

World Heritage Watch Report 2023



World Heritage Watch

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Report 2023**

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WORLD HERITAGE WATCH

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Upper right: A serious drought, combined with the loss of water arriving from the Tigris river, has forced many Marsh Arabs to leave their homeland in the Ahwar of Southern Iraq. *Photo: Asaad Niazi*

Lower left: The town of Potosí and the Cerro Rico (“rich mountain”) which is prone to collapsing due to illegal mining. *Photo: Wikipedia*

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Preface

At first glance, the annual World Heritage Watch (WHW) Reports may seem like chapters of a serialized novel. But they are not: They always provide fresh, challenging alerts. They urge the world community, and UNESCO in particular, to remain attentive, to act in good time, and to tirelessly insist on the implementation of earlier commitments. The WHW report is guide and path - the preservation of world heritage sites, on the ground and case by case, is the goal.

Last year, wake-up calls for natural sites (including many with indigenous populations) took the forefront in our WHW Report. This year, the picture is shifting. Two developments stand out in particular as we look at the list of contributions.

First, there are the urgent reports on the damage to World Heritage sites caused by the terrible earthquake in Turkey and Syria on February 6, 2023. It took special efforts to obtain these reports and, for the first time, we have even included the report of a government agency, namely on the Crac des Chevaliers in Syria. As a result, the WHW Report in your hands is the first one to provide the world public with a detailed and comprehensive overview of earthquake damage at all four affected World Heritage Sites: Diyarbakir and Hevsel Gardens in Turkey; and Aleppo, the Ancient Cities of Northern Syria, and the Crac des Chevaliers and Qal'at Salah El-Din, all in Syria.

These documentations can only be preliminary. They are no substitute for a systematic survey and in-depth analysis. But they already show clearly the significant damages and, in many cases, the urgent need for stabilization measures. We hope that our publication will encourage agencies that are in a position to help, to act fast – even while the overall conditions in the two affected countries give little cause for optimism.

On behalf of the international community, UNESCO needs to insist with the two governments concerned on permits for independent projects. Decisions by government agencies tend to be drawn out, and at times marred by political considerations. Corruption eats up significant portions of available budgets, and international standards of restoration and reconstruction are often not met. In Syria, the situation is further complicated by sanctions related to the Assad regime: many countries, as well as international public and private organizations cannot operate in the country. The situation is most critical in the Syrian governorate of Idlib, where access is almost impossible and the security situation remains exceedingly precarious.

Secondly, we need to highlight that more and more of our authors have to write their reports anonymously. While this was previously the exception, there are now five countries - Russia, Tanzania, Zimbabwe, Iran and Laos - where NGOs and individual authors must fear repression and even imprisonment should their names become known. More broadly we observe threats to civil liberties: civil society organizations committed to the protection of the environment and world heritage are being investigated. Some countries have established parliamentary inquiry panels, while others have simply prohibited and closed down organizations. Russia, for instance, has declared Greenpeace an “undesirable organization” – the very organization that, as recently as the 1990s, led the drafting of several World Heritage nominations on behalf of the Russian president, and that has been a loyal advocate for Russian World Heritage throughout.

Indeed, Greenpeace Russia is one of the founders of our international network. In 2012, Greenpeace, together with other Russian activists, organized the first international NGO Forum on World Heritage in St. Petersburg. There, the decision was reached to establish World Heritage Watch as an international network of citizens and civil society organizations committed to the preservation of World Heritage. There is reason to fear that unhindered commercialization and destruction may now threaten Russian World Heritage sites

– undetected by the World Heritage Watch early warning system and UNESCO, because vigilant, dedicated observers are silenced.

All over the world, the long-term preservation of World Heritage sites will always depend on people who cherish and speak up for humanity's common heritage. Along with an increasing number of State Parties to the World Heritage Convention, UNESCO acknowledges the pivotal role of supportive local and national civil society organizations. UNESCO and its World Heritage Centre deserve recognition for dialogues, resolutions and documents expressing their appreciation for civil society organizations and indigenous peoples.

Yet in the end, results matter. At World Heritage Watch we always look for the next step - implementation. We expect UNESCO, as the guardian of the World Heritage Convention, to speak up when the voice of civil society is suppressed. The right to freedom of expression must apply to everyone, not only journalists, when the stated goals of the World Heritage Convention are at stake.

Beyond local challenges, implementation of the World Heritage Convention is troubled by systemic inconsistencies and procedural contradictions. A growing number of State Parties are ignoring their obligations under the World Heritage Convention – obligations that their governments have voluntarily underwritten – while some of these very same State Parties are members of the World Heritage Committee, the body that decides on all World Heritage issues.

Should the United Nations - as announced by the UN Secretary General – launch reforms of its 20th century structures, we hope this will also lead to a scrutinization of the World Heritage Convention's governance system, which blatantly lacks checks and balances and a regime of sanctions. For now, a growing number of decisions undermine and sacrifice World Heritage preservation, ceding the ground to political and economic interests – as, for example, currently in the spectacular case of the Sugar Loaf Mountain in Rio de Janeiro, or on the Acropolis of Athens.

Commitments of the global civil society – including the actors coming together in the WHW network - bring the World Heritage idea to life. Across all cultural, ethnic, and religious boundaries, we are united by a cosmopolitan bonding: Together, we want to protect and preserve the heritage of each one of us as our common, shared heritage of mankind. The list of authors of this volume shows the diversity of actors in the WHW network. We hope that seeing them come together here will inspire readers of this annual report with happiness, hope and vigilance.

Berlin, May 2023

Maritta Koch-Weser, President
Stephan Doempke, Chair of the Board

I. Special Reports on Earthquake Damages

Preliminary Assessment of Earthquake Damage to the Fortress and Other Cultural Heritage of Diyarbakir

Nevin Soyukaya, Pınar Can and Birgül Açıkyıldız



On February 6, 2023, two earthquakes with a magnitude of 7.7 centered in Kahramanmaraş-Pazarcık and a magnitude of 7.6 centered in Kahramanmaraş-Elbistan occurred. The earthquakes affected ten cities in Turkey such as Adana, Adıyaman, Diyarbakir, Gaziantep, Hatay, Kahramanmaraş, Kilis, Malatya, Osmaniye and Şanlıurfa. It was felt also in other surrounding cities and countries.¹

The Diyarbakir Association for the Protection of Cultural and Natural Assets (DKVD) carried out an earthquake damage study

on the monumental landmarks located in the Diyarbakir fortress and the Suriçi quarter which is an urban protected area and part of the buffer zone of the world heritage site, during three days from 9-11 February 2023. Diyarbakir is one of the cities touched intensely by the main earthquakes and aftershocks from the earthquakes. The earthquake-induced destructions were detected in the observation-based damage assessment and documented with photographs. Only damaged building units and towers are included in the report. The damaged towers are identified according to the numbers on the map (Fig. 1).

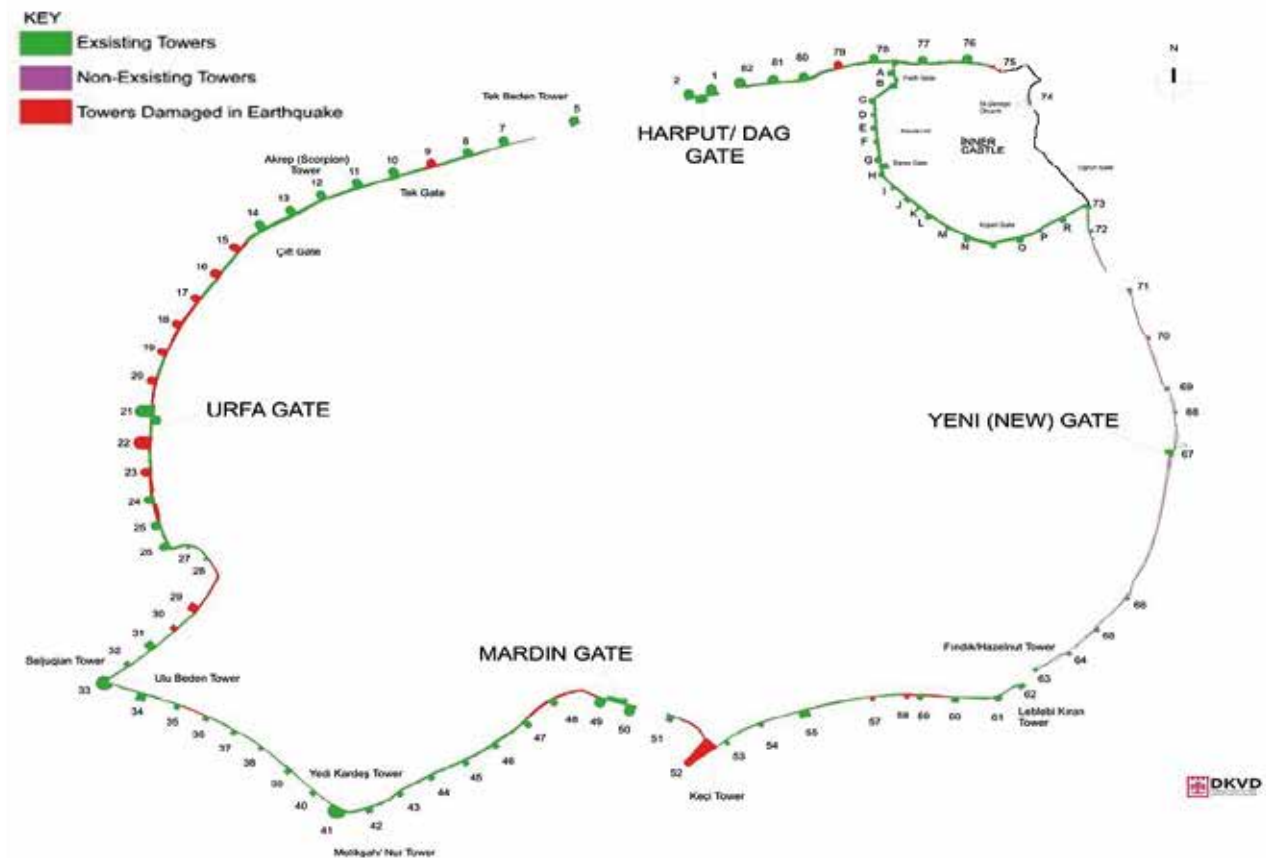


Fig. 1: Schematic map of the city wall of Diyarbakir with towers numbered. Map: DKVD

¹ <https://www.afad.gov.tr/kahramanmarasta-meydana-gelen-depremler-hk-basin-bulteni-26>



Fig. 2–4: 52th Keçi Tower, 09.02.202: It was observed that the surface stones were poured on the western face of the tower, and vertical cracks were formed on the wall infill in the pouring area. Furthermore, the water flowing from the gargoyles flowed onto the wall surface, causing the binding mortar to soften and losing its binding properties. In addition, it was noted that the expansion and contraction caused by the freezing and thawing of the water flowing due to the temperature difference between day and night in the winter also created a negative effect and pose a risk.



Fig. 5: Interior of the Wall between 49th and 48th Towers
The surface stones of the fortification wall have fallen. There are partly swellings due to the earthquake on the wall as well as collapsed sections belonging to the pre-earthquake era. The wall between the 2nd buttress and the 47th tower has completely swelled, and the surface stones were poured in the upper part. The small openings at the bottom were closed during the restoration process. This wall needs an integrated, conservation-oriented conservation and restoration application.



Fig. 6–8: Wall between the 48th and 47th Tower.



Fig. 9, 10: Rocky Area below Tower 36 and 35:
It was observed that large pieces of rock fell from the rock layer at the base of towers 36-35.



Fig. 11: 30th tower. The tower has new stone falls in its corner.



Fig. 12: 29th Tower: There is damage to the surface texture caused by new stone spills, and the risk of stone falling continues.



Fig. 13, 14: The Wall between 29th and 28th Towers: It was observed that there were new stone spills in the previously destroyed areas with the earthquake.



Fig. 15, 16: Wall between 25th and 24th Towers, 10.02.2023: A stone fell from the secondary wall gate, located on the wall, which was closed, and there is a joint opening of the buttress from top to bottom. Stones may fall from the observation unit (*dendan*) ruins. Risky.



Fig. 17, 18: Wall between 24th and 23rd Tower: The joint filler has collapsed. In addition, new stone falls have occurred in the section of the wall where the surface stones were previously poured. The risk of further surface stone spillage remains in this area.



Fig. 19: 23th Tower: There are swellings and jointing discharges at the areas where the surface stones were previously destroyed. It possesses risks. In addition, there is a risk of stone spills due to jointing discharge in *dendan* residues.



Fig. 20 and 21: 22nd Gate - Urfa Gate South Tower: On its southern façade, there is a crack that runs from top to bottom. The crack's decomposition continues beneath the surface and on the infill wall. There are also swellings on the surface of the tower. Several new

stone falls have appeared in areas where surface stones were previously poured.



Fig. 22: Wall between 21st and 20th Towers: Several new stone falls have appeared in areas where surface stones were previously poured. The risk of stone spills persists.

Fig. 23–25: 20th Tower: There are some previously spilled surfaces on the south and north façade of the tower. Several new stone falls have appeared in areas where



surface stones were previously poured. Stone spills have the risk to continue.



Fig. 26, 27: 19th Tower: New stone falls were noted on the northwest façade's upper corner. Cracks have formed, and the danger remains. There are also new stone falls at the tower's junction with the wall to the north.

Fig. 28 and 29: Wall between the 19th and 18th Towers: New dense stones have fallen from the surface. Spills, in particular, cover a large area in the upper part of the wall between the buttress and the 18th tower. The inner filling of the small secondary door in the wall has also collapsed.



Fig. 30–34: 18th Tower: New stone falls have caused damage to the upper portion of the tower's south façade. Again, as a result of new stone falls caused by the earthquake, the damage in the previously ruined area in the upper part of the western façade grew. A small mass in the upper north façade above the previously devastated surface poses a danger.



Fig. 35–37: Wall between 18th and 17th Tower: There are earthquake-induced surface collapses on the buttress and the subsequent fortification wall.



Fig. 38–41: 17th Tower: The shedding of surface stones on the southwest and northwest façades of the tower has resulted in demolition and weathering. It's perilous.



Fig. 42–44: 16th tower: On the surface, there are new collapses and swells. It bears risks in previously destroyed areas on the northern façade.



Fig. 45–46: 15th Tower: New stone collapses have occurred in previously fallen surfaces. The swellings on the tower's surface are at risk of demolishing it. The northern façade is saturated with humidity.



Fig. 47–50: 9th Tower: A large portion of the western façade collapsed. The destroyed area and its surroundings bear risks. There is also swelling on the northern façade and a high level of humidity.



Fig. 51: 11.02.2023 79th Tower: The earthquake caused stone ruptures and falls from the inner fill on the eastern façade.



Fig. 52: 75th Tower: Falls from the inner filling and surface stones on the eastern facade were caused by the earthquake.



Fig. 53, 54: Corner wall where the North and East Walls meet: Vertical separations on the wall pose a danger.



Fig. 55, 56: Rock Layer under the Eastern Walls of the inner citadel: The earthquake destroyed the rock layer beneath the Museum Excavation Exhibition Building. The same rocky surface has numerous cracks.



Fig. 57: Wall between 61st and 60th Towers: Slits occurred on both buttresses and bear risks.



Fig. 58: Wall between 59th and 58th Towers: There are stones fell from the previously masonry-closed gate on the wall.



Fig. 59: 58th Tower: There are numerous falls on the surface and inside the tower walls. There are also cracks descending from the crenel window. It bears risks.



Fig. 60: 57th Tower: Stones fell down from the surface of the southern façade, and there are swellings around the fallen area. In the lower part of the southeast corner of the tower, there is previous destruction.



Fig. 61: Wall between 52th and 51st Towers: A decomposition occurred at the joint of the second buttress and the wall. Moreover, there are cracks on the buttress. It is at risk.



Fig. 62, 63: Four-Legged Minaret: There is a previously existing vertical crack in the middle of the north façade monolithic beam. New separations have also occurred in the joints extending upwards on the beam.



Fig. 64–67: Safa (Parlı) Mosque: After the earthquake, deep cracks, disintegration and spills

occurred in the parts of the minaret body near the base, extending upwards. The residents of the street where the mosque is located stated that they observed that the separations were growing in the cracks.



Fig. 68, 69: Behram Paşa Mosque: There is a decomposition at the joint of the last congregation place and the minaret which is found on the north-western corner of the mosque. Similar decomposition is observed on the north and south facades.



Fig. 70, 71: There are cracks on the vault keystone down to the stained glass windows on the eastern part of the entrance hall, the prayer hall (*harim*), and the prayer hall for women (*kadınlar mahfili*) located on the western part of the mosque. Again, there is a crack starting from the vault and extending to the window above the entrance and in the *muezzin's mahfil*. It should be analysed whether this is a plaster or a structural crack.



Fig. 72: The stone floor of the eastern *mahfil* was cracked and the floor sloped slightly towards the bottom. The destruction can be monitored from beneath the floor.



Fig. 73: It was observed that there is a vertical crack descending from top to bottom at the junction of the *minber* with the eastern wall.

Preliminary Report About Earthquake Damages in the Old Town of Aleppo

Louay Dakhel, Conservation Architect

The world heritage in Aleppo was affected by the recent earthquake, damaging many ancient buildings, which can be classified as follows:

1. Buildings that were damaged in the last war, and the earthquake added new damage to them.

Many of the damages of these earthquakes hit the architectural blocks that were already damaged from the recent war in Syria, and they needed urgent emergency restoration.... and that was not done...., so the earthquakes came to add new damage to the destruction of the war, because the architecture of those blocks was not structurally coherent when the earthquakes occurred. Examples: A) "Old Markets", B) St. Helena's Church.

2. Buildings that were not damaged in the last war, and the earthquake came to destroy parts of them.

The lack of commitment of some of the restorers to the quality required scientifically led to the damages of earthquakes affecting the newly restored architectural blocks (before the earthquakes), so new damage was caused by the modern restoration.

3. Buildings that were restored after the last war, then destroyed by the earthquake again.

The earthquake-resistant designs that were implemented a thousand years ago helped prevent the buildings from collapsing from the recent earthquakes, except when the recent modern renovations did not prevent the damages from these earthquakes.

Example: St. Helena's Church. We notice the dome cracked due to the impact of the earthquake, but it did not fall because it rests on a wooden layer that absorbs the shocks and vibrations of earthquakes.

From my initial study of the reality of world heritage in Aleppo today after the earthquake, it became clear to me that the old city markets are the most affected, followed by minarets and structural elements of particular sensitivity.

I think the most important thing that can be done today after the earthquakes is: Immediate emergency restoration work, so that the archaeological architectural blocks become structurally coherent and there is no void or interruption left in them, especially since Aleppo and the region are still exposed to frequent earthquakes, and some scholars expect that this will continue for quite some time.

The following is a group of numbered photos, showing the recent earthquakes' damage to the antiquities in Aleppo.

1. All photos were taken in Aleppo after the recent earthquake.
2. All the rubble that appears in the pictures is rubble caused by the destruction of the recent earthquake.
3. The biggest damage was in the architectural elements that needed emergency restoration operations immediately after the destruction of the last war, and this did not happen until now, so the earthquake came to add to the destruction.

This report is of preliminary nature and cannot claim to be comprehensive.



Fig. 1–4: Almost complete collapse of a tower on the western wall of the city, the earths devastation.



Fig. 5–7: A major collapse in Al-Qiqan Mosque



Fig. 8, 9: Collapses and cracks in parts of the "Antioch Gate".



Fig. 10: A general view showing the demolition of the upper parts of many minarets.



Fig. 11, 12: Great damage in a mosque in the "Aqaba" neighbourhood.

Fig. 13, 14: Significant destruction in a mosque in the old market area.



Fig. 15: The collapse of a newly renovated wall after the war in the "Al-Jalloum" neighbourhood

Fig. 16: Significant damage to the minaret of the "Al-Bahrami" mosque in the old market area.



Fig. 17–22: Big landslides in the "Aqaba" neighbourhood.



Fig. 23: Destruction in a cafe in the old markets.



Fig. 24: Destruction in the "Al-Ahmadiyya School" in the "Al-Jalloum" neighborhood.



Fig. 25–26: Significant and dangerous damages in "St. Helena's Church".



Fig. 27–35: Significant and dangerous damages in "St. Helena's Church".



Fig. 36: Khan al-Sabun: the collapse of the main façade decorations



Fig. 37: Ottoman mosque: collapse of newly restored parts.



Fig. 38: Khan al-Wazir: Bulging at the top of the façade and some of its parts falling off



Fig. 39: Partial collapse in many cases



Fig. 40–51: Great destruction and collapse in the area of the old markets and caravanserais.

Earthquake in Syria: Qal'at al-Ḥuṣn – Crac des Chevaliers

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**Preliminary report on the damage occurring to the
Hisn Castle as a result of the earthquake that occurred on 6/2/2023**



Fig. 1: Collapse of a part of the wall filling, with a height of 5m and width of 1.5m. The filling consists of limestone and basalt and traditional binding components.

On 7/2/2023 an investigatory tour was carried in the Hisn Castle to examine the damage caused by the earthquake, and we relay to you the following description of the damage with explanatory pictures:

1. The wall between the Commander's Tower and the Knights Tower in the southwestern corner of the inner castle (the northern wall of void No 51):
2. The expansion of the previously existing seismic crack extending from the main eastern entrance (Tower No. 101) to (Tower No. 114) located in the southeast corner of the outer castle (Fig. 2, 3):

This area has long been suffering from a seismic crack resulting from an old earthquake; this crack extends in the towers (101-102-103-105-107-108-109-110-111-112-113-114) at all levels (floors) and as a result of the devastating earthquake that occurred on 6/2/2023 and the resulting vibrations, we noticed an increase in



Fig. 2



Fig. 3

the width of the cracks in all the above-mentioned towers, but the most dangerous of them are the cracks in Tower No. (114), as they expanded dangerously leading the width of the crack to reach (10 cm). It extends within the inner façade of the first level, penetrating the floor of the second level, and reaching the outer façade and the roof of the tower. As for the eastern

Tower (113), the width of the Fig. 3 crack reached about 7 cm. We also noticed that the lock's rock of one of the arches within this tower had fallen (descended), and some feathers behind the lock chamber were lost. The expansion of these cracks is considered the biggest and most serious damage to the castle as a result of the earthquake on 2/6/2023.



Fig. 4-18

3. *Soldiers' Bedroom* hall facing the *Round Table* (Hall No. 35):



Fig. 19



Fig. 20



Fig. 21



Fig. 22

Collapse of the limestone inner grain of the upper section of the wall separating this hall from Hall No. (34). The area of the destroyed section is about 6 square meters.

4. *Bint Al Malek [daughter of the king] Tower* (Tower No. B 46):

The stones at the top of the northwestern façade of the tower are loosened. They are large-sized limestone stones, the height

of each stone is greater than 40 cm, and the area of the loose section is estimated to be 6 square meters.



Fig. 23



Fig. 24

5. Tower No. (137) located in the outer castle, north of Al-Thahir Beebers Tower:



Fig. 25



Fig. 26

Collapse of relatively small limestone and basalt stones located above Al-Rawashin, with an area of approximately 2 square meters. (Fig. 25, 26)

6. Barrier of the roof of Tower No. (44) in the inner castle

We noticed that as a result of the vibration, a separation occurred between the stones of the inner and outer grains of the

barrier. These are large-sized limestone stones, and the damaged area is estimated at about 2 square meters.



Fig. 27



Fig. 28

7. The northern entrance to the outer castle (Tower No. 146):

The loosening of the stone arch of the door and the loss of a row of feathers that form the façade of the arch, on which an arch of large carved limestone stones rests. This led to the fall

of the first stone of the east side of the upper arch. The width of the lower arch is estimated at 3.15 m and the height at 1.6m.



Fig. 29



Fig. 30

8. Tower linking the two walls (Tower No. 126)

We noticed that the ceiling of the corridor leading to the entrance of the tower on the upper floor was damaged, and a number of stone feathers with an area of approximately 1

square meters had fallen. The facade of the corridor consisting of large-sized limestone stones (number 3) with an area of approximately (1) square meters were loosened.



Fig. 31



Fig. 32

9. Hall No. (a32) in the inner citadel:

Part of the inner part of the northern wall of the hall, built of limestone stones, with an area of about 12 square meters, was demolished.



Fig. 33

10. Leaders Tower No. (49):

This tower is located in the southeast corner of the inner castle. The tower was damaged as a result of the 2014 events that led to the formation of a gap in the tower's ceiling along with the destruction of some stones existing in the upper northern facade of the tower...(Fig. 34)

We noticed that as a result of the earthquake that occurred on 6/2/2023, the loosening of stones increased at the top of the northern façade, they also tilted more from level. These are large-sized carved limestone stones (the height of each is more than 40 cm). The area in which the stones loosened more is estimated at about 12 square meters.



Fig. 34



Fig. 35

11. Tower No. (147) on the second level

We noticed that the first nail from the east side (which was damaged as a result of the 2014 events, where the lower chamber holding above it the upper part of the nail was broken) as a result of the aftershocks, we noticed that the crack in the lower part had expanded, in addition to the loosening of some

eastern corner stones near it as is shown in the pictures. Its situation has become unstable and threatened to collapse at any moment, which poses a danger to the residents due to the presence of inhabited houses in the area below it.



