EUROPE / NORTH AMERICA

MONTE SAN GIORGIO

ITALY

WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION

MONTE SAN GIORGIO (ITALY) - ID Nº 1090 bis

Background note: Monte San Giorgio in Switzerland was inscribed on the World Heritage List at the 27th Session of the World Heritage Committee (Paris, 2003) under natural criterion (viii). The original nomination mentioned the values in Switzerland and Italy, and the IUCN evaluation at that time also considered the related natural values in both countries. The relevant decision (27COM 8C.7) requested follow up action by the State Party of Switzerland in relation to the marking of boundaries, and the development of on site interpretation. The decision also encouraged "the authorities of Switzerland and Italy to collaborate in a proposal for a transboundary extension of the property into Italian territory, once satisfactory levels of political commitment have been attained and it is clear that the conditions of integrity can be met." The nomination for extension that is the subject of evaluation below was submitted by the State Party of Italy, with an accompanying official letter of endorsement from the State Party of Switzerland.

1. DOCUMENTATION

i) **Date nomination received by IUCN**: 16th March 2009.

ii) **Additional information officially requested from and provided by the State Party**: The States Parties of Italy and Switzerland both provided supplementary information in response to two questions raised by the IUCN World Heritage Panel.

iii) **UNEP-WCMC Data Sheet**: Last updated in August 2007, sourced from original nomination.

iv) **Additional Literature consulted**: Brack, P., Mundil, R., Oberli, F., Meier, M., Rieber, H. (1996) **Biostratigraphic and radiometric age data question the Milankovitch characteristics of the Latemar cycles (Southern Alps, Italy)**. Geology 24: 371-375. Brack, P. Rieber, H., Nicora, A., Mundil, R. (2005) T**he Global boundary Stratotype Section and Point (GSSP) of the Ladinian Stage (Middle Triassic) at Bagolino (Southern Alps, Northern Italy) and its implications for the Triassic time scale**. Episodes 18: 233-244. Bottjer, D.J., Etter, W., Hagadorn, J. W. (2002) **Fossil-Lagerstätten: Jewels of the fossil record**. In: Bottjer D. J., Etter, W., Hagadorn, J. W., eds. Exceptional Fossil Preservation: A Unique View on the Evolution of Marine Life. New York: Columbia University Press, 2002. 1–10). Felber et al. (2004) **Ecologae Geologicae Helvetiae** 97: 1-2. Felber (2005) **Il Monte San Giorgio**, Edizioni Casagrande, Bellinzona. Geologica Insubria (2007) Volume 10. **Special issue on Viggiù quarries**. Hao, W., Sun, Y., Jiang, D., Sun, Z. (2006). **Advance in Studies of the Panxian Fauna**. Acta Scientiarum Naturalium Universitatis Pekinensis 42: 817-823. Renesto et al. (2003) J. Vertebrate Palaeontology 23: 957-960. Rieppel (1989) Phil. Trans, R. Soc. Lond. B323: 1-23. Rieppel and Bucher (2003) J. Vertebrate Palaeontology 20: 507-514. Seilacher et al. (1985)) Phil. Trans, R. Soc. Lond. B311: 5-23. UNEP /WCMC (2007) **Report on Monte San Giorgio** (Switzerland) WHS. **Earth Heritage, World Heritage: A global strategy for geological World Heritage**. Dingwall P., Wieghell, T. and Badman T., IUCN Gland, (2005) 51 pp. A range of other academic articles were also consulted.

(v) **Consultations**: Nine external reviewers. Extensive consultations were undertaken during the field visit with the Representative from the *Ministero per i Beni e le Attività Culturali*, governmental Officials from the Lombardy – Milan Region, governmental Officials from the Province of Varese, local Municipal (Commune) Officials, including Mayors and Deputy Mayors, local museum staff, the delegation from Swiss Monte San Giorgio World Heritage property, Swiss Government and regional officials, the expert team responsible for preparing the nomination and representatives from local community groups.

vi) **Field visit**: Bernard Smith, September 2009.

vii) **Date of IUCN approval of this report**: 15th May 2010.

