
Erzgebirge/Krušnohoří (Germany/Czechia) No 1478

Official name as proposed by the States Parties

Erzgebirge/Krušnohoří Mining Region

Location

Germany (DE), Free State of Saxony; Parts of the administrative districts of Mittelsachsen, Erzgebirgskreis, Meißen, Sächsische Schweiz-Osterzgebirge and Zwickau

Czechia (CZ); Parts of the regions of Karlovy Vary (Karlovarský kraj) and Ústí (Ústecký kraj), districts of Karlovy Vary, Teplice and Chomutov

Brief description

Erzgebirge/Krušnohoří (Ore Mountains) is a mining region located in southeastern Germany (Saxony) and northwestern Czechia. The area, some 95 km long and 45 km wide, is rich in a variety of metals, which gave place to mining practices from the Middle Ages onwards. In relation to those activities, mining towns were established, together with water management systems, training academies, factories and other structures. Mining also took to specific forms of controlling and managing the activities and to the development of a wide range of specific social practices. The serial transnational property is made up of 22 components, 17 located in Germany and 5 in Czechia. The States Parties present the components in relation to each of the types of ores extracted over time. Each of the components of the serial nomination includes a wide variety of sites, groups of buildings, monuments and structures, each differing in scale, type, function and role in depicting the centuries-long mining tradition of the Ore Mountains.

Category of property

In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial transnational nomination of 22 components.

In terms of the *Operational Guidelines for the Implementation of the World Heritage Convention* (July 2017) paragraph 47, it has also been nominated as a *cultural landscape*.

1 Basic data

Included in the Tentative List

28 September 2012 (as Mining Cultural Landscape Erzgebirge/Krušnohoří).

Background

A nomination under the title "Mining Cultural Landscape Erzgebirge/Krušnohoří" was submitted by the States Parties in January 2014 for evaluation as a cultural landscape under criteria (i), (ii), (iii) and (iv). The nomination dossier was withdrawn by the States Parties following the receipt of the interim report. At the request of the States Parties, an ICOMOS Advisory process was carried out in May-September 2016.

The previous nomination dossier consisted of a serial property of 85 components. ICOMOS noticed the different approaches used by both States Parties to identify the components and to determine their boundaries; in some cases, an extreme atomization of heritage assets was noticed. This is a new, revised nomination that takes into account the ICOMOS Advisory process recommendations.

Consultations and technical evaluation mission

Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property in June 2018.

Additional information received by ICOMOS

A letter was sent to the States Parties on 17 October 2018 requesting further information about development projects in the property.

Additional information was received from the States Parties on 12 November 2018 and has been incorporated into the relevant sections of this evaluation report.

An Interim Report was provided to the States Parties on 21 December 2018 summarising the issues identified by the ICOMOS World Heritage Panel.

Further information was requested in the Interim Report including current or potential mining exploitation licences, and pollution.

Additional information was received from the State Parties on 15 February 2019 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report

13 March 2019

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report provides only a short summary of the most relevant aspects.

Description and history

The serial transnational nomination is made up of 22 components, 17 located in Germany and 5 in Czechia. One of the characteristics of the Ore Mountains is that several metals have been extracted over time; the States Parties describe the property on the basis of landscapes related to those metals. Each of those landscape units contains a wide array of tangible and intangible features, among the former mines themselves, mines shafts, water management systems, mining towns, buildings and other structures. Since it would not be possible to describe each of the 22 components, a summary of each of the landscape types is presented below.

Silver was extracted during all mining periods in the Ore Mountains from 1168 to 1968 and was the starting point for ore extraction at several important locations in the nominated property. In particular, the high rate of silver production in the late 15th and first half of the 16th centuries gave main impulses of global impact for technological innovations, scientific achievements, state territorial regulations, urbanization processes that shaped the settlement-geographical development of the entire region and, from the 18th century onwards, the development of an educational system to meet the need for trained and educated mining experts.

After silver, tin was historically the second most important metal that was mined and processed in the Ore Mountains.

Cobalt is a significant constituent of several polymetallic ore deposits in the Ore Mountains. Cobalt ores had been extracted and processed in the Ore Mountains as early as the first half of the 16th century, 200 years before cobalt was determined to be an element. Until the 18th century, the Erzgebirge/Krušnohoří Mining Region was Europe's leading producer of cobalt pigment, as attested especially by the mining installations of the Schneeberg Mining Landscape (6-DE) and the Schindlers Werk Smalt Works (7-DE). Sophisticated technologies were developed for the technical smelting and processing of the dressed ores; the most important products of these works were the blue dyes smalt and zaffer, and cobalt glass. The production of cobalt blue dyes in the Ore Mountains was highly important for Saxon and Meissen porcelain, Venetian and Bohemian glass, Delft ceramics, and porcelain, be it Chinese or Saxon. All ensured that cobalt pigment from the Ore Mountains was distributed all over the world.

Ore mining and processing played an early and important role in the Ore Mountains, especially in the western part of the Saxon Ore Mountains with its many iron ore deposits, forested areas suitable for the production of charcoal and many rivers necessary for the supply of water power for the smelteries and hammer mills (Frohnauer hammer mill, 8-DE). The demand for iron tools, appliances and products greatly increased hand-in-hand with the rapid development of iron mining and the frequent founding of towns. Iron was important for producing mining tools and machinery. Every large mine had its own forge for toolmaking and repair works. The geological parameters meant that iron extraction was particularly focused in the Western Ore Mountains from the 14th century onwards. The iron mining was primarily a near-surface activity; however, many important deeper mines were in operation as well (Měděnec Bludná).

Uranium is a key member of the polymetallic assemblage of the Ore Mountains. The metal was discovered and recognized for the first time here, and it was here that its ores were first exploited. Uranium subsequently shaped the recent history of mining in the Ore Mountains like no other raw material. In 1906, the world's first radium spa was opened in Jáchymov, which triggered the search for further radioactive sources in the Ore Mountains. The first Saxon radium spa in the Ore Mountains was founded 1918 at Schlema. In contrast to the distribution of early mining activities, the search for uranium after the Second World War by the Jáchymovskédoly state mining company on the Czech side and the SAG (and from 1954 the SDAG Wismut) on the Saxon side took place over the whole region, regardless of any administrative boundary. Hundreds of shafts for uranium ore mining were established, mostly in the western part of the mountain region. Nevertheless, these mining activities were quite often short-lived and had only limited impact on existing historic structures. On the Saxon side, the Niederschlema-Alberoda area (17-DE) developed into a central uranium mining place. In Czechia, uranium mining was concentrated on the area around Jáchymov (1-CZ) between 1945 and 1964. In Saxony, the mining of uranium was terminated in 1990 with the political reunification of Germany. Large contaminated waste dumps were typical for the uranium ore mining area of Hartenstein-Aue-Schlema. After 1990 the Wismut GmbH started a large and costly decontamination, redevelopment and redesigning programme for all of the uranium sites in the Saxon Ore Mountains. The result of these efforts is the new designed landscape of the Hartenstein-Aue-Schlema region (17-DE).

