# **Dennis G Rodwell**

# architect-planner and author consultant in cultural heritage and sustainable development

#### TO WHOM IT MAY CONCERN

# Roșia Montană, Alba County, Romania

Over the course of the past ten years I have had the privilege to work extensively in Romania in the field of cultural heritage conservation and public awareness, in partnerships with both governmental organisations and NGOs. This involvement has included, from 2003 onwards, support to the efforts to place the historic centre of Sibiu on the UNESCO World Heritage List, in which I have worked closely with Sibiu City Hall and H.E. Prof Dr Nicolae Manolescu, the Romanian Ambassador and Permanent Delegate to UNESCO.

My accompanying report discloses major concerns in relation to the proposal to place Roşia Montană on the UNESCO Tentative List for Romania, which I consider to be fatally flawed.

# It is clear that:

- This proposal coincides with an NGO campaign aimed at blocking the Roşia Montană Gold Corporation (RMGC) mining project for the area;
- The scientific basis set out in the 2010 ARA report to 'justify' Roşia Montană as a potential World Heritage Site contradicts a previous report by its own authors which denies this very potential;
- The proposal does not have the support of the local community; and
- The proposal is contrary to both the spirit and letter of the 1972 UNESCO World Heritage Convention, the latest edition of the UNESCO Operational Guidelines, and the recommendations that are confirmed in the documentation of the 2010 Brasilia meeting of the UNESCO World Heritage Committee.

In short, the suggestion to place Roşia Montană on the Tentative List for Romania challenges the integrity of the World Heritage process and has the potential to discredit Romania in its obligations as a signatory of the 1972 UNESCO *World Heritage Convention* as well as to weaken its position in cases of genuine merit.

I am firmly of the view that the question of placing Roşia Montană on the Tentative List should be dropped, and I urge this course of action as a matter of immediacy.

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# ROŞIA MONTANĂ, ALBA COUNTY, ROMANIA

A reflection on the relevance and suitability of Roşia Montană as a UNESCO World Heritage Site

November 2010

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# 1.0 INTRODUCTION

# 1.1 Awareness of Roşia Montană

- 1.1.1 I first became aware of perceived threats to the heritage of Roşia Montană at the conference 'History, Heritage and Regeneration: the future for traditional architecture in Central and Eastern Europe', held in Sibiu in September 2007 under the auspices of the International Network for Traditional Building, Architecture and Urbanism (INTBAU), at which there was a presentation and I was passed a copy of the book *Roşia Montană: Lumina tăinuită* (published in 2007 by the Fundația Pentru o Societate Deschisă).
- 1.1.2 Subsequently, I became increasingly aware of mounting NGO opposition to the Roşia Montană Gold Corporation (RMGC) mining project, including through the International Council on Monuments and Sites (ICOMOS).
- **1.1.3** Early in 2010, I was alerted to the official indication to place Roşia Montană on the UNESCO Tentative List for Romania.

# 1.2 Interest in and visits to Roşia Montană

- 1.2.1 I am currently undertaking research for a paper that is due to be published in 2011 that will reflect on the first 40 years of the UNESCO World Heritage Convention (1972–2012) and directions for its future. The Roşia Montană case highlights a specific direction and is of interest as such.
- 1.2.2 I had the opportunity to make a first visit to Roşia Montană at the end of May to beginning of June 2010. This was followed in mid-August with a further visit to coincide with the events and activities of FânFest 2010.

#### 1.3 Involvement in Romania

- 1.3.1 I have been involved in a number of cultural heritage related activities in Romania since 2001, including on behalf of: the UNESCO Division of Cultural Heritage (at conferences in Bucharest and Sibiu): the Romanian-German Cooperation project and the City of Sibiu; the British Council Romania (including designing and leading a residential workshop in Sinaia for NGOs in the broad cultural heritage sector); the Romanian Order of Architects (OAR); the Ministry of Culture and Religious Affairs; the National Institute for Historic Monuments (INMI); the Tuşnad Conference; and the INTBAU conference referred to at paragraph 1.1.1 above.
- 1.3.2 These activities have included support since 2003 to the as yet unsuccessful efforts to place the historic centre of Sibiu on the UNESCO World Heritage List.