2. SUMMARY OF NATURAL VALUES

Monte San Giorgio (MSG) is a pyramid-shaped, wooded mountain that rises to an altitude of 1,096m above sea level and which lies to the south of Lake Lugano. It lies across the border between Italy and Switzerland. The area of the existing inscribed property in Switzerland is 849 ha, lying within the communes of Meride, Riva San Vitale and Brusino Arsizio. The existing property is adjoined by a buffer zone of 1,389 ha of land, and territory within a further six communities in Switzerland. The entire area of the existing property and its buffer zone are a Landscape Protection Zone (LPZ) under Swiss Law.

The nominated extension is contiguous with the existing property and lies within an area identified as a LPZ under Italian law and comprises the part of this protected zone that contains the main fossiliferous deposits. The total area of the nominated extension is 240.34 ha, lying within the Communes of Besano, Porto Ceresio and Viggiù. The remaining part of the LPZ (1824.15 ha) surrounds this area and is identified as a buffer zone to the property including land in two additional communes: Clivio and Saltrio.

The values of the nominated extension relate to its fossil record from the Triassic, an important period of geological history, which witnessed major radiations of both reptiles and actinopterygian fish. The Middle Triassic rock succession of MSG rests unconformably on older, Permian volcanic rocks which are exposed on the north face of MSG, and is overlain by Upper Triassic, and Lower Jurassic rocks. The Middle Triassic sequence consists of approximately 1,000 meters of reef limestones, dolomites and bituminous shales which formed in marine conditions on the margins of the Triassic Tethys Ocean. The exceptional fossil interest within the sequence arises because of the presence of six distinct, fossiliferous formations, the Grenzbitumenzone, the Cava Inferiore, Cava Superiore, Cassina Beds, Crocifisso Bed and the Kalkschieferzone. The distribution and abundance of different fossil groups in the six different levels is variable, with the greatest diversity of material and most spectacular discoveries having been found within the Grenzbitumenzone. Specimens yielded by the Kalkschieferzone are of great scientific interest because of their exceptional preservation of 'soft' and delicate material (very small fishes, reptile embryos, insects and other arthropods). The sequence records life in a tropical lagoon, and the fossil remains also include some land-based fossils including reptiles, insects and plants.

There are a number of features that render exceptional importance to the fossil resource of MSG. This includes the exceptional quality of preservation of material (including both complete skeletons of marine and land reptiles, and the display of minute detail including internal features such as stomach contents and embryos), the number of unique and first discoveries of species that have been made at MSG, and the presence of six superimposed fossil layers, allowing evolutionary and comparative studies, and a number of features within the sedimentary sequence that allow precise dating. Excavations have produced more than 21,000 fossil specimens, representing 30 species of reptiles, 80 species of fish, c.100 macro-invertebrates, and 3 plant species. This is in addition to microfossil material that includes spores, pollen and marine microorganisms. The vertebrate material includes particularly spectacular specimens. Other finds include complete skeletons of ichthyosaurs, nothosaurs, placodonts, and the 'giraffe necked' saurian, Tanystropheus. The land-based fauna is more restricted, but includes a significant and complete skeleton of the archosaur, Ticinosuchus, the first complete skeleton from this group to be discovered in the northern hemisphere.

It is significant that the area has been the subject of detailed study for over 150 years, resulting in a rich scientific literature of over 800 papers reviewing the fossils and many aspects of the detailed geology of the deposits. Strict, systematic and continuous scientific research carried out for almost 150 years in Italy and Switzerland, almost exclusively by the Universities of Zürich and Milan, has resulted in a remarkably complete and coordinated record of the site's richness and diversity.