As regards the history of the nominated property, the establishment of Cistercian monasteries in the 12th century constituted the outposts for the settlement of the region and were instrumental in initiating the mining activity.

Freiberg, among the most important mining towns, had developed from one of these villages by the late 12th century; it grew in importance throughout the 13th–14th centuries but then declined due to the exhaustion of

the superficial ore deposits. On the Bohemian side, particularly in Krupka/Graupen, mention of mining activity in written documents can be found as early as the 13th century. Krupka district was among the most important, with tin, silver and, later, iron, lead, copper and mercury ores extracted. Other mines were founded in the district throughout the 14th century by mining entrepreneurs. Decline of mining in the Krupka district began in the early 15th century, as a result of two main factors, namely the lack of technologies to exploit deeper ore lodes, and the Hussite Wars.

The mining boom was triggered by the quest for silver ore and the discovery of abundant deposits in Schneeberg. The increasing mining activity stimulated the establishment of new, planned towns close to the mining areas. Within a few decades, 30 new towns were founded on the Saxon side of the Ore Mountains and 20 on the Bohemian side. These towns were granted privileges which attracted miners but also craftsmen, tradesmen, artists and scholars. Towns such as Freiberg, Annaberg, Marienberg, Schneeberg and St Joachimsthal/Jáchymov also developed into cultural centres. Studies on mineralogy and mining began in the 15th – 16th centuries thanks to the work of many scholars, amongst whom the most famous was Georgius Agricola, who worked in Jáchymov and compiled the compendium *De re metallica*, published posthumously in 1556, which served as the main reference on mining and metallurgy for more than 200 years.

The mining industry changed its scale and so did miners' work, which passed from an independent to a wage-dependent activity. Silver coin minting privileges were extended to the mining towns, including Jáchymov, where large amounts of silver *thalers* were minted and gained European acceptance.

The second half of the 16th century witnessed silver mining stagnation (depletion or deterioration of ore deposits, and discovery of richer silver ore deposits in South America), and climatic fluctuations contributed to the serious decline of mining in the region, causing a drastic loss of inhabitants.

Political changes between the late 17th and 18th centuries brought a reformation in the administrative structure of mining organization and management as well as the beginning of academic education and vocational training for mine overseers. In Bohemia, the Counter-Reformation caused a prolonged crisis in the mining sector, particularly because the majority of the miners professed the Protestant faith and were therefore forced to either move away or become Catholic. Efforts to revive mining activity in the eastern part of the Ore Mountains began between the 17th and 18th centuries. State support to revitalize mines and the establishment of a vocational training centre in Jáchymov in 1716 contributed to reactivating mining in Bohemia, with the extraction of cobalt, arsenic and small amounts of silver ore.

Mining activity led to a renewed boost starting in the second half of the 18th century. This revival was also accompanied by scientific and technological research – stimulated by the establishment of the Freiberg Academy – which favoured the industrialization of the mining sector. A number of innovations were conceived and tested in the Ore Mountains: cast-iron column engines, steam winding machines, new water management systems and improved metallurgic processes all contributed to the continuation of mining activity in the Ore Mountains throughout the 18th and 19th centuries. Prospecting for new ore deposits was carried out. Throughout the late 18th and 19th centuries, ore mining activity fluctuated in quantitative terms and in the number of exploited sites; at the same time, coal mining began to gain in importance.

Efforts to counteract the progressive decline in mining included a thorough revision of the administrative organization of the mining activity, its liberalization and a change in the management principle. The First World War had a severe negative impact on mining activity, particularly in Bohemia, but the discovery of radioactive material at Jáchymov was to begin another phase of mining operations as well as experiments on the therapeutic properties of radioactive waters. During the Second World War, Germany occupied Jáchymov with the aim of exploiting the uranium ores.

Following the end of the Second World War and the new political spheres of influence, the Ore Mountain mines and mining districts fell under the control of the Soviet Military Administration in Germany, and systematic prospection was carried out to locate uranium ore. Uranium mining started as early as 1946, inaugurating the last intense phase of mining in the area. The German Democratic Republic was the third largest producer of uranium in the world; uranium mining and processing continued in the region into the 1990s and granted great prestige to the Ore Mountains region. Ore prospection was also carried out in post-Second World War Czechoslovakia, revealing massive tin ore deposits as well as molybdenum. As in the German Democratic Republic, uranium mining was able to achieve a large scale thanks to the use of systematic forced labour. More than 65,000 labourers worked at the Jáchymov uranium mining district from 1948 until its closure in 1965, when the ore veins were exhausted. The Ore Mountains, however, still hold extensive reserves of ore, especially rare ones, which await the right conditions to make their extraction profitable. Since the reunification of Germany and the fall of the Soviet Union, several prospection and mining concessions have been issued in Saxony and Bohemia.

Boundaries

The area of the 22 components totals 6,766.059 ha, with buffer zones totalling 13,017.850 ha.

The States Parties explain that the components include all successive and evolving socio-technical systems specified for several periods and several ore resources, as well as all key interrelated interdependent and visual elements. The boundary of the nominated property as a

whole has been drawn according to the rationale of a cultural landscape, which brings with it the need for contextualization and which encompasses its functional, spatial and historical integrity, both above and below ground. The boundaries of the components include all features related to the mining system, including mining sites and operational areas, processing sites, infrastructure to support the mines, miners' living sites, aspects of settlement stimulated by mining (e.g., agricultural areas) and landscape modifications due to mining (e.g., shaft collapses) necessary to convey the significance and characteristics of each component as it contributes to the full expression of the proposed Outstanding Universal Value of the property, its integrity and its authenticity. The boundaries were drawn to include the setting and the functional links with the environment and other elements of the mining system. The buffer zones encompass sufficient areas within which developments might become a threat to the value of the property. The boundaries were determined in exact plots wherever possible. On the Saxon side, in some cases, a standardized buffer zone between 5 and 10 metres in width was determined for linear elements. Structures located underground were only allocated with a buffer zone when these are reflected by function-specific installations or archaeological remains aboveground. Otherwise, above-ground (construction) measures will have no effect on these mostly very deep-lying structures.

ICOMOS notices that the reconfiguration of the serial nomination into 22 components, instead of 85 in the previous nomination, reveals an appropriate approach whose outcome is an adequate definition of boundaries for each of the components and for their buffer zones, interconnecting heritage assets to the information related to the management of rural and urban landscapes. ICOMOS considers that the boundaries of the components of the serial transnational nomination and of their buffer zones are adequate.

State of conservation

Based on the information provided by the States Parties and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the overall state of conservation of the serial property is good.

The States Parties provide a detailed report on the state of conservation of each of the components of the serial property. In the case of the Saxon components, a table for each of the landscape units summarizes the state of conservation of the assets included. Most of them are in a fair to good state; only a few are considered to be in a poor state of conservation. For the Czech components, information is provided for the assets included in each of them. The State Party has identified in which cases restoration works are still pending.

ICOMOS considers that extensive documentation and conservation activity has been already carried out within the nominated serial property and substantial funding and plans are available for the implementation of conservation.

Factors affecting the property

Based on the information provided by the States Parties and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are development projects, natural uncontrolled revegetation of mining areas and features that can, over time, reduce access and modify the appearance of the mining landscape and its component features, flooding, pollution and potential tourism impact.