#### 2.0 UNESCO + ICOMOS

- 2.1 Romania and the World Heritage Convention (see also Appendix B)
- **2.1.1** Romania signed the UNESCO World Heritage Convention in 1990.
- 2.1.2 There are currently seven Romanian sites inscribed on the World Heritage List: six cultural and one natural site. Of the six cultural heritage sites three were inscribed in 1993 (to one of which an addition was made in 2010), and three in 1999.
- 2.1.3 The Tentative List for Romania contains a total of 13 sites, of which 12 were entered on the Tentative List in 1991. It is not clear that the Romanian government has the intention now of putting any of these 12 sites forward for nomination.
- 2.1.4 The Historic Centre of Sibiu was placed on the Tentative List for Romania in 2004, nominated in 2006, and subject to a controversially negative advisory report from ICOMOS early the following year. When Sibiu was considered by the World Heritage Committee in July 2007, that Committee did not endorse the ICOMOS report; rather, it deferred consideration to allow the Romanian authorities to review its nomination.
- 2.1.5 To my knowledge, the official suggestion to place Roşia Montană on the Romanian Tentative List is recent and coincides in time with the mounting NGO opposition to the RMGC mining project.

#### 2.2 Integrity of the World Heritage process: UNESCO

- 2.2.1 The World Heritage process, in accordance both with the 1972 World Heritage Convention and the Operational Guidelines, presupposes that a state party only enters on to its Tentative List sites which they intend to nominate and that are suitable for inscription on the World Heritage List against the preset criteria of 'outstanding universal value', 'authenticity', 'integrity', and a persuasive and viable 'management system'.<sup>1</sup>
- 2.2.2 The *Operational Guidelines* anticipate that state parties will prepare their Tentative Lists 'with the participation of a wide variety of stakeholders, including site managers, local and regional governments, local communities, NGOs and other interested parties and partners.'<sup>2</sup>

<sup>2</sup> UNESCO, Operational Guidelines (as footnote 1 above), article 64.

<sup>&</sup>lt;sup>1</sup> UNESCO, Convention Concerning the Protection of the World Cultural and Natural Heritage, UNESCO, Paris (1972), article 11(1); UNESCO, Operational Guidelines for the Implementation of the World Heritage Convention, UNESCO, Paris (latest revision, January 2008), articles 62 and 78.

- 2.2.3 Furthermore, the documentation of the 2010 meeting of the World Heritage Committee, held in Brasilia, includes a report that reminds state parties of the recommendation that 'Compilation of Tentative Lists should involve local communities ... and should include public consultation where appropriate'.<sup>3</sup>
- 2.2.4 The *Operational Guidelines* additionally state that the 'participation of local people in the nomination process is essential ...'4

# 2.3 Integrity of the World Heritage process: ICOMOS

- 2.3.1 ICOMOS was founded in 1965 under the auspices of UNESCO. It acts as UNESCO's principal advisory body for (tangible) cultural heritage with special responsibility for the evaluation of sites that are nominated for inscription on to the World Heritage List: specifically, the preparation of the advisory reports that are presented to the meetings of the World Heritage Committee.
- 2.3.2 ICOMOS is an NGO. It has approximately 9,500 members in 110 countries. ICOMOS members are free to express their opinions and engage in representations both as individuals and collectively. Ambiguity can, however, arise if representations run parallel with ICOMOS's scientific responsibilities as an advisory body to the World Heritage Committee: where, for example, the question of a property entering a state party's Tentative List with the view to subsequent nomination is concerned. Representations in such a case are open to the interpretation (which was explicit in certain of the presentations at Fânfest 2010) that ICOMOS has prejudged the merits of a property for inscription on the World Heritage List. Misunderstandings of this nature have the potential to undermine the integrity of the World Heritage process.