The nominated extension provides important complementarity to the existing inscribed property in Switzerland which covers the larger part of the fossiliferous strata. The Italian areas of MSG has produced a palaeontological record that is rich and diverse. This includes some 35 species of reptiles and almost 100 species of fish (some of them not yet fully described), exceptionally well-preserved insects and other arthropods, about 100 species of cephalopods, bivalves, gastropods, echinoderms, crustaceans and numerous plant species. There are lithological and faunistic differences between the nominated extension and the existing property and that the range of fish fossils is significantly larger and of better quality on in the Italian side of MSG. The dip of the strata has meant that on the Swiss side of MSG extensive excavations have typically been undertaken parallel to bedding planes, which has facilitated the exposure of more complete fossil specimens. In contrast, exposures on the Italian side are typically normal to the bedding planes. This makes the removal of complete specimens more difficult, but facilitates studies and interpretation in greater detail of the stratigraphic sequence. However the largest complete swimming reptile so far found on MSG, an articulated 6m skeleton

of Besanosaurus, is from a specimen found in Italy. The history of research on the Italian side of the border dates back to 1863, 60 years before the beginning of studies on the Swiss side of the border.

Although it is the geological significance of MSG that is the basis for the nomination, the area is also an attractive landscape of local to national importance, and demonstrates strong cultural links between the geology and the life of the local community, including in relation to stone working.

3. COMPARISONS WITH OTHER AREAS

Comparative analysis in relation to the value of MSG was undertaken by the State Party of Switzerland and augmented by IUCN at the time of the first inscription of the property. The previous evaluation already considered the values of MSG as a whole, and the previous nomination received significant contributions from Italian experts working on the nominated property. IUCN also completed its fossil checklist in relation to the values of MSG, which can be reviewed in the contemporary evaluation report.

At the time of the 2003 inscription of the Swiss MSG World Heritage property the majority of the independent experts consulted considered that MSG had a clear and fully substantiated claim as the principal global reference site for marine palaeontological sciences of the Triassic period. This view is also endorsed by global reviews commissioned by IUCN in relation to the property and the presently nominated extension.

The previous comparative analysis noted that the basis of the Outstanding Universal Value of MSG related to its marine Triassic fossils. These are superlative to the terrestrial records from Ischigualasto-Talampaya (Argentina). The Dorset and East Devon Coast includes a Triassic succession as part of a full exposure of the Mesozoic period, within a site with diverse geological and geomorphological values. Whilst the Triassic succession in this Site is more complete than MSG, the fossil record in terms of both quantity and quality is much lower and primarily restricted to terrestrial aspects. The records at MSG are complementary to the superlative marine Jurassic fossil record of Dorset and East Devon Coast, being of an older age.

The earlier comparative analysis also established the superlative nature of MSG, considering complementary sites in Australia, USA, South Africa, Russia, East and North Africa, Brazil, Spain and Central Europe. Significant new Triassic marine fossil material is now being discovered in Guizhou, China. The excellent preservation of the Chinese material allows detailed comparisons with fossils from MSG, from a different faunal province. Evidence suggests that the Guizhou fauna could show the evolution of reptiles and fishes before and after those from MSG; though the real value of these new discoveries is still to be fully established. The material in China is also scattered over a much larger area than the compact area of Monte San Giorgio, and it appears that there are larger stratigraphical gaps between fossiliferous levels. Moreover, it is clear that MSG has preeminent importance by virtue of its long history of study and exceptionally rich and diverse suite of fossils. In summary, MSG continues to be considered as the best single fossil record of Triassic marine life globally.

4. INTEGRITY, PROTECTION AND MANAGEMENT

4.1 Protection

The nominated extension has effective legal protection. In total 43.4% of the nominated extension is in public ownership and 56.6% is owned by private landowners. Both the nominated property and its buffer zone lie within a Landscape Protection Zone recognised under Italian law (Area di rilevanza ambientale LR 86/1983). National, Regional, Provincial and Local legislative frameworks currently in place to protect the integrity of MSG appears to be adequate and it is effectively administered through the various tiers of government.

Since 1939, the protection of palaeontological heritage in Italy has been regulated by law and fossil material is considered to be property of the state. The most recent integration of laws regarding palaeontology defines all aspects of palaeontological heritage as cultural heritage and as such it comes under the control of the Ministry of Cultural Sites. Under this legislation, only approved institutions are permitted to research the area's palaeontological resources. In 2007 the municipalities of Besano, Porto Ceresio and Viggiù applied for a further paleontological constraint and safeguard on the palaeontological heritage of the area of the nominated extension.