Fig. 36



Fig. 37

The eastern wall of Building No. (48) on the fourth level adjacent to the church tower from the south side:

Last year, some large stones (more than 40 cm in height) fell from the northeastern corner of Building No. (48) in the inner castle, and as a result of the aftershocks that occurred during

the past two days, we noticed an increase in the loosening in the aforementioned corner, and it is in danger of falling at any moment. We attach pictures showing the angle.



Fig. 38



Fig. 39

Kindly examine
15/02/2023 Al-Hisn Castle

**Head of the Citadel of Antiquities Department
Engineer Hazem Hanna**

يرجى التفضل بالاطلاع
قلعة الحصن 2023/2/15

رئيس دائرة آثار قلعة الحصن
المهندس حازم حنا

The Impact of the 2023 Earthquake on Archaeological Locations on the Syrian Coast

Hadi Ibrahim and Dr. Isber Sabrine¹, ANSCH, Heritage for Peace



Salah al-Din

This site is registered on the World Heritage List. The Salah al-Din Citadel is situated on a rocky peak, extending in length and framed by two deep valleys where two rivers converge, east of the city of Latakia near the city of Al-Haffah. It is positioned at an altitude of 410 meters above sea level and has an overall appearance resembling an elongated isosceles triangle.

Damages:

- There are serious cracks in several towers and walls.
- One of the towers on the western side has partially collapsed.
- Stones have fallen from the Royal Tower.



¹ Citadel By Heritage for Peace Organization and the Arab Network to Safeguard Cultural Heritage (ANSCH) with collaboration and assistance from civil society organizations (CSOs) and individuals in Syria

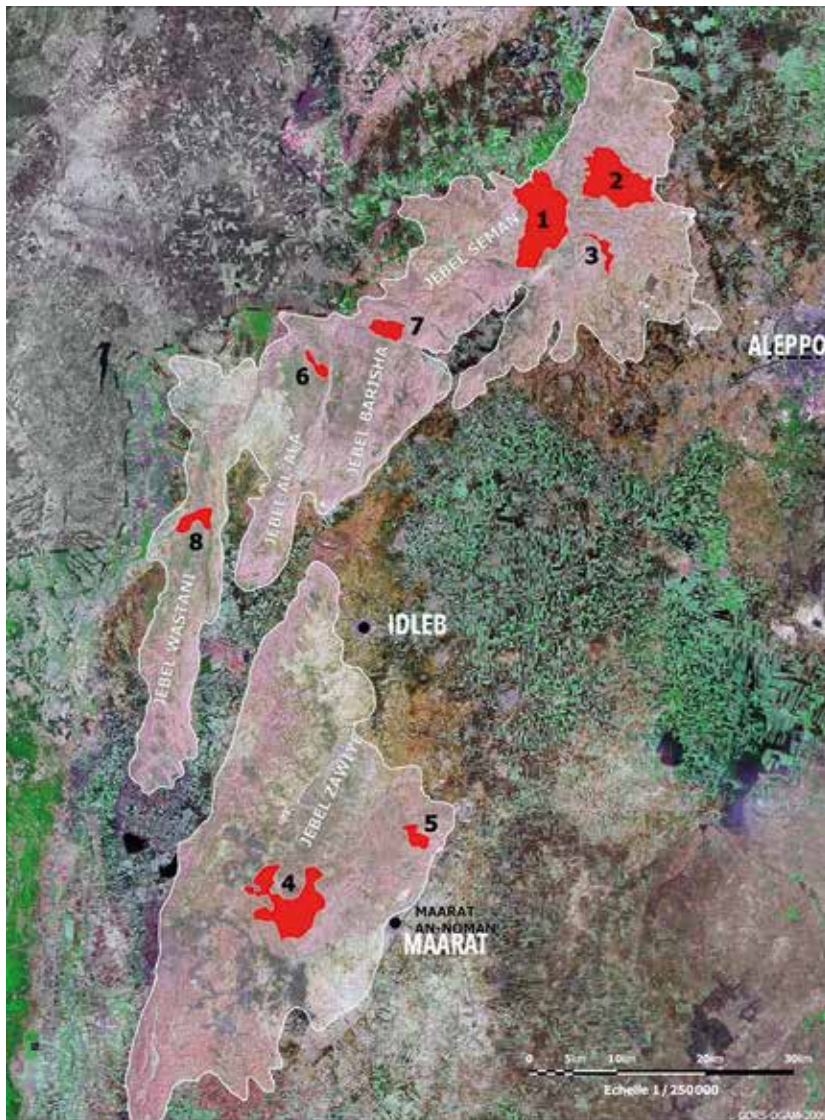
The Impact of the 2023 Earthquake on Archaeological Locations in Northwest Syria

Mahmoud Barakat, Abdulrahman Alyahya, Isber Sabrin

Syrian Center of Cultural Heritage Protection and the Arab Network of Civil Society Organizations to Safeguard Cultural Heritage (ANSCH) – an initiative of Heritage for Peace

Note by Editor: *The following is a part of the original report focusing only on those sites which have suffered damage from the earthquake. Texts describing the sites and their history have*

been omitted. A map has been included, and names have been added in the spelling used in the maps used by UNESCO for easier reference.



Throughout history, Syria has been subjected to dozens of earthquakes, including the earthquake that struck the coastal cities in 1822 AD with a magnitude of 7.5 on the Richter scale, as well as the several earthquakes that struck Antioch in the years 458, 526, 528 and 859 AD. Every time an earthquake occurred, destruction was inflicted on archaeological sites and historical buildings. The most severe of these earthquakes was the earthquake in Turkey on 6 February 2023 AD, which was 7.8 degrees on the Richter scale, which caused severe damage and casualties, including those inflicted on archaeological sites. The affected sites and their condition are detailed below. The site damage sections are divided into damage that occurred before the earthquake, and damage sustained since.



Fig. 1: The Ancient Villages of Northern Syria World Heritage Property. Map: DGAM / UNESCO

Map Area 1: Samaan Mountain Park (Qal'at Sem'an)

Harem Castle

Previous damage:

1. Random excavations
2. Damages resulting from changes in weather
3. Damages resulting from negligence and lack of emergency intervention It led to the collapse of some walls and the destruction of some foundations.

Damage caused by the earthquake: Collapse of parts of the front walls, collapse of the ceiling in the inner part, as well as collapse of some walls, which need urgent intervention.



Kafr Losin

Previous damage:

1. Random excavations
2. Damages resulting from the reclamation of agricultural lands
3. Damages resulting from changes in weather
4. Damages resulting from negligence and lack of emergency intervention

Damage caused by the earthquake: Collapse of one of the walls of the church.



Bardakli Mosque

Previous damage:

1. Random excavations
2. Damages resulting from changes in weather
3. Damages resulting from negligence and lack of emergency intervention



Damage caused by the earthquake: The presence of a collapse in the walls, as well as the stone arches were affected by the earthquake, which led to the displacement of some stones.

Al Shughour Castle

Previous damage:

1. Random excavations
2. Damages resulting from changes in weather
3. Damages resulting from negligence and lack of emergency intervention



Damage caused by the earthquake:

Collapse of some stones and displacement of some walls, which resulted in cracks in some walls.

Map Area 4: Jabal Al-Zawy Park (Al-Barah)

Al-Bara

Previous damage:

1. Unauthorized excavations
2. Damage resulting from the reclamation of agricultural lands
3. Damage resulting from changes in weather
4. Damage resulting from negligence and lack of emergency intervention

5. Damage resulting from the repurposing of stones in modern construction works

6. Exceeding construction within the boundaries of the archaeological area

Damage resulting from the earthquake:

1. Collapse of walls within the Abu Sufyan castle
2. Collapse of walls in the fortress church
3. Loosening of some stones in Deir Sobat



Serjilla

Previous damage:

1. Unauthorized excavations
2. Damage resulting from changes in weather
3. Damage resulting from negligence, lack of emergency intervention, and absence of oversight

Damage resulting from the earthquake:
Collapse of walls within one of the buildings



Map Area 6: Jabal Al-Ala Park (Qalb Lozeh)

Qalb lauza (Qalb lozé)

Previous damage:

1. Unauthorized excavations
2. Damage resulting from changes in weather
3. Damage resulting from negligence and lack of emergency intervention

Damage resulting from the earthquake:

Cracks in one of the walls caused by the displacement of some stones.



Kefir (Kfeir)

Previous damage:

1. Random excavations
2. Damages resulting from changes in weather
3. Damages resulting from negligence and lack of emergency intervention
4. Breaking some stones and using them in modern construction

Damage caused by the earthquake:
Simple displacement in one of the walls.



Map Area 7: Barisha Mountain Park (Baqirha)

Bagraha (Barisha)

Previous damage:

1. Random excavations
2. Damages resulting from the reclamation of agricultural lands
3. Damages resulting from changes in weather
4. Damages resulting from negligence and lack of emergency intervention

Damage caused by the earthquake:

Cracks in some walls due to the displacement of some stones.



II. Monuments and Sites

Stonehenge, Avebury and Associated Sites: Decision Still Awaited on Road Project



Kate Fielden, The Stonehenge Alliance

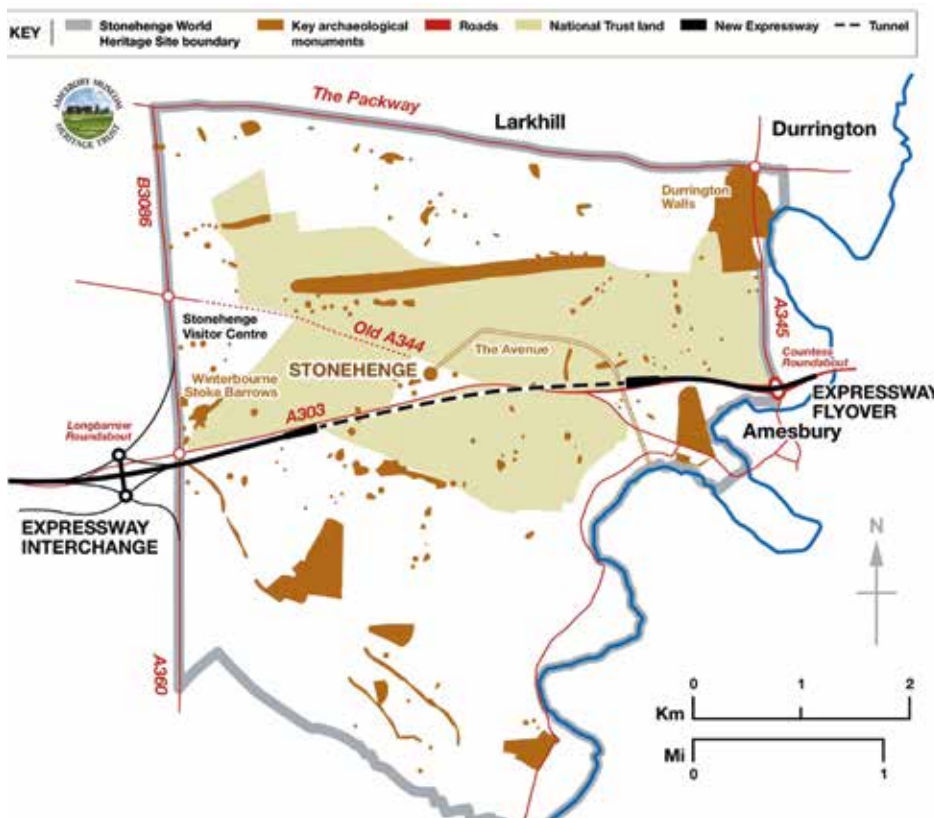


Fig. 1: Stonehenge WHS showing the proposed new A303 Expressway, tunnel and junctions.

Map: Courtesy of Amesbury Museum and Heritage Trust

The UK Government's plans for road widening, including a 3.3 km tunnel, across the 4.5km-wide Stonehenge World Heritage Site (WHS) landscape still await redetermination by the Secretary of State for Transport. The road proposals as well as the project's progress and implications have been covered in earlier *World Heritage Watch Reports* (2018, 2019, 2021 and 2022). A map of the scheme, updated to include land recently purchased by the National Trust, is reproduced here (Fig. 1).

Since November 2021, the Transport Secretary has continued to consult on the scheme, inviting National Highways' responses on longer tunnel alternatives, updated environmental information and, in view of the Government's climate change commitments, the potential impacts of carbon emissions. Nevertheless, no scheme changes have been made, despite its condemnation by the World Heritage Committee,¹ a High Court ruling in 2021,² and the July 2022 Advisory Mission Report³ which ech-

ed the World Heritage Committee's demand for fundamental scheme change to protect the Site's OUV and Integrity.

Events during 2022

The UK State Party's State of Conservation Report (SoCR) requested by the 2021 World Heritage Committee was published on the UNESCO website in March 2022. We then wrote to the World Heritage Centre, commenting on the scheme proposals and on matters raised in the SoCR, setting out a chronology of events since the road scheme had been consented.

Soon afterwards, Alliance representatives made a short presentation to the 19–21 April 2022 Advisory Mission invited to Stonehenge by the UK Government. By then, we had already submitted responses to various follow-up consultations by the Transport Secretary published on the Planning Inspectorate's website.⁴ In June

we submitted further comments critical of National Highways' account of the cumulative greenhouse gas emissions from the scheme in conjunction with other UK road infrastructure projects, pointing out that National Highways' estimates were incompatible with the UK's commitment to net zero by 2050. In late June, owing to issues raised in Interested Parties' earlier responses, the Transport Secretary asked National Highways for more clarity on certain environmental matters. In addition, the Transport Secretary noted that:

*"... a number of consultees have raised the issue that it is not clear how the Applicant has arrived at the conclusion that the alternative tunnel routes would only have minimal additional heritage benefits over the Development. The Applicant is asked to explain fully the basis on which they reached this conclusion. The explanation should include full detail of reasoning, the matters considered and any methodology that was used..."*⁶

The comments of Interested Parties on National Highways' responses to this request were published in late August. Despite more detail on longer tunnel alternatives – i.e., extending the western tunnel to beyond the WHS boundary by cut-and-cover or bored engineering, National Highways favoured neither option. It claimed, without satisfactory evidence, that benefits gained for the WHS would be insufficient to justify their additional cost. The Report of the April 2022 joint World Heritage Centre/ICOMOS/ICCROM Advisory Mission to Stonehenge was published in August 2022. Its main findings and recommendations were in accord with those of earlier advisory missions and World Heritage Committee Decisions in recent years. It noted that:

“The tunnel proposed by the Scheme would remove the road from the central part of the WHS, but the construction of dual carriageway in cuttings at either end of the tunnel would adversely and irreversibly impact on the integrity of the WHS, through removal of archaeological features and deposits, through disrupting the spatial and visual links between monuments, and as a result of its overall visual impact. Because some of these changes would be permanent, their effect would be to add to cumulative adverse impacts on the OUV of the inscribed property.”

And recommended

“An alternative route, which re-routes the A303 completely around the WHS, and enables the complete closure of the existing section of the A303 within the WHS, would provide the best option for minimizing any negative impact and enhancing positive benefits to the OUV of the property. A tunnel beneath the entire length of the WHS would provide the next best option for the OUV of the inscribed property. Insofar as such a tunnel is not feasible, then the alternative should be to extend the underground section of the Scheme at least to the western boundary, with areas to be excavated subject to comprehensive archaeological investigation and salvage and mitigation.”

The Mission considered that a bored tunnel extension would be preferable to cut-and-cover, and that the scheme should not be redetermined until after the deliberations of the next World Heritage Committee meeting, following submission of revised plans to the World Heritage Centre. The Transport Secretary invited National Highways to comment on this report and Interested Parties' comments on its responses were published in October 2022. We were naturally pleased that the Mission had reiterated the concerns and recommendations of earlier missions and the World Heritage Committee.

The current situation

National Highways' consideration of longer tunnel alternatives in response to the High Court ruling has led to unconvincing and obviously challengeable conclusions. Despite extensive consultation and advice given, revised plans have not been

forthcoming or submitted to the World Heritage Centre as requested by the World Heritage Committee..



Fig. 2: Approach to the eastern tunnel entrance. The tunnel portals would be close to the ancient Avenue to Stonehenge.
Visualisation: National Highways

Key scheme supporters Historic England, English Heritage, Wiltshire Council and the National Trust have all now agreed that a western tunnel extension, notably a bored tunnel, would be more beneficial to the WHS than the present scheme. Wiltshire Council considers this benefit “highly significant” and has also pointed to landscape and visual advantages. The National Trust and Wiltshire Council consider that more information on longer tunnel alternatives would be helpful. National Highways has pointed out, however, that a longer tunnel alternative would require a new Development Consent Order (DCO) application which would take time to progress. Any suggestion that anything other than minimal changes to the present scheme could be made following permission for the current DCO are unrealistic, since placing of the western tunnel portal (with canopy) and the lengths of green bridges over the cut-and-cover cutting already meet optimal engineering and safety considerations.

In November 2022, a National Audit Office report criticised National Highways for exceeding its budget for road infrastructure expenditure by billions of pounds sterling, owing to delays and inflation, noting that difficult decisions must be made about priorities and value for money. Furthermore, evidence to the on-going Transport Committee's Inquiry into the strategic road investment is highlighting similar problems concerning expenditure, giving rise to speculation over which schemes might be delayed or dropped altogether. The Alliance's specialists have pointed to National Highway's own assessment that the Stonehenge scheme makes little economic sense and would cost far more than it would ever deliver in benefits without the addition of a substantial “heritage value”. The business case depends on a heritage valuation survey which gave inaccurate information to participants and whose conclusions are no longer credible in the light of the serious adverse heritage effects the road would cause, as highlighted by the scheme Examiners, the High Court, Advisory Missions and the World Heritage Committee.

The value for money issue is compounded by increasing concerns about climate change in respect of domestic transport,

a sector which produces the highest percentage of UK carbon emissions. There are now serious challenges to the basis on which National Highways is justifying new road construction.⁸

Stonehenge Alliance campaign activity 2022–23

The Alliance has responded to all of the Transport Secretary's consultations over the past year, submitting specialist advice on transport, carbon and economic issues; environmental information including landscape, biodiversity and cultural heritage; geology and groundwater monitoring; and alternatives to the present scheme.

We have continued to campaign actively on social media. Our worldwide petition has now gained over 222,000 signatures and our supporters have been encouraged to write with objections and concerns to successive Government Ministers, some of whom barely had time to get to grips with their brief amidst the turbulent political situation.

We were delighted to host the Chair of World Heritage Watch for three days of his visit to the UK to look at WHSs under threat and, with him, took part in the solstice celebrations at Stonehenge. We mounted demonstrations at the British Museum's "The World of Stonehenge" exhibition where our leaflets were well-received by numerous visitors who were shocked by what is proposed for the WHS (Fig. 3).

What could the World Heritage Authorities do to help?

We hope that the World Heritage Centre, in its Report and Draft Decision for the World Heritage Committee meeting in September this year, will maintain the concerns and recommendations for State Party action set out in recent Committee Decisions and Advisory Missions, bearing in mind that the road scheme has not been modified and no sound reasons have been given for not adopting less damaging alternatives, such as a (less expensive) WHS bypass preferred by the 2022 Advisory Mission. We note that item 13 of the World Heritage Committee's 2021 Decision reads as follows:

"Finally requests the State Party to submit to the World Heritage Centre, by 1 February 2022, an updated report on the state of conservation of the property and the implementation of the above, for examination by the World Heritage Committee at its 45th session, with a view to considering the inscription of the property on the List of World Heritage in Danger

*if the A303 route upgrade scheme is not modified to deliver the best available outcome for the OUV of the property."*⁹

We also hope that State Parties' Ambassadors to UNESCO will not feel pressured to support the UK Government's damaging road scheme through, e.g., National Highways' exhibition and presentation of the project in Paris, given under the auspices of the UK Ambassador to UNESCO in February this year to mark 50 years of the World Heritage Convention. We, like others, are deeply concerned about the politicisation of the World Heritage Committee and would be very pleased to see cessation of any such activity which brings States Parties concerned and, potentially, the Committee itself into disrepute.



Fig. 3: Stonehenge Alliance supporters demonstrating at the British Museum, 14 July 2022. Photo: Stonehenge Alliance

Endnotes

- 1 Committee Decisions 43COM 7B.95 (2019): <https://whc.unesco.org/en/decisions/7543/> and 44COM 7B.61 (2021): <https://whc.unesco.org/en/soc/4109/>
- 2 Save Stonehenge WHS v. Secretary of State for Transport and others, 30 July 2021. [2021] EWHC 2161 (Admin), Case No. CO/4844/2020, paras. 282–83
- 3 Report on the joint WH Centre/ICOMOS/ICCROM Advisory Mission to Stonehenge, Avebury and Associated Sites (c.373bis), 19–21 April 2022
- 4 For details of the Transport Secretary's consultations and publication of responses to them, see Infrastructure Planning Inspectorate A303 Stonehenge website. <https://infrastructure.planninginspectorate.gov.uk/projects/south-west/a303-stonehenge/>. See also, K. Fielden, "Stonehenge, Avebury and Associated Sites Now Under Threat of Delisting" in World Heritage Watch Report 2023, pp.216–218 of 251.
- 5 <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-003628-SoS%20consultation%20letter%20Stonehenge%2020%20June%202022.pdf>
- 6 Op. cit. at Note 4, above. Quotes given are on pp. 5 and 40
- 7 NAO "Road Enhancements: progress with the second road investment strategy (2020–2025)" <https://www.nao.org.uk/reports/progress-with-the-second-road-investment-strategy/>. See also: Kate Freeman, and Chris Todd, "The Mole Report: Stonehenge road scheme doesn't add up!" <https://stonehengealliance.org.uk/wp-content/uploads/2023/01/Stonehenge-road-scheme-doesnt-add-up-FINALv2-Jan-23.docx.pdf>
- 8 See: Transport Committee, Inquiry launched into Strategic Road Investment in England, 20 December 2022. <https://committees.parliament.uk/committee/153/transport-committee/news/175205/inquiry-launched-into-strategic-road-investment-in-england/>
- 9 <https://whc.unesco.org/en/soc/4109/>

Destruction of the Landscape Surrounding the Church of the Ascension at Kolomenskoye

Eugene Simonov¹, Ukraine War Environmental Consequences Work Group



Fig. 1: Almost all vegetation seen in this picture on the far bank of the river was hastily removed in January 2023.

Source: <https://moskvatrip.ru/progulki-po-moskve-reke/obed-na-teplohode-ot-kolomenskogo>

Alarming developments at the Church of the Ascension in Kolomenskoye, Moscow (World Heritage property #634) significantly affect the Outstanding Universal Value of the property and its connection to other heritage areas. The Russian aggression in Ukraine has been long associated with the destruction of the Ukrainian people's historical and natural heritage, as noted by UNESCO on several occasions².

The Church of the Ascension in Kolomenskoye is one of Moscow's most precious historical landmarks, built on a steep hill above the Moscow River floodplain. The UNESCO webpage³ describing the site's "Outstanding Universal Value" emphasizes that the "Church is of great importance for town planning, dominates the surrounding architectural structures and landscape, and provides visual unity to all the elements of the estate." At the time the World Heritage property was listed in 1994, the opposite river bank was predominantly covered by agricultural fields, which were soon abandoned and gave way to woody vegetation and tall-grass meadows. The outstanding beauty of the Church has been reinforced by the near-natural floodplain backdrop of the Moscow River, retaining wide belts of green vegetation on both banks. Those lush floodplain

groves also masked the fact that the Moscow city government once built the giant Kuryanovo Wastewater Treatment Plant across the river from the Church.

In late January 2023, the Moscow municipal government sent logging machinery and bulldozers to clear approximately 100 hectares of the forested area opposite the Church of the Ascension. Vegetation destroyed by this clearing, along with the Pererva Waterworks and the Nikolo-Perervinsky Monastery were forming a single scenic complex that served as a historical riverscape surrounding the Kolomenskoye Park-Museum, including the Church of the Ascension.

Now bare wasteland and wastewater ponds form the backdrop for this majestic architectural ensemble. At present, construction rubble is being brought from other locations to fill the floodplain and then the area will be paved over with asphalt. Neither the expert community nor local residents have been consulted prior to this radical alteration of the landscape. The land clearing occurred over less than ten days (January 25 – February 5), so quickly that concerned citizens were unable to organize a meaningful response to halt the project.



Still, the entire affected area fell within the conservation zone #350 of the federal heritage site “Ensemble of Kolomenskoye Estate, XVI-XVII centuries”⁷. The devastated area has also been protected since 2012 by Moscow as “Green zone in natural complex #127”⁸ and constitutes part of a 200 meter-wide water-protection zone along the Moscow River. All those legally binding protection regulations have been likely violated by the destruction of riverside landscape⁹.

