



ROMAN NOWACKI

Tourism in Polish Health Resorts

Atna

R.N.

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Reprint of the second edition (extended) of the book titled: *Tourist Attractions and Therapeutic Base in Health Resorts*, published in 2015 (Opole, Poland), ISBN 978-83-940475-5-9

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Introduction

Health resorts were already known in antiquity¹. They were mostly created in the locations of mineral waters. After the fall of the Roman Empire their role diminished. In the Middle Ages for a long time spa treatment remained beyond the sphere of interest of majority of the population of the European continent. A distinct growth of interest in medical tourism occurred in the Renaissance. Evolution of cultural life and related travels to places which were the leaders of architecture and art development, especially trips to Italy, and which at the turn of the 15th and 16th century were setting out the new trends in the European art influenced the renewed interest in therapeutic travels. Dynamic growth of health tourism began in some countries in the middle of the 18th century together with the development of industry initially in the Great Britain² and then in other countries of Western Europe³. Routing the railway lines to particular resorts largely decided on their development in that period. The increasing inflow of spa guest resulted in changes of the health resorts' appearance. New magnificent spa facilities, hotels and guest houses were constructed. The spa season was lengthened. The tourist infrastructure was expanded. Spa guests arriving to resorts could take long walks, play tennis, take horse rides, take boat trips on local lakes, observe some natural oddities during tours and visit surrounding villages and towns. In hotels and restaurants were held dance parties and in theatres were performed plays. In winter a lot of health resorts organised sleigh rides. With the intention to satisfy tourists requirements there were marked hiking, cycling and ski trails. It attracted the increasing number of spa guests as well as people of good health interested in relax, recreation and sport⁴. Nowadays most spas make the attempts to meet health resort visitors' needs and to encourage to come larger amount of tourists who do not require spa treatment⁵.

The aim of the book is the analysis of state of tourism management of Polish health resorts and their activities in the sphere of health tourism and health promotion in 2011.

For elaboration of this book following research methods were used: the method of analysis and criticism of sources, the method of analysis and criticism of literature, an interview and selected observational and statistical methods.

The book has a problem-based arrangement. It consists of three chapters. In the first chapter entitled “Geographic position, climate, nature” are contained pieces of information regarding the geographical location of health resorts, their climate and nature. There were noticed the specific climate and nature conditions of each resort. The information about exploitation of mineral waters and therapeutic mud was also indicated. The second chapter entitled “Therapeutic base” presents the state of therapeutic infrastructure, medical profiles of the health resorts and kinds of applied treatments. The third chapter entitled “Tourist attractions and tourists” shows the characteristics of each spa which influence their attractiveness and tourists. It is both the analysis of local people attitudes, phenomena and events attracting tourists as well as sports and recreational equipment and tourism infrastructure.

The main source base of the book is the documentation of state and local government administration offices, statistical data, results of observational research, interviews and scientific and popular science literature concerning tourism including Polish spas activities. Also the information contained on the websites of particular spas published by the town and commune offices proved useful.

I wish to sincerely thank the authorities of state and local government administration offices of the health resorts and all the persons for valuable

information concerning tourism in their resorts what contributed to the creation of this work.

SAMPLE

I. Geographic position, climate, nature

A geographic position of a spa, a relevant climate and surrounding nature together with the natural medicinal materials of a health resort considerably determine its development. Most of Polish health resorts are situated in the mountains. The rest of them stretch out along a narrow lane from the south-east to the north-south and towards the sea coast. Some of the resorts are located by the sea. One of the most famous Polish health resorts Krynica Zdrój is situated in the eastern part of the Beskid Sądecki at the altitude of 560-720 m in the beautiful valleys of the rivers Krynica, Palenica, Słowinka and Czarnica⁶. It is surrounded by wooded hills over which rises Jaworzyna at the altitude of 1114 m. The dense forests which surround the health resort form the local microclimate significantly⁷. They mitigate it by reducing the temperature fluctuations, by increasing average precipitation and by forming a natural protection of mineral water springs⁸. All springs of Krynica have features of hypothermal waters⁹. After being extracted from the spring their temperature ranges from 5⁰ C to 11⁰ C. All waters have carbon dioxide (CO₂) content in quantity of over 1000 mg/dm³. They are classified as carbonated mineral waters (with carbon content more than 1000 mg/dm³)¹⁰.