<sup>&</sup>lt;sup>3</sup> UNESCO, World Heritage Committee document WHC-10/34.COM/8A, Paris, 15 April 2010, p. 1, paragraph 2, fourth bullet point; accessible from the menu at http://whc.unesco.org/en/sessions/34COM/documents/

<sup>&</sup>lt;sup>4</sup> UNESCO, *Operational Guidelines* (as footnote 1 above), article 123.

# 3.0 ROŞIA MONTANĂ WORLD HERITAGE SITE?

#### 3.1 Scientific Merit

- **3.1.1** I have seen and heard the expression of a variety of opinions concerning the suitability of Roşia Montană to become a UNESCO World Heritage Site.
- 3.1.2 The case for Roşia Montană to be entered on the Tentative List for Romania has been drafted by the NGO Arhitectură, Restaurare, Arheologie (ARA) and submitted for consideration to the Ministry of Culture and Religious Affairs. This case was presented in Roşia Montană during the course of FânFest 2010. It promotes Roşia Montană as a *cultural landscape* in the UNESCO definition, under a category that is favoured for nomination under the 1994 UNESCO Global Strategy.
- 3.1.3 By contrast, a report prepared by Opus Architects in 2002 stated that the loss of traditional mining operations, associated demographic changes, urban restructuring, and the introduction of open cast mining operations from the 1950s through the 1980s, impacted so severely on the built environment and landscape that Roşia Montană could not be ranked as a *cultural landscape*. This report also represented that degradation of the town is a progressive, ongoing process, and highlighted the socio-economic isolation of the Rosia Montană commune.
- 3.1.4 In this, it is important to note that the authorship of the 2010 ARA report and the 2002 Opus report is largely identical. The contradictions between the two reports represent a serious inconsistency of analysis and conclusions, and they challenge the credibility of the case that ARA has now submitted to the Ministry of Culture and Religious Affairs for Roşia Montană to be placed on the Tentative List for Romania.

#### **3.1.5** The 2010 ARA report:

 contradicts the 2002 Opus report in its assessment of the impact of the open cast mining operations and urban interventions of the post-Second World War Socialist period;

• fails to admit that the earlier continuity of traditional, pre-industrial mining techniques and associated infrastructure systems has been irretrievably lost: and

• seriously overstates the cultural heritage values of the area (see paragraph 3.1.7 below).

<sup>5</sup> http://www.simpara.ro/ The ARA submission dated 27 April 2010 is signed by Monica Mărgineanu-Cârstoiu, Stefan Bâlici and Virgil Apostol, architects.

<sup>&</sup>lt;sup>6</sup> S.C. Opus - Atelier de Arhitectură S.R.L., București (principals, Ștefan Bâlici and Virgil Apostol, architects), Amendment of the General Urbanism Plan documentation for Roșia Montană: Study for the restructuring of Roșia Montană historical centre, 2002, pp 28–30.

In this, the fact that the 2010 ARA report coincides in time with the broader NGO campaign to block the RMGC mining project cannot be overlooked. Indeed, it may be considered a determining factor.

- 3.1.6 A report prepared by the United Kingdom based consultancy Gifford in 2006 stated that the underground Roman mining remains at Roşia Montană are significant but that they survive in much damaged and deteriorating condition and are not unique even within Romania. In UNESCO terms, this report concluded that Roşia Montană does not meet the essential criteria of 'authenticity' and 'integrity', and that the value of the property is 'directly associated with a living tradition of mineworking that is <u>ongoing</u>' (my underlining).
- 3.1.7 I have additionally spoken with a number of specialists both in Bucharest and outside Romania, all of whom were unanimous in their opinion that, on scientific merit, Roşia Montană does not meet the essential criteria for a World Heritage Site. A few, however, were forthright in their view that Roşia Montană should be placed on the UNESCO Tentative List for Romania to the objective of halting the RMGC mining project. They expressed this as their motivation for supporting the NGO campaign.

