1970’s, after the abandonment of the health resort by patients from Maghreb, that holiday-making functions were developed. After the damming of the Alier River and building the Park du Lac bathing facility, the Agglomeration Vichyssoise was established in the Alier River Valley, building a complex of open-air pools, a hippodrome and the Complex Omnisport sports and recreation centre in the localities placed on the bank of the river opposite the health resort.

9 Efforts conducted in the years 1989–2010 by mayor C. Malhuert caused, among others, the expansion of the Lardy University Technological Pole, the construction of a promenade in the centre of the city, the arrangement and reintroduction of Rue de Paris, which connects the train station with the health resort complex, to pedestrian traffic, the reconstruction and renovation of therapeutic facilities and the balneotherapy centre, as well as a reconstruction of the congress centre with the use of the existing historical buildings of the Casino and Opera.

10 From: A. Issadi, *Presentation de la carte des eaux thermominérales de l’Algérie*; M. Tahir Hussein, A.G. BAZUHAIR, M. HANZA, *Thermal springs in Jizan and Al-Lith Areas, Saudi Arabia*; M. Fricke, *Curative and Natural Water Potential of Iraq*; E. Eguirène, *News from Argentina*; M.A. Puente, *News from Ecuador*, [in:] [5]; and F. Urbani, *Geothermal News from Venezuela*, [in:] [6].
only at associated health resorts\textsuperscript{11}, as well as the gradual introduction of non-invasive industry utilising natural curative materials into the vicinity of health resort towns. In Austria, in turn, local traditions were employed in the development of health resorts, such as the story of the love between Sissi and the young emperor Franz Joseph in Bad Ischl, while Baden used references to nineteenth-century meetings between monarchs, politicians and aristocrats, with Salzburg, which lives on Mozart’s music, organising theatrical and musical workshops, while spectacles can be watched at every square of the city.

Supported by European funds and government subsidies in the 1980’s, the renovation and modernisation of small private historical health resorts in Spanish Galicia led to several tens of complexes resuming their operations. In Austrian Styria, in turn, due to drilling in search of hot springs, a number of new therapeutic health resorts have been opened while fully taking into consideration the principles of competitive development, as in, for instance, the Rogner Bad Blumau complex which is a completed version of the fairy-tale design by Friedensreich Hundertwasser, Bad Waltersdorf – a cameral therapeutic facility located amidst a complex of greenery, Bad Radkersburg – which has been built in the form of an enormous, compact complex of buildings and therapeutic and recreational facilities, Erlebnis Therme – is a complex of open and partially covered thermal pools beautifully blended into the steep slope of a hill, while Loipersdorf has been arranged as a thermal bathing complex enclosed in a single structure.

In Italy in Campania, as a part of a project financed by the Regional Operations Programme, which has been carried out already at the start of the twenty-first century, the urban regeneration of ancient health resorts located in the vicinity of the Bay of Naples has been planned, such as Pozzuoli, Oplontis, Stabie and others.

6. The construction of unique, avant-garde complexes designed by outstanding authors

As a result of the mass development of health resort centres around the entire world, their developers often commission the best designers to develop the individual therapeutic or hotel buildings or even entire layouts in order to improve the attractiveness of the site. Thus, extraordinarily interesting structures designed by outstanding artists have started to appear in many centres of balneological treatment.

A number of structures designed by famous authors have been built in Swiss health resorts in recent years. The most often presented one is the purist thermal facility in the small health resort of Valz, with an austere purist form and flat stone facades. The large complex of the Tschuggen Berg Oase Spa Centre in Arosie\textsuperscript{12} was designed at a height of almost 2000 metres

\textsuperscript{11} An almost three-fold increase in the number of patients in associated health resorts was observed in relation to other health resorts in the region as a result of these efforts. The experiences of this project were employed in the establishment of new health resorts in Tunisia, Algeria, Morocco, Spain, as well as in the Americas [3].

\textsuperscript{12} The design from 2003, built in 2006 with a cubature of 27,000 m\textsuperscript{3}, is composed of a three-storey natural treatment service building and hotel buildings.
above sea level by Mario Botta. The element that defines its visual expression is a set of around a dozen semi-circular, tall and illusory skylights, whose glazed facades refer to the branches of trees in a dramatic rocky landscape through the outline of their muntins.

The largest singular health resort complex in Europe in the last 30 years was built in the small town of Bad Blumau in Styria, designed entirely by Friedensreich Hundertwasser, in the artist’s distinct manner featuring colourful, irregular forms and green roofs as if taken from a dream about the gardens of paradise. A single hotel building by him has also been built there, occupying an urban block in the health resort of Bad Soden near Frankfurt, as a new, attractive element of the public space of the city.