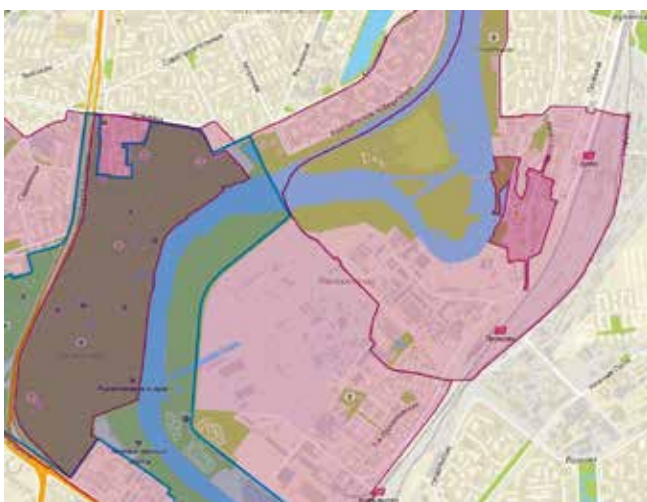


Fig. 3: Protection zone # 350 (blue shade) surrounding the Kolomenskoye Park-Museum (pink-grey shade).

Source: Open Data Portal, Moscow City. <https://data.mos.ru/opendata/530>

Municipal officials verbally made excuses to concerned citizens for the hasty devastation, asserting an alleged need to protect Moscow from air enemy raids by installing anti-missile complexes. So, if the military explanation is truthful, the UNESCO World Heritage property is being converted into the most visible military target in front of a giant militarized complex, occupying up to 100 hectares (the World Heritage site is 7 hectares, Kolomenskoye Park-Museum is 250 hectares in size). Such use likely conflicts with the Second Protocol of the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict, signed in 1999, which prohibits “using cultural property under enhanced protection or its immediate surroundings in support of military action.”

However, no presently known anti-missile complexes require more than 1–3 hectares of land (as illustrated by machinery already placed at other locations – see “The Insider”’s article

of March 14),¹⁰ while 100 hectares have been hastily cleared under this disguise. Eight weeks after the barbarous activity started, no official explanation has been offered, but journalists found out that Moscow Municipal Utilities Department plans to use those riverside lands to station machinery and equipment for a dozen different municipal services: gasification, water supply, wastewater repair and sludge burning, general machinery repair, etc. So, it is quite possible that, under the guise of “military necessities”, a large land grab for municipal needs has been undertaken, while the military needs are 5 hectares at maximum. This seems to be the most likely hypothesis for the cause of this massive destruction. An alternative hypothesis regarding a land-grab for residential development near giant wastewater treatment ponds is less likely, while development of a municipal transport system is planned on other land plots.

There was also information in the media that the Head of the Investigation Committee of Russian Federation Mr. Bastyrkin ordered a special investigation of this case¹¹. However, no further detail was provided, and illegal filling of the floodplain continues¹².

This illegal activity must be stopped, and a remediation plan must be developed and implemented. The best outcome at this point is to halt construction of municipal park services and revegetate the area as a green zone. This may partially restore the landscape and visual perception of the Church of the Ascension and Kolomenskoye Park-Museum. To ensure that these remediation measures are completed and that landscape is included into a new World Heritage buffer zone, we suggest enlisting this property in the List of World Heritage in Danger, a move which will spur development and execution of a rectification plan.

Endnotes

- 1 Evgeny Simonov is listed as a “foreign agent” by the Ministry of Justice of Russian Federation.
- 2 As of 8 March 2023, UNESCO has verified war-time damage to 246 cultural sites in Ukraine since 24 February 2022 See <https://www.unesco.org/en/articles/damaged-cultural-sites-ukraine-verified-unesco>
- 3 <https://whc.unesco.org/en/list/634/>
- 4 <https://dzen.ru/media/artzn/>
- 5 <https://whc.unesco.org/document/164344>
- 6 <https://whc.unesco.org/document/194953>
- 7 <https://www.mos.ru/dkn/documents/discussions/view/1847221/>
- 8 <https://docs.cntd.ru/document/537928168>
- 9 Most detailed legal analysis available so far <https://www.cian.ru/stati-vyrubka-v-kolomenskom-zachem-unichtozhili-les-v-ohrannoj-zone-330041/>
- 10 <https://theins.ru/en/politics/260119>
- 11 <https://www.ecopravda.ru/gorodskaya-sreda/sledstvennyj-komitet-nachal-proverku-zakonnosti-rubki-lesa-v-rajone-parka-kolomenskoe/>
- 12 In late March activists demanding explanation and investigation of the case received threats from the officials of Pechatniki District Administration of Moscow <https://dzen.ru/a/ZCHjLSEGeWnzUD9L>

UNESCO shares the Responsibility for the Misfortunes of the Acropolis of Athens

Tasos Tanoulas

At the end of 2020, the Acropolis plateau was paved with reinforced concrete, covering much of the face of the living rock. This sudden and unexpected implementation on the most iconic monument of classical antiquity, and a UNESCO World Heritage Monument, circumvented the Greek legal frameworks and international standard-setting instruments concerning the preservation of cultural heritage monuments. The Greek Ministry of Culture took advantage of the lockdown in order to start the implementation, but as soon as the new pathways of reinforced concrete on the Acropolis rock came to public knowledge at the beginning of November 2020, they raised a huge outcry on a national and international scale. The outcry was



Fig. 1: The area in front of the east front of the Propylaea, in the process of being paved with reinforced concrete, covering over the face of the living rock. View from the top of the east front of the Propylaea. The metal mesh is spread on the plastic sheet spread out on the living rock.

Photo: Tasos Tanoulas, October 29, 2020



Fig. 2: The area in front of the east front of the Propylaea, in the process of being paved with reinforced concrete, covering over the face of the living rock. The wet cement on the picture's left end is covering the plastic sheet and metal mesh in Figure 1. View from the northeast corner of the platform. Above left, the west end of the Parthenon.

Photo: Tasos Tanoulas, October 29, 2020

caused not only because of the aesthetic damage, but also for practical inconveniences and damages and, above all, for the irreversible character of the structures (Fig. 1–3).



Fig. 3: View of the cement platform before the east front of the Parthenon, looking to the north from the south end. Above left, the east front of the Parthenon. Above right, the temple of Rome and Augustus. Low right, the parapet of the old Acropolis museum forecourt.

Photo: Tasos Tanoulas, March 22, 2021

At the same time, two more projects were announced for the Acropolis: 1. the project of covering the Acropolis rock with new structures in the form of levelled terraces (Fig. 4–5) and 2. the construction of a new flight of steps which claims to reconstruct the form of a Roman flight of marble steps originating in the 1st century AD (Fig. 6–11). Both projects, if implemented, would deprive the Acropolis Rock of its authentic character as an historic monument on its own, according to the evaluation of UNESCO!



Fig. 4: Digital photomosaic plan of the Acropolis plateau, before the implementation of the reinforced concrete pavement and the installation of the present elevator in 2020.

Source: Greek Ministry of Culture and Sports



Fig. 5: A conjectural representation of the Acropolis plateau in the 2nd century A. D. by Manolis Korres, superposed on the digital photomosaic plan of the Acropolis depicted in FIG. 4. It shows the possible final arrangement on the Acropolis plateau after the completion of the project of covering the Acropolis rock with new structures in the form of levelled terraces. Practically the whole of the plateau, including the living rock and vestiges of older or minor buildings, will be covered over with new structures in new material. At the moment, no preliminary, final and implementation studies exist. Source: Greek Ministry of Culture and Sports

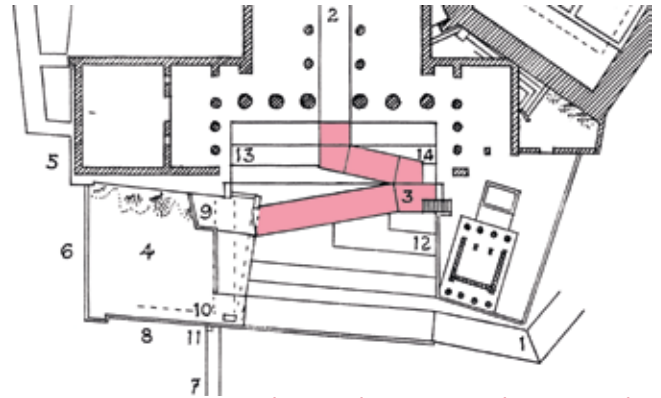


Fig. 8: Conjectural reconstruction of the plan of the west access of the Acropolis after 420 BC (Gorham P. Stevens, *Architectural Studies Concerning the Acropolis of Athens*, *Hesperia* 15, 2, 1946, p. 1–34, fig. 7, detail). In light red colour the part that has been restored and is still serving as the way up to the Propylaea and the Acropolis.



Fig. 6: View of the west access of the Acropolis from the west, after clearing of medieval and Turkish structures. Few of the Roman steps survive in situ. Next to the left wall of the Athena Nike bastion, a narrow flight of steps was reconstructed in the 1850s, after the model of the Roman steps, for providing visitors' access to the Propylaea. Photo: Stillman, 1869

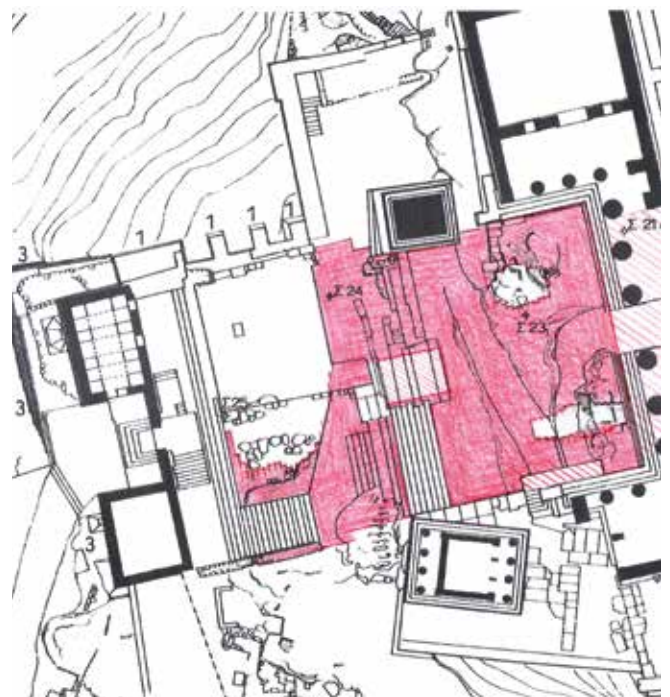


Fig. 9: Plan of the west access of the Acropolis, red colour indicating the extent of the new stairs which would be constructed according to the proposed plans. Based on T. Tanoulas, *The Propylaea of the Athenian Acropolis from 267 A.D. to 1458*, Athens 1997, vol. 2, drawing 45 (detail).



Fig. 7: View of the west access of the Acropolis from the west, about 1980. The restored steps from the 1850s are missing, because they were considered too intrusive. They have been replaced by a zig-zag ramp in a lower level, following the plan restored by Gorham P. Stevens (see below, fig. 8), which most probably was in use for centuries, after the erection of the Propylaea. Photo: Tasos Tanoulas

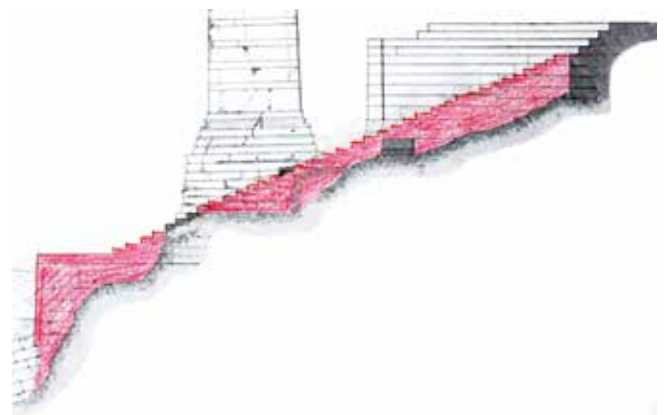


Fig. 10: Section in the west access looking south, red colour indicating the new stairs which would be constructed according to the proposed plans. Based on R. Bohn, *Die Propylaeen der Akropolis zu Athen*, Berlin and Stuttgart 1882 (henceforth, Bohn 1882), plate 19 (detail).

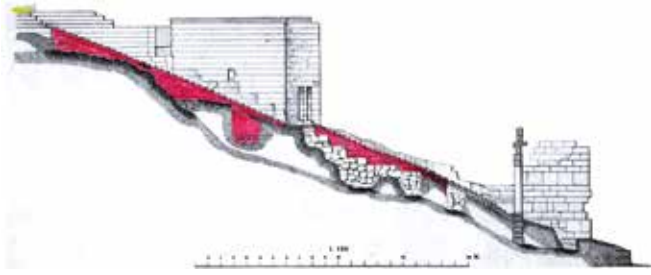


Fig. 11: Section in the west access looking north, red colour indicating the new stairs which would be constructed according to the proposed plans.

Based on Bohn 1882, plate 19 (detail).

There is no doubt that the international outcry halted the impetus of the Ministry of Culture which, otherwise, would have proceeded to the implementation of the last two projects without second thoughts. The Greek Ministry of Culture decided to slow down its pace, in order to add an aura of legitimacy to its actions. The most important action towards this direction was the announcement of the 7th International Meeting for the Conservation of the Acropolis Monuments, which was held in Athens from November 11–13, 2021. This last Acropolis meeting proved to be nothing more than a pretext for the legitimization of already-implemented/approved projects, as well as of works planned to be imposed on the Acropolis. They will pile up a huge amount of new construction and material on the original body of the Acropolis, with inadequate, if not minimal, scientific documentation (see Tanoulas 2022).

In January 2022, acting on behalf of 688 prominent university professors and professionals from Greece and abroad, who signed the *Plea Against the Interventions on the Acropolis: Acropolis SOS*, I communicated to the director of the WHC Lazare Eloundou-Assomo, our most serious concerns about the new works on the Acropolis. These works were the reinforced concrete pathways which had already been paved in the end of 2020, and the aforementioned projects for 1. the “reconstruction” of a Roman flight of Steps on the Western Access of the Acropolis, and 2. the covering of the whole of the Rock in the Acropolis plateau, with massive use of new materials in both cases. On February 15, 2022, I had a letter from the WHC, Culture Centre, announcing “that in compliance with paragraph 174 of the *Operational Guidelines for the Implementation of the World Heritage Convention*” the information I provided was transmitted “to the relevant Greek authorities for review and comments”. I was also advised “that a World Heritage Centre / ICOMOS Advisory Mission should take place in the upcoming months, in order to review all issues related to the World Heritage property “Acropolis, Athens”.”

The Greek Ministry of Culture after receiving the letter from the WHC, Culture Centre, invited the Advisory Mission on February 17, 2022. Its visit to Athens took place from 27 to 29 April 2022, and consisted of three experts. The World Heritage Centre was represented by Jyoti Hosagrahar, Deputy Director, CLT/WHC. ICOMOS was represented by two experts: Pierre-Antoine Gatier, Chief Architect of Historic Monuments

ACMH, General Inspector of Historic Monuments IGMH, and Francesca Cominelli, Associate Professor, University Paris 1 Panthéon-Sorbonne, Specialist in the Economics of Cultural Heritage and Tourism.

The Advisory Mission’s information on the serious issues they were to assess was practically under the absolute control of the Greek Ministry of Culture, that is, of the planners and perpetrators of the works that caused the international outcry and the expedition of the Advisory Mission to Athens. The civil society representatives consulted by the Advisory Mission were restricted to five, one of them being the ICOMOS Hellenic, represented by the then second president of ICOMOS Hellenic, Sofia Avgerinou-Kolonias, Professor Emerita of Architecture at the National Technical University of Athens, and myself, Dr. Tasos Tanoulas, Architect, member of the technical staff for the restoration of the Acropolis monuments since 1997, in charge of the Propylaia Restoration Project, from 1984 to retirement (December 2010). It is worth pointing out that the presentation of ICOMOS Hellenic was given only half an hour and took place in a gathering of the Greek Ministry of Culture people that, as mentioned above, are the planners and perpetrators of the works under critical discussion.

It must also be pointed out that four of the most crucially important civil society representatives were deliberately not invited to present their views to the Advisory Mission, exactly because they had publicly opposed the implementations on the Acropolis, either done or projected. The representatives that were excluded from meeting the Advisory Mission are of no lesser importance than the following:

1. Union of Greek Archaeologists,
2. Chamber of Fine Arts of Greece,
3. Greek Association of Architects/Department of Attica,
4. Competitions Commission of the International Union of Architects.

Eleven months after the Advisory Mission left Athens, the Advisory Mission’s report has not yet been published until now, even though in conformity with the Operational Guidelines, these reports are automatically uploaded for public access by the World Heritage Centre. What could the reasons be of this omission? Could this mean that UNESCO and the Advisory Bodies are reluctant to intervene in the plans of the Greek State Party for the Acropolis? I will try below to estimate what the Advisory Mission report could not but recommend to the Greek State party, and what could, after all, the effect of the omission of the report’s publication be on the welfare of the World Heritage property “Acropolis, Athens”.

The project for the construction of a new flight of steps imitating the Roman flight of marble steps of the 1st century AD, exists only as a Preliminary Proposition which was approved by the decision-making system of the Greek Ministry of Culture in February 2021. The study presented at the 7th International

Conference, November 2021, hardly fulfills the requirements of a preliminary study. But even if accepted as such, a final study and an implementation study must be completed and approved by the decision-making system of the Greek Ministry of Culture. For the project of covering the whole of the Acropolis rock in the plateau with levelled terraces in new material, there is not even a preliminary study, nor any sort of authorization by the decision-making system of the Greek Ministry of Culture. In this case too, there remain three successive stages of studies (preliminary, final and implementation) to be done before it is submitted to the Greek authorities for approval.

In both cases, even if the Advisory Mission wanted to be as benign as possible about the works on the Acropolis, the least of commitments that the Advisory Mission could recommend to the Greek Authorities, according to the UNESCO/ICCROM/ICOMOS/IUCN guidance (2002) and other Operational Guidelines to the World Heritage Convention, are the following: 1. Prior to any implementation, a Heritage Impact Assessment should be carried out, based on detailed documentation with argumentation, plans and drawings; next, the whole package of information should also be shared with the WHC for review by the Advisory Bodies, prior to commencing implementation. 2. Since no Management Plan nor Tourism plan have ever been submitted for the Acropolis, such plans would have to be done, and the Acropolis implementation projects should be inscribed in them.

The above analysis shows that there can be little, if any, doubt about the Greek authorities having reasons not to desire the Mission Report to appear for public discussion on the 45th session of the World Heritage Committee, because this would mean that construction on and around the Acropolis should be halted until completion of the whole procedure. At the moment, construction on the Acropolis plateau and the area around the feet of the Acropolis Rock continues under the pretext of implementing the study for the drainage system.

Another serious concern of the Greek State Party must be that the project for a stairway in the west access to the Acropolis and the project for the complete covering of the Acropolis rock both clash with the 1964 Charter of Venice and the 2003 ICOMOS Charter on Principles of Analysis, Conservation and Structural Restoration of Architectural Heritage. So, the review by the WHC and the Advisory Bodies should not be in favor of these projects.

The ongoing construction of the drainage system on and around the Acropolis rock provides a pretext for continuing building activity in the areas not frequented by tourists (Tanoulas 2022). This activity consists of paving pathways with reinforced concrete (Fig. 12) and building massive constructions in strong reinforced concrete to hold big plastic pipes for the drainage system. These lengthy structures create a net of strong reinforced concrete planted in the earth very close to



Fig. 12: A pathway out of the boundaries of the tourist's routes on the Acropolis in the process of being paved with reinforced concrete. Above left, the new elevator. Above right, behind the tree the Erechtheion. Photo: Tasos Tanoulas

monuments and the living rock on the Acropolis plateau, but also around the feet of the Acropolis Rock and the neighboring archaeological sites (Fig. 13–22). Archaeological research and documentation before the implementation of this drainage system are carried out using fast-track procedures, with unpredictable losses of archaeological data.



Fig. 13: Part of the rain-water drainage system on the Athenian Acropolis, to the west of the Erechtheion, looking south. From top to bottom: the Parthenon, the foundation of the Old Temple of Athena, channels constructed in reinforced concrete for the accommodation of big plastic pipes (summer 2021). Photo: Tasos Tanoulas



Fig. 14: Same view as in Fig. 13, in January 2023. The pipes are covered with the concrete ramp bearing wooden planks, the formwork for shaping concrete steps to lead from the upper level (which in Fig. 12 is being paved with reinforced concrete), to the lower level illustrated in Fig. 15, 17.

Photo: Tasos Tanoulas



Fig. 16: The same area depicted in Fig. 15, as it was in summer 2021, looking south-west. On the south side, the reinforced concrete channel that was later covered with the metal mesh seen in Fig. 15. The area is not yet filled and paved with reinforced concrete as in Fig. 15 and 17.

Photo: Tasos Tanoula



Fig. 15: The area inside the Acropolis northern wall, paved with reinforced concrete floor, lined with a rainwater drainage gutter along the south end. This is the area in which the famous archaic statues of maidens (korai, now exhibited in the Acropolis Museum) were excavated in 1886 (P. Cavadias and G. Kawerau, *Die Ausgrabung der Akropolis vom Jahre 1885 bis zum Jahre 1890*, Athens 1906, p. 23–32).

Photo: Tasos Tanoula

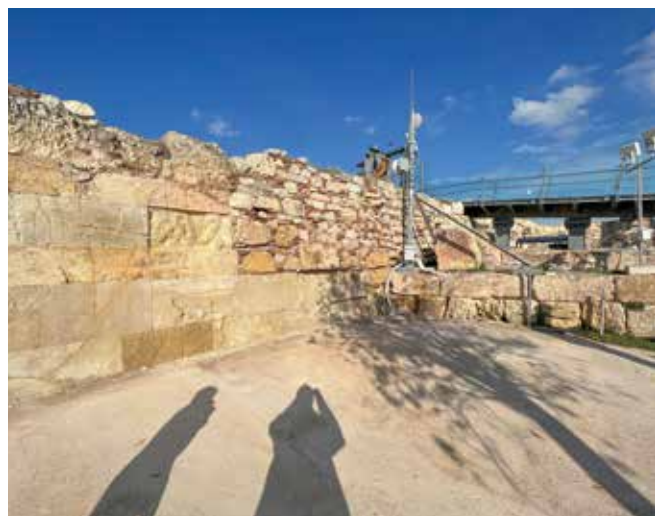


Fig. 17: The same area as in Fig. 15 and 16, looking northeast. The reinforced concrete pavement spreads out to the fifth century B.C. ashlar poros masonry, sealing the lower part of the wall and the access to the antiquities and the living rock underneath.

Photo: Tasos Tanoula



Fig. 18: Square channel in reinforced concrete, at the northern feet of the Acropolis rock, along the south side of the Peripatos (the ancient pathway around the foot of the whole of the Acropolis rock). Photo: Tasos Tanoula



Fig. 19: An area is surrounded by plastic parapets, in order to prohibit access to the ditch and pipe illustrated in Fig. 20. At the background of the picture, the Areopagus, a sacred landmark since Prehistory, in the proximity of the Acropolis rock to the northwest, consisting of a huge mass of living rock. The buttress of boulders attached to it was built to support the superposed mass of living rock, at the same time bearing an inscription commemorating Saint Paul's oration at this place, according to the Acts of the Apostles. Photo: Tasos Tanoula



Fig. 20: A view of the ditch surrounded by the plastic white and red plastic parapets illustrated in Fig. 19, looking west. The big pipe is being encased in cement that will bear the fill to reach the surrounding ground level (2023). Photo: Tasos Tanoula



Fig. 21: A stretch of the drainage system to the north of the foot of the west end of the Acropolis. A massive channel, made of reinforced concrete for leading the water into the drain pit, seen at the bottom of the picture (2022). Photo: Tasos Tanoula



Fig. 22: Another stretch of the drainage system on the slope to the north-west of the Areopagus. Similar structures are made of reinforced concrete and spread out in most of the archaeological site around the Acropolis and the Areopagus (2022). Photo: Tasos Tanoula

Having the recent experience of the sudden implementation of the cement pathways on the Acropolis, one feels to be under the threat of sudden acceleration of structural activity on and about the Acropolis for the implementation of the projects which have not yet been studied and discussed: 1. the covering of the Acropolis rock with massive levelled terraces, and 2. The construction of a flight of steps on the western access of the Acropolis. This threat has been recently confirmed by reliable information that the Ministry of Culture is under pressure to accelerate studies and procedures for authorization by the decision-making system of the Greek Ministry of Culture before the forthcoming elections, expected to take place in May. If this development goes ahead as currently planned, the result will be the violation by Greece of its international commitments to UNESCO and other international cultural organizations that have long been involved with protecting the Acropolis and its monuments.

Therefore, it is mandatory that the following actions be taken:

1. The World Heritage Centre should immediately publish on its website the Report of the Advisory Mission to the Acropolis, Athens, in either draft or final version.
2. The "Acropolis, Athens" World Heritage Property must urgently be put on the agenda of the 45th session of the World Heritage Committee.
3. The World Heritage Committee must request from the Greek State Party
 - a) To stop all practical activity on the site immediately until the WH Committee has taken a decision about the implemented and planned works.
 - b) To submit a Management Plan and a Tourism Plan for the Acropolis, Athens, developed with full participation of civil society, before any other interventions on the site can be considered.