As for development, the States Parties reported on extractions licenses granted over the last years near component 2-DE Altenberg-Zinnwald Mining Landscape, and on a project to build a bridge in the nominated and buffer zones of component 4-DE Freiberg Mining Landscape. On 17 October 2018, ICOMOS sent a letter to both States Parties requesting additional information on these issues. The response from the States Parties was received on 12 November 2018.

On mining development, the States Parties' report includes a preliminary Heritage Impact Assessment (HIA) and single maps. On the basis of the report's outline information, the current HIA position is that there is likely to be negligible adverse effect, and that the resumption of mining adjacent to this proposed protected cultural landscape is justifiable. However, the HIA remains in draft form, as sufficient information to reach any provisional conclusion for guidance purposes is as yet unavailable. The additional information provided by the State Parties in February 2019 confirms that the HIA remains preliminary, that the consultation process is ongoing and that new information will be provided to ICOMOS as soon as it is available.

Regarding bridge construction as part of the project B 101/B 173 Bypass Freiberg, the States Parties report that, after its approval in February 2010, the Federal Administrative Court of Leipzig stopped the further process as a result of legal actions (in July 2017). The planning permission was considered partly incorrect; therefore, amendments of the planning documents are required (mainly due to nature conservation issues). As of 12 November 2018, four court procedures and four plan amendments are pending. Final submission to the planning authority of all currently pending plan amendments is scheduled for the year 2022. There is no time schedule for the court proceedings.

This general information is followed by detailed information on both issues, including the draft HIA on the mining licenses project. ICOMOS has considered these responses adequate but recommends that both the World Heritage Committee and ICOMOS be timely informed on any future progress of these projects and on the update of the outcomes of the HIA. In the interim report dated 21 December 2018, ICOMOS requested both States Parties to explain how they would act should any new requests for licenses be made in the future.

The additional information submitted in February 2019 provides further information on this issue. Germany reports that mining activities are tentative only in the Altenberg mining area. According to the Federal Mining Act, a licencing procedure is instituted for all mining activities in the Ore Mountains region. Issues on monuments protection, including proposed or acknowledged World Heritage attributes and values, are considered in the approval procedure; the competent authority is the Saxon State Office for Monument Protection and the Saxon focal point for World Heritage.

The Czechia reports that, in general, ore deposits in the regions are largely exhausted and that no exploration licences have been issued. In the case that an exploration licence be requested, the lengthy administrative procedure includes an Environmental Impact Assessment (EIA) and, in the case of the Czech component parts, also a Heritage Impact Assessment.

Regarding revegetation, this problem is tackled on both sides by the forest management departments of Saxony and Czechia.

Flooding represents a further threat for the region; sections of the Roter Graben (ditch), the Ore Canal, and the Gersdorf mining landscape (4-DE), the Grünthal Silver-Copper Liquefaction Works (14-DE) and the Schindlers Werk Smalt Works (7-DE) are located in flood plains within the definition of Section 100(3) of the Saxon Water Act (SächsWG). In the regional plan for Chemnitz, these areas are designated as flood protection priority areas (flood areas) or flood protection reserved areas (risk areas). Prevention plans, maintenance and preventive measures have been undertaken on both the German and Czech components of the nominated series.

As regards pollution, especially the treatment of filtered water, further information on controlling provisions and procedures has been requested in the interim report dated 21 December 2018. The additional information provided in February 2019 indicates that in both States Parties legislation of the European Union provides a common basis for the protection of the environment. In Germany, the European Water Framework Directive 2000/60/EC (WFD) provides the legal basis for the protection of water. In Saxony, the Directive was implemented into national law by the Federal Water Resource Act and the Saxon Water Act. Specifications are determined in the Surface Water Regulation and the Groundwater Regulation. In the Czechia, the European Directive has been transposed into national legislation. The Ministry of the Environment together with the Ministry of Agriculture annually submits to the Government a report on the state of water management in the Czechia, which describes and evaluates the quality and quantity of surface and groundwater as well as the related legislative, economic, research and integration activities. There is no drainage of mine water from the old mining works in the nominated Czech component parts, for which the regional authorities in Karlovy Vary and Ústí nad Labem would

have to determine the manner and conditions of their discharge.

In February 2019 the States Parties have also informed on other forms of pollution, including random risk. The legal and administrative provisions are adequate for the appropriate treatment of these issues.

According to the States Parties, there is potential for further developing tourism related to World Heritage inscription. Currently, the scale of tourism is relatively low, posing little risk to the monuments in the nomination. However, even modest increases in numbers might have an impact on the urban communities, especially in relation to vehicular traffic in Czechia.

With regard to potential mining exploitation licences, ICOMOS considers that both States Parties have explained relevant procedures and provisions. However, ICOMOS considers that it is urgent to receive further information on the details of the project. Additionally, ICOMOS considers that both States Parties should formally commit that no mining activities will be allowed in the future within the boundaries of the serial property's components.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the States Parties to be of Outstanding Universal Value as a cultural property for the following reasons:

- Erzgebirge/Krušnohorí Mining Region is broadly a self-contained landscape that has been profoundly and irreversibly shaped by 800 years of almost continuous polymetallic mining, from the 12th to 20th centuries. The components of the series represent the most important mining areas of the region, and include the highest density of features and values.
- Separate mining landscapes emerged on both sides of the Ore Mountains, characterized by an exchange of technical know-how, of miners and of metallurgists between Saxony and Bohemia.
- The combination of shifting geographical mineral output, topography and a mining system predominantly under state control dictated land-use regarding mining, water management and transport, mineral processing, settlement, forestry and agriculture.
- These landscapes are anchored by the mines themselves, pioneering water management systems, transport infrastructure, innovative ore-processing and smelting sites that possess an exceptional variety and integrity of equipment and structures, mining towns that developed spontaneously with, and adjacent to, the silver bonanzas of the 15th and 16th centuries, their original urban layout and architecture reflecting their importance as administrative, economic, educational, social and

cultural centres and retained as the basis for embellishment in the 18th and 19th centuries; agriculture that was contemporary with the earliest silver strikes in the 12th century and a well-established forerunner of large-scale mining; and sustainably managed forests that occupy traditional spaces in the landscape that were also subsidiary to the mining industry.

Comparative analysis

The comparative analysis presented by the States Parties is based on a methodology that takes into account the category of the property (cultural landscape), its type (serial transnational property) and its size. At the same time, considerations on periodization and criteria, protection and management, relevant cultural-historical context, and features and values have been taken into account. On the basis of this methodological approach, similar properties inscribed on the World Heritage List or on tentative lists, as well as properties not registered on the former, were selected for comparison.