IUCN considers the protection status of the nominated extension meets the requirements set out in the Operational Guidelines.

4.2 Boundaries

The boundaries of the nominated extension and buffer zone in Italy have been traced following the same geo-paleontological principles used for the Swiss candidature. The limits of the nominated area are defined in accordance with the outcrop of the

fossiliferous formations of Middle Triassic age. The actual boundaries include all the localities where scientific excavations have been carried out in the past as well as historical mining sites. The proposed boundary of the buffer zone is related as far as possible to readily recognised geomorphological and anthropological features around the base of the mountain, such as the coast of Lake Lugano, rivers and major roads. This area also includes older (Permian and Pre-Carboniferous) and more recent (Jurassic and Cretaceous) geological units.

An important factor in relation to the overall integrity of the Triassic fossil is the linking of these boundaries to those of the existing Swiss property. It is understood that the Swiss State Party plans to submit a proposed revision of the boundary to remedy a potential anomaly on the southern margin of the Italian core zone, where its boundary does not join precisely with that on the Swiss side of the border due to previous differences in mapping the Triassic outcrop. Such a modification should also ensure precision in the linkages of buffer zones of the properties.

IUCN considers the boundaries of the nominated extension meet the requirements set out in the Operational Guidelines.

4.3 Management

As a fossil property the primary management requirement is related to the conservation of the fossil resource. Due to both the limited accessibility of the key exposures and the strict national regulation and permitting system, effective management is readily achieved. Only a limited number of excavations have been permitted by major organisations and institutions (e.g. Milan Museum, Milan University and the Museum of Induno Olona) and this has ensured not only an accurate and thorough recording of the finds, but also their detailed preparation and the widespread dissemination of findings. The integrity of the overall collection has been further enhanced by its concentration (99.9% of known specimens) in a limited number of locations at the Zurich, Lugano and Milano museums, together with a limited number of specimens at the small museums in Meride and Besano. These comprise a unique, consolidated, well-preserved, fully catalogued and well-protected resource, and thus continued strong links between the management of MSG and these institutions is essential.

Ongoing monitoring of key geological and palaeontological features will continue to be assured through strict application by the responsible authorities (Guardia di Finanza, Carabinieri, Guardie Ecologiche Volontarie) of the regulations contained within the national property law (Codice dei beni Culturali). The existence of several local museums supported by numerous volunteers also results in an almost constant monitoring of key sites that would make any unauthorized excavation extremely difficult. The regional development plan and town-planning schemes (PRG) of the communes are regularly reviewed and updated and are key factors in ensuring the ongoing conservation of MSG. There is at present no overall process for monitoring the state of conservation of the site at regular intervals, and it is important that a system is put in place as early as possible that identifies appropriate indicators that can be used to assess the overall state of the environment, and issues for possible follow up action.

Human resources are dedicated to the protection and management of the nominated extension, mainly via part-time staff who have wider roles in hunting regulation, forest service and volunteer organisations. A range of educational and research activities is also supported across the proposed extension. The Lombardy Region support a part-time official to oversee excavations, and Milan and Insubria Universities have one part-time palaeontology researcher/technician each, Besano Museum has two part-time technicians as well as a part-time director and the full-time equivalent of a museum guide, Clivio Museum a part-time curator and a part-time director (as well as volunteers), and the Province of Varese a part-time officer for conservation of the historical Viggiù quarries. The need for a site manager with specific World Heritage responsibility in Italy, was raised as a key issue during IUCN's evaluation mission. In its supplementary information the State Party confirms that the five mayors of the communes in Italy signed an agreement on 1st December 2008 committing to nominating a site manager in Italy, and also confirm their commitment to ongoing funding for this position.