If the WHC and the WH Committee would not respond to the above requests, it would become evident that they estimate the Acropolis as of minor importance among the World Heritage Monuments. This would seriously affect the Outstanding Universal Value of the World Heritage Property, Acropolis, Athens. For this reason, I have to close with a reminder of the basic elements of the description in the website of UNESCO. The Acropolis is an UNESCO World Heritage Monument, meeting as many as five Criteria (i) - (iv) and (vi). It is certain that at least four of these criteria will be irrevocably eliminated, as it has been analyzed in Tanoulas 2021. To summarize: according to the evaluation by UNESCO, the Acropolis is "... the supreme expression of the adaptation of architecture to a natural site ... an outstanding example of an architectural ensemble illustrating significant historical phases since the 16th century BC. ... directly and tangibly associated with events and ideas that have never faded over the course of history."

Depriving the Acropolis of these qualities will irrevocably erase its historic unity and continuity, thus degrading it to a common piece of public property that could be easily expropriated for the profit of individuals. If we allow this to happen, this will prejudice and foredoom the rest of the Cultural Heritage sites of Greece.

References

- T. Tanoulas, "The Acropolis of Athens in Peril", World Heritage Watch Report 2021, pp. 21-27. Berlin: World Heritage Watch 2021
- T. Tanoulas, "Disfiguration Planned of the Western Access to the Acropolis of Athens", World Heritage Watch Report 2022, pp. 227-231. Berlin: World Heritage Watch 2022

The Justinian Hagia Sophia May Not Make it to 2050

Helen Methodiou



Fig. 1: The Hagia Sophia.

Photo: L.J. Goetz / unsplash

The decision by the Turkish authorities in 2020 to convert Hagia Sophia and the Monastery of Christ at Chora in Istanbul into mosques had an impact on the credibility of the World Heritage Convention, one of its five strategic objectives (Credibility, Conservation, Capacity-building, Communication, Communities). (Concerning the Chora Monastery the implementation of the above decision until now has been delayed for conservation works).

This act is due to the policy of Turkey seeking to elevate its international status by establishing itself as the representative of the broader Muslim world. Since 2006, several other important Byzantine churches in Turkey dedicated to the Sophia of God which had functioned as museums have been converted into mosques: the Hagia Sophia in Nicea (Bithynia), the Hagia Sophia in Bizye (Thrace), the Hagia Sophia in Trapezounta, and the Agia Sophia in Ainos.

Hagia Sophia in Istanbul and the Chora monastery were designated as a component of the “Historic Areas of Istanbul” and inscribed on the World Heritage List in 1985 based on criteria (i), (ii), (iii) and (iv), which includes other major historic monuments and sites. The World Heritage Committee (44th session, 2021) requested Turkey to submit an update State of Conservation (SoC) Report on the monument by February 2022 for consideration at its 45th session (to take place this year). This report has not been published yet even though according to the Operational Guidelines, SoC reports provided by the States Par-

ties are automatically uploaded for public access by the World Heritage Centre.

As expected, the uncontrolled access to the Hagia Sophia around the clock - Hagia Sophia is now visited by around 40.000 mosque visitors a day –, and the lack of security have caused considerable damage and deterioration to the monument.

A lot of related reports and photos have appeared in the Turkish media, such as the newspaper Cumhuriyet, as quoted in Orthodox Times of 19 May, 2022:

“Hagia Sophia will not make it to 2050” was the newspaper’s ominous prediction for the World Heritage Site, which sent its journalists there, who watched the situation, saw dozens of visitors flock to it, and reported that in “Bayram” a few weeks ago, more than 100 thousand visitors entered Hagia Sophia in one day.

As pointed out in the article of Cumhuriyet, even the moisture from the breaths of the crowd of people entering Hagia Sophia, suffice to destroy the monument, which for 1,500 years

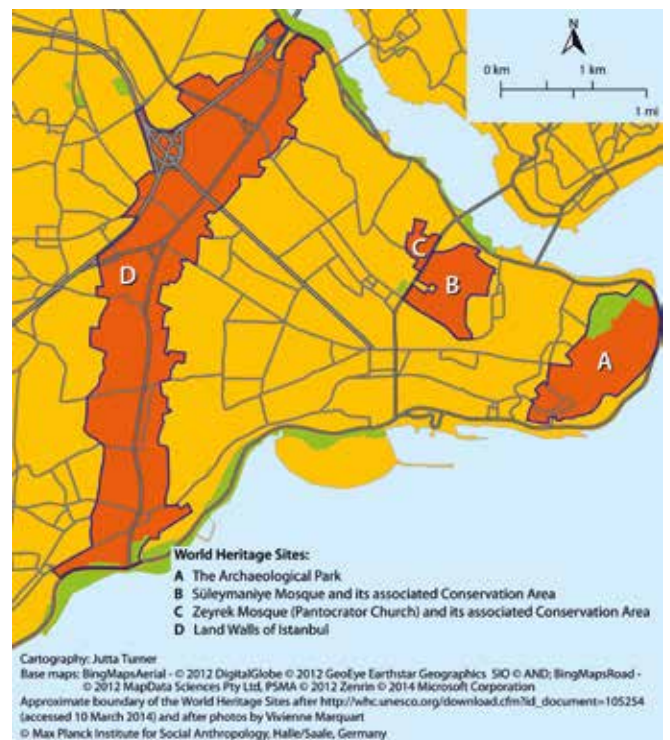


Fig. 2: Historic Areas of Istanbul World Heritage Site.

Map: Jutta Turner, Max-Planck-Institute Halle/Germany 2003

stands in the same place and has suffered a lot of damage in recent years mainly the last two that turned into a mosque. The newspaper “sounds the alarm”, because the correct restoration work has not been done. There are also many visitors, who use the monument to stay overnight, to leave their suitcases and “park” in it the baby strollers, or to use the toilets.

Archaeologists and Turkish historians warn, that a ticket must be applied for the entrance to Hagia Sophia and only 20 people must enter at a time so that the monument can be preserved, otherwise, they predict in the near future its total destruction.”

Turkish archaeologists and historians have referred to cracks in the marble floor (Fig. 5), frescoes peeled (Fig. 6), vandalism on the Imperial Gate (Fig. 7), and many other irreversible damages. These interventions affect seriously the three essential criteria (Outstanding Universal Value, Authenticity and Integrity) which are the basis of the 1972 Convention. Unless remedied completely, the situation may continue to deteriorate and the monument will risk losing its Outstanding Universal Value.



Fig. 3: Shoes storage

Photo: novasports.gr



Fig. 5: Damaged marble floor

Photo: medya.news



Fig. 4: Damaged water tank.

Photo: novasports.gr



Fig. 6: Peeled frescoes

Photo: novasports.gr



Fig. 7: Damaged Imperial Gate

Photo: novasports.gr

The “Report on the 2nd UNESCO Advisory mission to the World Heritage property Historic Areas of Istanbul (Turkey) 29 January – 3 February 2021”¹ states (p. 15):

1. The mosaic panels on the ground floor are covered by canvasses only during prayer times and activated by an electronic system which allows it to be showcased outside of prayer times.
2. The restoration work on the paving and the mosaics of the upper gallery is completed and it will not be covered and be open to visitors, as in the past,
3. Regular ventilation of the prayer carpet is needed to avoid the development of microorganisms on the ancient marble floor (Fig. 8). Specialists need to analyze the degree of humidity created by the carpet laid out in one piece,
4. It is recommended to establish an “Archaeological Garden” in order to regroup the archaeological pieces scattered on the grounds of the monument.

However, the panels are still permanently closed as well as the gallery. The ventilation of the carpet is not a scientific approach for the control of humidity and is not feasible due to the large surface of the carpet laid out in one piece.

The creation of an “Archaeological Garden” presupposes the conservation and restoration of the archaeological remains that are an integral part of the monument which has to be seen in the context of the surrounding structures. This issue has been ignored by UNESCO.

The Justinian Hagia Sophia was built on the foundations of the 4th century church of Constantius II and the 5th century Church of Theodosius II which were burnt. As the cathedral church it had important dependencies abutting on such as the patriarchal palace, library, two baptisteries, a treasury, school,



Fig. 8: The floor of the main hall of the monument fully covered by carpets, with large crowds camping down. Note the cover of the mosaics in the apse (upper center left of the photo).
Photo: dailysabah.com

and outlying chapels. Excavations in the area begun by the German archaeologist A.M. Snaider in the mid-1940s revealed the spectacular Theodosian facade (probably that of the Theodosian atrium rather than of the church itself) and fragments of from both 4th- and 5th-century churches.

Discoveries between 2004 and 2018, by Ken Dark and Jan Kosteneč («Hagia Sophia in Context: An Archaeological Reexamination of the Cathedral of Byzantine Constantinople», Oxbow Books, 2019), alter significantly the known plan of the building and the surrounding ecclesiastical complex as well as data for the function of these and for interpreting the wider ideological, cultural, religious and architectural changes in the fourth, fifth and sixth centuries. The authors try to provide a clearer and updated picture of the monumental buildings that surrounded the Hagia Sophia, namely the Great Palace, the Augustaion, the Senate, the Strategion, and the church of Hagia Eirene.

Findings also of the Byzantine and Ottoman period were revealed during the construction works of the Madrasa on the North side of Hagia Sophia. It is considered appropriate that all the excavations results should be fully and centrally recorded on a data base, and a setting plan be adopted.

Advisory missions have been organized by UNESCO between 1993–2000 assessing the present state of the Hagia Sophia and making recommendations for its preservation and restoration. Since then no special autopsy of the monument has taken place. All the missions of eminent specialists and consultants proposed the establishment of an “International Multidisciplinary Committee” with a task to coordinate the various studies and projects (this committee was never created and the works carried out are supervised by a National Committee).

The conversion of the monuments into mosques also raise a legal question: Whether a monument with many uses over time, such as the Hagia Sophia (Christian church, mosque, museum) can be used in a way that favors one use and overlaps the others, or if this contradicts the exceptional ecumenical value of the monument.

¹ <https://whc.unesco.org/document/188387>

It is pointed out that the new use is not in compatibility with the criteria and the justification of their inscription on the list. They declared world monuments as museums reflecting multi-layered cultural/historical richness over the centuries.

The UNESCO legal department could examine this issue as in other cases in the past. For instance, an opinion had been given whether the consent of the State Party is required for the in-

ination file, and the eventual plan for changes in the future. Otherwise, a can of worms will be opened considering that the case of the two monuments will be presupposed as approved. § 166 of the Operational Guidelines already states that: Where a State Party wishes to have the property inscribed under additional, fewer or different criteria other than those used for the original inscription, it shall submit this request as if it were a new nomination.

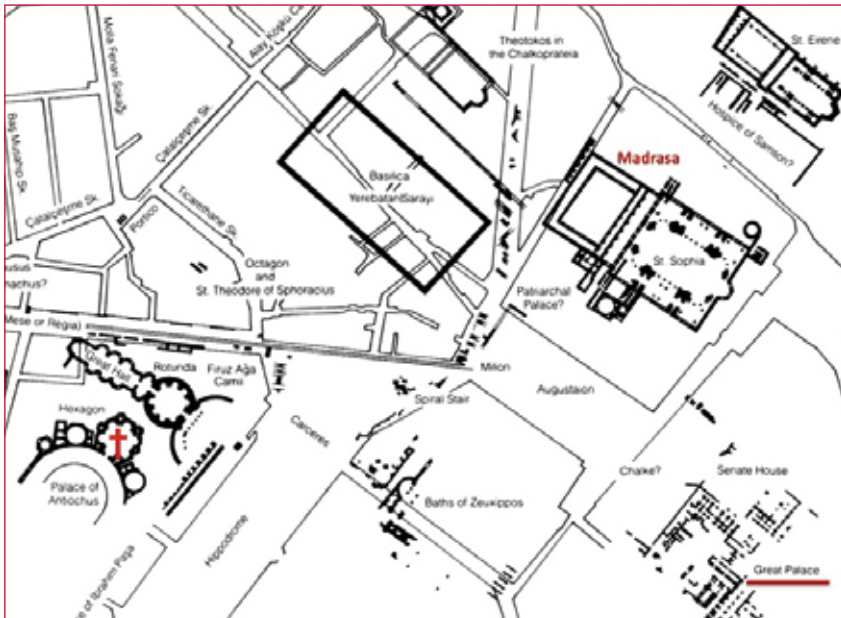


Fig. 9: Location of the Madrasa adjacent to the Hagia Sophia. Maps: a) After Bardill, J. 1997. 'The Palace of Lausus and nearby monuments in Constantinople: a topographical study', *AJA* 101: 67–95. b) Moon.com/maps

scription of a monument on the World Heritage in Danger. In this context, a statement by the 2019 UNESCO/ICOMOS Advisory Mission to Istanbul on the reconstruction of the Madrasa is put into question: The Madrasa, part of the social complex of the Hagia Sophia as a mosque, could have a beneficial impact on the Hagia Sophia and its setting in terms of the way it is appreciated and understood, and thus on the overall Outstanding Universal Value of the property.

This view is in favor of the priority of one layer over the others, which is contrary to the spirit of the convention on the universality of cultural heritage. In addition, the new building affects the visual-aesthetic integrity of the monument.

The issue of the use of the World Monuments needs special study and specifications which should be included in the Operational Guidelines, such as mentioning the use of the monument (related to the criteria and the justification) in the nom-

The historic areas of Istanbul are at risk

Large scale infrastructure projects on the historic peninsula have negative effects on the OUV of the property. A number of them have been developed without adequate Tourism and Environmental Impact Assessments being undertaken in advance of approval or work commencing, and without formal notification being provided in line with Paragraph 172 of the Operational Guidelines.

In addition, the OUV of several monuments is threatened. For instance, extensive reconstruction, repairs and re-facing of the Byzantine and Roman walls were undertaken using cement rather than Khorosan mortar, contrary to internationally-accepted standards for the conservation of masonry monuments. Their landscape setting should be improved making them more accessible to visitors.

The Ottoman-period timber houses of the vernacular architecture, reflecting artistic and historic values (particularly in the Zeyrek and Süleymaniye core areas) are falling into continued degradation, and the tendency is to replace them with concrete buildings. Conservation and rehabilitation measures have to be undertaken with urgency.



Fig. 10: The reconstructed Madrasa.

Photo: Anadolu Agency 2022

It is recommended to consider the possibility of inscribing the Historic Areas of Istanbul on the World Heritage List in Danger in compliance with Art. 11 of the World Heritage Convention.

From Community Engagement Towards Management Change at the Gelati Monastery, Georgia

Mzia Janjalia, George Chubinashvili National Research Centre for Georgian Art History and Heritage Preservation



At the last WHW Forum of 2022, a brief review on the developments at the Gelati Monastery following the decisions of the 44th extended session of the World Heritage Committee (44 COM 7B. 47)¹, has been presented. The paper stated serious problems regarding the implementation of the WHC 44th session's decisions, including management issues, conservation programme, temporary roofing, etc. Special concern was stated regarding the developments on the Gelati wall paintings: namely the poorly documented works oriented on invasive means and remedial conservation having poor links with the original techniques, environmental peculiarities and construction/roofing issues. The poor management, and the minor role of professionals in the decision-making process, as well as the poor availability of information were listed as serious challenges for the Gelati WHS.²



Fig. 1: Roof cover of the Church of the Virgin, seen from the north, October 2022.
Photo: ICOMOS Georgia

In terms of the implementation of the WHC's decisions about management issues, as well as the actual state of preservation of the Gelati WHS, the situation has not changed much since the last WHW Forum: a new temporary roofing, which is a bit better than the old one but still inappropriate, has been arranged only over the Western arm of the Church of the Vir-



Fig. 2: New temporary roof cover on the Western arm under construction, September 2022.
Photo: Europe Our House

gin (see Fig. 1 and 2), and the deterioration of wall paintings continues. Despite the fact that the roofing and environmental problems have not been solved, several campaigns of restorers working under the Giovanni Secco Suardo Association and their collaborating Georgian team have been conducted aiming at the full conservation and even restoration/color integration of the part of paintings, there is active deterioration in the areas of interventions; ongoing deterioration can be seen also in other painted spaces of the Church of the Virgin (Fig. 3–6) and St. George Church – signs of deterioration of the sanctuary apse mosaic of the Virgin Church should be underlined (Fig. 7 and 8).



Fig. 3: Painting condition after full conservation, Western arm, January 2023.
Photo: Chubinashvili Centre

¹ <https://whc.unesco.org/en/decisions/7764/>

² Mzia Janjalia, Recent Development and Threats to the Gelati Monastery, Georgia, WHW Report 2022, pp. 232-234, <https://world-heritage-watch.org/content/wp-content/uploads/2022/11/2022-Report-WHW-final.pdf>, WHW Report 2022, pp. 232-234



Fig. 4: Painting condition, Northern arm, January 2023. Photo: Chubinashvili Centre



Fig. 5: Painting condition after full conservation and restoration/color integration works, Western arm, January 2023. Photo: Chubinashvili Centre



Fig. 6: Painting condition after full conservation and restoration /color integration works, detail, Western arm, January 2023. Photo: Chubinashvili Centre



Fig. 7-8: Sanctuary apse mosaic, 2020 (left) and January 2023 (right).

Photo: Chubinashvili Centre

The period was marked by a wide involvement of stakeholders in the Gelati issues: the Georgian Patriarchate, being the owner of the site, Chubinashvili National Research Centre for Georgian Art History and Heritage Preservation, ICOMOS Georgia, as well as new community groups like the SEC Workers Union, etc. It has been a marker of a new stage in the Gelati WHS preservation process where community involvement had been mainly limited to the activities of a local NGO (Europe Our House), the media (several private TV Broadcasting Companies and News Agencies), and a small number of Georgian professionals for quite a long period. Participation of international colleagues on the request of Georgian professionals also should be mentioned: comments by Rickerby & Shekede sent to the Ministry, and an online discussion held with the Max Planck Kunsthistorisches Institut in Florence and the Opificio delle Pietre Dure.

Since the last WHW Forum of 2022, three important documents have been prepared upon the initiative of the Patriarchate of Georgia, owner of the site:

1. **Report on the Safeguarding and Conservation of Gelati Monastery**, prepared by: Austin Nevin, Courtauld Institute of Art, London, UK; Sarah Staniforth, President Emeritus IIC; Lorinda Wong, Getty Conservation Institute, USA; and Francesca Piqué, University of Applied Sciences and Arts of Southern Switzerland (SUPSI), Switzerland – based on a review of the documents provided and site-visit from 1-2 May 2022³
2. **ICOMOS Georgia Report on Gelati Monastery State of Conservation**, based on review of the documents provided and site visit on 31 October 2022⁴

³ <https://monitori.ge/uckhoeli-eqspertebis-daskvna-gelatze/?fbclid=IwAR0Z2QqUA-tYkxBwbvLSGZDyPCUzujvgTZLau2ArFPW5BAjwrpUwJK-9PN90>

⁴ <https://drive.google.com/file/d/1oetSM10Ee8c1GvTXffCqRT2XH4kOVuYw/view?fbclid=IwAR17HUWwLYSCz9goXtqF3UswP7G0ya32gNri2d4TGvK-tlpA9MzWLSwzkwSs>

3. **Condition Assessment and Recommendations on the State of Conservation of Gelati Painted Churches**, prepared by the Chubinashvili National Research Centre for Georgian Art History and Heritage Preservation, based on a review of the documents provided and site visit from 20 January 2023⁵.

All three documents coincide in serious concerns on the methodology and results of the works undertaken by the team of painting restorers. The latter were under the Association Giovanni Secco Suardo, in collaboration with a Georgian team, all selected by the Ministry of Culture, Sport and Youth of Georgia without any clear criteria. The Chubinashvili Centre has also covered problems seen in a strategic vision and management of the project, including decision-making and assessment practices used; briefs on 14 contracts from the period of 2021-2022 are attached to the document as illustration of unsystematic works implemented on the site.

Problems with information availability and dissemination is also an issue in the Chubinashvili Centre's report, as well as a delay of implementing WHC Committee decisions; and delay of full temporary roofing construction for the painted churches. Improper planning and implementation of painting conservation works, and improper quality of documentation for the works implemented on the wall paintings are highlighted. Of special concern are: the condition of painted areas after the implementation of full-scale conservation, and the issue of implementation of restoration works despite a lack of stabilized environmental conditions and dehydration of the structure. The works implemented by the restorers invited by the State Party were focused mainly on the Western arm of the Church of the Virgin, therefore issues of other painted areas of the Gelati painted churches and signs of deterioration of the mosaic in the main apse of the Virgin Church were also stated in the report.

An important event of the period has been the **WHC-ICROM-ICOMOS Advisory Mission to the Gelati Monastery** which took place from November 28 – December 2, 2022 (A Report of the Mission has been published by the Ministry of Culture, Sport and Youth of Georgia on February 9, 2023⁶). Not going into details, the fact should be underlined that the statements of the Mission Report are in full accordance with above-mentioned documents.

The mission recommendations could be a marker of the end of the disagreements between the State Party and the professional circles regarding Gelati WHS. But further concerns were raised by the feedback of the State Party presented at the brief-



Fig. 9: Declaration of the management change, 24 February 2023.

Photo: Ministry of Culture, Sport and Youth of Georgia

ing of the Minister of Culture⁷, brushing away the majority of criticism contained in the Report and accentuating positive elements, highlighting the role of UNESCO in the selection of the team of restorers, which had been used to be named in all previous public statements by the Ministry as experts of UNESCO⁸.

The briefing was followed by special statements of the Chubinashvili Centre,⁹ the Patriarchate of Georgia,¹⁰ and several professionals. The process was concluded with a special meeting and a declared agreement between the Ministry and the owner of the site, the Patriarchate of Georgia, on the transfer of the leading and management role of the process from the Ministry to the Patriarchate.¹¹ The signed agreement has not been published yet, and professional circles hope very much that mistakes of previous management bodies will be understood thoroughly, and essential updates will be done. Wide involvement of Georgian and international professionals, as well as the development of clear management scheme with full transparency is expected to be provided by the new leader of the process.

Therefore, the State of Conservation Report presented to the WHC by the State Party¹² is definitely out of date. Though the Report presented by the State Party should have been updated even despite latter developments of 2022 and 2023, as even

5 <http://www.gch-centre.ge/wp-content/uploads/2023/01/...გ.ჩუბინაშვილის-ცენტრი-გელათი-ანგარიში.pdf>

6 Report of the Joint World Heritage Centre/ICOMOS/ICROM Advisory mission to the World Heritage property "Gelati Monastery" (Georgia) 28 November – 2 December 2022, pp. 4-5 https://drive.google.com/file/d/10-MaX6J9ZJVHQFQlCMe66qWST-MXkSZ1y/view?fbclid=IwAR3KQXaO8BZM-NO2qSb_IjshvHPFzgCmJnX7gUwSMqcz-24IoJvRglEtCVM

7 <https://www.facebook.com/MinistryofCultureSportandYouth/posts/pfbid0E-1QuDsT9WvsrBnXVznA4rtkRiVaa46gq1w6227XZ6svwsuxDBY94wkRiGZvC-TuGl>; <https://agenda.ge/en/news/2023/408>

8 <https://www.facebook.com/photo/?fbid=196305265880412&set=pcb.196306979213574>; <https://www.facebook.com/photo/?fbid=250143207301709&set=a.230957325886964>; <https://www.facebook.com/MinistryofCultureSportandYouth/photo/s/a.116002933910646/21911888359905/>; <https://www.facebook.com/photo/?fbid=356330953349600&set=pcb.35633333349362>, etc.

9 https://www.facebook.com/photo/?fbid=5299487891250616&set=a.416334257153182&locale=ka_GE; https://drive.google.com/file/d/1k-djTvhh5vwhlplS5zPPjA03FAbp4mKIV/view?fbclid=IwAR3E56X1CreOe5dC-satzH4sBxn_GMeBG-wle2bljvBcqlt9pXk4Bz2_HB2Q

10 <https://www.facebook.com/photo/?fbid=230297636006920&set=a.200166392353378>

11 <https://www.facebook.com/photo/?fbid=232397885796895&set=a.200166385686712>

12 <https://whc.unesco.org/en/documents/192486>

for the time of presentation it was not accurately representing the actual state of conservation of the Gelati WHS. The Report refers to the WHC recommendations for the selection of the team working in Gelati and ICOMOS technical reviews from February 2022 as proof that the solutions of managing body were correct.¹³ At the same time, it is lacking information on serious concerns of Georgian and international professionals regarding the decision-making process and methodologies applied especially to the wall paintings, that had been absolutely clearly expressed by that time.



Fig. 10: Results of the paintings conservation in the Western arm, version of the State of Conservation Report. Photos: State of Conservation Report 2022

Without going into details, some inconveniences still should be mentioned. As a marker of improper approach can be seen the way of presentation of the effectiveness of conservation works implemented: raking light is used for imaging before consolidation and ordinary one for the state of conservation after the works implemented. Actually, the process of quick deterioration is clearly visible through visual observation at the areas where the conservation intervention was implemented. Of special concern are schematic and chromatic restoration interventions widely used in the Western arm of the Church of the Virgin by the restorers of Giovanni Secco Suardo Association and their collaborating Georgian team without any justification and professional reviews.¹⁴

Despite the statements of the Report, the work on the Conservation Programme actually has not started. In addition, the purpose of the campaigns of painting restorers working under Giovanni Secco Suardo Association and a Georgian team collaborating with them, were mainly focused on physical works.¹⁵

No information is available on the results of the work of the new environmental monitoring system for microclimate referred to in the State of Conservation Report.