# 3.2 Views within the Roşia Montană community

- 3.2.1 It is clear that opinion in the Roşia Montană community is divided but that there is a substantive majority that is opposed to placing Roşia Montană on the Tentative List for Romania.
- 3.2.2 I had the opportunity to meet with the Mayor of the Roşia Montană commune, Mr Eugen Furdui, on 1 June 2010. He advised me that the reopening of gold mining operations in Roşia Montană was one of the issues in the 2008 mayoral election and that the two leading candidates supported it. He stated that his job is to represent local opinion and that the proposal to promote Roşia Montană as a potential UNESCO World Heritage Site is not coming from the local community.
- 3.2.3 This view is reinforced by the open letter dated 21 July 2010 that was signed and sent by the Mayor and Councillors of the Roşia Montană, Abrud, Cîmpeni and Bucium communes to, amongst others, the Romanian Prime Minister and Ministers of Culture and Economic Affairs, and to the presidents of ICOMOS-International and ICOMOS-Romania.
- 3.2.4 I have additionally had the opportunity to listen and speak with a number of people who were born and continue to live in Roşia Montană, and almost without exception they support the mining project and oppose the idea to place Roşia Montană on the UNESCO Tentative List.

<sup>&</sup>lt;sup>7</sup> Gifford, Rosia Montană Monitoring Framework, Report No. 13658.RO2, November 2006, pp 8–13.

# 3.3 Historic Mining Sites on the UNESCO World Heritage List

- **3.3.1** Analysis of historic mining sites on the World Heritage List discloses a number of relevant factors: see Appendix C.
- 3.3.2 Firstly, a number of the inscribed sites illustrate historical layers over at least as long a time-frame as Roşia Montană: for example Hallstatt-Dachstein (Austria) and Banská Štiavnica (Slovakia). Several others record phasing over 500 to 1,000 years.
- 3.3.3 Secondly, with the single exception of the Wieliczka Salt Mines (Poland), which for a variety of artistic and touristic reasons is a special case, no mining site has been entered on the World Heritage List until after all commercial mining operations had terminally ceased.
- 3.3.4 Thirdly, there is no instance where a mining site has been promoted for inclusion on the World Heritage List to the purpose of preventing ongoing commercial mining operations.

# 4.0 BALANCING HERITAGE AND DEVELOPMENT

# 4.1 The 1972 World Heritage Convention and UNESCO

- 4.1.1 Article 5(a) of the 1972 World Heritage Convention obliges state parties 'to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmes.' The anticipation is that a balance will be sought between heritage and people, and that the heritage interest will be pursued in conjunction with living communities, not in opposition to them.
- 4.1.2 As may be seen specifically with the UNESCO World Heritage Centre's Cities Programme, which relates to at least 250 out of today's total of 911 inscribed World Heritage Sites, the aim is to reconcile conservation and development.<sup>8</sup>
- 4.1.3 Additionally, article 7 of the UNESCO Recommendation in respect of national heritage, which was adopted in parallel with the UNESCO World Heritage Convention at the 1972 session of the UNESCO General Conference, reads: 'As the ultimate purpose of protecting, conserving and presenting the cultural and natural heritage is the development of man, Member States should, as far as possible, direct their work in this field in such a way that the cultural and natural heritage may no longer be regarded as a check on national development but as a determining factor in such development'. The central role that heritage programmes have in the RMGC project is summarised at sub-section 5.1 below.