According to the States Parties, the closest comparable properties inscribed on the World Heritage List as cultural landscapes, or being mining landscapes located in the same geo-cultural region, are: Mines of Rammelsberg, Historic Town of Goslar and Upper Harz Water Management System (Germany, 1992, 2010, criteria (i), (ii), (iii) and (iv)); Historic Town of Banská Štiavnica and the Technical Monuments in its Vicinity (Slovakia, 1993, criteria (iv) and (v)); Kutná Hora: Historical Town Centre with the Church of St Barbara and the Cathedral of Our Lady at Sedlec (Czechia, 1995, criteria (ii) and (iv)); and Cornwall and West Devon Mining Landscape (United Kingdom, 2006, criteria (ii), (iii) and (iv)). As for tentative lists, the properties considered comparable in terms of similar features and values include Roşia Montană Mining Cultural Landscape (Romania) and Sulcis Iglesiente (Italy). A table summarizes the characteristics of each of these selected properties.

The States Parties have considered it appropriate to focus on polymetallic mining regions where relevant cultural landscapes survive intact, but broadly exclude comparisons with other properties simply on the level of each nominated component. Nevertheless, in certain cases, comparisons have been made at the component scale, and even at the site scale, in order to underline the exceptionality of certain attributes conveyed by uncommon elements of the nominated property (the rare uranium and cobalt landscapes, for example). The nomination dossier includes a list of 24 properties inscribed on the World Heritage List or on tentative lists, at European and global levels, which have not been considered appropriate to be compared with the nominated properties. Once the selection of properties has been presented, the nomination dossier includes a comparison with each of the properties considered the most relevant for comparison.

After the comparison with similar properties, the States Parties include a section to explain the approach for the selection of the components of the serial nomination, especially the reduction of the 85 components of the previous nomination dossier to the 22 of the present one. The serial approach is justified mainly on the grounds of the large spatial separation of the deposits, a result of the uneven concentration of ores, and the resulting locations of the significant historic mining areas. The States Parties summarize the characteristics of each of the components selected and the reasons why they have been selected to make up the series.

ICOMOS considers that the comparators chosen are adequate to identify the properties, inscribed or not on the World Heritage List, which can contribute to the determination of how the nominated property could justify its inscription on the World Heritage List.

The approach for the selection of components of the series has also been clearly explained, and implies an adequate rationale to define and justify the composition of the series.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (ii), (iii) and (iv).

Criterion (ii): *exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;*

This criterion is justified by the States Parties on the grounds that the serial transnational property is an exceptional testimony to the outstanding role and strong global influence of the Saxon-Bohemian Ore Mountains as a centre for technological and scientific innovations from the Renaissance up to the modern era. During several periods of mining history, significant achievements related to the mining industry emanated from the region and were successfully transferred, or influenced subsequent developments in other mining regions. This includes, among other achievements, the founding of the first mining high school. The continuous worldwide emigration of highly trained Saxon-Bohemian miners played a key role in the interchange of developments in, and improvements to, mining technology and its related sciences. Manifestations of this interchange are still evident in the Erzgebirge/Krušnohoří Mining Region.

ICOMOS considers that the Ore Mountains region was a centre of innovation over a long period of time. It was also a focus for the distribution of mining knowledge, notably through famous works such as Agricola's *De re metallica* (1556) and through the Freiberg Mining Academy, founded in 1765, whose students worked in mining regions around the world. ICOMOS also notices that the

wide variety of intangible heritage assets created a unique mining culture that facilitated the interchange of human values, in particular the mining culture that acted to educate and inform about mining techniques and technology as well as to create a fertile environment for innovation and learning. Although some of the components of the serial nomination constitute better examples of physical evidence demonstrating this criterion than others, ICOMOS considers that overall the nominated serial property meets criterion (ii).

ICOMOS considers that criterion (ii) is justified.

Criterion (iii): *bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;*

This criterion is justified by the States Parties on the grounds that the serial transnational property bears exceptional testimony to technological, scientific, administrative, educational, managerial and social aspects that underpin the intangible dimension of living traditions, ideas and beliefs of the people associated with the Ore Mountains' culture. The organization as well as its hierarchical administration and management are fundamental to understanding the mining tradition of the Ore Mountains that developed from the beginning of the 16th century. A tradition emerged whereby the mining bureaucracies of absolute rulers maintained strict control of the work force and induced a favourable climate for an early capitalistic system of financing. Such an approach influenced the economic, legal, administrative and social system of mining in all the mining regions of continental Europe. Moreover, the state-controlled mining organization strongly influenced the development of early modern monetary systems, particularly witnessed by the royal mint in Jáchymov. The heavy silver coins known as *thalers*, first minted in Jáchymov from 1520, served for several centuries as a standard for the monetary systems in many European countries, and became a predecessor of the 'dollar' currency.

ICOMOS considers that each of the 22 components of the serial nomination contains elements that are outstanding in the overall context of 800 years of mining, but also outstanding within the types of mining landscapes identified within the nominated property. The components of the serial nomination also contain historical elements that document each period of mining history. ICOMOS considers that this criterion has been demonstrated.

ICOMOS considers that criterion (iii) is justified.

Criterion (iv): *be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;*

This criterion is justified by the States Parties on the grounds that the serial transnational property represents a coherent mining landscape with specific proportions of land dedicated in specific places to mining, dictated by the uneven distribution and concentration of ore deposits, and

exploited in different periods and processing operations, to water management and forestry, to urbanization, agriculture, transport and communications – a pattern of nodes and concentrations, of linear connecting features, all developed in successive phases under increasing state control. This is an outstanding example of a transboundary region transformed by mining activities from the 12th to the 20th centuries. Well-preserved mine workings, technological ensembles and landscape features bear witness to all known major extracting and processing technologies applied from the late medieval period to modern times, as well as to the development of extensive, sophisticated water management systems both aboveground and underground. The mining activities led to the unparalleled development of a dense settlement pattern both in the valleys and in very high, harsh upland positions, featuring a close connection to the surrounding mining landscapes. They present a specific infrastructure reflecting the needs of the mining industry, the miners and their families.

ICOMOS considers that the 22 components of the serial nomination constitute landscape units that encompass the mines themselves, urban centres, designed and vernacular buildings and structures, water management systems, collapsed mines and tailing heaps, all resulting in specific mining landscapes and technological ensembles that illustrate a significant stage in human history. ICOMOS considers that this criterion has been demonstrated.

ICOMOS considers that criterion (iv) is justified.

ICOMOS considers that the nominated property meets criteria (ii), (iii) and (iv).

Integrity and authenticity

Integrity

This property is nominated as an organically evolved mining cultural landscape comprised of 22 components that, as a whole, illustrate the process of configuration of the territory over 800 years on the basis of mining activities characterized by the extraction and processing of different kinds of ores. ICOMOS notes that both States Parties have adopted similar approaches to identify the components of the serial property, to justify in which way each of them contributes to illustrating the complex process of configuration of the mining cultural landscape and to establish the boundaries of the nominated property and the buffer zones.

On this basis, ICOMOS notes that each of the components of the series plays a specific role in illustrating the types of landscapes related to the extraction of different ores from the Ore Mountains. The boundaries of each of the components have been carefully delineated in order to include all the features necessary to convey the contribution of that particular component to the proposed Outstanding Universal Value. In the comparative analysis section of the nomination

dossier, the States Parties have succeeded in justifying the selection of components to illustrate the complex cultural landscape of the nominated property.