To the west of Krynica Zdrój there are several health resorts which are characterized by a similar climate. The closest is Muszyna, situated at the altitude of 450 m at the confluence of the Muszynka River and Szczawnik River to the Poprad River¹¹. Due to high humidity, high precipitation and low amplitudes of temperature there are a lot of fir forests there¹². There are found big resources of mineral waters containing among others magnesium, calcium, sodium, potassium, iron, selenium and lithium¹³. In close vicinity of Muszyna lies Żegiestów Zdrój. This health resort is outspread over the precipitous bank of the Poprad River. The wooded banks of Poprad and densely overgrown slopes create a picturesque

landscape¹⁴. The local mineral waters are one of the best ferruginous-calcium-magnesium carbonated mineral waters (with carbon content more than 1000 mg/dm³) in Europe¹⁵. Between the Radziejowa range in the Beskid Sądecki and the Pieniny, in the Grajcarek stream valley, the right tributary of the Dunajec River, there is Szczawnica. The location of the valley determines a mild microclimate in Szczawnica¹⁶. In all directions from the resort rise hills covered with coniferous and larch forests¹⁷. The health resort has got twelve springs of mineral waters. They are bicarbonate, sodium, iodide and bromide carbonated mineral waters (with carbon content more than 1000 mg/dm³) with a high content of mineral salt and numerous microelements¹⁸. Near Szczawnica and Żegiestów Zdrój there is Piwniczna Zdrój. This health resort is situated at the altitude of 357 m level on the Poprad River¹⁹. There are natural mineral waters there which are characterized by a high content of magnesium and calcium ions²⁰.

About 30 kilometres from Krynica Zdrój, in the Low Beskid, there is situated Wysowa Zdrój. The spa spreads out in a valley surrounded by wooded mountains in three directions on the Ropa River near the Uście Gorlickie²¹. Their highest summit is Mt Lackowa with the altitude of 998 m. On this area there is a mild climate, there are curative waters, alkaline acidic waters, the air contains a large amount of iodine²². Near Wysowa Zdrój lies one of the smallest Polish health resorts, Wapienne. It is located in a dell, on the edge of the Low Beskid, near Magura Wątkowska with the height of 847 m. The area where the spa is located is characterized by the favorable submontane climate²³. Wapienne has got mineral, hydrosulphuric waters and high quality therapeutic mud²⁴ brought from a local peatbog²⁵.

In the south of the eastern part of Poland there are three health resorts: Iwonicz Zdrój, Rymanów Zdrój and Polańczyk. Iwonicz Zdrój lies

on the border of the Low Beskid in the valley of the Iwonicki Stream. It is situated among green fir and beech forests. The health resort has got a very favorable microclimate typical of valleys and mountainous dells²⁶. It is characterized by lowered humidity caused by the southern flow of air from the Dukielska Pass²⁷. Iwonicz Zdrój is located on the area with the altitude of about 410 m, of good insolation and low cloudiness²⁸. On its site there are numerous therapeutic springs, sulfide waters and iodine-bromine brines used for baths and inhalation²⁹. Rymanów Zdrój is situated on the border between the Low Beskid and the Bukowskie Foothills. It lies in the valley of the Tabor River surrounded by the Rymanowskie Hills which rise on the east at the altitude of 668 m. The health resort's climate has characteristics of a mountain climate but also of a marine climate because of a high content of iodine. Additionally it is characterized by a high content of ozone, salt and relatively high humidity³⁰. It is mostly formed by polar-marine masses of air. Foehn winds appear there. Rymanów has got natural springs of curative waters, above all chloride-sodium, ferruginous, bromide, iodide and boron carbonated mineral waters (with carbon content more than 1000 mg/ dm³)³¹. Polańczyk, one of the best-known health resorts of the West Bieszczady which has the largest sanatorium complex, lies on the west shore of Lake Solińskie. Mountain surroundings of the water reservoir, an intricate tangle of bays and peninsulas create an incredibly varied scenery³². There is a submontane climate with high intensity of climatic stimuli dominated by the characteristics of a continental climate. In its surroundings there are bicarbonate-chloride curative waters additionally containing sodium, bromide and iodine components³³. However they are not exploited³⁴.