# 4.2 The 2004 PACE Report

- 4.2.1 Mr Eddie O'Hara, MP (Socialist Group, United Kingdom), was general rapporteur to a delegation of the Parliamentary Assembly of the Council of Europe (PACE) that made a study visit to Roşia Montană in July 2004. The purpose of this visit was to consider the cultural heritage implications of the RMGC project: in the light of strong local pressure to secure continuity of mining activity in the community; and set against concerns expressed by a number of NGOs, including ICOMOS.
- **4.2.2** The O'Hara Report contained important conclusions, including:

Paragraph 11: 'The RMGC project would appear to provide an economic basis for sustainable development of the whole area with positive benefits on environmental and social as well as cultural grounds. From the cultural

<sup>9</sup> UNESCO, Recommendation Concerning the Protection, at National Level, of the Cultural and Natural Heritage, UNESCO, Paris (1972).

<sup>8</sup> http://whc.unesco.org/en/cities/

<sup>&</sup>lt;sup>10</sup> Eddie O'Hara, *Roşia Montană: Information Report*, PACE Doc.10384, December 2004, http://assembly.coe.int/Documents/WorkingDocs/Doc04/EDOC10384.htm

heritage point of view it might be seen as an exemplary project of responsible development. The funds currently made available by RMGC for research (archaeological, ethnological, architectural) are many times what could be expected from the Government. This has revived the international renown of the site. [...]'

Paragraph 15: 'This present situation of indecision is not at all helpful for the area. Failure to confirm the RMGC project would remove any chance of local development for some time. [...]'

Paragraph 16: 'Opposition to the RMGC project is substantial. It is not altogether easy to explain. [...] It is very much fuelled by outside bodies, presumably well-meaning but possibly counter-productively. It seems in part at least exaggerated. The supposed environmental risks do not take account of modern mining techniques and in fact the RMGC project will help to clear up existing pollution caused by Minvest. [...]

Paragraph 17: '... fundamental principles have to be balanced with practical realities. [...] Most of [the galleries] are inaccessible, indeed dangerous of access to tourists. Alternative proposals such as designation of the whole area as a cultural landscape to be developed for tourism lack viability. The only available source of funding for this is from the company which wishes to exploit the mineral resources. [...]'

Paragraph 18: 'Key words for the sustainable development of Roşia Montană are opportunity for all, flexibility and trust. [...]'

Paragraph 19. '[...] The cultural heritage dimension seems well served by both the company and the governmental bodies.'

Paragraph 20: 'A balance of benefit appears achievable to both the needs of the cultural heritage of Roşia Montană and the business of RMGC. If that balance is overturned by the demands of either the Government or the company the project may not go ahead. In that case there will be a considerable setback to the opportunity for the development of cultural tourism in this area of exceptional historic interest.

# 4.3 Fânfest 2010: Roşia Montană

- 4.3.1 It was unfortunate that at no time during the events of Fânfest 2010 were RMGC invited to present their overall project, embracing the cultural heritage research, conservation and interpretation aspects in tandem with the mining development ones.
- 4.3.2 Furthermore, it was notable that attendance at events promoting the inclusion of Roşia Montană on the Tentative List was dominated by visitors to the area either from abroad or from other regions of Romania.

# 5.0 ALTERNATIVE SCENARIOS FOR ROŞIA MONTANĂ

# 5.1 RMGC's Cultural Heritage Programmes

- 5.1.1 Over the past decade RMGC has initiated and pursued a series of cultural heritage programmes encompassing pioneer research, publication and museum interpretation of the archaeological remains; emergency stabilisation measures preparatory to the implementation of a coordinated programme of investment in the conservation and rehabilitation of the architectural heritage; and a wideranging programme of revival and creative continuity of intangible cultural heritage traditions.
- 5.1.2 These programmes are being managed by a highly skilled team and have been commended by specialists in the relevant fields. They merit wider dissemination and support from the broad cross-section of cultural heritage interests.