Although some of the components are exposed to factors that could represent a risk to their conservation, the legal instruments and management plan in place seem to ensure the adequate protection of all of the features necessary to convey the property's proposed Outstanding Universal Value.

ICOMOS considers that the 22 components include all the features necessary to convey the proposed Outstanding Universal Value and that they are, in general, adequately protected. ICOMOS considers that the required conditions of integrity have been met.

Authenticity

The serial property encompasses a wide range of tangible evidence of the interaction of people with an environment that has been shaped as a distinct mining cultural landscape. The nominated property's components have been preserved in their settings and, even though some have been adapted for new uses, they retain a high degree of authenticity. The mining landscape has also retained its comprehensive intangible heritage in the form of living traditions, and movable collections and archives are additional sources of reliable information on the values of the nominated series.

A span of 800 years of mining activity has led to changes to the landscape; some mining sites were abandoned whilst others continued to operate and witnessed technological adaptations. Continuous mining activity at certain sites contributed to the conservation of mining structures as well as to their continuous repair and upgrade. The nominated mining landscapes bear witness to the mining history of the region throughout 800 years, up until the 1990s. The underground installations in general retain a high degree of authenticity. Above ground, abandoned buildings or structures were, in some cases, demolished or adapted to new uses, with modifications, and in some instances it appears that the original buildings have been covered over. Although efforts to preserve mining sites began a hundred years ago, many remained in poor condition until 1990, when, especially in Germany, conservation campaigns were begun in historic towns and mining sites. The Academy of Freiberg continues to carry out research on mining and its operations, contributing to the growth of knowledge.

In Czechia, protection and conservation of mining-related properties began in the 1950s, although social, economic and financial problems caused the deterioration of many buildings and structures. It is only in the past twenty years that many properties were restored, respecting their structural details, their decoration, the original materials and their spatial arrangements.

ICOMOS considers that the conditions of authenticity have been met.

In conclusion, ICOMOS considers that the requirements of integrity and authenticity have been met.

Evaluation of the proposed justification for inscription

ICOMOS considers that the proposed statement of Outstanding Universal Value, the justification of criteria for inscription and the conditions of integrity and authenticity are adequate; all of which justifies consideration of the serial transnational property to the World Heritage List.

Attributes

Such a large and complex property includes a wide array of attributes, from landscape units to single buildings and intangible cultural heritage assets. It would be difficult to summarize in a few lines all the attributes contained in the nominated serial property. In general, ICOMOS considers that the identification of mining landscape units, according to the ores extracted over time, and of the variety of natural and cultural attributes encompassed in each of them, is sufficient to convey the proposed Outstanding Universal Value.

ICOMOS considers that the Outstanding Universal Value of the serial transnational property has been demonstrated in terms of justification of the proposed criteria for inscription and the conditions of integrity and authenticity.

4 Conservation measures and monitoring

Conservation measures

Active conservation is carried out throughout the nominated property. Many components are in a good, stable state and are well maintained, but some are undergoing substantial restoration work, which is being properly regulated, done to a high conservation standard and overseen by the relevant authorities. Three components, two in Germany and one in Czechia, are in an advanced state of decay, but programmes and funds are in place for their conservation with significant support from the two States Parties.

A large number of mining buildings have been conserved, restored or adapted to accommodate the activities of local mining clubs and associations. The conservation work has generally been backed up by research which was carried out or completed by the volunteers and activists from the clubs themselves. Conservation has been very significantly augmented under the strict regulation of the *Sächsisches Oberbergamt* (Saxon Mining Office) when extensive historic mine workings were planned to be opened to visitors.

ICOMOS notes that work has already been carried out on both sides of the German-Czech border and that substantial funding has already been committed to the conservation of the components of the nominated property.

Monitoring

Both States Parties present a set of key indicators to monitor the state of conservation of the components of the serial transnational property. Key indicators in Saxony include the state of conservation of the monuments, proportion of buildings requiring extensive restoration and conservation measures, number of approval of restoration and protection measures, amount of approved grants for restoration and protection, utilization and ownership, documentation of the restoration and conservation measures, financial expenses, state of conservation of protected natural features, landscapes and areas, developments within the nominated property and its buffer zone and visitor statistics. For each of the indicators, the periodicity and location of records are established, as well as procedures and the institution responsible.

In the case of Czechia, the selection of the key indicators has been determined by the character of the property to be monitored, i.e., each individual component of the serial property and its primary attributes. On the basis of the attributes of each of the components of the serial nomination, the State Party has identified a set of indicators aimed at monitoring the conditions of above-ground and underground mining remains, the architectural elements and urban structures, the natural elements and character of the landscape and the effectiveness of administration of the property. For each of the indicators, the frequency of evaluation and the responsibility for and location of records are established.

ICOMOS considers that, despite the two different approaches taken by the States Parties, the monitoring system in place is adequate.

ICOMOS considers that the conservation measures and the monitoring system are adequate.

5 Protection and management

Documentation

ICOMOS notes that the comprehensive reporting within the nomination dossier describes the extensive recording, documenting and collation of substantial inventories and bibliographies on both sides of the border. Inventory and recording materials exist at both the regional and national levels within the two States Parties, and new recording and research is ongoing or planned.

Legal protection

Regarding protection, there is a comprehensive set of legal instruments in place in both States Parties, reported with detailed information in the nomination dossier.

The relevant legislation for heritage protection in Czechia includes the Heritage Preservation Act No. 20/1987 and related implementation orders and decisions; Act on nature and landscape conservation No. 289/1995; Spa Act No. 164/2001; Mining Act No. 61/1988; and a number of Acts and Orders concerning spatial planning and building specifications. The nominated components were declared protected landscapes in 2014, while the Red Tower of Death and its compound was declared a national monument in 2008. Historic centres, mining complexes or individual monuments also enjoy additional specific protection status. Further protection is granted by nature protection declarations and conservation provisions.

The Orders of specific protection declarations contain a summary of the rights and obligations of municipalities, legal or physical persons that own, hold or manage buildings or estates in protected landscapes or conservation areas, as well as a description of the structure of the state heritage preservation authorities and their tasks. The nomination dossier contains a detailed description of how protective measures are implemented in the nominated components and their buffer zones according to the legal and planning framework.

In Germany, the protection of cultural monuments and landscapes is under the responsibility of each federal state, in this case the Free State of Saxony. However, monument protection is anchored in general terms in several federal legislative Acts, e.g., the Federal Building Code (BauGB), Federal Mining Act (BergBauG), Regional Planning Act (ROG), Environmental Impact Assessment Act (UVPG), Federal Waterways Act (WaStrG), Water Resources Act (WHG) and Nature Conservation Act (NatSchG). The latter, amended in 2016, integrates consideration of historically evolved cultural landscapes with their cultural, architectural and archaeological monuments; the Regional Planning Act contains references to the protection and development of cultural landscapes in relation to the principles and tasks assigned to regional planning.

All components of the nomination in Germany are covered by the Monument Conservation Act of Saxony (SächsDSchG 1993–2012) or by the Nature Conservation and Landscape Protection Act of Saxony (SächsNatSchG – 2007). Only the uranium mining Heap 366 in Aue is classified as a mining remediation property and is permanently protected from further development by a special order issued on 17 November 1980. The Saxon legislation for cultural monuments also grants indirect protection to their environs which, however, does not apply to protection areas.