Jean Nouvel also built a number of hotel buildings in health resorts, such as the environmentally friendly Pleide building and Odyssee Residences in Nice in 2015 or the Life Marina on Ibiza from the years 2005–2011. He is the laureate in the competition for the new Espace Santé et Baeaute bathhouse in the historical health resort of Vichy\(^\text{13}\), as well as the natural therapy facility Hotel Les Thermes built in the middle of the 1990’s, located in the centre of the therapeutic complex in the vicinity of the Adour River in the small health resort town of Dax in Aquitaine.

\(^{13}\) Design from 1988, unbuilt but placed in accordance with the competition guidelines in the baths park, featured a balneotherapy centre, a beauty institute, public swimming pools, gyms, as well as a four-star hotel with 180 rooms, restaurants and conference halls.
7. The establishment of therapeutic health resort centres in natural surroundings

Many places around the world have seen the development of therapy centres in areas that are extraordinarily attractive because of their nature, and even in extreme areas, such as the Blue Lagoon baths complex in Grindavik, Iceland\textsuperscript{14}, located inside a volcanic crater, naturally flooded with water of an extraordinary blue colour, or in national parks, like the Turkish Pamukkale, where natural terraces created from limestone sediment on the slope of Cökelez mountain were used to provide free baths. A similar centre is located in the Italian town of Saturnia. Close to the renowned Saturnia Terme health resort there are two waterfalls that have been made available to tourists and which feature sulphur-rich water: Cascate del Mulino and Cascate del Gorello. The natural stone pools of the terraced cascades are used for open-air bathing. The Termas Geométricas Hot Springs Complex, located in a narrow gorge in the Villarica national park in Chile\textsuperscript{15}, with its clearly outlined orange timber bridges, built in a traditional manner without the use of nails, separates the curative space from the rich greenery that grows here in the vicinity of its hot springs.

\textsuperscript{14} The complex was designed by VA Arjitektar Reykjavik in 1999.

\textsuperscript{15} The complex, built in 2009 in accordance with a design by Germàna del Sol at an elevation of almost 2,000 metres above sea level, between the localities of Coñaripe and Pucón.
8. Polish health resorts

Polish spas were largely established and formed in the nineteenth century. The period of the Second Republic saw, among other things, the mandatory obligation to rest, which led in an extraordinary manner to the development of tourism, holiday destinations and health resorts. All of them became nationalised after the Second World War. The largest and most renowned ones in particular were expanded during the period of socialism both through the placement of large sanatoriums or holiday homes and complexes of multi and single-family residential buildings, which led to the urbanisation of these centres. In addition, small renovation works were performed on some guesthouses, converting them to community apartments. Many health resorts became the seats of communities and even powiats (equivalent to a county – transl. note), while some became administratively incorporated into neighbouring large cities. Some of the centres did not obtain the status of a health resort and, as a result, their development became based on other functions.

After independence was regained, a discussion was initiated on the subject of new precepts of the organisation of health-resort-based therapeutics and spatial regulations concerning their shape and organisation. It was only the new health resorts act, approved twenty five years later, that regulated these matters.

Various efforts aimed at increasing the effectiveness of the operations of P. P. Uzdrowiska Polskie, which governed all centres of balneotherapy, had been made already prior to the act entering into force. The process of their privatisation took place in several stages. It was initially associated with a conversion into state-owned companies, followed by the return of property to some inheritors, as well as, primarily in the years 2008–2015, their sale. Certain reparatory efforts concerning the quality of the public and historical space of health resorts were made earlier, already in the 1970’s and the 1980’s. The first efforts after the regaining of independence were based on improving the conditions of lodgings for patients, which was based on the remodelling of socialist sanatoriums and improving their standards. In the years that followed, already in the twenty-first century, efforts in traditional and historical health resorts and their neighbouring localities concerned the following changes:

- the renovation and modernisation of the cultural heritage of health resorts,
- the progressive urbanisation of health resorts,
- new projects after the privatisation or communalisation of health resorts,
- the commercialisation of the space of a health resort or its neighbourhood.