The information presented by the Report of the World Heritage Council and its activities, definitely does not reflect the Council's actual role and activities for the Gelati case. Despite some formal changes, the role of the Council is as formal as it has been in the previous period. In its present state the Council is comprised mainly of representatives of official structures, and with a dramatic minority of professionals in its composition, has absolutely no ability of real decision-making and independence.

Conclusion

Even this brief overview shows the problems related to the Gelati WHS case that could be used for further development and improvement of WHC standards, as well as means for their implementation. Several issues should be considered in risk assessment for the future, namely: use of the WHC and UNESCO brand by local officials in advocacy of their own decisions, and use of management practices far from modern standards for preservation of cultural heritage.¹⁶ And lastly, despite the role and responsibilities of the State Party, as defined by the World Heritage Convention in 1972,¹⁷ also regarding the State of Conservation Report, it would be important to discuss and consider the possibility of requesting the State Party provide independent professional discussions and reviews of the Report on the local level, before its presentation to the WHC.

¹³ For some comments on the issue, see WHW Report 2022, pp. 233-234 (note 2)

¹⁴ For actual state of conservation of the areas where the intervention was implemented see ICOMOS of Georgia and Chubinashvili Centre reports (notes 4 and 5).

¹⁵ See list of contracts, in the report by the Chubinashvili Centre (note 5), pp. 20-21.

¹⁶ Bernard M. Feilden and Jukka Jokilehto, Management Guidelines for World Cultural Heritage Sites, Rome 1998, https://www.iccom.org/sites/default/files/2018-02/1998_feilden_management_guidelines_eng_70071_light_0.pdf; Managing Cultural World Heritage, Paris 2013, <https://whc.unesco.org/en/managing-cultural-world-heritage/>

¹⁷ <https://whc.unesco.org/archive/convention-en.pdf>

Sha'arah, the Bedouin Village in a Basalt Rock Desert

Soulaiman Al-Mhanna, Syrians for Built Heritage

The crisis in Syria has led to the destruction of a significant amount of Syria's cultural heritage sites. It destroyed numerous ancient monuments, relics, and sites. In addition to the heritage destroyed as a collateral damage of warfare, many millennia-old historical and archeological sites and relics that have been deliberately damaged include the Bedouin village of Sha'arah in the Leja area, which is a part of the Hauran region of southern Syria.

The Hauran¹ spans parts of southern Syria and northern Jordan. The Leja (also: Lajat) is a vast, partly impassable lava field which comprises a topography of depressions, rifts, and ridges with scattered arable patches. The preservation of many archaeological remains in this area is of particular interest.

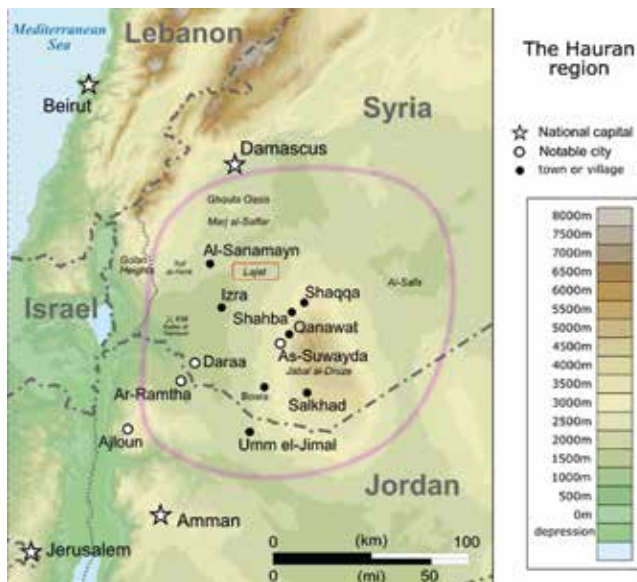


Fig. 1: The Hauran region of southern Syria with the Lajat. Map: Wikimedia commons

Indeed, alongside major sites and prestigious monuments, there remain in the landscape numerous traces of ancient developments (traffic routes, military installations, agricultural equipment) and entire villages with their habitats closely linked to this context. They give an idea, on a regional scale, of a great phase of development in the occupation, development,

and organization of this territory between the Hellenistic and Orneyyad periods. A large part of the traces of organization of the ancient territory has disappeared during soil development work which has erased the terraces and low walls dividing the ancient lands, to allow intensive mechanized cultivation and create the infrastructure necessary for the development of the country.



Fig. 2: The Leja in southern Syria.

Photo: P. P.-F. Ifpo-MAFSS 2008

Rapid population growth and economic expansion have led to dramatic settlement expansion and intense urbanization that has extended the surface area of villages and increased their encroachment on the environment.

In Hauran, a region characterized by the omnipresence of basalt in construction and in the landscape, 300 ancient villages



Fig. 3: The village of Sha'arah in the Leja.

Photo: Photo: P. P.-F. Ifpo-MAFSS 2010

¹ Arabic: حَوْرَان Romanized: Ḥawrān



Fig. 4: Aerial view of the village of Sha'arah.

Photo: Y. G. MAFSS

have been inventoried since the beginning of the 20th century by the American explorer H.C. Butler and then by several researchers attached to the Centre National des Recherches Scientifiques (CNRS), the University of Paris I Panthéon-Sorbonne, and the Ifpo.

The village of Sha'arah is located about one kilometer into the northern fringe of the Leja, an immense plateau of petrified lava flows, and what impresses is not so much its ruins as the tortured geological structure of the site as well as the audacity of the builders who were able to successfully invest in such a turbulent terrain. These lava flows come from the Tell Shihan volcano located 40 km southeast of the site and date from the Pleistocene. During the cooling of the lava, the violent release of volcanic gases which had accumulated in the flows in gigantic pockets caused the very impressive faults that can be traversed today around the site.

Sha'arah and its surrounding landscape should be included on Syria's Tentative List under criteria (iii) and/or (v) because the site and the Leja area constitute an important historical area for human settlement, especially in the Stone, Roman, and Byzantine ages. It was green areas and plains before the volcanic eruptions.

Humans settled in the region and built dwellings, churches, baths, and theaters. The architecture of the region was characterized by stone construction and distinctive construction systems. It can be preserved as a cultural heritage site for research and tourism activities. The village and its architecture are characterized by a high heritage value, comparable to the cities of Bosra in Syria, Leptis Magna in Libya and Umm Qais in Jordan.

Although occupied until relatively recent times, the ancient village is well preserved in its heart as well as within its limits. It dominated in antiquity a vast fertile plain. An almost continuous rampart (see Fig. 4), built from the 1st c. AD, delimits the

ancient agglomeration which is about 600 m long and 500 m wide in its widest part.

Adapted to the rugged shape of the site, reinforced in its weak points and at the access points by forts, the rampart was probably not designed to resist military assaults, but rather to dissuade raiders and predators from the area, wolves, golden jackals, and striped hyenas trying to snatch cattle. It encompasses the 136 buildings inventoried by the French Archaeological Mission in Southern Syria which, under the direction of J.-M. Dentzer between 1995 and 2006, conducted several excavations, 74 houses occupied in the medieval and modern eras,

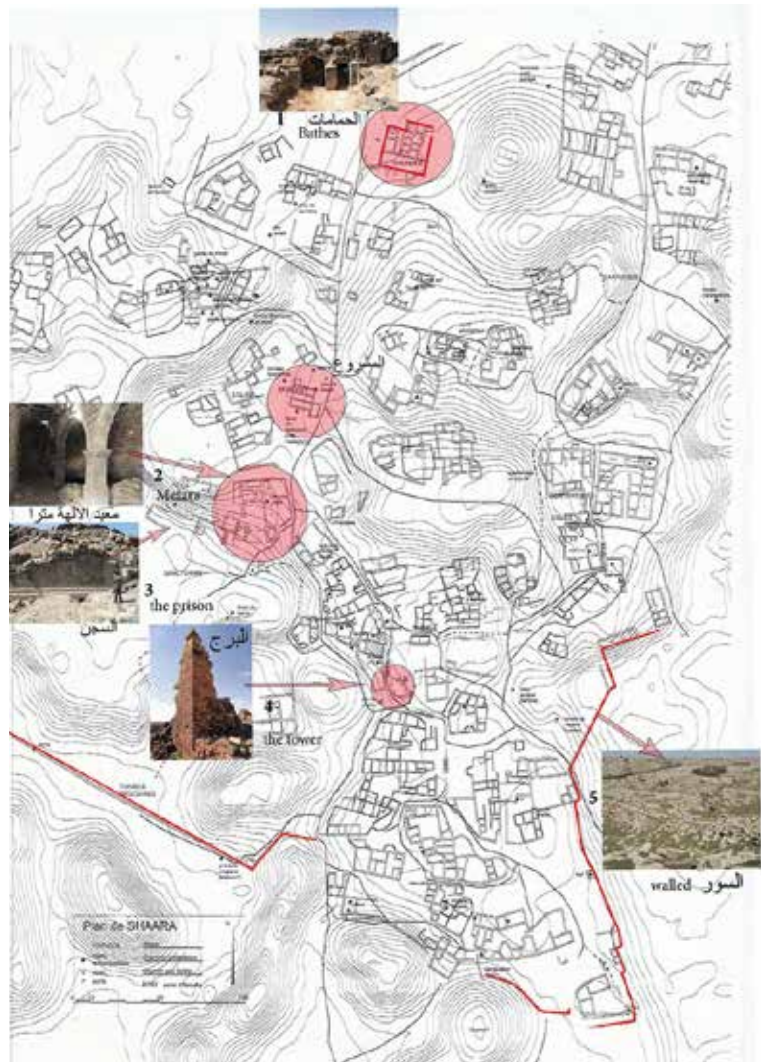


Fig. 5: The urban fabric of Sha'arah.

Map: Soulayman Al-Mhanna, based on Howard Butler 1903, and MAFSS 2011

55 of which date back to the Roman and Byzantine eras, probably public buildings and several places of worship have been identified.

The function of a large number of buildings still remains mysterious, but beyond the habitat, we have been able to recognize thermal baths, two mosques, and the apses of at least two or three churches. At the southern end of the village, in a vast depression, there were still in the 1970s the very rare remains

of a Roman sanctuary and numerous elements of sculptures representing victories, eagles, horsemen, chariots, lions of an unusual type for the region (preserved today in Bosra). Nearby, there is a hypothetical Mithraeum to which is associated a vast cave.



Fig. 6: Vault in Roman concrete and basaltic slag. Photo: T. F. Ifpo-MAFSS 2010



Fig. 7: The minaret of a mosque in Sha'arah. Photo: P. P.-F. Ifpo-MAFSS 2010

The habitat

Traffic in the village is ensured by two almost parallel main roads serving several secondary streets which cross the rampart in several places, except on the side of the basaltic plateau. The layout of the dwellings accessible by alleys seems to have been constrained by the sunshine and the prevailing winds, by the organization of the relief, by the surrounding monuments and probably by the family or tribal organization which governed the life of the inhabitants. The houses are composed, like all village houses in Syria, of buildings associated with a courtyard. Some have only one, right; others feature an L-shaped building;

others, rarer, have a U-shaped plan. The village seems to have developed particularly during the Byzantine period, then during the medieval and modern periods. Most of the houses have an area of 300-500 m². As in the other villages of southern Syria, their ground floor was intended to house domestic activities and animals: witness the troughs of the stables and stables still visible in many of them.

The truly private, residential rooms were upstairs, offering more protection to the inhabitants by isolating them from animals, pests, etc. Basalt is the only construction material. No wood, no framework, no limestone paving, no tiles in these houses built from top to bottom of basalt blocks and slabs, the bays being closed by basalt doors and shutters. Most of the houses with feeders are located on the outskirts of the village, perhaps to give the animals easier access to pasture. Several houses have hiding places: small narrow, elongated and high rooms, accessible through the roof, concealed, in which foodstuffs and goods could be hidden, or even natural caves which recall that in antiquity, the Leja, called Trâchonitis by Strabo and Flavius Josephus in the 1st c. BC, was famous for its insecurity and to shelter the brigands.



Fig. 8: Façade of a house in Sha'arah. Photo: Y. G. MAFSS

The baths

This small monument built in the 2nd or 3rd c. AD, is located at the current entrance of the village. It presents today, in an exceptional state of preservation, a vestibule, two warm rooms, two hot rooms, a large cold room which has lost its roof while the other rooms have kept the remains of their brick vault and slag of basalts set in lime mortar. No doubt it was a small public bath. In medieval times, the baths served as a necropolis, then were transformed into a habitat.

The hypothetical sanctuary dedicated to Mithras

A vast semi-built, semi-rock complex – this is frequently done in Leja – with an original layout, was built in the south-west of the



Fig. 9: The Roman baths of Sha'arah (no. 1 on Fig. 4). Photo: P. P.-F. Ifpo-MAFSS 2010

village, a district which is distinguished by the low density of its occupation. It had two independent rooms preceded by an irregular plan forecourt. To the west is a vast cave 38 m long. To the east, a square room with a side of 7 m has on its north side a raised apse of one meter whose facade was decorated with reliefs where we recognize the signs of the zodiac and, on the fallout of the arch, scenes with a religious connotation. A door once closed this apse. Benches leaned against the walls of the



Fig. 10: Façade of the niche of the hypothetical Sha'arah Mithraeum (no. 2 on Fig. 4). Photo: MAFSS

square plan room. If this set constitutes a mithraeum, the apse represented the sacred cave and must have contained a statue or a statuary group, and the room preceding it, a banquet hall.

The Mithraic rooms were generally built in caves, reminiscent of the place where Mithras had killed the bull. This set seems not to have been built before the 2nd c. apr. The reliefs which adorned the arch and its abutments were subject to systematic hammering which must be attributed to the Christian iconoclasts of the second half of the 4th century. We know that the military were the most fervent followers of Mithraism, but Sha'arah is at the heart of a sector, at the entrance to the lava desert, where, from the 2nd c. J.-C., the troops of the Roman army were stopping over.



Fig. 11: A sculpture in the hypothetical Sha'arah Mithraeum. Photo: MAFSS

The role of the local community and stockholders ("responsibility to protect")

What role can the local community play in protecting cultural heritage in Sha'arah? This was a recurring theme because the inhabitants are very poor. We are looking forward to international support. The Sha'arah village site needs the following:

1. Preserve the elements of the existing heritage buildings, especially after the problem in Syria and the theft of antiquities.
2. Establish a light facility to cover the heritage elements such as the bathroom and the church from climate effect.
3. Organize awareness sessions for the local community (Bedouins) in the field of heritage preservation and sustainability as an important tourism resource in the development of the region.

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Tchogha Zanbil: Where is the Brick?

Anonymous author



Fig. 1: Tchogha Zanbil.

Photo: Mobina Ghanbaryan / Wikimedia commons

Duravantash Ziggurat, better known as Tchogha Zanbil, is an ancient shrine that was built around 1250 BC in the Elam civilization. This ziggurat is the central building of the ancient site left from the Elamite complex Duravantash or Untash city, which is located near Susa in the Khuzestan province of Iran. In 1979, Tchogha Zanbil was the first historical monument listed as a UNESCO World Heritage site in Iran. Its unique architecture, along with the ziggurats discovered in Mesopotamia, is well-known to archaeologists and those interested in history and world cultural heritage. Until the discovery of the ziggurats of Konar Sandal and Tepe Sialk, Tchogha Zanbil was the only example of this type of building found in Iran (Sistani 2008, p.311). Orientalists consider Tchogha Zanbil to be the oldest known religious building in Iran.

Stolen Brick

On 24th of February, Miras News agency (English: Heritage News) reported¹ that one of the bricks with ancient Elami cuneiform inscriptions on it has been stolen. The regime officials have given no clear explanation about the situation of the brick and evade answering questions with vague justifications.

Mojtaba Gahestoni, a researcher on Khuzestan's cultural heritage, informed about the destruction and theft of ancient Tchogha Zanbil bricks. This activist of Khuzestan cultural heritage wrote: "The Tchogha Zanbil place of worship is the first world heritage site of Iran in UNESCO." He added, referring to his visit to this historic work: "In my visit to Ziggurat Tchogha Zanbil, I witnessed the destruction of parts of ancient bricks and inscriptions from the 14th century BC and the Elami era in this building, and followed it up. It has many pains in its body and these wounds are getting fresher each time."

"Every time I am faced with answers of justification", says Mojtaba Gahestoni, emphasizing the theft and destruction of bricks: "The truth is that in the days prior to my visit, parts of the bricks and ancient inscriptions were stolen and destroyed." Heritage News confirmed the "theft and destruction" of bricks of a part of Tchogha Zanbil and wrote: "In the absence of a protection unit and lack of protection for Iran's first world heritage site, ancient brick writings in Tchogha Zanbil have been stolen and destroyed." The news agency added: "The authorities have hired only one person as a security force in the 36-hectare area of Tchogha Zanbil." (Manoto broadcast)

¹ The article has been deleted on the <https://miraskhabar.ir> website but can still be found at <https://www.iranintl.com/202302245160>

The government did not allow better coverage of the news. However, there is public speculation that the Islamic Republic

regime is trying to sell or smuggle historic objects as an illegal method to earn money.

The reason for such an allegation among the public is due to the statement of a high official of the regime who claimed that Shah (king) Mohammad Reza Pahlevi and Queen Farrah stole the crowns before leaving the country in 1979. This odd statement created much confusion since the crowns of both king and queen are presently on display in the Museum of Jewelry of Tehran. This led to speculations that the regime might be planning to sell the crown jewels. Now the people are connecting this story with the "stolen" brick in Tchogha Zanbil. The general population considers any cultural heritage transaction illegitimate (Iran International News).



Fig. 2: A brick from Tchogha Zanbil with Elamite cuneiform inscription.

Photo: Heritage News

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At What Cost? Commercialization of the Fort and Shalamar Gardens in Lahore



Imrana Tiwana, Lahore Bachao Tehreek

World Heritage Sites are sacred, they establish narratives preserving history, culture and identity for posterity. These sites belong to all peoples of the world and are not confined to limits and policies of state parties only. It is then imperative that they be treated with respect and dignity, establishing an urgency to uphold the law that ensures their protection.

Our shared objectives are always to 'access the facts'. In an increasingly commercialized world the 'lens of integrity and authenticity' remains key to our dignity, pride and respect, whilst maintaining and protecting our shared heritage.

Shalamar Gardens and the Lahore Fort have been on the World Heritage Committee agenda for over five years. This in itself is heartening as it shows UNESCO's efforts to safeguard it as mandated in the Convention. A big bravo to the World Heritage Committee, the Advisory Bodies and Reactive Monitoring Missions (RMM) for a concerted and pro-active effort in continuing to ensure an 'inclusive and transparent' process. Sadly, we continue to find discrepancies and continued violations.

Mitigation measures for the 'Shalimar Gardens' are underway, albeit not complete. Consultants were to be hired to ensure that directions of the RMM and the Honourable Supreme Court were followed both in letter and spirit. The most critical com-

ponent being the congested road in front of Shalamar Gardens, now with an added elevated metro track, which impairs and obstructs visual integrity. It was proposed that this be made pedestrian and green and an underpass made for vehicles to take care of the traffic, noise, visual interference and other polluting agents. This will also protect and highlight the remaining water works and hydraulic tank by placing it in a green open area, as compared to it currently being in a small median between two roads with heavy traffic. A Buffer Zone should be defined and maintained. It is advised that a deadline be given to complete these and all other mitigation works.

The 'Royal Kitchens' at the Lahore Fort, where a new concrete structure was made more than five years ago, remains a bone of contention, as the large new concrete kitchen structure is in clear violation of legal international and domestic frameworks, The Antiquities Act 1975 says;

Section 18.

Restriction on use of protected immovable antiquity:

Section 20:

Restriction on repairs, renovation, etc., of protected immovable antiquity.

(1) The owner of a protected immovable antiquity shall not make any alteration or renovation in, or addition to, the antiquity:

(2) Who ever contravenes the provisions of subsection (1) shall be punishable with rigorous imprisonment for a term which may extend to one year, or with fine, or with both."

In addition the Operational Guidelines for the the implementation of World Heritage Convention state;

"Legislative, Regulatory and Contractual Measures for Protection"

98. Legislative and regulatory measures at national and local levels should assure the protection of the property from social, economic and other pressures or changes that might negatively impact the Outstanding Universal Value, including the integrity and/or authenticity of the property. States Parties should also assure the full and effective implementation of such measures."

It is pertinent to mention that UNESCO was not informed of the construction of this new kitchen by the relevant authorities. The



Fig. 1: The elevated track of the metro passing by the Shalamar Gardens and hydraulic works, April 2016.

Photo: Google Earth / Imrana Tiwana

Operational Guidelines unequivocally show that this is a violation of the above laws.



Fig. 2: The new fine dining restaurant under construction, only a few feet away from the historical Royal Kitchen (left), 2018.

Photo: Imrana Tiwana



Fig. 3: The roof of the new restaurant showing the extension of the building within the compound of the historic Lahore Fort, 2018.

Photo: Imrana Tiwana

Both myself and architect Ms. Yasmeen Lari, as *Amicus Curiae* to a court case petitioned by a citizen against making of a new kitchen stated that this was a 'gross violation and an illegal act', therefore the new structure should be 'demolished' forthwith. Below is an excerpt of Ms. Lari's report:

"As UNESCO National Advisor (2003-2005) and as co-author of the UNESCO Lahore Fort Master Plan 2006-2011, and one who has studied extensively various aspects of the World Heritage Site,

I respectfully submit my strong objection to the under construction kitchen block located in the protected Core Zone of the historic property and the conversion of the historic Royal Kitchens as a dining facility for selected groups/any group. The under construction kitchen block in the Royal Kitchen enclave being constructed illegally should be demolished to retain the integrity and OUV of the historic site".

It is a disturbing fact is that the Royal Kitchen area is commercially rented for corporate and other events, where live cook-

ing, loud music and all kinds of lights, multi-media and decorative elements are used to entertain clients who rent it. The smoke from the live cooking is visible from afar, and is fast destroying the protected Lahore Fort. Loud music and smoke are visual and auditory disruptions.



Fig. 4: The smoke stack from the restaurant kitchen is widely visible.

Photo: Imrana Tiwana

The 'vital question that needs to be asked here is at what cost all this is happening'? Protected World Heritage Sites are symbolic of the history and culture of a country. They determine passing of information from generation to generation. Laws made to protect them lay a huge responsibility on the custodians of that law.

Are we as responsible world citizens and the custodians willing to wear rose tinted glasses, to deny our responsibilities and let things be, for the sake of 'commercialization', money, rentals and marketing gimmickry?

Will our World Heritage Sites be remembered for the quality of meat and freshly cooked food, barbecues, delectable dishes, overdressed personas, tacky décor and loud music? Will they be converted to money making machines, devoid and insensitive to historic legacies? Will they define and measure preservation, conservation and protection in light of corporate and commercial value? Will our heritage sites go to the highest bidder? Contravening, violating and desecrating precious laws? Will money be the only determining component? Will greed and avarice, fake pomp and false glamour replace endearing legacies? Is this the cost we will pay? Let us reverse this before it is too late.

Or will our World Heritage Sites stand tall, as a 'tribute' to our shared history, culture and heritage?

It is our hope that they will be remembered for their authenticity and integrity, the education they impart to children, communities and all citizens of the world as mandated by the custodian bodies and State Parties. We look to the World Heritage Committee to take urgent cognizance of the above, so that we may collectively carry traditions and heritage forward for centuries to come.

Mohenjo-Daro is Suffering from Pakistan's Record Rainfall

Saad Hanif

Mohenjo-Daro (Sindhi: "hill of the dead"), is one of the biggest towns of the third millennium Bronze Age and is believed to have been the capital of the Indus civilization. Mohenjo-Daro was discovered in 1911, excavated in 1922 and was declared a UNESCO World Heritage site in 1980. It is one of the most ancient examples of urban planning. It was built using a grid system like modern city blocks. The meticulously constructed city, which had unending rows of baked brick walls, was the "first big urban center" of the Indus Valley civilization and had sophisticated drainage systems to handle earlier floods.

Mohenjo-Daro, 4,500-year-old archaeological ruins in the southeastern Sindh province of Pakistan, has suffered considerable damage due to Pakistan's devastating rainfall in August 2022. The neighboring Indus River is recognized as the cause of Mohenjo-Daro's establishment at this site and the reason for its demise. The same river has now also threatened the World Heritage site's status. Mohenjo-Daro witnessed catastrophic rains up to 779.5 mm, significantly affecting the archaeological ruins. The flood caused by the rainfall threatened the stability of Mohenjo-Daro and significantly eroded the structures' protective exterior coating. Such an amount of rain has not been recorded so far at the archeological ruins since they were excavated 100 years ago in 1922, and this is an alarming threat.