IUCN also confirmed during its evaluation mission that a central Visitor Centre would be established to mirror the new centre and museum under construction at Meride in Switzerland. A suitable building has already been allocated for this purpose in the commune of Clivio. This building currently serves as a resource centre for a range of community organisations related, and this important function would continue in the new Visitor Centre. Until the refurbishment of the Clivio building, the Meride Visitor Centre, will operate as the focal point for MSG as a whole. The above developments will maintain and improve the good existing level of visitor information provision associated with the variety of fixed centres that support MSG, and the exceptional off-site displays in the major museums in Zürich and Milan. There is a need to complement this more comprehensively with information at individual sites on the mountain and at access points. More proactive management

of the key excavation sites, including clearance of encroaching vegetation is also required.

Coordinated management of MSG as a single transboundary property is essential. This need has been fully recognised by the States Parties, which have developed a significant programme of transboundary cooperation since the nomination of the Swiss portion of MSG.

Following the inscription of the Swiss portion of MSG and the preparation of the management plan, Italian stakeholders in MSG signed an 'Agreement Protocol' in November 2008. This established an association to shadow the World Heritage Foundation established in Switzerland, and binds all signatories to collaborate in developing common strategies and projects. The association would re-form after approval of the extension as the management body for the Italian portion of the property. Local 'Technical Commissions' dealing with day-to-day environmental and commercial management would report to the Foundation.

In preparation for the nomination of Italian MSG, the State Parties of Switzerland and Italy also signed a formal memorandum of understanding in January 2009, which sets out the agreed coordinated transboundary management of the property if the Italian extension is approved. A European Union funded project has supported the development of a joint management plan for the whole of MSG including the extension into Italy. This collaboration was also the consequence of the 'Besano Protocol', signed in 2001 by 38 Swiss and Italian organisations, including 14 municipalities.

In accordance with the management plan, the successful inscription of Italian MSG would lead to the establishment of a 'Strategic Transnational Board' made up of the members of the two national foundations. The two site managers would also be in attendance, but have no voting rights. The role of the Board would be to establish and monitor the achievement of management priorities, programmes and targets for the transboundary property, to pursue funding options, to produce a single annual report and to promote and ultimately endorse transboundary designations for site protection. It has been agreed by the two State Parties that the presidency of the board will alternate between the two countries, beginning with a Swiss president.

IUCN considers that these efforts are highly commendable. Conclusion of the trans-boundary arrangements and their establishment on an ongoing basis with adequate funding will be essential to the long-term conservation of the property if the extension was approved. IUCN therefore requested supplementary information from the States Parties on the commitment to transnational management and explanation of how its funding and effectiveness will be ensured. The response clarifies these arrangements and states that the association of mayors "undertake to raise structure funds from within national and international funding sources" for site management, once the site is inscribed. In addition to this response, the Swiss confederation confirms that it has a budget of CHF 525,000 in place over four years to 2011, in relation to the Swiss part of the property. IUCN considers it essential that the States Parties provide adequate financing in the medium to long term for the successful delivery of the management of the property on a transboundary basis.

IUCN considers the management of the nominated extension, and the planned transboundary management arrangements between the States Parties meet the requirements set out in the Operational Guidelines.

4.4 Threats

Although the main fossil resources are substantially unthreatened, continued operation of the management system as noted above is clearly an essential prerequisite to its long term protection.

There are limited other threats to the property. High mountain environments are proving to be particularly sensitive indicators of climate change. However, the almost complete forest cover on MSG should provide resilience in relation to changes, such as any projected increase in the intensity or frequency of extreme weather events. An almost complete vegetation cover does not guarantee immunity from erosion and there is some evidence of occasional landslides and rock falls, especially on the northwestern side of the property. These are of minor extent and significance in the context of the area as a whole. There is natural fluvial erosion along streams, which serves a potentially valuable role in revealing new fossiliferous exposures. Forest fires are a potential risk, but this is recognised and catered for within the forest management strategies that are in place.

The core of the nominated zone is uninhabited and there is effective enforcement of local planning legislation to regulate development pressures across the nominated extension and buffer zone. Arguably the most significant potential threat to the integrity of the nominated extension lies in the various strategies to develop its tourist potential. There is, however, little prospect of mass tourism on MSG and tourism strategies are focussed instead on attracting walkers to the mountain who are likely to be appreciative of its natural beauty and conscious of the need to preserve it. This approach is embodied in the drive to promote scenic and historic trails. If, as indicated, there are also moves to develop cycle and equestrian tracks it is essential that special consideration is given to their location

in terms of their potential for triggering localised erosion and decreasing the visitor experience of those on foot. Care should also be exercised in choosing appropriate access routes on to the mountain that could, for example, lead to the ad hoc creation of unofficial parking areas adjacent to or within the buffer zone.