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16 Spa-therapy was conducted earlier in only a few of them, for instance, in Swoszowice, Iwonicz, Szkło.
17 At present, from among forty six statutory health resorts only eleven do not feature community offices (Czerniawa-Zdrój, Dąbki, Długopole-Zdrój, Przerzeczyn, Wapienne, Wieniec Zdrój, Wysowa and Żegiestów, while Swoszowice and Cieplice Śląskie-Zdrój were administratively incorporated into Krakow and Jelenia Góra, respectively, during the period of the People’s Republic of Poland.
18 After the Second World War twenty four localities were not granted the status of a health resort despite the fact of possessing it during the period of the Second Republic, in addition to being public use facilities or despite being considered health resorts whilst in German borders or providing balneotherapy in already existing spa facilities, although not all of them exhausted their natural curative resources.
19 Act concerning spa-therapy, health resorts and areas of health resort protection and health resort communities of 28.07.2005.
The renewal and modernisation of the cultural heritage of health resorts began already towards the end of the 1970's, as a result of placing nineteenth-century structures under conservation. In the majority of Polish health resorts, particularly Carpathian ones, timber structures, whose lifecycle is limited by the qualities of the material itself, are dominant. The model example here was the reconstruction of the burned-down mineral water drinking facilities in Szczawno Zdrój and of the Witoldówka guesthouse in Krynica, whose structure was built out of durable materials, but the external timber cladding of the facades constituted a faithful copy of the originals. Szwajcarka in Krakow’s Swoszowice was renovated in a similar manner, however the discussion on the subject of conservation doctrine concerning the principles of the conservation of the timber architecture of health resorts is still ongoing. Meanwhile in many privatised health resorts or spa centres which function in former masonry spa therapeutics centres, the modernisations and renovations performed there have restored buildings such as Zakład Mateczny in Krakow to their glory, with similar examples to be found in Busko-Zdrój, Iwonicz-Zdrój, Krynica, Ciechocinek and other health resorts. At the same time the process of the renovation and refurbishment in many cases also applied to historical timber and masonry guesthouse buildings, such as the structures at Jana Wiktora Street in Szczawnica and in Krynica along Kościuszki Street. Efforts aimed at the reconstruction of lost historical buildings have also found themselves to be a part of the tendency of caring for the historical space of health resorts, with such measures being taken in Wysowa through the reconstruction of an old mineral water drinking facility that had been destroyed by a fire or in Szczawnica, where the inheritors of the Stadnicki family restored the building of Dworzec Gościnny in the second decade of the twenty-first century.

The progressive urbanisation and commercialisation of health resorts, as it has already been mentioned, began in the 1960’s. It was based on the construction of so-called Workers’ Estates for the employees of health resorts. These complexes of multi-family residential buildings that were at least five-storeys-high and featured forms typical of inner cities were located on sunny slopes, in the vicinity of therapeutics centres, which now causes them to dominate in the panoramas of these localities, like in, for instance, Krynica, Piwniczna, Rabka, Iwonicz Zdrój and others. The construction of company-owned holiday homes, also featuring forms that did not refer to those already existing in health resorts, started to be built a little later, particularly in reputable centres. Numerous such buildings were built in Krynica, for instance: Hajduczek, Leśnik, Silesia; in Szczawnica they were Hutnik, Górink, Chemik, or in Ciechocinek, e.g. Frezja. After a wave of criticism, particularly in health resorts in mountainous areas, attempts were made to refer to rock-based forms, which, coupled with poor quality workmanship, resulted in massings that were too heavy and unattractive, like, for instance, those of the Poloniny and Nauczycielskie sanatoriums in Szczawnica, although successful attempts did appear, such as the Budowlani sanatorium in Krynica. In recent years reputable health resorts have been seeing further urbanisation through the construction of various complexes of apartment buildings and further residential developments, most often...
including single-family buildings, typically in an organised form. The commercialisation of health resorts pertained not only to changes in the accessibility of Patients to treatment and housing, but also to an increase in the economic activity of private entities, particularly concerning services. In addition, in the pursuit of finding employment for residents and increasing profits, many health resorts have started to dynamically grow their mineral water bottling industries\textsuperscript{21}. After the privatisation of health resorts, particularly those reclaimed by inheritors of their former owners, \textbf{new development projects} have appeared in numerous health resorts. In many cases these were construction projects featuring buildings, line in, for instance, Solec-Zdrój, where new owners, after making the Malinowy spring available, erected two new therapy centres, that make use of its waters, on both sides of the baths park. Unfortunately, these buildings were not incorporated into the original complex in terms of composition.

In Wysowa, in turn, a new indoor swimming pool facility was built recently in the baths park, in the vicinity of the rebuilt mineral water drinking building. The most dynamic reconstruction and redevelopment took place in Szczawnica, where the new owners,

\begin{figure}
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\includegraphics[width=0.8\textwidth]{Fig4.jpg}
\caption{Fragment of the spa park in Muszyna (Photo by E. Węclawowicz-Bilska, 2010)}
\end{figure}

\textsuperscript{21} It appears that the community of Muszyna appears to be in the lead in this regard, in which there are several large new mineral water bottling plants, in: Złockie, in Milik, two in Muszyna and an additional one in Powroźnik.
employing French architects, systematically and attractively redeveloped the individual areas of the health resort. These efforts have restored Szczawnica’s charm and brought it on par with the standards of a European resort.  

Significant development-related changes have also affected Żegiestów, where the new owner restored the former Prometeusz, Warszawanika, Wiktor as well as other sanatoriums, in addition to new guesthouses also being built in the northern part of the health resort. However, it appears that projects associated with the establishment and attractive development of arranged green spaces are the most valuable to health resorts, as the situation in Inowroclaw and Busko-Zdrój has demonstrated.  