Fig. 1: Mohenjo-Daro's location next to the Indus river at the time of the flood.
Map: Google Earth / Saad Hanif / Martin Lenk



Fig. 2: The flooding has not directly hit Mohenjo Daro but the record-breaking rains have inflicted damage on the ruins of the ancient city. Photo: AP / Fareed Khan

Although most of the heritage site is secure, as is the significant stupa, numerous dug areas have been destroyed by the floodwaters surrounding the site, with water seeping through and leaving furrows. The ferocity of these rains weakened the foundations of walls and structures, lead some walls to collapse, developed cavities and holes due to the loss of mud and brick and erosion of slopes. This also severely damaged the protective layer, known as mud slurry, deployed as coating, exposing the original walls. The drainage system and the main drain were also impacted by the heavy rain. If prompt conservation work is not completed before the next monsoon season of July 2023, the site being exposed to the whims of nature could sustain irreparable harm. Archaeologists warn that the worrying development could cause the walls to damp and partially collapse.

According to myths and legends, Mohenjo-Daro was prone to Indus floods even in ancient times, and many strategies were used to defend the site. The substantial brick buildings raised the settlement's level and protected it from floodwaters. Mohenjo-Daro was also renowned for its sophisticated drainage and water management systems, which were believed to have been efficient during the recent floods. However, this is not the case. Authorities had to eliminate the clogged water using water pumps and other techniques, but the existing old drainage system made the process easier compared to other regions. As floods devastated the surrounding districts, the old drainage system helped ensure that there was little standing water. Mohenjo-Daro had less than a foot of standing water, compared to four feet in the nearby city of Larkana. It demonstrated that

the original drainage system built 4,500 years ago helped the authorities to clear water more efficiently. This well-planned drainage system is clearly visible along the narrow streets as a witness to the skilled architects who once lived here.

Despite being aware that necessary steps for improvement of the site are crucial and if not appropriately taken, this can lead to dissatisfaction of the World Heritage Committee and lead to a warning, Pakistan started conservation work with the director of archeology and museum for the provincial government stating that *In the next six months, we must work incredibly hard and urgently to conserve the many areas of the site that are currently exposed to nature. If we don't deliver, it is possible that the site may be put on the danger list.* UNESCO has approved financial aid of \$176,000 to assist in repairing flood-damaged Archeological Ruins of Mohenjo-Daro. But what Mohenjo-Daro currently needs is more than mere financial support. As stated in the Preamble of the 1972 World Heritage Convention, “protection of this heritage at the national level often remains incomplete because of the scale of the resources which it requires and of the insufficient economic, scientific, and technological resources of the country where the property to be protected is situated”.

Management plan

According to the 2012 Periodic Reporting Cycle 2, Section II, the current management plan is only partially adequate and unfortunately the case remains still the same even after a decade. When the archaeological site is compared to global standards, there are gaps in integrated policies, local participation, risk assessment plan, site preservation and professional experience. Additionally, the State of Conservation Report of 2011 highlighted that the current management plan is a factor affecting the property and needs to be updated. The same issue was mentioned in the conservation reports of 2007 and 2003. The management plan should be strengthened in terms of scientific and contemporary techniques and procedures, as well as global standards. Therefore, to have an effective management plan for Mohenjo-Daro in total, local and international initiatives are required.



Fig. 3: Conservation works after the floods.

Photo source: Tribune.com.pk

Furthermore, there are no clear inclusive policies in the management plan for Mohenjo-Daro. The integrated policy encourages public engagement and communication among the departments (Charter, 1990). The inhabitants of neighboring villages that make up the site are mostly unaware of the significant status of the site and tend to consider it just as a remnant of the past. The conservation projects undertaken after the WH nomination by UNESCO and other international organizations usually neglected the role of public participation and continuous involvement in the better management of the heritage site. Effective development strategies, environmental and educational campaigns should all be incorporated in an integrated policy for the protection of archaeological sites (Charter, 1990).

Archaeological Research Strategy

UNESCO highlights that the establishment of an archaeological research strategy, which was called for in Decision 33 COM 7B.81 as an essential step before proceeding with additional significant archaeological operations at the property, has not been disclosed by the State Party. Nonetheless, the State part clearly lacks the appropriate resources and expertise to formulate an effective archaeological research strategy. As they heavily rely on UNESCO for the conservation after the natural disaster, it is worth noting that the state party has limited potential to formulate an effective and cohesive archaeological research strategy.

The Antiquities Act of 1975 protects Mohenjo-Daro, which is governed by the Pakistani government. The location is referred to in the legislation as an immovable antiquity. According to Article 19 of the Act, it is illegal to destroy, damage, or modify antiquities, and violators are subject to legal sanctions. According to the charter, the legislation addresses site protection and conservation, but it makes no mention of site administration or an archeological research plan (Act, 1975). After the WH nomination, there have been no archeological excavations, and over two thirds of the site remain undiscovered.

Updated survey and reports plan

It is crucial to fully comprehend the site before beginning to administer and conserve it. To determine the size, significance and nature of the site, a survey must be conducted. This further helps in developing better strategies. The creation of inventories to perform any future scientific study follows this survey. The surveying and inventory should be updated frequently because the location is changing constantly (Charter, 1990).

Balanced and Monitored Tourism plan

The negligence and ongoing degradation of Mohenjo-Daro is alarming, and it is believed that visitors — both tourists and members of the local community — should take some of the responsibility. There are signs posted all over the site reminding visitors of the rules of conduct and pleading with them not to touch or harm the artifacts, but there are not enough staff to enforce the regulations and monitor trespassers.



Fig 4: Lack of Archaeological Research Strategy.

Photo: Express

Furthermore, the 4,500-year-old heritage site is deteriorating not just in terms of the remnants but also suffering significantly from the lack of tourism. The flow of tourists impacts heritage sites, but local officials cannot provide an annual statistic of recent decline. First, it is challenging to travel to the actual site of Mohenjo-Daro. There are only limited tourist accommodations, and energy supply issues make it even undesirable for the tourists — frequent power interruptions in the summer limit electricity in the area and neighboring Larkana for up to 21 hours at a time, which is a regular problem in Pakistan. This is one of the hottest regions of the country and, in May, temperatures can reach up to 54°C.



Fig. 5: Few visitors walk through the site.

Photo: AFP, February 9, 2017

To address the deteriorating situation, the following actions should be taken:

- **Management plan:** Update the current management plan, this plan must be comprehensive and should include guidelines regarding the preservation, protection, promotion, and if needed revitalization of the heritage site.
 - **Excavation:** The portion of the site that is now being displayed is only one-third of the whole. Officials are hesitant to dig further since it is challenging to justify uncovering without proper archaeological research strategy and relevant resources.
 - **Warning:** A warning must be issued that if no appropriate action is taken to preserve the ruins, which continue to suffer and deteriorate with time, this may lead the ruins to vanish into dust and obscurity and never reclaim their proper position in history. Thus, urgent and appropriate actions must be taken by UNESCO and the state party.
 - **Tourism:** The Archeological site should be promoted as a cultural and heritage destination to attract visitors and generate economic opportunities for the surrounding local community.
 - **Risk Assessment Plan:** Formulate appropriate Risk Assessment plan, which must tackle all the issues previously raised by the UNESCO's State of Conservation Reports.
 - **Boundary Definition and the Buffer zone:** The management organization, local communities, surrounding villagers and landowners are unaware of the clear borders of the World Heritage property and when it was included to the World Heritage List, the property had no buffer zone. Since then, there is no clear definition of either the boundary wall or the Buffer zone.
- According to the World Heritage Convention, Mohenjo-Daro is the best-preserved urban settlement in South Asia but as we see, this certainly is not the case anymore and this should be a matter of utmost concern.

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Khajuraho Group of Monuments: Living Heritage as a Conservation-Management Approach

Joyatri Ray, Equations



The notion of 'sustainability' in the 2030 Agenda for Sustainable Development echoes the concept of 'living heritage' in the Convention for the Safeguarding of the Intangible Cultural Heritage. The 2030 Agenda refers to sustainability as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. Transmitted from generation to generation, living heritage is a source of community-based resilience – a driver of sustainable development.¹

Khajuraho is a small town located in the Chhatarpur district of Madhya Pradesh, India. It is known for its group of magnificent

Hindu and Jain temples built between the 9th and 12th centuries. The town and its people have a deep connection with the temples, which are not just tourist attractions but also integral to their daily lives. For the people of Khajuraho, the temples are a source of pride and identity. The local community takes great care in preserving and promoting the heritage of Khajuraho. There are regular cultural events and festivals that showcase the music, dance and cuisine that have been passed down through generations. Many families have been involved in traditional crafts like weaving, pottery, and jewellery-making for centuries and continue to pass on their skills to the younger generation.

Khajuraho is a shining example of how a heritage site can remain relevant and vibrant in modern times. The town's people have succeeded in balancing the preservation of their rich

cultural heritage with the need for economic development and growth. As a result, Khajuraho continues to attract visitors from all over the world, who are drawn not just by the temples but also by the living heritage of the town and its people. Within the four categories currently available (cultural, natural, mixed, and cultural landscape) Khajuraho, at the very least, deserves to be recognised as a living heritage site. The present category as a cultural site has led to an imagination of culture as an 'unchanging tradition that has happened' rather than a culture that is recognised as dynamic, living, and adapting.

State of management system

While the monuments of Khajuraho are a little away from the Chhatarpur village, indiscriminate construction led the Government of Madhya Pradesh to establish a

¹ Sustainable development and living heritage - intangible heritage - Culture Sector - UNESCO

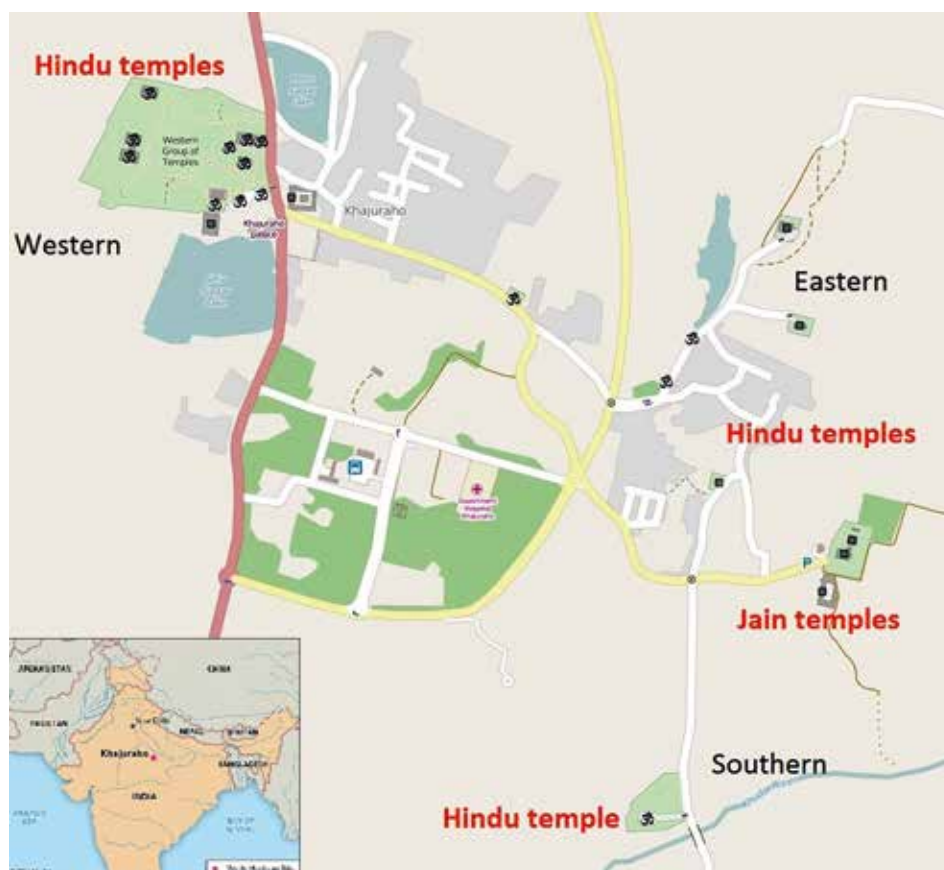


Fig. 1: The temples of Khajuraho are scattered over a wide area which includes the Khajuraho village and an increasing number of tourist facilities.

Map: Wikimedia commons



Fig. 2: A mother and son give offerings at a shrine by a temple in Khujuraho.
Photo: Daniel Vekhter

Special Area Development Authority for Khajuraho in June 1973 under Section 64 of M.P. Nagar Tatha Gram Nivesh Adhiniyam, 1973. The provisions of municipal services and management were entrusted to this Authority. Today the overall management of the monuments is being handled by the Archeological Survey of India in Bhopal, Madhya Pradesh.

In January 1998, INTACH suggested an integrated planning strategy for the next thirty years. The "Conservation and Sustainable Development Strategy Document for the Khajuraho Heritage Region" included action proposals related to Integrated Heritage Management, Sustainable Tourism Development, and Integrated Community Development. In 2011, a comprehensive regional development plan of Khajuraho which included a holistic development of tourism, and preservation

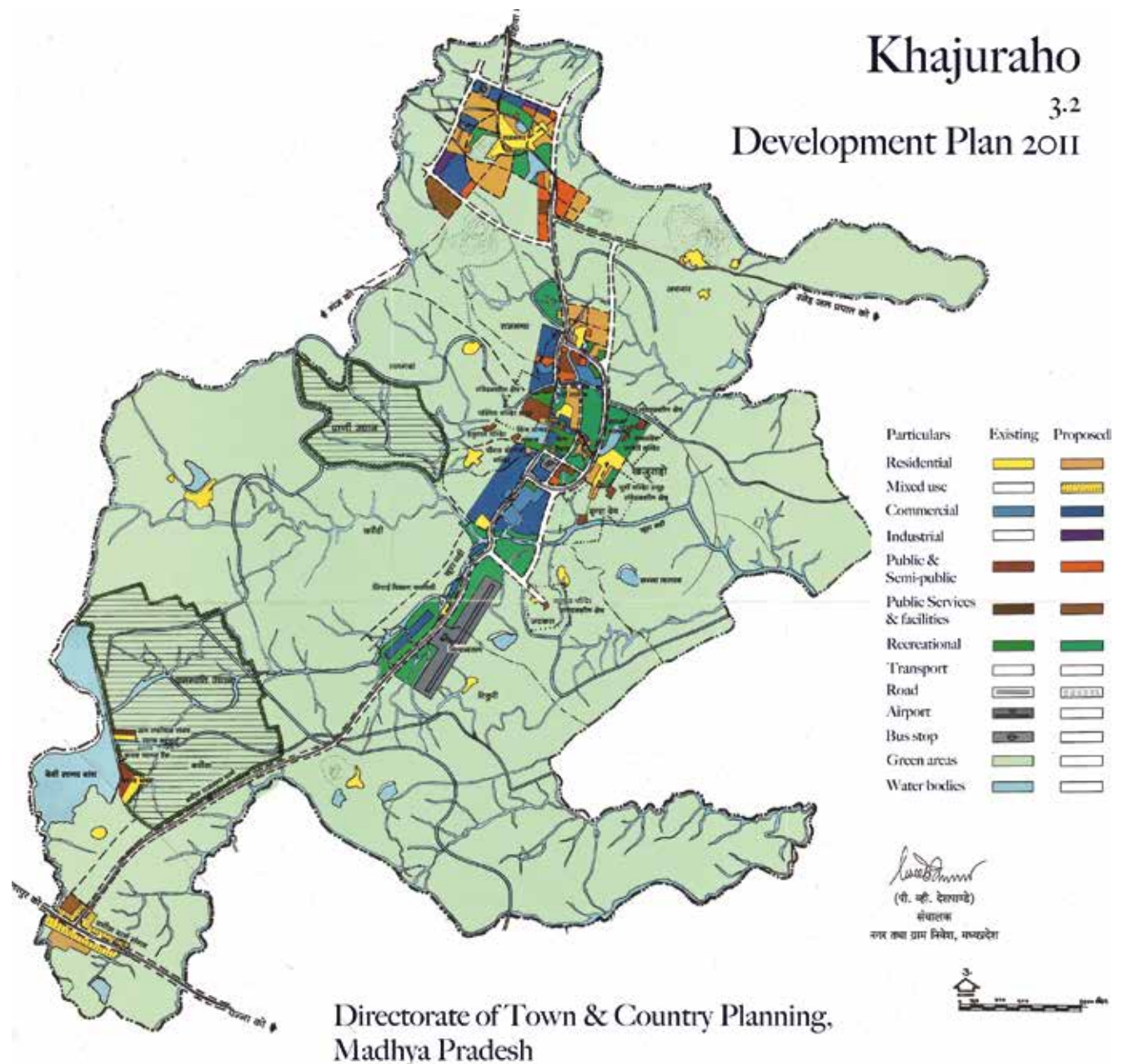


Fig. 3: Zoning Map of the 2011 Management Plan.

of temples, was prepared. Despite all these efforts, Khajuraho now faces a similar situation to other heritage sites, in terms of tourism management and structure with little benefit to the local community.

Impact on the communities

A glaring departure from the WH recommendations has been the lack of direct and meaningful community participation in decisions regarding the WH site. The WHC has recognized that areas demarcated in isolation from local or resident communities risk failure. Heritage construction has often focused on the

built form, at the expense of leaving out intangible heritage and everyday life of communities. Understandings of intangible heritage, encouraging recognition of continuity as well as mutability of communities and practices are vital to have inclusive and integrated conservation management approach.

People in Khajuraho have a high dependency on tourism as the most important income source. During the post-pandemic time, the street vendors in Khajuraho around the Western temples have been evicted to distant places, resulting in loss of income opportunities and livelihood options. These include vendors selling small trinkets, jewelry, artisanal products, clothes, cooked and uncooked food.



Fig. 4: Street vendors in Khajuraho.

Photo: Equations

Managing Khajuraho as a static landscape that belongs exclusively to the past, and therefore only meant for viewing, will not work and has not worked. The complexity of the Khajuraho landscape requires an empathetic approach that allows local communities to participate in the decision making, planning and equitable benefit sharing. However, what is seen on the ground is an exclusionary model of conservation-management which has ended in spatio-temporal and material alienation of the local communities, leading to severe conflicts and everyday contestations around site management.

Impact of the World Heritage status

IMPACT ON INTEGRITY	
Extract from the World Heritage Dossier	Observation
“The property is of adequate size to ensure the complete representation of the features and processes that convey the property’s significance, and does not suffer from adverse effects of development and/or neglect.”	A detailed map is to be provided in the World Heritage Site website consisting of all the group of temples and their buffer zone, with boundary revisions, if any. This will ensure the World Heritage boundary is maintained, and no obstructive construction can be made. The interpretation facilities do not portray the significance as an architectural wonder or of the intricate craftsmanship but only the meaning and interpretations of the sculptures.
“Identified potential threats to the integrity of the property include the nearby Khajuraho Airport, in the form of possible vibrations, increased volume of dust particles, etc.”	There is no action taken to the threats caused by the nearby airport, structural stability monitoring consolidation is required on a more regular basis.
IMPACT ON AUTHENTICITY	
Extract from the World Heritage Dossier	Observation
“The property is fully authentic in terms of its location and setting, forms and designs, and materials and substance.”	There is depletion in the natural resources including water scarcity and land conversion. Tourism has resulted in rampant development, increased pollution from the excessive influx of tourists, degeneration of monuments and the surrounding environment due to climate change and indifference of tourism authorities.

IMPACT ON PROTECTION AND MANAGEMENT	
Extract from the World Heritage Dossier	Observation
Khajuraho Group of Monuments is owned by the Government of India and managed by the Archaeological Survey of India through the Ancient Monuments and Archaeological Sites and Remains (AMASR) Act (1958) and its Rules (1959), amendment (1992), and Amendment and Validation Act (2010)"	Local communities are often not consulted and their opinions and perspectives are not considered in developing conservation plans.
"The land abutting the monuments is managed jointly by the Revenue official (i.e., District Collector, State government of Madhya Pradesh) and the Archaeological Survey of India, with the latter responsible for final approvals."	Holistic heritage management plan considering all the temple clusters together is not feasible due to the fragmented land ownership and development rights.
"The Archaeological Survey of India reviews and strategizes the allocation of resources in consonance with the identified needs. Issues such as interventions, training, research, and outreach are annually based on site inspections and assessments. These actions form an integral part of the operational management mechanism, augmented with experts as needed."	Site inspections and assessments only include the structural and architectural aspect, the socio-cultural issues and issues based on tourism management are not assessed, which are majorly impacting the management status and state of significance of the site.

Recommendations

1. Recommend to the State Party to submit the property under additional criteria in view of its complex ecosystem and human-nature interaction, important geological, prehistoric, cultural, mythological significance which qualify it as a lived landscape.
2. Urge the State Party to introduce detailed categorization of Khajuraho's diverse heritage, such as cultural landscape precincts, living heritage monuments, buried remains, farming (fields), farming (orchards), Cuisine, art & craft within the existing framework, and prepare individual guidelines.
3. Express urgent concern regarding the failure to include local communities' participation in planning and management of Khajuraho WHS, in line with the 5th C of the Convention;
4. Urge the State Party to engage with the local communities of Khajuraho Group of Monuments to evolve an effective conservation-management system that includes a shared understanding of the property and ensures equitable benefits to local communities
5. Urge State Party to proactively engage with the local communities of Khajuraho WHS to evolve an effective conservation-management system that includes a shared understanding of the property and ensures equitable benefits to local communities.
6. Urge State party to prepare an extensive database on primary, secondary and tertiary groups of stakeholders for the Khajuraho Group of Monuments to form a multi-stakeholder team with representatives from all of groups to ensure an inclusive and integrated approach to conservation management.
7. Urge the State Party to ensure that all development-related proposals, within or outside the world heritage boundary, that may affect Khajuraho Group of Monuments, especially the intermediary land between the temple clusters, must undergo Heritage Impact Assessment, Social Impact Assessment and Environmental Impact Assessment as per 'Guidance and Toolkit for Impact Assessments in a World Heritage Context', issued by UNESCO and the Advisory Bodies to the World Heritage Committee
8. Urge the State party to conduct environmental and social impacts study of the tourism management proposals on the site's OUV, including direct, indirect, and cumulative effects.

III. Historic Cities

Mismanagement and Threats to Oaxaca and Monte Albán, México

Edna Franco Vargas, Francisco J. López Morales and Amelia Lara Tamburrino

The Property comprises two distinct and nearby cultural sites: the historic city centre of Oaxaca and the archaeological site of Monte Albán. It was inscribed in the World Heritage (WH) List since 1987 under criteria (i), (ii), (iii), (iv) due to Monte Albán's outstanding testimony of ancient Mesoamerican successive civilisations for 1,500 years, and the Oaxaca Historic Centre colonial town planning and architectural features. It encompasses an area of 4,375 ha, with a buffer zone of 121 ha. The Historic Centre of Oaxaca comprises an area of 500 ha, 247 blocks and 1,200 listed monuments of civil, religious and vernacular architecture that developed since the XVI century.

The Property has been and is being severely affected by the Mexican federal and local government's incapacity to properly manage solid waste and pollution, by inadequate urban planning, management and monitoring, deterioration of monuments and buildings (400 out of 1,200 listed buildings are in peril), poor effective enforcement and deficient regulation, as well as growing urban sprawl and infrastructure works in the Monte Albán protection polygon, which together are putting enormous pressure on the Property's authenticity and integrity.

The two sites are managed uncoordinated and separately: the Monte Albán Archaeological Site has a sound and recognised management plan but there is only an out-dated (1997) and exceeded "Partial Plan for the Conservation of the Historic Centre of Oaxaca", each instrument with different outreaches that hinder the actual protection, management and monitoring of the Outstanding Universal Value of the Property as a whole. Thus, the Mexican State has unfulfilled the requirements of the WH Operational Guidelines to produce an appropriate, effective and integral management plan for the whole Property, its buffer zone and its wider setting. Moreover, despite the myriad of accumulated threats since its inscription 35 years ago, the WH Committee has not deliberated once on this Property, nor a single state of conservation report (SOC) has been submitted by the State Party.

Waste and Pollution

The polluting effects of solid and organic waste in the city of Oaxaca and its surrounding areas put its cultural heritage at risk. The enormous amount of daily waste generated by its in-

habitants and exacerbated by tourism has by far exceeded the city's capacity for its proper collection and correct disposal in landfills that abide to applicable technical norms and ultimately negatively affects not only the natural environment of the city but the material resilience of historical buildings.

The closure of the Villa de Zaachila landfill in October 2022 brought to light the local government's incapacity and inefficiency to properly manage waste in the city and its surroundings. In July 2022, residents of the Vicente Guerrero municipal agency suspended landfill operations, arguing that its pollution harmed its residents. Government garbage trucks were no longer allowed access, and therefore waste recollection was suspended. Meanwhile, clandestine collectors collected and dumped garbage in unauthorised and unprepared sites, notably onto the Atoyac River which runs through the city, and other surrounding municipalities. Already heavily contaminated, the Atoyac river was the object of a recommendation by the National Commission of Human Rights issued in 2020 requesting the National Water Commission to intervene in its proper management and clean-up.