Rabka Zdrój occupies an important place among the southern Poland spas. The town is situated at the altitude of 500-560 m, at the point of contact of the Gorce and the Beskid Wyspowy (Island Beskid) and the

Podhalańskie Range, at the confluence of streams Poniczanka and Słonka to the Raba River³⁵. Wooded mountain sides of Luboń Wielki and Turbacz create an adequate setting of the spa. The local climate differs from a typical mountain climate existing in this part of the country. It is characterized by a small quantity of rather light winds, low precipitation and high insolation³⁶. There is no extensive heat or frost. In the health resort mineral waters are exploited. The spa has nine intakes of abyssal waters mostly brines of the group of iodide-chloride, sodium and bromide ones³⁷. A well-known health resort situated in the Silesian Beskid is Ustroń³⁸. The town is located at the altitude of 340-450 m, in the valley of the Vistula River between Mt Czantoria Wielka situated at the altitude of 995 m and Mt Równica with the altitude of 884 m. It has a mountain moderate stimulus climate³⁹. Due to the influence of the southern masses of air there are no high drops of temperature in winter⁴⁰. There are chloride-sodium, bromide, iodide waters and therapeutic mud deposits⁴¹. The other famous Silesian health resort next to Ustroń is Goczałkowice Zdrój⁴². This place is located in the Racibórz – Oświęcim Basin, in the valley of the upper Vistula, at the altitude of 250 m. From the south-east it is surrounded by the Beskid ranges, from the north by the Pszczyńskie Forest. The climate of the resort has submontane characteristics. It is mitigated by the reservoir of Lake Goczałkowickie⁴³. The temperature of air is slightly higher than the temperature of most of nearby towns and villages. Chloride-sodium, ferruginous (brines), iodide, bromide, and magnesium waters are exploited there. Therapeutic mud is also extracted there⁴⁴.

In the south-eastern part of the country, in a region called the Kłodzko Land, at the foot of the Góry Złote (Golden Mountains) lies Łądek Zdrój⁴⁵. The health resort is situated at the altitude of 420-500 m. It is spread along the Biała Łądecka River. It is surrounded by mild hills covered with forests

and meadows⁴⁶. The location protects it from strong winds and rapid changes of weather⁴⁷. Łądek Zdrój has a mountain strong stimulus climate⁴⁸. There are thermal radioactive waters and sulfide-fluoride waters⁴⁹. Additionally there are therapeutic mud deposits. Długopole Zdrój located nearby, is situated in a well-protected and insulated valley with wooded slopes lying at the foot of the Góry Bystrzyckie (Bystrzyca Mountains)⁵⁰. It has a mid-mountainous, mild, moderate stimulus climate, typical of glens in the Sudetes. There are large monthly and yearly fluctuations in temperature and humidity⁵¹. In Długopole Zdrój there are exploited carbonated mineral waters (with carbon content more than 1000 mg/dm³) with clinically significant content of iron, potassium, magnesium, sodium, calcium and radon⁵².

The most famous health resort is Polanica Zdrój⁵³ situated in the Central Sudetes, in the Kłodzko Basin, within the Góry Stołowe (Table Mountains) and the Góry Bystrzyckie⁵⁴. The Bystrzyca Dusznicka River, a left-bank tributary of the Nysa Kłodzka River, flows through the town. In the western part of the resort stretch out numerous pine and spruce forests. In the resort there is a mid-mountainous climate with a large number of sunny days during a year. The natural resource of Polanica Zdrój are mineral waters which are a valuable source of calcium, magnesium, bicarbonates, sodium, potassium, chlorides and sulfates. They also contain the trace amounts of iron and fluorine⁵⁵.