Landscape planning is anchored in the SächsNatSchG and is articulated in three levels: landscape programmes, landscape planning for supra-local areas, and landscape planning for local areas. The content of landscape planning is integrated into regional planning programmes. At the municipal level, a landscape plan has to be prepared as a basis for building management planning

and it is embedded into the land-use plan for descriptive purposes.

Monument listing is carried out by the Saxon State Office for Historic Preservation and the Archaeological Heritage Office in Saxony in consultation with the municipality in which the monument is located, which can propose heritage designation of listed monuments. In fact, listing does not automatically grant protection, which becomes legally effective only when the municipality enacts a corresponding statute.

ICOMOS considers that the legal protection in place in both States Parties is adequate.

Management system

The States Parties have elaborated a management plan 2013-2021 for the nominated property, which includes two national sections and an international management plan. The introduction to the management plan states that the serial transnational property is the object of protection, which constitutes, in terms of heritage category, an organically evolved cultural landscape.

The international section of the plan includes a memorandum of understanding between the two States Parties, provisions for transboundary buffer zones and the scheme for the structure and organization of the transboundary management. The international management bodies include a Bilateral Steering Committee and a Bilateral Advisory Group. A common future vision is included.

The Bilateral Steering Committee is established at the ministerial level and will, among other objectives, represent the interests of the respective States Parties, and the mutual provision of information, coordination and strategic planning. The Bilateral Advisory Group is established at the regional level and is responsible for the coordination of all common issues; its main objective is to protect, oversee and sustainably develop the proposed Outstanding Universal Value of the serial property. Together with the national coordination offices, its main responsibilities include coordination of information and actions, conservation of the property, periodic reporting, public relations and international measures. The Bilateral Advisory Group is composed of representatives from the national World Heritage coordination offices, the monument and nature protection authorities, other relevant authorities and scientific institutions.

The Saxon section of the management plan includes a description of the property, the legal framework in place, the managing administration scheme, the planning framework, the provisions for interpretation and tourism, and the action plan 2013-2021 for implementation of the management plan.

The Czech section of the management plan starts with a detailed description of the property and of its present situation, and, in the section devoted to application of the management plan, it includes objectives, the plan for the

period 2017-2021 and provisions for the implementation of the plan.

ICOMOS considers that both national sections are adequate for the management of the respective components of the serial property and commends the States Parties for the effort of uniting both national sections in a unique plan and for the inclusion of the international management scheme. ICOMOS considers the compositions and missions of both bilateral groups adequate.

Visitor management

Most of the heritage assets included in the components of the serial nomination are, in principle, accessible to the public. The nomination dossier includes tables showing the evolution of the number of visitors over the last years; currently, the scale of tourism is relatively low and, according to the States Parties, none of the components has reached the limit of its capacity. Some visitor facilities are only partially accessible due to their particular characteristics, especially mines, which, due to safety regulations, can only be viewed by guided tours and are not open to all visitors. Many of these components are also run by local miners' clubs and have limited opening hours and visitor flow. Tourism facilities such as signed walking paths, transport systems, parking spaces and accommodation facilities are available to an adequate degree; the nomination dossier includes a detailed report on facilities. Regarding a potential increase in the number of visitors, the States Parties report that visitors will be recorded as part of the monitoring of the nominated serial property.

Planning included in the management plan foresees promotion and presentation of the transboundary Ore Mountains mining region both nationally and internationally and the establishment of the 'Saxon-Bohemian Silver Mines Route' connecting several educational mining trails and museums. Both national sections of the management plan include provisions oriented to promoting sustainable tourism and providing adequate visitor management.

Community involvement

ICOMOS notes that local communities, especially miners' clubs and associations, schools and colleges, have been involved in preparing the nomination, and continue to play a vital part in the conservation and traditional protection of many of the components of the nominated property. One of the great strengths of the nomination is the civic involvement and the support of volunteers and associations re-establishing links with the old tradition of *Knappenvereine*, the social security organizations of miners originating in the 15th and 16th centuries.

Evaluation of the effectiveness of the protection and management of the nominated property

The legal instruments in place are adequate to ensure the appropriate protection of the components of the serial nomination. The management plan combines two national sections with a section on international action, and the result is adequate.

ICOMOS considers that the required conditions of protection and management have been met. Although provisions related to promoting sustainable tourism are included in the management plan, ICOMOS considers that, should the serial property be inscribed on the World Heritage List, a rise in the number of visitors should in particular be taken into account by the States Parties.

6 Conclusion

Erzgebirge/Krušnohoří Mining Region represents a territory in Central Europe whose actual shape and appearance is the result of 800 years of interaction between people and the environment, especially on the basis of the development of mining related to the polymetallic composition of the Ore Mountains. The development of mining since the Middle Ages has left a rich and diverse legacy that encompasses many categories of cultural heritage: mining cultural landscape, historic towns and centres, historic monuments and vernacular architecture, mines and related installations, water management systems, industrial settlements and a rich intangible cultural heritage intimately linked to the mining activities. Innovative mining techniques, management systems, scientific research and training institutions also speak to the importance of Erzgebirge/Krušnohoří as a main mining region whose influence reached a global level.

In such a complex system of interrelated attributes and values, the nominating States Parties have succeeded in finding the approaches and methods to identify those components that can convey the international significance of Erzgebirge/Krušnohoří as a mining cultural landscape. The selection of components and the delineation of the nominated zones contribute to illustrate the complexity and diversity of the region from a heritage perspective, and can contribute to a balanced and representative World Heritage List. ICOMOS acknowledges the effort made to reduce the number of components of the serial nomination from 85 in the previous nomination dossier to 22, which allows heritage assets to be grouped into more comprehensive and legible landscape units.

Besides the work done at the regional and national levels to ensure the adequate protection and management of the nominated serial transnational property, the States Parties should be commended for their efforts to guarantee a coordinated action through the adoption of a common management plan that, besides the national sections, includes a clear scheme for international action

through the establishment of bilateral steering and advisory groups.

The region still exhibits a potential for mining exploitation, demonstrated by the mining licences and by a mining exploitation project in Altenberg-Zinnwald (Germany). It is therefore crucial that the States Parties give due consideration to the choice they made to nominate a transboundary serial property illustrating the heritage of mining in the region and guarantee that priority will be given to the protection and preservation of this heritage over other development considerations.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that Erzgebirge/Krušnohoří Mining Region, Germany/Czechia, be inscribed as a cultural landscape on the World Heritage List on the basis of **criteria (ii), (iii) and (iv)**.

Recommended Statement of Outstanding Universal Value

Brief description

The mining region of Erzgebirge/Krušnohoří (Ore Mountains) is located between Saxony (Germany) and the Czechia. The transboundary serial property comprises 22 component parts that represent the spatial, functional, historical and socio-technological integrity of the territory; a self-contained landscape unit that has been profoundly and irreversibly shaped by 800 years of almost continuous polymetallic mining, from the 12th to 20th centuries.