#### 5.2 Alternative Scenarios

- 5.2.1 Geographically, Roşia Montană is relatively isolated. It was founded as a mining community over 2,000 years ago; its economy and society are based on that activity and the need for continuity in it. It is a mountainous area with only a limited amount of agricultural land, land that afforded a subsistence back-up to a salaried, mining-based work-force.
- 5.2.2 Despite much talk of the potential for archaeological tourism, cultural tourism, agro-tourism and eco-tourism, no strategy or management plan has been presented that would afford an alternative to the RMGC cultural heritage programme. There are hundreds if not thousands of other historic rural settlements across the length and breadth of Romania whose cultural heritage is under threat from demographic and socio-economic change, and it would be unreasonable to anticipate that the Romanian state or others could source, let alone justify, the funding that would be needed in order to establish a viable alternative to the RMGC mining project for Roşia Montană, simply as negative response to it.
- 5.2.3 The overriding presumption therefore is that the blocking of the RMGC mining project would lead to the socio-economic collapse of the community and all that it supports in terms of tangible and intangible cultural heritage. Such would be a cultural heritage disaster for Roşia Montană: a seriously counter-productive outcome for all individuals and organisations associated with it.

#### 6.0 EXECUTIVE SUMMARY

#### 6.1 Conclusions

- 6.1.1 The promotion of Roşia Montană as a future UNESCO World Heritage Site:
  - cannot be disassociated from the NGO campaign to block the RMGC mining project;
  - is the subject of serious scientific challenge both within Romania and internationally;
  - is contradicted by the self-same authors of the 2002 Opus and 2010 ARA reports;
  - does not have the level of local support that is stipulated either in the UNESCO Operational Guidelines or the documentation of the 2010 meeting of the World Heritage Committee;
  - has the potential to undermine the integrity of the UNESCO-ICOMOS World Heritage process; and
  - runs the serious risk of discrediting Romania in its obligations as a signatory to the 1972 World Heritage Convention and undermining its efforts in cases of genuine merit.

I am unclear whose interests will be served by pursuing this course, and I am firmly of the view that this 'chapter' in the Roşia Montană story should be brought to a speedy close.

6.1.2 The 2004 PACE Report concluded that the 'key words for the sustainable development of Roşia Montană are opportunity for all, flexibility and trust.' What is needed now, in 2010, is for the various governmental, non-governmental and private sector parties to sit down together in an atmosphere of mutual respect and understanding, and to discuss their individual and joint concerns – all with the view to establishing the best way forward in the socio-economic interests of the community as well as its cultural and natural heritage assets.

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# APPENDICES

# A Acronyms used in the Text

ARA	Arhitectură, Restaurare, Arheologie (NGO) (Architecture, Restoration, Archaeology); Brașov and Bucharest
ICOMOS	International Council on Monuments and Sites (NGO); Paris
INMI	Instititul National al Monumentelor Istorice (National Institute for Historic Monuments); Bucharest
INTBAU	International Network for Traditional Building, Architecture and Urbanism (NGO); London
NGO	Non-Governmental Organisation
OAR	Ordinului Arhitectilor din Romania (OAR) (Romanian Order of Architects); Bucharest
PACE	Parliamentary Assembly of the Council of Europe
RMGC	S.C. Roșia Montană Gold Corporation S.A.
UNESCO	United Nations Educational, Scientific and Cultural Organisation; Paris

# B Romania and the UNESCO World Heritage Convention: Inscribed properties and those on the Tentative List

Date of acceptance of the Convention: 16 May 1990

# Properties inscribed on the World Heritage List

#### Cultural

- Church of the Resurrection of Suceviţa Monastery (formerly known as the Churches of Moldavia) (1993, 2010)
- Monastery of Horezu (1993)
- Villages with Fortified Churches in Transylvania (1993, 1999)
- Dacian Fortresses of the Orastie Mountains (1999)
- Historic Centre of Sighișoara (1999)
- Wooden Churches of Maramureş (1999)

#### Natural

Danube Delta (1991)