Next to Polanica Zdrój, in the north-western part of the Kłodzko Land there is a health resort Duszniki Zdrój⁵⁶. It is in the Duszniki Depression located at the altitude of 530-570 m stretched out between the southern sides of the Góry Stołowe and the northern sides of the Góry Orlickie (Orlickie Mountains) and the Góry Bystrzyckie. The river Bystrzyca Dusznicka flows through the town. It crosses a narrow, wooded slope valley where there is the resort and reaches the town from where the road leads towards east down the river through the Piekielna Dolina

(Hellish Valley)⁵⁷. At its eastern mouth, behind the slopes of Mt Księżówka (599 m above sea level) and Piekielna Góra (Hellish Mountain) (533 m) extends the Kłodzka Basin. A mountain pass - Polskie Wrota (Polish Gates) - is a west passage rising at the altitude of 660 m which leads to the Kudowa Depression and is open to Czech. Duszniki Zdrój, similarly to neighboring areas, remains at the zone of influence of various masses of atmospheric air. Distribution of temperatures is in the close relation to the altitude of the area and the exposition of mountain sides⁵⁸. A considerable amount of precipitation (average annual - about 996 mm) the highest in July and not so warm summer period does not differentiate Duszniki Zdrój from other sites located at the similar altitude. In the Duszniki Depression often blow eastern and western “valley” winds which can be changed even during one day. At the day time when the sun warms hill ridges air masses come from the bottom upwards⁵⁹. In the evening when masses of cold and heavy air come down from hills, a direction of a wind changes⁶⁰. However, south winds which force their way from the Dolina Orlicy (Eagle Valley) dominate. In the spa there are curative mineral waters, bicarbonate-calcium carbonated mineral waters (with carbon content more than 1000 mg/dm³) containing also sodium, calcium, iron and magnesium⁶¹.

The health resort Kudowa Zdrój is situated at the altitude of 400-440 m in a valley called the Kudowa Depression surrounded with the Góry Stołowe from the north, with the Lewińskie Hills from the east, with the hills belonging to the Orlickie Mountains from the south⁶². In the west, the valley joins the Great Czech Basin. Two streams flow through the health resort: the Bystra and the Kudowski Stream which create a pond in the health resort. Both streams belong to Łaba River basin, North Sea catchment⁶³. Kudowa Zdrój has a mild submontane stimulus climate. The geographic position of the health resort provides it with a shelter from the

influence of north-eastern air masses. The impact of the oceanic climate of Western Europe is noted there⁶⁴. This manifests itself in the form of increased amounts of precipitation, milder winters and cooler summer⁶⁵. In the area adjacent to Kudowa Zdrój⁶⁶ there are numerous spruce forests with an admixture of pine and beech. The health resort has rich mineral water resources. They are bicarbonate-calcium, sodium, ferruginous and arsenic carbonated mineral waters (with carbon content more than 1000 mg/dm³)⁶⁷.

The small spa town Przerzeczn Zdrój is situated in the valley of the Ślęza River, at the Sudetian Foothills at the altitude of about 240 m. The health resort is surrounded by the sparsely wooded Niemczańsko-Strzelińskie Hills. It has a submontane moderate stimulus warm climate. Prevailing silence is rarely interfered with weak winds. There are low mineralized radioactive-sulphide waters containing sulphides of calcium and magnesium⁶⁸. Natural medicinal material which are also extracted there are mineral waters⁶⁹.

At the Wałbrzyskie Foothills, in the glen, at the altitude of 500-600m the health resort Jedlina Zdrój is situated. The town is surrounded by wooded hills of the Góry Wałbrzyskie (the Wałbrzych Mountains) and the Góry Sowie (the Owl Mountains) on three sides. The valley is open to the south and south-east and thanks to this location it is sheltered from strong winds⁷⁰. It has a milder climate of a mountain, moderate stimulus type and higher insolation than the surrounding villages and towns⁷¹. Natural medicinal materials and bicarbonate-calcium, magnesium, sodium and ferruginous carbonated mineral waters (with carbon content more than 1000 mg/dm³) are exploited there⁷².