The relict structure and pattern of the Erzgebirge/Krušnohoří Mining Region remains highly legible and is characterized by specific and formative contributions made by the exploitation of different metals, at different times, in unevenly distributed locations defined by an exceptional concentration of mineral deposits. Separate mining landscapes emerged on both sides of the Ore Mountains, characterized by exchange of technical know-how, miners and metallurgists between Saxony and Bohemia. These deposits became key economic resources that were exploited during crucial periods in world history, events that were dictated by evolving empirical knowledge and exemplary practice and technologies devised or improved in the Ore Mountains; the vagaries of global markets impacted by new mineral discoveries, politics and wars, and the successive discovery of 'new' metals and their uses.

The Ore Mountains was the most important source of silver in Europe, particularly in the century from 1460 to 1560; silver was also the trigger for new organization and technology. Tin was produced in a steady manner throughout the long history of the Ore Mountains and rare cobalt ore, which was mixed with the silver ores in the Ore Mountains, made this region a leading European, if not

world, producer from the 16th to 18th centuries. Finally, the region became a major global producer of uranium in the late 19th and 20th centuries; the early period being one of original discovery and development.

The combination of shifting geographical mineral output, topography and a mining system predominantly under state control, dictated land-use: mining, water management and transport, mineral processing, settlement, forestry and agriculture. Due to the longevity, and intensity, of mining, the entire cultural landscape of the Ore Mountains is largely impacted by its effects, and is anchored by the mines themselves (above and below ground, with all ore deposit types and principal exploitation periods represented, and with exceptional equipment and structures remaining in situ); pioneering water management systems (of water supply, for power at the mines themselves and for drainage and ore-processing); transport infrastructure (road, railway and canal); innovative ore-processing and smelting sites that possess an exceptional variety and integrity of equipment and structures; mining towns that developed spontaneously with, and adjacent to, the silver bonanzas of the 15th and 16th centuries, their original urban layout and architecture reflecting their importance as administrative, economic, educational, social and cultural centres and retained as the basis for embellishment in the 18th and 19th centuries; agriculture that was contemporary with the earliest silver strikes in the 12th century and a well-established forerunner of large-scale mining; and sustainably managed forests that occupy traditional spaces in the landscape that were also subsidiary to the mining industry. The interaction between people and their environment is also attested by intangible attributes, such as education and literature, traditions, customs and artistic developments as well as social and political influences that both originated in the mining phenomenon, or were decisively shaped by it. They collectively provide testimony to the first stages in the region, in the early 16th century, of the early modern transformation of mining and metallurgy from a small scale craft-based industry with outdated medieval origins to a large-scale state-controlled industry fuelled by industrial capitalists that both preceded, and enabled, continuous and successful industrialization that continued into the twentieth century. State-control of the mining industry, with all its administrative, managerial, educational and social dimensions, together with technological and scientific achievements which emanated openly from the region, influenced all continental European mining regions and beyond.

Criterion (ii): The mining region of Erzgebirge/Krušnohoří is an exceptional testimony to the outstanding role and strong global influence of the Saxon-Bohemian Ore Mountains as a centre for technological and scientific innovations from the Renaissance up to the modern era. During several periods of mining history, significant achievements related to the mining industry emanated from the region and were successfully transferred, or influenced subsequent developments in other mining regions. This includes, among other achievements, the

founding of the first mining high school. The continuous worldwide emigration of highly trained Saxon-Bohemian miners played a key role in the interchange of developments in, and improvements to, mining technology and its related sciences. Manifestations of this interchange are still evident in the Erzgebirge/Krušnohoří Mining Region.

Criterion (iii): The mining region of Erzgebirge/Krušnohoří bears exceptional testimony to technological, scientific, administrative, educational, managerial and social aspects that underpin the intangible dimension of living traditions, ideas and beliefs of the people associated with the Ore Mountains' culture. The organization as well as its hierarchical administration and management are fundamental to understanding the mining tradition of the Ore Mountains that developed from the beginning of the 16th century. A tradition emerged whereby the mining bureaucracies of absolute rulers maintained strict control of the work force and induced a favourable climate for an early capitalistic system of financing. Such an approach influenced the economic, legal, administrative and social system of mining in all the mining regions of continental Europe. The state-controlled mining organization strongly influenced the development of early modern monetary systems, particularly witnessed by the royal mint in Jáchymov, where the heavy silver coins known as *thalers*, first minted from 1520, served for several centuries as a standard for the monetary systems in many European countries, and became a predecessor of the 'dollar' currency.

Criterion (iv): The mining region of Erzgebirge/Krušnohoří represents a coherent mining landscape with specific proportions of land dedicated in specific places to mining, dictated by the uneven distribution and concentration of ore deposits, and exploited in different periods and processing operations, to water management and forestry, to urbanization, agriculture, transport and communications – a pattern of nodes and concentrations, of linear connecting features, all developed in successive phases under increasing state control. Well-preserved mine workings, technological ensembles and landscape features bear witness to all known major extracting and processing technologies applied from the late medieval period to modern times, as well as to the development of extensive, sophisticated water management systems both aboveground and underground. The mining activities led to the unparalleled development of a dense settlement pattern both in the valleys and in very high, harsh upland positions, featuring a close connection to the surrounding mining landscapes.

Integrity

The property, an organically evolved mining cultural landscape, comprises 22 components that, as a whole, illustrate the process of configuration of the territory over 800 years on the basis of mining activities. Both States Parties have adopted similar approaches to identify the components of the serial property, to justify in which way each of them contributes to illustrating the complex process of configuration of the mining cultural landscape

and to establish the boundaries of the nominated property and the buffer zones. On this basis, each of the components of the series plays a specific role in illustrating the types of landscapes related to the extraction of different ores from the Ore Mountains. The boundaries of each of the components have been carefully delineated in order to include all the features necessary to convey the contribution of that particular component to the Outstanding Universal Value. Although some of the components are exposed to factors that could represent a risk to their conservation, the legal instruments and management plan in place ensure the adequate protection of all of the attributes necessary to convey the property's Outstanding Universal Value.

Authenticity

The property's components have been preserved in their settings and, even though some have been adapted for new uses, they retain a high degree of authenticity. The mining landscape has also retained its comprehensive intangible heritage in the form of living traditions, and movable collections and archives are additional sources of reliable information on the values of the series. A span of 800 years of mining activity has led to changes to the landscape; some mining sites were abandoned whilst others continued to operate and witnessed technological adaptations. Continuous mining activity at certain sites contributed to the conservation of mining structures as well as to their continuous repair and upgrade. The underground installations in general retain a high degree of authenticity; above ground, abandoned buildings or structures were, in some cases, demolished or adapted to new uses; although efforts to preserve mining sites began a hundred years ago, many remained in poor condition until the 1990s, when conservation campaigns were begun in historic towns and mining sites. The Academy of Freiberg continues to carry out research on mining and its operations, contributing to the growth of knowledge.