In summary, IUCN considers the nominated extension in Italy, together with the existing property in Switzerland meet the integrity, protection and management requirements set out in the Operational Guidelines.

5. ADDITIONAL COMMENTS

5.1. Comments of ICOMOS

The IUCN evaluation mission noted the significance of the the long history of quarrying and the working of stone in the area around MSG. ICOMOS has also provided a brief assessment of the cultural values of this property to IUCN. ICOMOS note the association of many of the fossil finds with industrial and commercial exploitation of the area, and that Viggiú has a history dating from the Roman era. Martino Longhi the Elder (1534-1591) worked there, and founded a dynasty of architects whose principal work was in Rome. The area was noted for Viggiú stone and the art of stone-cutting. The notable Italian Renaissance estate/garden Villa Cicogna Mozzoni lies nearby but outside the buffer zone.

5.2. Geopark status

Planning and negotiation is in progress to designate the wider environment around central peak of MSG as part of a European Geopark network that will link a series of geosites across the Southern Alps as the 'Geoparco dell'Insubria'. Such a project could place MSG within its regional geological context and would further facilitate cross border coordination of information provision and sustainable tourism. IUCN considers care should be taken to retain the clear identity of the World Heritage property, and to ensure complementarity of the different rationales of the two designations. The potential for conflict has been recognized by the Swiss authorities, who have pointed out that the Geopark initiative cannot be taken forward directly by the World Heritage authorities, as the foundations do not have the required competence and the objectives are different.

6. APPLICATION OF CRITERIA

Monte San Giorgio, Switzerland, is already inscribed on the World Heritate List under criterion (viii). The proposed extension, which is contiguous with the existing site, was recommended at the time of inscription and has been nominated under the same criterion.

Criterion (viii) Earth's history and geological features

Monte San Giorgio provides the single best-known record of marine life in the Middle Triassic period, as well as important evidence of life on land. The Site has produced diverse and numerous fossils, many of which show exceptional completeness and detailed preservation. These are found in a compact sequence of six superimposed levels that have allowed detailed reconstruction of the evolution of several groups of marine organisms. The long history of study, and the disciplined management of the resource, has created a thoroughly documented and well-catalogued body of specimens of exceptional quality that has generated a rich scientific literature. Monte San Giorgio thus provides the principal point of reference for future discoveries of marine Triassic remains throughout the world.

IUCN considers that the nominated extension, in combination with the existing inscribed property in Switzerland, meets this criterion.

7. RECOMMENDATION

IUCN recommends that the World Heritage Committee adopt the following decision:

The World Heritage Committee,

1. Having examined Documents **WHC-10/34.COM/8B** and **WHC-10/34.COM/INF 8B2**,

2. Approves the extension of **Monte San Giorgio, Italy/Switzerland**, on the basis of natural criterion (viii);

3. Adopts the following Statement of **Outstanding Universal Value**:

   Brief synthesis

   The pyramid-shaped, wooded mountain of Monte San Giorgio beside Lake Lugano is regarded as the best fossil record of marine life from the Triassic Period (245–230 million years ago). The sequence records life in a tropical lagoon environment, sheltered and partially separated from the open sea by an offshore reef. Diverse marine life flourished within this lagoon, including reptiles, fish, bivalves, ammonites, echinoderms and crustaceans. Because the lagoon was near to land, the fossil remains also include some land-based fossils including reptiles, insects and plants. The result is a fossil resource of great richness.