At the foot of the Mt Chełmiec, the highest peak of the Góry Wałbrzyskie there is a health resort Szczawno Zdrój⁷³. It is situated in the valley of the Szczawnik stream at the altitude of 430 m. The climate of

Szczawno Zdrój is submontane⁷⁴. It is mild and refreshing. It is influenced by the location of the resort. In the south-east it is protected by the mountain Góra Parkowa. It is also preserved from strong winds by the height of the Biały Kamień (White Stone) and large forest areas⁷⁵. There are curative waters and hydrocarbonate-sodium, hydrocarbonate-sodium-magnesium carbonated mineral waters (with carbon content more than 1000 mg/dm³) including radioactive and low-mineralized ones⁷⁶.

The most famous health resort in the western part of the country is Cieplice Zdrój (now a district of the southern part of Jelenia Góra) located at the altitude of 350 m in the centre of the Jelenia Góra Basin⁷⁷. The resort is surrounded by the rivers Kamienna and Wrzosówka. To the north stretch the Góry Kaczawskie (the Kaczawy Mountains), to the east Rudawy Janowickie, to the south Karkonosze Massif, to the west the Góry Izerskie (the Izerskie Mountains). The health resort has a climate characterized by frequent changes of weather, significant daily temperature and pressure fluctuations, intensifying winds and high insolation⁷⁸. There are low-mineralized, fluoride waters, thermal springs and therapeutic mud deposits⁷⁹.

Several dozens of kilometers from Cieplice Zdrój there is the resort of the Sudetes called Świeradów Zdrój⁸⁰. It is spread in a dell through which flows the Kwisa river and is surrounded by the Jizera Mountains (the Western Sudetes range) covered with spruce forests⁸¹. It is situated at the altitude of about 470-600m. The resort has a mountain climate with predominant features of an oceanic climate. It is characterized by small annual amplitudes, high precipitation and moderate intensity of climatic stimuli⁸². There are exploited curative waters, radioactive bicarbonate-calcium and magnesium carbonated mineral waters (with carbon content more than 1000 mg/dm³), fluoride waters, ferruginous (radioactive waters) and therapeutic mud deposits⁸³.

In the north-western part of Poland there is the health resort called Świnoujście⁸⁴. It is located at the Bay of Pomerania, on the island of Usedom, Wolin and Karsibór and also on dozens of little uninhabited islands at the mouth of the river Świna to the Baltic Sea. The Polish part of the Usedom island is mostly covered with mixed forest. Moraine uplands of the islands of Usedom and Wolin are covered by beech and pine forests with occasionally growing oaks and birches⁸⁵. On the sand dunes which stretch along the sea coast pine forests occur. The resort has a very transitional moderate climate which is highly influenced by the warm Atlantic current. Precipitation is not too large, about 550 mm a year, winters are milder than inland. Sometimes there are periods of warm and sunny weather and periods with predominance of high cloudiness and rain⁸⁶. There are curative waters there: sodium-chloride, bromide, iodide (brines) and therapeutic mud deposits⁸⁷. Near Świnoujście, at the Kamieński Lagoon, there is situated a health resort called Kamień Pomorski⁸⁸. In the east, the town is surrounded by the sparsely wooded Gryficka Plain. There exists a maritime moderate stimulus climate, with low rainfall and small daily temperature amplitudes. The health resort has natural curative resources, sodium-chloride waters, bromide, iodide, ferruginous (brines) and therapeutic mud deposits⁸⁹. A major seaside resort is Kołobrzeg which is situated at the mouth of the river Parsęta to the Baltic⁹⁰. Kołobrzeg is spread out on the border of two macro-regions of the Szczecińskie Embankment and the Koszalińskie Embankment in the lowland and wet area of the back of dunes⁹¹. Near the spa grow beech and mixed forests and alder and wet pine forests. The characteristic vegetation of the area are also heath peatbogs. The climate depends on the influence of the Baltic Sea. It has characteristics of a maritime stimulus climate with high insolation in the summertime, high precipitation and strong winds in autumn⁹². The health resort has natural medicinal

resources. There are chloride-sodium, bromide, iodide (brines) waters and therapeutic mud deposits⁹³.