With no government trucks recollecting, all types of waste and garbage bags began accumulating all over the Historic Cen-



Fig. 1: Mountains of trash in the main square of Oaxaca city. Photo source: <https://www.quechingados.com/caos-y-pestilencia-oaxaca-capital-oaxaquena/>

tre and the rest of the city, except for high-income residential and commercial areas. Protests thus arose, and residents used piles of waste to form blockades to draw the attention of local authorities. The city was paralyzed by road blockades by government collection workers (often left unpaid) and citizens demanding solutions, and mountains of waste were left in the city's main square (Zocalo), the "Plaza de la Danza" and at the entrances of municipal offices, while citizens were left to clean the streets on their own. Poor urban waste management fuels transmission of fly borne infectious diseases such as typhoid, dysentery, sandfly fever and others. Insect and rodent vectors are attracted to the waste and can spread diseases such as cholera and dengue fever.

As of February 2023, city authorities have yet to find and accommodate a new landfill site that satisfies legal federal sanitary and environmental provisions, which can take months or years. While waste collection has resumed, it is transferred to other states and to unprepared sites. Garbage is often still seen on the streets. From a cultural perspective, this implies serious deterioration of materials, structures, ornaments or architectural coherence and the loss of historical authenticity or cultural significance. The events of 2022 show that the city is not only managing waste improperly but can be easily overwhelmed in the event of a crisis.



Fig. 2: Buildings' deterioration and vandalism in the historical centre.

Photo source: <https://imparcialoaxaca.mx/la-capital/530564/inmuebles-catalogados-de-oaxaca-sufren-deterioro-constante/>

Inadequate urban planning and development

Tourism in the City of Oaxaca in 2019 rose to 1,331,950 visitors, up from 647,305 in 2006, according to official data which collects information from hotels. However, this data does not take into account housing platforms (e.g. Airbnb), and therefore the number is likely to be much higher. This has resulted in the proliferation of restaurants, bars, night clubs, open-air event venues and hotels in the Historic Centre which has led to an abusive reconversion of historical buildings and public spaces, significantly altering its structural integrity.

Throughout the Historic Centre, it is common to observe restaurants and bars with open air terraces supported by some-

times enormous steel structures that have compromised the integrity of centuries old buildings and have become a fixture of loud music. Bars and nightclubs have degraded the internal and external aesthetics of once prominent buildings and deteriorated entire blocks with negative externalities such as vandalism and crime. Large open-air event venues have multiplied in numbers in historically residential neighbourhoods, to the detriment of its residents' peace of mind and in violation of the constitutional right to a healthy environment as decibels largely exceed official Mexican Standards with little or no local authority oversight, enforcement or accountability. Local residents have been forced to take legal actions against local and state authorities as well as venue owners.

Despite local urban and conservation legislation regulating the historic centre and prohibiting such commercial venues to exist in residential areas, land use changes, construction permits and operational licences are routinely illegally issued by municipal authorities with the blessing of the National Institute of Anthropology and History (INAH), or are forced by land owners to do so via legal means. Often said authorities foreclose new developments due to legal violations but usually lose to developers in courts, or foreclosure seals are simply ignored, continuing works. The result is a large portion of the city that has become in itself a large event venue that disregards local regulations, customs, traditions, human rights and the cultural and archi-



Fig. 3: Works continue despite foreclosure seals.

Photo: Anonymous

tectural legacy for which this Centre was originally recognised by UNESCO.

Furthermore, some public spaces in the city's centre have been completely seized by street vendors. The streets of the Historic Centre have become a disputed territory between established and street merchants, groups that are often on the verge of violence. There are at least 25 streets trade organisations that have been "recognised" by municipal authorities since 2008, most of them do not pay federal income taxes nor utility fees. These organisations are often able to paralyse government authorities through protests and sit-ins in front of government offices. According to estimates by the Oaxaca Established Trade organisation (CEO), there are between 4,500 and 5,000 merchants currently competing for space on the streets of Oaxaca, tripling in numbers in the last 15 years and of those, only a third have "valid" permits.

Several streets behind the Municipal Palace are practically an open market, and several public spaces such as Plazuela del Carmen Alto, which underwent restoration works several years ago, are permanently occupied and markedly destroyed. Compounded by graffiti, protests and permanent sit-ins, prominent historic buildings and monuments have been noticeably damaged and defaced.



Fig. 4: Streets overtaken by vendors.

Photo source: <http://www.tvbus.tv/web/2021/07/17/ambulantes-de-oaxaca-retan-a-autoridades-se-instalan-en-calles-aledanas/>



Fig. 5: Damages to Plazuela del Carmen Alto.

Photo: Anonymous

Urban sprawl and infrastructure works in the Monte Albán protection polygon

On December 7, 1993, the Zone of Historical Monuments of Monte Albán was decreed with a polygonal area of 2,078 ha. The application of these legal provisions corresponds to INAH. However, for the last 40 years, the polygon has been constantly invaded by irregular human settlements, threatening the area's cultural and archaeological integrity. Back in 1999, the Direction of Urban Development of the state government reported 645 irregular human settlements distributed in nine agrarian nuclei within the archaeological polygon; the number of these settlements has multiplied exponentially ever since, which has resulted in constant damage to ruins and looting.

It is worth reminding that at the time of inscription in the WH List in 1987, ICOMOS' evaluation demanded full assurance of the Mexican State Party to "protect the land that separates the Historic Centre of Oaxaca from the archaeological zone of Monte Albán", proposing "a zone of non aedificandi [no construction] between the colonial city and the archaeological park", which in fact, has been exceedingly encroached, as evidenced in satellite photography, further undermining Monte Albán's integrity.



Fig. 6: Delimitation of the Property in 1985.

Map: Google Earth / authors

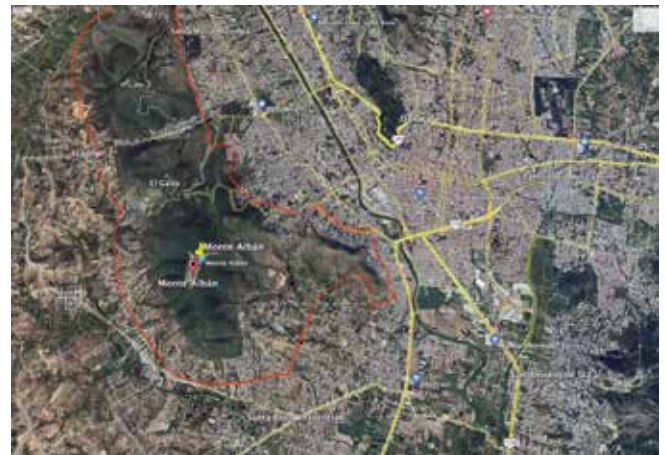


Fig. 7: Evolution of urban sprawl in 2022.

Map: Google Earth / authors

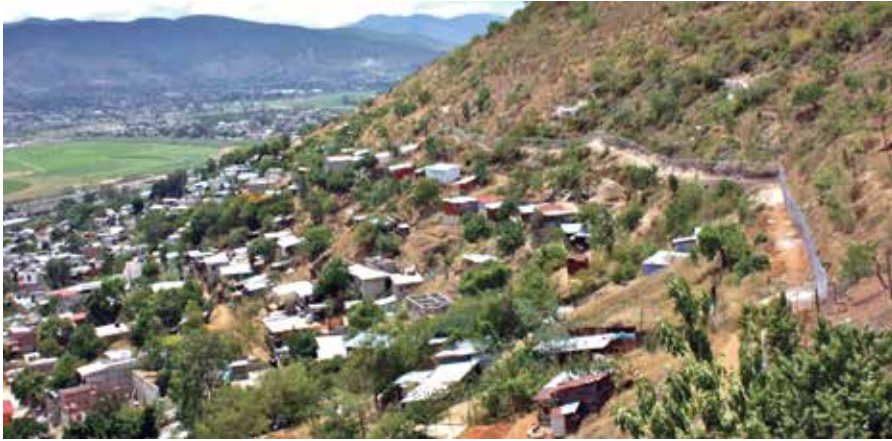


Fig. 8: Urban invasion on the Monte Albán polygon.

Photo source: <https://dialogosoaxaca.com/expropiara-inah-predio-para-frenar-invasion-a-monte-alban/>

State and local road projects within the polygon incite further urban growth. The South Oaxaca Bypass highway project will densify the immediate area on the western flank of the Archaeological Site of Monte Albán. Another project, the paving of a road in December 2021 that connects the Monte Albán agency with the main highway was denounced by INAH as having lacked a diagnosis, authorisation and supervision by the latter. ICOMOS Mexico seconded their rejection.

Recommendations

- The WH Centre, the Advisory Bodies and the WH Committee should urgently take notice of the threats to the Property's OUV and request from the Mexican State a thorough state of conservation report, and take any other measures deemed to assess the current situation in the Property.
- The WH Centre, the Advisory Bodies and the WH Committee should request from the Mexican State, after 35 years of its inscription in the WH List, the prompt elaboration of an appropriate, effective and comprehensive management plan for the whole Property, its buffer zone and its wider setting, as per the requirements and recommendations indicated in the Operational Guidelines and other WH related policies and programmes.
- Other urgent requirements to the Mexican State to ensure that effective and active measures are taken for the protection and conservation of the Property, should include:
 - Assure the proper enforcement of a comprehensive management waste program with the goal of minimizing the generation and maximising the recovery of waste under environmental, technological, economic and social efficiency criteria, including the creation of a new landfill that meets all sanitary and environmental requirements.
- Undertake a study that assesses the condition and degree of deterioration of heritage buildings and monuments considering atmospheric pollution (mechanical) and biological agents (animal and plant pests) that chemically alters their structure.

- Update, strengthen and enforce land use, urban and economic development, environmental regulations in conjunction with archaeological legislation integrating both sites of the Property, as well as effectively enforcing current regulations with foreclosures and fines to illegal operations and revisiting illegally granted permits and licences.
- Strengthen and effectively implement Monte Albán's protection polygon.
- Create a functional multi-stakeholder mechanism, including effective civil society participation (Advisory Council) to supervise the proper management of the Property.

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Emergency due to Imminent Danger of Collapse of the “Cerro Rico de Potosí”

José Edgar Miranda Martínez, Voluntariado “Vale un Potosí”



Efforts made for the preservation of Cerro Rico

Several and intransigent yet unsuccessful efforts have been made for the geomorphological and conical preservation of Cerro Rico before the departmental and national authorities responsible for the administration and management of Cerro Rico, so that they assume as a priority a work AGENDA and emergency actions aimed at permanent and uninterrupted support to avoid a catastrophe of the World Heritage since its declaration (1987).

In this effort, there were only promises of technical and professional guidance until UNESCO in 2014 included Cerro Rico on the list of World Cultural Heritage in Danger. This further increased the social, economic, and other problems in the city of Potosi, an aspect that finally led the civic institutions to make extreme efforts demanding the Potosinista Civic Committee to finally promote an action that can once and for all stop the petty appetite for easy enrichment of mining entrepreneurs such as Manquiri and cooperative members grouped in the Departmental Federation of Mining Cooperatives, which still remain arrogant and intransigent plundering the hill.

This demand finally concludes with the presentation of a popular action against the Ministry of Mining and Metallurgy, “Corporación Minera de Bolivia”, “Fedmecomin” and the “Manquiri Company”. Along with it the inspection of the mines in areas at risk also came to be carried out halfway after four failed attempts, due to obstructions made by the Cooperativities preventing the installation of the Hearing that was intended to resolve the action.

The action filed at the head of the Potosinian Civic Committee (comcipo), National Civic Committee of Potosinian Residents and Potosinian Professionals at the national level, after an arduous struggle, that comes to mark a milestone in the steep existence of our symbolic world heritage, has led to the pluri-national constitutional sentence PL No. 5/2022. A.P. As a result we have to make sure that:

The guardianship is being granted, precisely in relation to the defense of Cerro Rico declared Natural and Cultural Heritage of Humanity in accordance with all legal regulations, establishing

that the competent authorities proceed with the preservation of Cerro Rico, they should do so with the Ministry of Cultures as the head.

The aforementioned action did not have the desired echo and forcefulness to stop the plundering of the silver wealth that still exists in the bowels of our wonderful World Heritage.

For all these reasons, today it is our turn to act so that our heritage is saved and does not disappear due to the ambition of some. That it does not remain in the memory of a few as a legend that tells of a silver mountain that existed.

Thereby, we once again appeal to this instance, requesting that you urge the Bolivian State to be made aware that the Cerro de Potosí can no longer be seen as a mining site, to be exploited and abandoned. The imperative objective of saving our cultural heritage, support of our memory and identity, and doing so without forgetting, requires concrete and effective action.

Commitments and proposals related to the preservation of Cerro Rico, in the Unesco Management plan version 2021

These are the commitments made for the preservation of the hill, unfortunately, unfulfilled to date.

Supreme Decree 27787 of 2004 prohibits mining activities from 4,400 to 4,700 meters above sea level. With this legal instrument, an incomplete inventory of the cooperatives that exploit within the indicated margins has been achieved. Mentioning also that the Ministry of Mining and Metallurgy, Departmental Autonomous Government of Potosí, Mining Corporation of Bolivia, FEDECOMIN, and Departmental Assembly of Potosí would have carried out an on-site inspection that would have never been known by the society as a whole and even less what were the conclusions reached after this supposed INSPECTION.

They also committed to relocating the miners working at elevation above 4,400m; an aspect that, to date, has not been fully complied with.

Therefore, the social problem remains unsolvable today because it is not finally possible to regulate the mining work in the

limits between 4,400 and 4,700 meters above sea level, areas that are still plundered by cooperatives who refuse to leave the Cerro and do not intend to migrate to other existing deposits within the department itself.

The stabilization works recommended by UNESCO for the stabilization of the hill, which were intended to be done with dry fillings, have not fulfilled their objective; on the contrary, their excessive weight has increased the subsidence, which is now greater, and there is even a report that this year up to this month this subsidence has already claimed the lives of more than 20 humble miners.

Likewise, the Ministry of Mining and Metallurgy through COMIBOL on October 23, 2017, issued the Report of the integral management of "cerro rico de potosi for unesco" in which it externalizes that the updating of the information of the five High Risk Zones implies carrying out new Geotechnical Studies on surface and inside mine, and the time they need is 5 years. This report would present a Geophysical Study, contemplating 5 Geophysical Profiles, which are also not known and less socialized with the civic institutions of the department until now.

Likewise, we would also like to inform that the Regional Management of COMIBOL Potosí, in its purpose of preserving the geomorphological structure of Cerro Rico de Potosí, would have presented different relocation plans for the cooperative

mining operators above the 4,400 m a.s.l., establishing AREAS IN RURAL ZONE, an aspect that has not been fulfilled either.

After this journey, it is worth remembering and pointing out that, in addition to the technical studies requested by UNESCO and carried out after 2010 (Geomechanical Study, Geomorphological Study, Topographic Study), UNESCO's First Report Opinion of 2006, dozens of "TECHNICAL REPORTS" from within the Ministry of Mining and Metallurgy, COMIBOL, SERGEOTECMIN, Ministry of Cultures, it was recommended that the Ministry of Mining itself should take over the control and suspension of mining activities in the identified risk areas of the corresponding mappings, which were not observed or considered.

Consequently, the "Threat of irreparable collapse of Cerro Rico", with the risk of loss of human lives, and environmental, economic, social, historical, cultural, and patrimonial disaster, lies latent along with a gradual disappearance of the city of Potosí.

We conclude this clamorous appeal to UNESCO by stating that, in an intransigent manner, it must urge national government authorities to present and comply with a true Contingency Plan; if this is not done, the Cerro Rico de Potosí will have disappeared with unpredictable consequences for the Bolivian State, for the citizens of Potosí and for the irreparable loss of countless lives.

Visualization of illegal mining activities on the Cerro Rico

All graphics by Javier Villanueva



Fig. 1: Supreme Decree No. 27787 of October 8, 2004. Special regulations for mining activities in Cerro Rico de Potosí. Article six states that: "between the elevations of 4,400 and 4,700 meters above sea level, only exploration, exploitation and removal of clearings, pallacos and sucus can be carried out, without affecting the hard rock." (Note by the editor: Pallacos and sucus are types of mining residues which contain of minerals that can still be exploited.)



Fig. 2: The area above the elevation of 4,400m is the richest, which is the reason why cooperatives and companies want to work there



Fig. 3: 16 cooperatives work in 56 mines above the elevation of 4,400m. Only 36% of them have legal contracts.

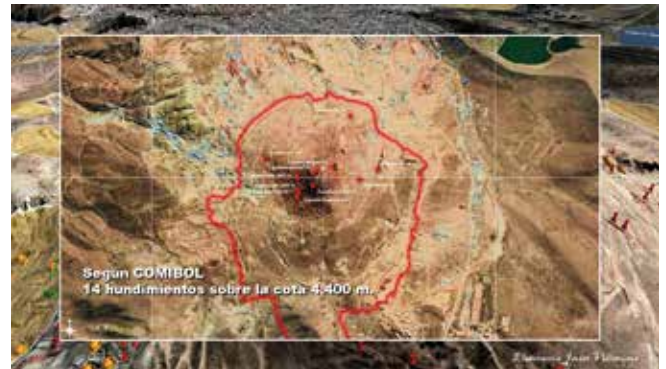


Fig. 4: Reference points where, according to COMIBOL, there would only be 14 collapsed holes above the level of 4,400m.



Fig. 5: According to on-site verifications, there are more than 209 collapse holes above 4,400m elevation, 195 more than indicated by COMIBOL, and more than 150 collapse holes below the level of 4,400m.



Fig. 7: The Cerro Rico de Potosí has presented a continuous series of subsidences in recent months, which could lead to a tragic collapse of the area. In addition, concern is spreading because the space could cease to be a part of the UNESCO World Heritage List. Photo: Voluntariado "Vale un Potosí"

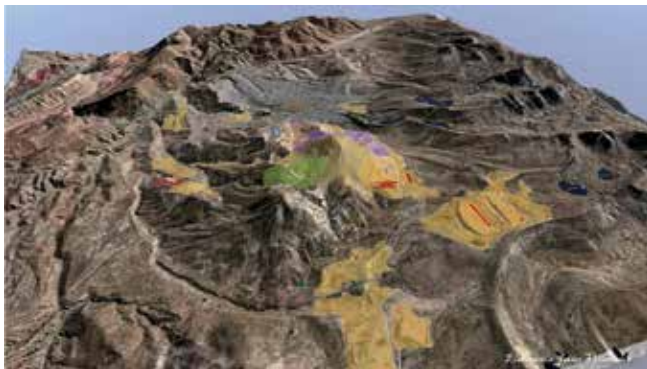


Fig. 6: The Cerro Rico is sinking before our eyes.

Okhta Cape Archaeological Monuments in St. Petersburg: Is the End Near?

Victoria Andreeva, Mikhail Ryzhov

2023 may be the last year of the existence of the Okhta Cape archaeological site

A year passed since the last report¹, and the same threat towards the Okhta Cape archaeological monuments located within the boundaries of the UNESCO WHS 540 “Historical Center of St. Petersburg and Related Groups of Monuments” still exists, and now the projections became even more alarming. In September 2022, “Gazprom Lakhta LLC” received a permit for the construction of a business center on the Okhta Cape, valid until 2026. In December 2022, it came to light that “Gazprom Lakhta LLC” owning the land lot on the Okhta Cape had been sold to an obscure organization, which legally excluded the lot from the Gazprom sphere of responsibility. In January 2023, excavators, cranes, bulldozers and other construction equipment appeared on the cape.

Unfortunately, UNESCO didn't respond to the call of the civil society – Okhta Cape and its historic and archeological monuments, being part of the component No 540-029 “The Neva River with Banks”, is not inscribed as a separate WHS component.

What is the Okhta Cape?

It's a point in the confluence of the Neva and Okhta rivers, a historic place where the significant water “route from the Varangians to the Greeks” and a land path from the North to Novgorod crossed, which was declared an archaeological site in 1990 in accordance with the legislation of the Russian Federation.

A unique multi-layered historical monument with an area of more than 40.000 m² consists of: Neolithic and early metal site, the largest in the north-west of Russia, V-II millennium BC; cape fortifications of the Novgorod time, 12th century; a wooden tower and earth walls of a Swedish fortress Landskrona, 13th c.; ground burials of the 16th–17th centuries; ditches and ramparts of Swedish fortress Nyenskans (Nyenschantz), the remains of two fortresses of the 17th c., different in architecture; – the harbor of the Okhta shipyard, 19th c.²

The complex of monuments of the Okhta Cape in the archaeological community was nicknamed “Petersburg Troy.”³ The outstanding universal value of the site is described as “unique urban landscape of the port and capital city of St. Petersburg,



Fig. 1: Okhta Cape.

Photo: https://vk.com/albums-200931602?z=photo-200931602_457243041%2Fphotos-200931602

¹ Minchenok, Elena, Ryzhov, Mikhail: The Tug-of-War for St. Petersburg's Okhta Cape Continues// World Heritage Watch Report 2022. Berlin: World Heritage Watch 2022, pp. 163-166.

² Ibid.

³ See: Minchenok, Elena: Okhta Cape: Archeological Site Extending from the Stone Age to the XVIII Century in Urgent Need of Support and Recognition // World Heritage Watch Report 2021. Berlin: World Heritage Watch 2021, pp. 49-53.

rising out of the Neva estuary where it meets the Gulf of Finland, was the greatest urban creation of the 18th c.” These are important monuments-evidence telling about the prehistory of St. Petersburg and the history of the Baltic region, trade relations with distant lands, and the development of the culture of local peoples. Peter the Great’s own ideas were in the choice of a place for the construction of the city, he later made it the capital, but also felt how important the Okhta Cape was, he stayed with his camp at Shlotburg for a few months and later ordered to preserve the fortress on the cape as a historical monument.

How Putin was deceived

After the St. Petersburg civil society forced Gazprom to abandon its plans to build a skyscraper on the Okhta Cape, the territory passed to its subsidiary Gazprom Neft, which in 2020 announced plans to build an office center and presented its project, selected during a closed architectural competition. As soon as the project was shown to the public, it became clear that it would almost completely destroy the archaeological sites. A certain hope for the preservation of Okhta Cape monuments appeared when in the end of 2020 Putin unexpectedly said that “there are many other office buildings, and the archaeological museum-reserve is an interesting idea” and gave an order to the governor of St. Petersburg, the Minister of Culture, and the CEO of Gazprom to consider a possibility of creating it⁴.



Fig. 2: This is how three skyscrapers in Lakhta may look like according to visualizations provided by the information department of PJSC Gazprom.

Computer animation: <http://heritage-expert.ru/vsemirmoe-nasledie/375-vsemirnaya-tsenost-sankt-peterburga-pod-ugrozoi-po-povodu-intervyu-gubernatora-a-beglova>

4 Perechen’ porucheniiy po itogam zasedaniya Soveta po razvitiyu grazhdanskogo obshchestva i pravam cheloveka (List of instructions following the meeting of the Council for the Development of Civil Society and Human Rights) // Presidential Executive Office. 2021, January 28. URL: <http://www.kremlin.ru/acts/assignments/orders/64952?fbclid=IwAR1QJkYBpmF0vE7t-8GDbp1J5kjTZ7r6P84-Hl7dAjpV2fzOOHUrCR9rYED4> [Accessed on March 26, 2023; In Russian]

“Gazpromburg”

In the summer 2022, the governor of St. Petersburg Alexander Beglov, and Gazprom CEO Alexey Miller, signed a certain program of interaction between the city and Gazprom. The full content of this document is unknown to the public. In the reports of the press services of the city and the company only a few of the alleged 64 points are named. The interaction of Gazprom and the Government of St. Petersburg has always been obscure: the official documents, including the texts of agreements or the list of these 64 objects, have not been published. The program includes two skyscrapers, a “reconstruction” of a bell tower of Smolny Cathedral that had never existed⁵, and many large objects, the need for which the St. Petersburg citizens doubt. For example, they are well aware that the first skyscraper, the Lakhta Center, was built back in 2018, but it is still not in operation.



Fig. 3: Gazprom CEO Alexey Miller and Governor of St. Petersburg Alexander Beglov.

Photo: https://www.dp.ru/a/2023/02/27/Zamechatelnij_sosed

The government of St. Petersburg reports huge revenues to the city budget from Gazprom, but there is still not enough money for the most necessary things: subway, schools, clinics, provision of urban amenities, restoration of historical buildings, etc. The city provides Gazprom with land without bidding, but at its own expense is building a transport infrastructure to the Lakhta Center. All this gave rise to heritage preservation community to say that Gazprom was granted St. Petersburg as its “fief”, even the word “Gazpromburg” appeared.

One of the points of the program is the construction of a public and business complex on the Okhta Cape. It is not only the Government of St. Petersburg that withholds the information about its cooperation with Gazprom. In February, 2023, Boris Vishnevsky, a deputy of the Legislative Assembly of St. Petersburg who has been wrestling against the buildup of the Okhta Cape, got an answer from the Russian Ministry of Culture about the execution of the president’s order. According to Dr. Vishnevsky, this official letter contained nearly no detailed information, but was marked ‘confidential’. This secrecy is a clear sign of a serious trouble with the protection of the World Heritage in St. Petersburg, as the very information about it is hushed up by the authorities.