Management and protection requirements

There is a comprehensive set of legal protective instruments in place in both States Parties and active conservation is carried out throughout the property. The States Parties have elaborated a management plan 2013-2021 for the property, which includes two national sections and an international management plan. The international section includes a memorandum of understanding between the two States Parties, provisions for transboundary buffer zones and the scheme for the structure and organization of the transboundary management. The international management bodies include a Bilateral Steering Committee and a Bilateral Advisory Group and a common future vision is included.

The Bilateral Steering Committee has, among other objectives, represent the interests of the respective States Parties, and the mutual provision of information, coordination and strategic planning. The Bilateral Advisory Group is established at the regional level and is responsible for the coordination of all common issues; its main objective is to protect, oversee and sustainably develop the

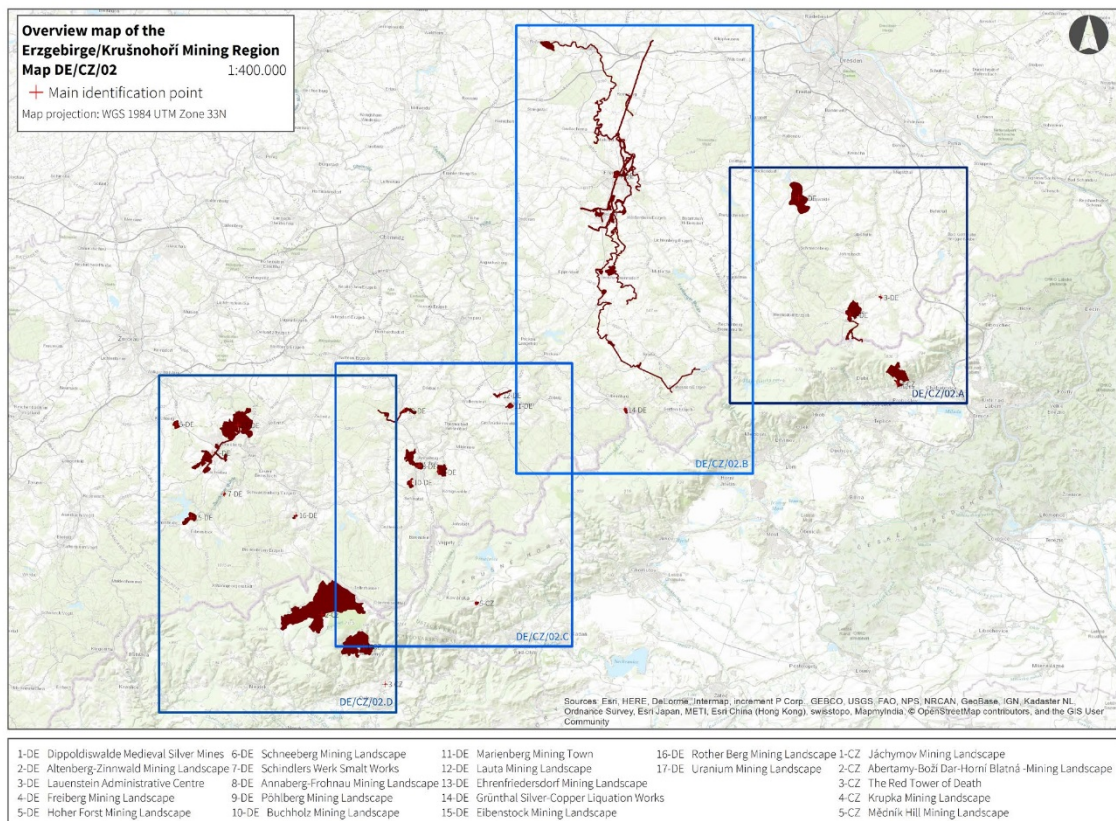
Outstanding Universal Value of the serial property. Together with the national coordination offices, its main responsibilities include coordination of information and actions, conservation of the property, periodic reporting, public relations and international measures.

Both national sections of the management plan include, besides conservation of Outstanding Universal Value of the property, provisions oriented to promoting sustainable tourism and providing adequate visitor management. Both States Parties propose a set of key indicators to monitor the state of conservation of the components of the property; despite the two different approaches taken by the States Parties, the monitoring system in place is adequate

Additional recommendations

ICOMOS further recommends that the States Parties give consideration to the following:

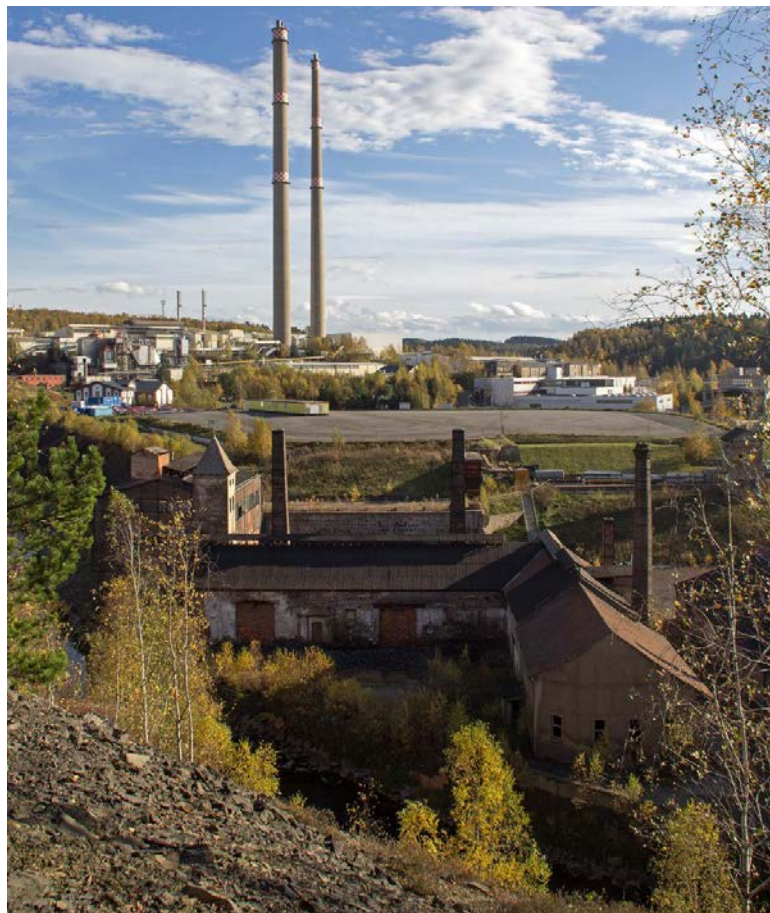
- a) Keeping the World Heritage Committee informed on the progress of the assessment of current mining projects within the property as well as any potential future plans for mining or other activities that may affect the Outstanding Universal Value of the property, including its authenticity and integrity, in conformity with Paragraph 172 of the *Operational Guidelines*,
- b) Formally committing that no mining activities or processing will be allowed in the future within the boundaries of the serial property's components,
- c) Managing the number of visitors, particularly when an increase might have an impact on the urban communities, especially in relation to vehicular traffic in Czechia;



Map showing the location of the nominated components



Terraconic heaps near Buchholz (Germany)



Muldenhütten smeltery, Freiberg Mining Landscape (Germany)



Jáchymov – Adit (Czechia)



Müdisdorfer man-made ditch (Czechia)