Połczyn Zdrój, which is at the distance of over 60 km from the seacoast, situated in the Drawsko Lake District is spread out at the bottom of the basin among moraine hills on the river Wogra⁹⁴. The town lies on the area of the Drawski National Park. Beech forests are stretched over the area. The landscape is diversified with high hills and slopes. There are post-glacial lakes there. Połczyn Zdrój has a low-stimulus lowland climate, with not a big amount of precipitation⁹⁵. In the resort there is brine extracted which, thanks to unique composition and high concentration of natural mineral components such as sodium, calcium, magnesium, iodine, chlorides and sulfates, has precious therapeutic properties⁹⁶. Therapeutic mud is extracted there as well.

One of the small resorts is Ustka⁹⁷ situated on the Słowińskie Coast at the mouth of the Słupia River to the Baltic Sea⁹⁸. It is separated from the sea by a large beach together with vast band of wooded dunes. It has a heavy stimulus maritime climate characterized by high insolation in spring and summer and strong winds in autumn and winter⁹⁹. There are exploited chloride-sodium, bromide and iodide mineral waters and therapeutic mud¹⁰⁰.

One of the youngest Polish health resorts is Dąbki¹⁰¹ located in the central part of the Słowińskie Embankment having the status of the spa since 2007. The resort lies on the flat land. It is separated from the sea by sandy beaches surrounded by a band of sand dunes covered with pine forests. Dąbki is situated in the coastal stimulus climate which is mitigated by vast areas of forests and the Bukowo lake. The air is characterized with high purity and humidity. It contains large amounts of aerosols consisting of sodium chloride, iodine and bromine. In the resort area there are rich deposits of therapeutic mud¹⁰².

One of the well-known seaside resorts is Sopot¹⁰³ which, together with nearby Gdańsk and Gdynia creates Tri-City with over a million citizens. The spa lies at the Bay of Gdańsk on the Gdańsk Embankment. It is surrounded by the hills of the Gdańsk Upland¹⁰⁴. From the land it is protected by the wooded moraine hills and from the open sea by the Hel Peninsula. Sopot has a quite stimulus climate with coastal features¹⁰⁵. The resort has natural therapeutic resources, mineral waters – brines (chloride-sodium, iodide and bromide waters)¹⁰⁶.

One of the biggest health resorts of the central Poland is Ciechocinek¹⁰⁷. It is situated in Kujawy, in the lowlands, known as the Ciechocinek Basin. Near Ciechocinek extend big areas of forests and meadows. The resort has a typical lowland low stimulus climate with a small number of rainy days¹⁰⁸. In the town there are natural curative resources, chloride-sodium, bromide-iodide waters (brines). Thermal brines are also obtained from several sources¹⁰⁹. During brine boiling some curative products are obtained: salt, buck and mud. Located near Ciechocinek – Wieniec Zdrój is a resort hidden among quiet pine forests¹¹⁰. There is a midforest lowland climate of little stimulus character. Its characteristic is the presence of essential oils in the air which are emitted by coniferous trees and shrubs. In the health resort there are natural medicinal resources exploited such as mineral waters containing components of calcium, magnesium, potassium and selenium, sulfate-chloride-calcium-sodium, sulfide, fluoride waters and therapeutic mud deposits¹¹¹. The last health resort in Kujawy is Inowrocław¹¹². The spa is located on the Inowrocławska Plain in the Brine Park. The park's area is 75ha. There is a varied stand of trees there. Among trees that grow there are: sycamores, maple-trees, oaks, plane-trees and willows. The resort has a low-stimulus lowland climate with plenty of sunny days¹¹³. There exist

natural therapeutic resources, chloride-sodium-magnesium waters (bitter brine) and therapeutic mud deposits of a low type¹¹⁴.