Criteria

Criterion viii: *Monte San Giorgio is the single best known record of marine life in the Triassic period, and records important remains of life on land as well. The property has produced diverse and numerous fossils, many of which show exceptional completeness and detailed preservation. The long history of study of the property and the disciplined management of the resource have created a well documented and catalogued body of specimens of exceptional quality, and are the basis for a rich associated geological literature. As a result, Monte San Giorgio provides the principal point of reference, relevant to future discoveries of marine Triassic remains throughout the world.*

Integrity

The property encompasses the complete Middle Triassic outcrop of Monte San Giorgio including all of the main fossil bearing areas. The Italian portion of the property included is an extension in 2010 of the originally inscribed area in Switzerland, which was added to the World Heritage List in 2003. The resulting extended property fully meets the integrity requirements for a fossil site. The main attributes of the Outstanding Universal Value of the property are the accessible fossiliferous rock exposures, with intact strata which occur in many parts of the property.

Protection and Management requirements

The property benefits from legal protection in both Italy and Switzerland that provides an effective basis for the protection of its geological resources. Site protection also focusses on landscape protection and has resulted in appropriate legislative controls and existing management procedures that are effectively enforced at the local level and which are underwritten by National, Regional and Provincial Government support.

Strong transboundary collaboration between the States Parties of Italy and Switzerland is in place, including mechanisms that are agreed by all of the local municipalities in both countries, through common signed accords and declarations. A joint management plan is also in place for the property, and the States Parties and local authorities are committed to providing adequate ongoing staffing and management resources to the property. Maintenance of the effectiveness of the transboundary cooperation and the related management plan is a key ongoing requirement for the protection of the property. Staff with a specific responsibility for site management are in place in both countries, and collaborate effectively to ensure a fully coordinated management of the property, including in relation to its presentation.

The main management requirement in relation to the values of Monte San Giorgio is the in situ protection of fossil bearing areas. Although these areas are generally difficult to access, it is important to ensure their accessibility for managed legal scientific excavation. Continued scientific excavation is a key requirement to maintaining the values of this property as a world reference area for palaeontological research.

Maintenance of the relationships between the property and leading research institutes is also essential to both its scientific value and its presentation. Because the in situ fossil resources both require excavation and preparation to be of scientific value, and are not publicly accessible or visible, the completeness, presentation and safety of the fossil collections held in a limited number of universities and museums is key to the protection of the values of the property. These collections are maintained through strict adherence to appropriate legislative controls on excavation within the property. The housing of resultant fossil finds, and the standards of curation, specimen preparation and research, and museum display are of the highest quality in the main research collections related to the property. This presentation of the fossil finds from the property in major international museums also needs to be complemented by the appropriate provision of visitor centres and services within or near to the property, and a programme to establish and maintain these services is in place. An active ongoing programme of communication and interpretation for visitors to the property is required to ensure the fullest appreciation of the Outstanding Universal Value of Monte San Giorgio.

4. Welcomes the commitment by the State Party of Italy to complete the establishment of a national foundation for the Italian portion of the property, to ensure the appointment of the agreed position of World Heritage Site manager, and to provide sufficient funding for the management of the Italian portion of the property, and requests the State Party to implement and sustain these commitments as soon as possible;

5. Welcomes the collaboration between the States Parties of Italy and Switzerland to ensure effective transboundary management of the property, including the establishment of a 'Strategic Transnational Board', and requests the States Parties to ensure that the Board functions effectively and is provided with adequate resources for its work;

6. Requests the States Parties to ensure a single, coherent identity and consistent management approach for the transboundary property created by the extension, and to enhance programmes of presentation, interpretation and monitoring, maintenance of important rock exposures, and enhanced coordination of science and research;

7. Takes note of the anticipated minor changes to the boundaries of the property and its buffer zone in Switzerland, in order to ensure the best possible overall configuration of the property, and encourages the State Party of Switzerland to bring forward a boundary modification proposal;

8. Requests the States Parties to submit to the World Heritage Centre by 1st February 2013 a joint report on the State of Conservation of the property, including the establishment and operation of the Transnational Board, the provision of ongoing site manager positions, and the implementation of effective and adequately resourced management and presentation of the property, for consideration by the World Heritage Committee at its 37th Session in 2013.

Map 1: Location and boundaries of the nominated property