#### Properties submitted on the Tentative List

- Le Monastère de Neamt (1991)
- Eglises byzantines et post-byzantines de Curtea de Arges (1991)
- L'ensemble monumental de Tirgu Jiu (1991)
- L'ensemble rupestre de Basarabi (1991)
- L'église des Trois Hiérarques de Iassy (1991)
- Les "coules" de Petite Valachie (1991)
- L'église de Densus (1991)
- Le noyau historique de la ville d'Alba Julia (1991)
- Massif du Retezat (1991)
- Pietrosul Rodnei (sommet de montagne) (1991)
- Sinpetru (site paléontologique) (1991)
- Codrul secular Slatiora (forêt séculaire) (1991)
- The Historic Centre of Sibiu and its Ensemble of Squares (2004)

# C Comparative Analysis of historic mining sites on the UNESCO World Heritage List

Country Name Characteristic Present state	Mining activity	Principal exploitation period(s)	Date mining ceased	UNESCO date of inscription	UNESCO criteria + typology of site
Austria Hallstatt- Dachstein Archaeology urban settleme		Bronze Age Roman 14th century onwards	1965	1997	iii, iv cultural landscape + historic village
Belgium Spiennes Ancient mines Preserved	Flint	Neolithic 4000 to 2000 BC	2000 BC	2000	i, iii, iv cultural landscape
Brazil Ouro Preto Underground urban settleme Good		18th century	19th century	1980	i, iii historic town
Chile Sewell Underground mining Abandoned + highly vulnera	Copper	20th century	1977	2006	ii industrial/ cultural landscape + historic settlement
Czech Rep. Kutná Hora Underground architectural ensemble Good	Silver +	early Middle Ages onward	end of 18th century	1995	ii, iv historic city

	Mining ctivity	Principal exploitation period(s)	Date mining ceased	UNESCO date of inscription	UNESCO criteria + typology of site
Germany Rammelsberg + Goslar Galleries and huge scale Good	Silver Copper Lead Zinc	Middle Ages to 19th century	1988	1992, 2010	i, ii, iii, iv industrial/ cultural landscape + historic town
Germany Zollverein Huge scale 'Bauhaus' Vulnerable	Coal	19th and 20th centuries	1986	2001	ii, iii industrial/ cultural landscape
Japan Iwami Ginzan Galleries + Mountainous Heavily wooded	Silver	16th & 17th centuries	second half 19th century	2007	ii, iii, v cultural landscape + historic settlements
Mexico Guanajuato Underground + architectural ensemble Good	Silver	16th to 18th centuries	19th century	1998	i, ii, iv, vi historic town
Norway Røros Wood architecture Vulnerable	Copper	17th to 20th centuries	1977	1980	iii, iv, v cultural landscape + historic village
Poland Wieliczka 300km of galleries + sculp Good; visitor ac first in 15th cen	ccess	13th to 20th centuries	1996 (table salt produced until 2007)	1978, 2008	iv under- ground mine

Country Name Characteristic Present state	Mining activity	Principal exploitation period(s)	Date mining ceased	UNESCO date of inscription	UNESCO criteria + typology of site
Slovakia Banská Štiavnica Underground + water management Vulnerable	Silver Gold	3rd cent. BC Middle Ages Austro- Hungary	19th century	1993	iv, v cultural landscape + historic city
Spain Las Médulas Galleries Devastated landscape	Gold	Roman 1st + 2nd centuries AD	2nd century	1997	i, ii, iii, iv cultural landscape
Sweden Falun Great Copper Mountain Good; visitor a since 19th cen		13th to 20th centuries	1992 (Falun paint still made from by-products)	2001	ii, iii, v industrial/ cultural landscape + historic settlement
U.K.  Blaenavon Industrial ensemble Devastated landscape	Iron Coal	19th century	1900 (iron) 1980 (coal)	2000	iii, iv industrial/ cultural landscape
U.K. Cornwall & West Devon Numerous small-scale operations Vulnerable	Copper Tin	18th and 19th centuries	1998	2006	ii, iii, iv industrial/ cultural landscape