In the north-east Poland the best-known health resort is Augustów¹¹⁵. It is situated on the Augustowska Plain on the Netta river. Nearby there are lakes Necko, Białe (White) and Sajno. From the north, east and south Augustów is surrounded by the Augustów Forest. Large areas of forests and woods of various types are distinguished by a significant number of old trees. Wet woods and swamp-woods are predominant. Wet habitat is occupied by alder swamp forest¹¹⁶. Here and there one can find forests growing on dry ground. There is arctic flora there and peat flora and fauna as well¹¹⁷. The climate of the health resort is distinguished by a significant impact of a continental climate and is one of the fiercest in the country¹¹⁸. The average annual temperature is only 6⁰ C, a winter lasts long, sometimes four months. Surrounding lakes have a mitigating impact on the local climate. Forest setting of the spa makes the air filled with essential oils emitted by coniferous trees (pine and spruce trees). Therapeutic mud deposits are exploited nearby.

Gołdap, which is situated on the edge of the Garb Szeski (Szeskie Hills), is included to the youngest Polish health resorts¹¹⁹. The resort is four kilometers distant from Kaliningrad Oblast of the Russian Federation. The health resort is spread along the Gołdapa River. It lies on a diversified area. Not far away there is the Romincka Forest and there are moraine hills. The spa has a lowland, wooded, moderate stimulus climate with characteristics of a continental climate¹²⁰. The local air is characterized by high purity. The health resort takes advantages of the climate and therapeutic mud deposits exploited nearby. The local ground-waters have characteristics of mineral waters on larger depths.

In the north-eastern Poland, on the Białystok Upland is Supraśl¹²¹. The health resort is situated on the edge of the Landscape Park of the

Knyszyńska Forest on the left bank of the Supraśl River. The area where the resort is spread has a diversified landscape. It is formed by numerous wooded hills and valleys of small rivers. There are a lot of peatbogs and wet areas which are created in the valleys of streams and rivers¹²². There is a large number of old trees in the forests. Pine woods and pine-spruce woods are in the majority. There are also forests growing on dry ground and along river valleys grow alders, ash-trees and alder swamp forests. There is a lowland, low stimulus climate with characteristics of a woodland climate¹²³. Near the resort there are exploited rich deposits of therapeutic mud.

A middle-sized health resort is Nałęczów¹²⁴ situated on the Lublin Upland at the altitude of 170-200 m. The Bystra River, the right tributary of the Vistula flows through the resort. The town is surrounded by a loess plateau with a varied network of ravines and rich vegetation. In the city centre spreads the spa park with the area of over 20 hectares¹²⁵. There grow: horse chestnuts, tiliac, pine trees, oaks, American tulip trees. The resort has a lowland low stimulus climate with continental characteristics. The health resort has natural medicinal resources. In the surrounding area there are low mineralized, ferruginous waters exploited¹²⁶.

Since 2002, the status of a health resort has Krasnobród, located in the Central Roztocze in the valley of the upper course of the Wieprz River¹²⁷. The resort is located in the Krasnobrodzki Landscape Park. On its diversified area grow pine forests, fir woods, Carpathian beech wood, alder swamp forests. There are peatbogs with rare vegetation¹²⁸. The health resort has a lowland, low stimulus climate with continental characteristics. In its surroundings there are exploited deposits of therapeutic mud¹²⁹.

Horyniec Zdrój is one of the small health resorts¹³⁰. The town is located on the borderland of the Tarnogród Plateau and the Southern Roztocze, also known as Eastern, at the altitude of 260 m. From the south

and west the resort is surrounded by mild wooded plateaus (uplands) which divide shallow river valleys. The uplands are dry and sandy, valleys are usually wet often filled with swamps and peatbogs. From the remaining sides, within the Roztocze, spread large hills at the altitude of 300-360m. The Roztocze hill ranges are separated by dry valleys and ravines¹³¹. Horyniec Zdrój has an upland, moderate stimulus climate with continental characteristics with warm summer seasons and cold winters¹³². Near the resort natural medicinal resources are exploited as well as low-mineralized sulfide waters and rich therapeutic mud deposits¹³³.