Currently such work is being consistently performed in Muszyna in the Zapopradzie region, where a very large complex of greenery featuring a sports-related, recreational and cultural function, in addition to a baths park with an area of around a dozen hectares, has been built. Work is currently being performed on the arrangement of a science park in Zapopradzie as well.

The commercialisation of the space of health resorts and their vicinity is based not only on the fact that the very process of therapy and residing in a health resort itself is being commercialised, which manifests itself in a clear increase in various types of services and, as a result, in ever-present advertisements appearing in various places around health resorts.

The commercialisation of space pertains primarily the use of the most attractive public spaces of health resorts, including therapeutic spaces, such as promenades in the immediate vicinity of natural therapy centres, baths and mineral water drinking facilities, to organise various types of international meetings and congresses, such as the most prestigious Economic Forum in Krynica, mass events like old-timer car shows on the walking promenade in Krynica and others.

22 These projects have come to a halt in recent years. the modernist natural treatment facility designed by Andrzej Gliszczynski has so far not been dismantled and a new structure referring to the traditional architecture of the Pieniny Mountains has not been built. There are voices in the conservation community concerning the necessity to protect modernist architecture.

23 Cars drive to the place of the show using pedestrian alleys and are parked right near carefully cultivated flower beds along the Old Spa House.
It also often manifests itself in the arrangement of temporary structures, such as beer drinking or gastronomic establishments, in which meals are being prepared using outdoor grills. Crowds of onlookers gather in therapeutic spaces, which is often accompanied by chaos, optic agitation, the pollution of space with noise, smells and in the case of old-timer car conventions – engine exhaust. Temporary installations placed for marketing purposes featuring a poor aesthetic are placed randomly and do not improve the appearance of the most representative spaces of the localities.

Numerous Polish health resorts are situated in the immediate vicinity of the state border, both in mountainous and lowland areas\textsuperscript{24}. On the one hand this provides the possibility of shaping attractive walking and cycling trails to neighbouring localities, as it has taken place in, among others, Szczawnica, while on the other the proximity of vehicular and rail transit routes constitutes a source of inconvenience.

Furthermore, numerous commercial companies and warehouses locate their facilities close to the border, often in special economic zones, with constantly increasing indoor and

\textsuperscript{24} Here we can mention: Goldap, Kudowa, Łądek-Zdrój, Muszyna, Piwniczna, Supraśl, Szczawnica, Świnoujście, Żegiestów and others.
outdoor storage spaces negatively affecting the immediate surroundings of health resorts. The impact of these areas on protected sites – such as health resorts – through both vehicular traffic and ostentatious advertisement and marketing activity can be clearly observed.

9. Conclusion and summary

In the past dozen years or so a clear increase in development activity has taken place in Poland, including in the country’s health resorts. However, observations have shown that in each health resort the process and strategy of development is shaped independently, which leads to a situation in which similar or identical services including sports, recreation and their associated spatial solutions appear in several centres\textsuperscript{25}. Due to the various phases and types of privatisation and reprivatisation of health resorts in Poland, the degree of their redevelopment is also varied.

So far efforts associated with the establishment of consortiums of several therapeutic centres offering similar therapeutic profiles have not been undertaken. Large projects aimed at the activation of health-resort based therapeutics, holiday-making and tourism within a broader region, such as, for instance the Poprad River Valley or in the Klodzko Valley, where complexes of health resorts are present, or in other ones, have not been implemented.

In Polish health resorts there is a lack of modern structures and larger natural therapy complexes designed by outstanding authors. During the interwar period many avant-garde structures were erected according to designs by, for instance, Adolf Szyszko-Bohusz\textsuperscript{26}, Bohdan Pniewski\textsuperscript{27} or, particularly in Carpathian centres, by the professors of the Lviv University of Technology\textsuperscript{28}, which constitute significant structures in these complexes to this day.

It appears that traditional and historical balneotherapy centres, despite changes that have been described above, still constitute interesting complexes that can be used to provide therapy using natural curative substances.

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\textsuperscript{25} For instance downhill skiing slopes and bicycle trails in health resorts in mountainous areas or highlands.
\textsuperscript{26} Here we can mention the establishment of the natural therapy facility in Zegiestów-Zdrój, the military sanatoriums in Busko Zdrój and Krynica and others.
\textsuperscript{27} The Jan Kiepura “Patria” Guesthouse in Krynica
\textsuperscript{28} E.g. in Krynica the design of the New Mineral Baths by Władysław Klimczak, the design of the New Spa Building by Witold Minkiewicz or the Wiktor sanatorium by Jan Bagieński and Zbigniew Wardzała in Żegiestów.
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