A well-known health resort of the south-eastern part of Poland is Busko Zdrój¹³⁴. The resort is situated at the altitude of 220-250 m, in the Nida Basin on the south side of the Pińczowski Garb. The area of the spa is very diversified. Wavy ridges of gypsum rocks steeply falling towards the Nida River and numerous dome-shaped hills are covered by steppe vegetation¹³⁵. In some places of the Basin there are wet meadows, peatbogs and ponds¹³⁶. There is a lowland low-stimulus climate with continental characteristics there¹³⁷. The average annual temperature is 7.8⁰ C. Nearby there are exploited natural medicinal resources, sulfide-hydrosulphuric, salty, iodide-bromide waters and therapeutic mud deposits¹³⁸.

In the area of the Nida Basin, south of Busko Zdrój there is the health resort called Solec Zdrój¹³⁹. The town is located on the Rzoska River at the altitude of 180 m. The resort is situated in a spa park which connects to the pine forest and the nearby artificial lake¹⁴⁰. In the spa park you can find different kinds of trees including plane trees, large leaved lindens, larches and magnolias. The surrounding area is rolling, usually weakly wooded. There are numerous meadows there. Solec Zdrój has a lowland, low-stimulus climate with little local variations. The health resort has natural medicinal resources, chloride-sodium-sulfate, bromide, iodide, ferruginous waters and therapeutic mud deposits¹⁴¹.

Konstancin health resort is located on the Warsaw Plain about 20 km from Warsaw¹⁴². In its neighborhood there are the Chojnowskie forests in which was created the Chojnowski Landscape Park¹⁴³ and the Kabacki forest. This dense forest complex is the largest nature reserve in Mazovia. A multispecies composition of a tree stand is preserved there. Over a hundred year old oak, pine and beech trees grow there. On the upper layer of a tree stand grow trees including aspen, larch, small-leaved lime, Norway maple, European ash, wych elm. The resort has a lowland, woodland, low-stimulus climate. The spa has natural medicinal resources, sodium-chloride, iodide, ferruginous waters (brines)¹⁴⁴.

One of the oldest Polish health resorts is Swoszowice which forms the southern part of Cracow and is included in the 10th district of the City of Cracow¹⁴⁵. The resort lies at the altitude of 250 m in the valley of the Wilga River. It is surrounded by the hills of the Wielickie Foothills. In the 7 ha spa park you can find over a hundred year old trees. The Scots pines, Norway spruces, small-leaved limes, elms, white poplars, Norway maples, weeping willows are some of the trees growing there. The resort has a submontane, moderate stimulus, warm climate¹⁴⁶. It has natural curative resources, sulfate-hydrocarbonate-calcium and magnesium-sulfide, low-mineralized waters¹⁴⁷.

¹ J. Schnayder, *Podróże i turystyka w starożytności*, Państwowe Zakłady Wydawnictw Szkolnych, Warszawa 1959, p. 1-39.

² See more in R. Brown, *Economic Revolutions in Britain 1750-1850*, published by Cambridge University Press, Cambridge 1995.

³ J. Warszyńska, J. Jackowski, *Podstawy geografii turystyki*, PWN, Warszawa 1978, p. 130-131; A. Hadzik, *Spa tourism in the World on selected examples [in:] Conditions of the foreign tourism development in Central and Eastern Europe*, vol. 9, Contemporary Models of Spa Foreign, edited by Jerzy Wyrzykowski, published by Uniwersytet Wrocławski, Wrocław 2006, p. 150-151.

⁴ See more in J. Groch, *Uzdrowiska i lecznictwo uzdrowiskowe w Polsce w okresie transformacji systemu ekonomicznego państwa - na przykładzie uzdrowisk karpackich [in:] Geografia, człowiek, gospodarka*, edited by A. Jackowski, published by Uniwersytet Jagielloński, Kraków 1997; Z. Kasiński, *Zmieniający się świat uzdrowisk*, published by Akademia Ekonomiczna, Poznań 1998.

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⁹ See more in K. Karwan, *Wody mineralne i lecznicze uzdrowisk karpackich*, Wydawnictwo AGH, Kraków 1989.

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