5 Minchenok, Elena, Ryzhov, Mikhail. Op. cit, pp. 165-166

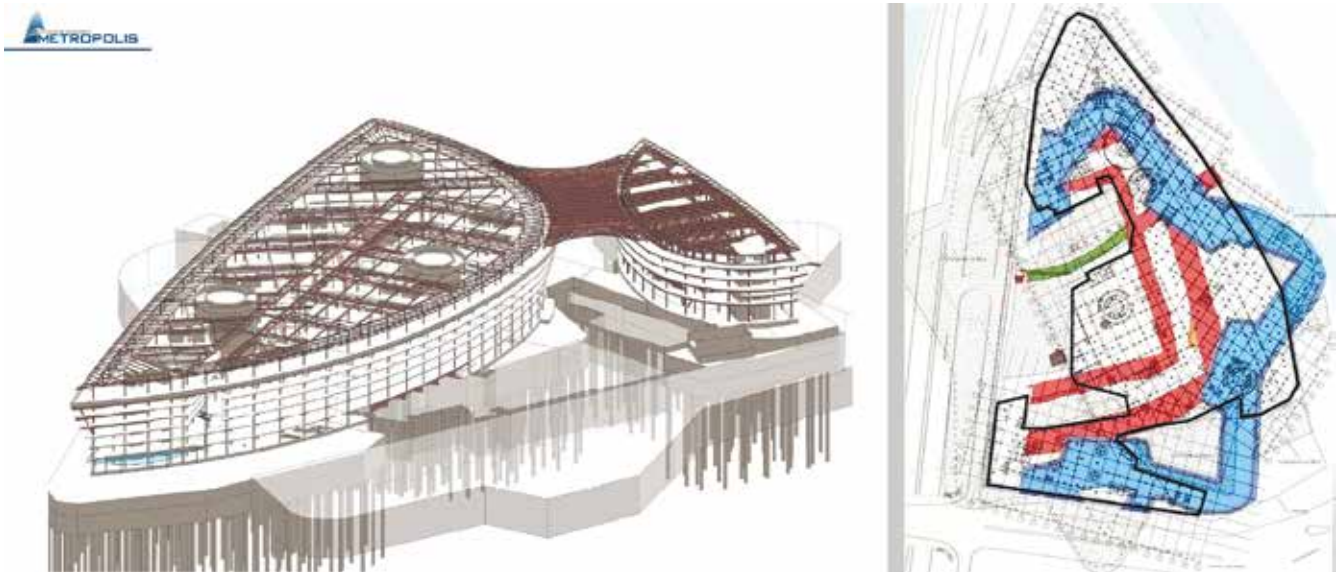


Fig. 4: The development project expects two underground floors and a pile field throughout the entire building area.

Graphics: <http://heritage-expert.ru/vsemirnoe-nasledie/373-k-ugroze-poyavleniya-kotlovana-na-okhtinskom-myse>

A Slight Hope

Meanwhile, courts of various instances are ruling in favor of Gazprom, citing an obviously false expert examination ordered by Gazprom and made by Tatarstan archaeologist Airat Sitdikov,⁶ but heritage preservation representatives believe that all is not lost. In September 2022, the head of the Investigative Committee of Russia, Alexander Bastrykin, sent a specially assembled group of investigators to Petersburg to check the circumstances of the demolition of a number of historical buildings. The Investigative Committee of Russia became interested in Okhta Cape as well, the head of the Main Investigation Department for St. Petersburg was instructed to conduct an audit.

So far, nothing is known about its results, but on March 25, 2023 at a conference organized by heritage preservation groups to find ways to save the Okhta Cape, three representatives of the investigative committee listened to the reports with great interest. At the same event the chairman of the city branch of the party "Fair Russia" Nadezhda Tikhonova informed that she got a preliminary response from the administration of the President of the RF. It says that all the necessary documents have been requested in order to assess the correctness of the decisions of the authorities. Tikhonova considers this a confirmation of the interest of the president and his administration in the fate of the Okhta Cape. The answer should have been received at the end of April.

Gazprom is preparing to destroy the pre-Petrine history of St. Petersburg

In January 2023, construction equipment appeared at the Okhta Cape. Heavy machinery moved throughout the cape. An excavator was digging something on the Charles Bastion of Nyenskans, which is part of the very "15%". OOO "Gazprom Lakhta" officially announced that a "trial immersion of sheet piles of the excavation's enclosing structure" was carried out. According to the project, there are going to be 2 underground floors under the office building, and the pile field occupies the entire area of the cape, with the exception of the 15%.



Fig. 5: Ongoing construction with heavy equipment on Okhta Cape, January 2023.

Photo: https://vk.com/okhtacape?z=photo-200931602_457243256%2Fwall-200931602_5134

Expert member of the ICOMOS International Scientific Committee on Historic Towns and Villages (ICOMOS-CIVVIH) Sergei Gorbatenko reports that the ICOMOS International Secretariat has already been informed about the incident. He also notes that "all the possibilities of extrajudicial, scientific and cultural appeals to the authorities of the Russian Federation now seem to be exhausted." The expert considers it necessary to apply to

⁶ Zheglova, Tamara: Oleg Ioannisyan: «Chinovniki ot kul'tury pokushayutsya ne tol'ko na pamyatniki Okhtinskogo mysa, no i na pervoye sooruzheniye samogo Peterburga» // Gorod-812. 2021, September 10. <https://gorod-812.ru/chinovniki-ot-kul'tury-pokushayutsy/> [Accessed on April 30, 2023; In Russian]

UNESCO and its World Heritage Committee with a proposal to include the St. Petersburg site in the List of World Heritage in Danger. These are the construction of a “cluster of skyscrapers” and the “reconstruction” of the bell tower of Smolny Cathedral together with the possible destruction of the monuments of the Okhta Cape which Gorbatenko considers to bring the largest harm to the WH object.

In 2022, the owner of the Okhta Cape, Gazprom Neft, changed its name, now the company is called “Gazprom Lakhta”. And at the end of the year, its founder was also changed: now it is not the parent company Gazprom, but an unknown AO “Leader”, a micro-enterprise registered a month earlier that has all the signs of a mass founder with one shareholder – a private person. Therefore, the heritage preservation community suggests that the “Leader” was created solely for the destruction of “Petersburg Troy”. In the case of the construction of an office center, the responsibility for the destruction of archaeological sites will



Fig. 6: A poster depicting one of the projects of the archaeological museum-reserve and the development project, and the inscription: “7000 years of human history, 700 years of Russian history, 300 years of St. Petersburg and the victories of Peter or another office of Gazprom? We will save the Okhta Cape, we will defend our city!”, January 21, 2023. Photo: https://vk.com/photo-200931602_457243187

fall on it, and not on Gazprom. If, for some reason, the construction is canceled, then, probably, Gazprom will decide to sell this land for commercial development, because no one will buy it with archaeological monuments.

The civil society actors and the heritage preservation community inform UNESCO of the status quo of the Site and state that:

1. At the moment no more than 15% of the surface of Okhta Cape archaeological monuments is under state protection. Since that in violation of paragraph 172 of the Implementation Guidelines of the Convention, in the absence of an outstanding universal value impact assessment, a building permit for an office complex was issued in September 2022, the 14th c. Landskrona moats and the other monuments are likely to be demolished.
2. The WH Committee should request the Russian State Party to submit full information about the archaeological evidence as well as existing plans for constructions on the Okhta Cape according to §172 of the Operational Guidelines for the Implementation of the World Heritage Convention. It is impossible to carry out the planned construction without nullifying the Outstanding Universal Value of this part of the component 540-029 of the UNESCO WHS 540.
3. It is highly necessary that the WHC requests from the Russian Federation a detailed report on the status and listing perspectives of the archeological monuments of the Okhta Cape that lie within the boundaries of the UNESCO WHS, and request an invitation for an advisory or reactive monitoring mission;
4. It is most needed that the Site that currently falls into the boundaries of the component 540-029 of the UNESCO WHS 540 be defined and recognized as a separate component, and the WH Committee can solicit that the Russian Federation review the list of the components of the WHS including the archeological monuments of the Okhta Cape as a separate component.

Goslar – an Endangered World Heritage Site: Tourism Label and Loss of Substance

Henning Frase

Flood protection

The city of Goslar was affected by an unexpectedly strong flood event in July 2017, which caused damage of 31 million Euros. In particular, the old town with its many picturesque houses and streets along the town stream “Abzucht” was affected. Flood damage amounted to 11 million Euros. Important buildings were affected in this area, among them the Town Hall, the Breast Cloth Building, the Market Church, the Market Fountain from the Romanesque period, the Kaiserworth Hotel, the Great Holy Cross, the former St. Spiritus Church, the Town Museum and many other valuable buildings and commercial enterprises.

The 2017 flood in Goslar’s Old Town

The old town area within the former city wall has a size of 86.23 ha. Approximately 26.61 ha were affected by the flood, corresponding to some 30.86 % of the old town area. Water backup was significant. The water inlet at the upper inlet to the old town has a passage area of about 9.70 m². However, at the lower end of the old town, the passage area is only 5.35 m². Therefore, the water would back up in the old town during large water flows.



Fig. 1: Flash flood in Goslar, 2017.

Photo: Frank May / dpa

Due to the flood, the city council pushed ahead with the planning of a flood relief tunnel as one of the supporting pillars of a flood protection concept, which could be subsidized by the state of Lower Saxony with 80%. The city of Goslar now intends to withdraw from this tunnel planning. There is currently no known alternative for safely diverting such large volumes of water and debris as flowed into the city in 2017. Based on the findings from the 2017 flood, the Lower Saxony State Agency

for Water Management, Coastal Protection and Nature Conservation (NLWKN) has identified and provisionally secured a floodplain for the Abzucht River in the old town covering an area of approximately 26.61 hectares. The final securing of this area in the old town will be carried out by a formal procedure with public participation, which the city of Goslar, represented by the lower water authority, is to carry out on its own. This public procedure has not yet been opened.

Within the framework of the EU Flood Risk Management Directive (FRMD), the Abzucht was classified as a so-called “risk water” and, in addition to the one-in-a-hundred years flood event, the areas in the historic Old Town at risk of flooding were also determined to be at low as well as high probability (approximately every 20 years) on an area of approximately 30.86% of the total area. According to this analysis, there is an increased risk that another flood of this magnitude might inundate the Old Town by 2037. As a result, there is a threat of massive loss of value, building vacancy, building damage and further deterioration of the old town.

The German Insurance Association (GDV) in conjunction with the German Weather Service (DWD) determined already in November 2019 on the occasion of its balance of heavy rain damage for Lower Saxony 543.7 million euros of damage for heavy rain damage without additional possible flood damage in Lower Saxony and Bremen – that Goslar is the most frequently affected of them. Residents of the city of Goslar were most frequently affected, as an average of 146 out of 1,000 residential buildings suffered damage.¹

Further complicating the situation is possible damage to underground structures. Goslar’s location in a basin filled with glacial debris of varying sizes is sensitive. The city stands on layers of sediment of varying thickness, which can lead to structural problems after water ingress. During floods, underground water pressure rises sharply, creating swelling pressure in cellars, passageways, and other poorly known underground structures in the old town, which can fill with water and cause structural

¹ Report of the German Insurance Association 2019 on heavy rain damage in Lower Saxony and Bremen in cooperation with the German Weather Service (DWD). www.gdv.de

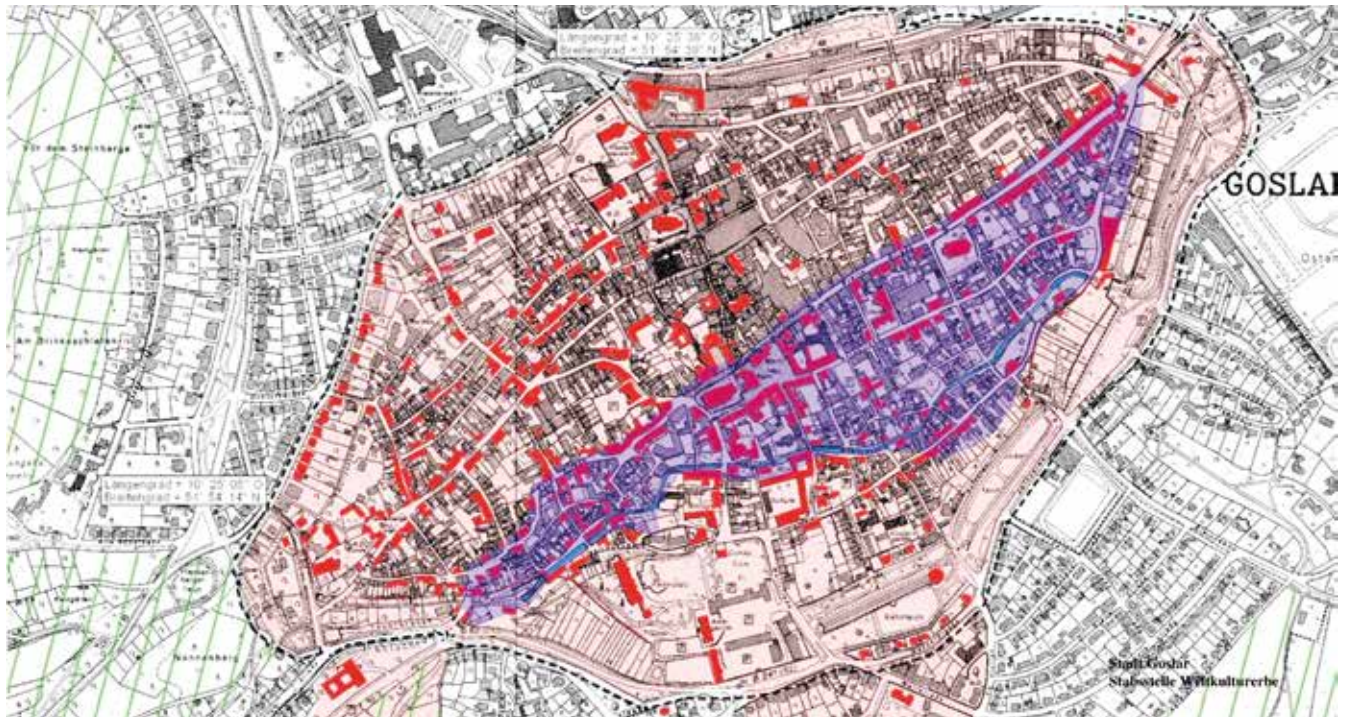


Fig. 2: The approximately 266,136 m² provisionally declared flood-prone area in the old town (in blue, laid over the inscribed World Heritage property (in red).

Map: Henning Frase, based on Niedersächsische Umweltkarten

problems. The list of problems includes the outdated sewer network which, if damaged, can possibly undermine buildings.

City Hall

Goslar's town hall is located in the center of the city between the market church and the market square. Its present appearance dates back to the beginning of the 15th century. The oldest components date back to around 1300. Until the start of necessary renovation work in 2011, it was used in accordance with its assigned function.

The renovation became necessary due to subsidence of the approx. 26.0 m long facade on the market square by up to 30 cm into the subsoil, and various age-related damages. The cost of the refurbishment rose from the originally estimated €8.8 million to €14.4 million. The renovation measures and the renovation result were appreciated by the president of the Lower Saxony State Office for the Preservation of Historical Monuments. In 2022, the building was reopened after 11 years of renovation. The building is now used by the tourist information office and houses one of the Harz World Heritage Centers. The Rathausdiele continues to be used for city council meetings and events.

In late 2022, settlement cracks became again evident in the northeast corner of the building, and significant moisture damage was evident in the basement area. The introduction of ventilation in front of a historic ceiling chandelier and the connection of the street pavement to a basement window at the same level indicate poor planning. This will likely require renewed

work on the exterior waterproofing of the basement, the addition, and the structural integrity of the north-east corner of the building facing Fleischscharren. The work was the responsibility of the city of Goslar.



Fig. 3: Damage caused by moisture penetration in the cellar vault of the town hall.

Photo: Henning Frase

Market square

The approx. 3,000 m² large market square in Goslar received its current appearance in 1834. It is a visual and craftsmanship masterpiece of its time. The radiating pattern made of different types of natural stone is aligned with the market fountain located in the center of the square and radiates into all corners of the square and the adjacent street entrances. When the natural stone paving on the market square was renewed around 1960, the pattern was retained and extended.

In 2021, the Goslar City Council decided to take up the pavement, install a new base course and then re-lay the radiating natural stone paving. In the process, a band of granite slabs

ranging in width from 2.70 m to 6.90 m is to be laid along the house facades to improve the accessibility of the square for the disabled.

In addition to the loss of authenticity of the historic paving by its re-laying, this would reduce the radiating paving area by 1,000 m², or one-third.

The decisive factor for this planning was apparently the prospect of subsidies from the state for a surface renovation suitable for the disabled. Despite the suggestion of the State Office for the Preservation of Historical Monuments, a preliminary architectural history study of the square was not carried out. The routing would lead disabled people to the edge of the square and through the outdoor seating of the adjacent restaurants, and would thus be a hindrance for both sides. After many protests, newspaper reports and a petition, the council decision was put on hold at the end of 2022, but not rescinded. A similar design is still preferred by the city.



Fig. 4: Illustration of the intended change of the market square with the approx. 1,000 m² surrounding band of granite slabs. Computer animation: City of Goslar

Kaiserpfalzquartier (Imperial Residence Quarter)

Goslar's largest building project at present is the "Kaiserpfalzquartier", located in the immediate vicinity of the Kaiserpfalz (Imperial Residence), one of the largest and best preserved



Fig. 5: Computer animation of the planned Kaiserpfalzquartier, as seen from the imperial residence.

Source: <https://www.goslar.de/stadt-buerger/stadtentwicklung/kaiserpfalzquartier>

secular buildings of the 11th century in Germany. A luxury hotel with underground parking and a city hall are to be built here. As far as the publicly available planning documents show, the building complex is to be three to four stories high with windows reaching down to the ground. In this design, it could have a significant negative impact on the visual integrity of the Imperial Residence. The very high volume of traffic and visitors expected at the site would subject the Imperial Residence and its surrounding green spaces to greatly increased stress. The proposed luxury hotel would call into question the economic operation of the currently vacant former hotel in the "Brusttuch" building and the Hotel Kaiserworth directly on the market square. Both are among the most iconic buildings in the old town.

St. Ulrich's Chapel next to the Imperial Residence

The chapel of St. Ulrich is outstanding in Germany due to its architectural design. It is directly connected to the imperial residence adjoining to the north. The wall paintings in the interior are partially damaged by rising dampness on the first floor and on other wall surfaces (see Fig. 6, 7). Incipient cracking is visible in the walls, which could indicate structural problems in the building. This condition has existed for some time and has not yet been remedied by the city of Goslar, which is responsible for maintenance of the building.

Urban development and monument preservation

There are hardly any noticeable efforts on the part of the city administration to secure historically valuable buildings or to enter into mediation with suitable prospective buyers. Also conspicuous is the frequent lack of knowledge about the city's own historic holdings. It is particularly alarming that the city of Goslar, with its Lower Office for the Protection of Historical Monuments, is able to issue permits to itself in many cases. The State Office for the Preservation of Historical Monuments has no effective right of objection. A necessary inventory and classification of the entire old town with regard to all components has



Fig. 6: Moisture and cracks in the floor of St. Ulrich's Chapel. Photo: Henning Frase



Fig. 7: Damage to the roof truss. Photo: Henning Frase

been overdue for years, as has a design and management plan in accordance with the World Heritage guidelines. To the best of my knowledge, the World Heritage Committee has not been informed about any of the issues described here, and none of the projects described have been submitted to it for evaluation in accordance with §172 of the Operational Guidelines.

Requests

That the World Heritage Committee place the World Heritage Site "Mines of Rammelsberg, Historic Town of Goslar, and Upper Harz Water Management System" on the agenda of its 45th session and decide to request the State Party Germany,

- to submit to it without delay, in accordance with §172 of the Operational Guidelines, all planning documents for the redevelopment of the Market Square and for the Imperial Residence Quarter, and not to take any irreversible decisions on these projects;
- to request a comprehensive report on the state of preservation of the entire old town of Goslar, including reports on the condition of the individual listed buildings, in particular the town hall, and St. Ulrich's Chapel;
- to submit to it a practicable and financially viable concept for flood protection for the old town of Goslar in order to prevent a possible large-scale loss of world heritage substance;
- to elaborate a management plan for the Old Town of Goslar that meets the requirements of the Operational Guidelines for the World Heritage Convention and includes a tourism plan;
- to examine the legality of the issuance of permits under monument law by the city of Goslar without an effective right of objection by the Lower Saxony State Office for the Preservation of Monuments or another institution, and to make proposals as to how this situation can be changed;
- To review and criticize a redevelopment policy of the old town based purely on eligibility for funding without direct reference to the individual private monuments.

Historic Vienna's Soft 2nd Management Plan

Herbert Rasinger, Initiative Stadtbildschutz Wien



The historic center of Vienna with a size of less than one percent of its total urban area has been put on the Red List of "World Heritage in Danger" in 2017. UNESCO document WHC/21/44.COM/7A.Add of June 2021 identifies the lack of adequate planning rules in Vienna as a threat for which the property was inscribed on the List of World Heritage in Danger.



Fig. 1: View from the gothic cathedral in the center of Vienna towards the towers of the Wien-Mitte high-rise building project. Photo ©: Initiative Stadtbildschutz

Already in 2003, Vienna was on the brink of being put on the list of World Heritage in Danger when Vienna allowed the Wien-Mitte high-rise building project in the buffer zone.

The city of Vienna then established the still existing first management plan of 2006 which declared on page 95 that "world heritage sites are exclusion zones for high-rise buildings" (www.wien.gv.at/stadtentwicklung/studien/b007828.html).

To allow the new Heumarkt high-rise construction project in Central Vienna (Vienna Ice-Skating Club – Intercontinental Hotel – Vienna Konzerthaus project), Vienna prepared a second new management plan in 2021 that does allow high-rise buildings in world heritage sites, in contradiction to the preceding one.

Heumarkt project variant C secret

Because of heavy opposition, a revised design (variant C) was submitted to Unesco, which was kept secret. This variant C was handed over to heritage expert Michael Kloos for drafting another Heritage Impact Assessment (HIA), like the HIA on variant B which Michael Kloos already wrote in 2018. The result of the HIA 2021 was kept secret. Only the measurements became

known to the public: two disc-shaped structures of 56,5 and 48 meters, with a length of approximately 100 m.

These two disc-shaped structures of 56,5 and 48 meters will be detrimental to the OUV of the world heritage site, especially for the famous view from the Upper Belvedere (Canaletto view).



Fig. 2: View from the Upper Belvedere castle to the city center, rendering of variant C of the Intercontinental Hotel. Photo ©: Initiative Stadtbildschutz

It is regrettable that the clear provision in the 1st management plan 2006, that high-rise buildings are not allowed in the world heritage zone, has been deliberately omitted in the new one. As a result, high rise buildings will be allowed in the world heritage zone in Vienna in the future under the new 2nd management plan of 2021.

Three stories superimposed on top of a monument

The Wienmuseum, the Vienna historical museum, had been declared a monument by the Federal Monument Office. Nevertheless, a three-storey roof construction has been superimposed on top of the monument in 2022. Surprisingly, the Federal Monument Office has approved this disfigurement of the monument. Besides this superstructure, a 29 m long addition has been made to this monument which changes its original shape.

Anchoring World Heritage Protection

The corrective measures in the DSOCR (Desired State of Conservation for the Removal of the property from the List of World Heritage in Danger) state that "anchoring" the World Heritage in the Viennese Building Code was "the most important legal tool of urban planning". What does it really mean?



Fig. 3: The monument Wienmuseum with three storeys on top and a 29m extension added. Photo ©: Initiative Stadtbildschutz



Fig. 4: View of the Wienmuseum in November 2016.

Photo ©: Initiative Stadtbildschutz

It only means that in Section 1 of the Building Code the word “World Heritage” has been introduced and it reads now as follows:

When determining and modifying the zoning plans and the development plans, the following goals must be taken into account: ... “ (16) protecting UNESCO World Heritage sites in their Outstanding Universal Value”.

However, no provisions have been included in the Building Code for the case that the World Heritage is not taken into account. These are nice words without any substance.

Court of Justice of the European Union

The mayor of Vienna, Michael Ludwig, favored the real estate tycoon, Mr. Tojner, and his Vienna Ice-Skating Club – Intercontinental Hotel – Vienna Konzerthaus project by issuing on 2018-11-16 a legal notice that Tojner is not obliged to conduct an Environmental Impact Assessment (EIA) for his huge € 350 m real estate project in the world heritage zone. Two citizens’ initiatives appealed to the Court of Justice of the European Union

in Luxembourg against this legal notice of the mayor, claiming that the mayor did not interpret European law correctly. On 25 May 2023 the court issued a judgement obliging the Austrian authorities to request an Environmental Impact Assessment (EIA) of this real estate project in the World Heritage zone of Vienna.

Recommendations

1. The three-storeys superstructure on top of the Winterthur house adjacent to the baroque St. Charles church in the core zone of the world heritage site must be removed.

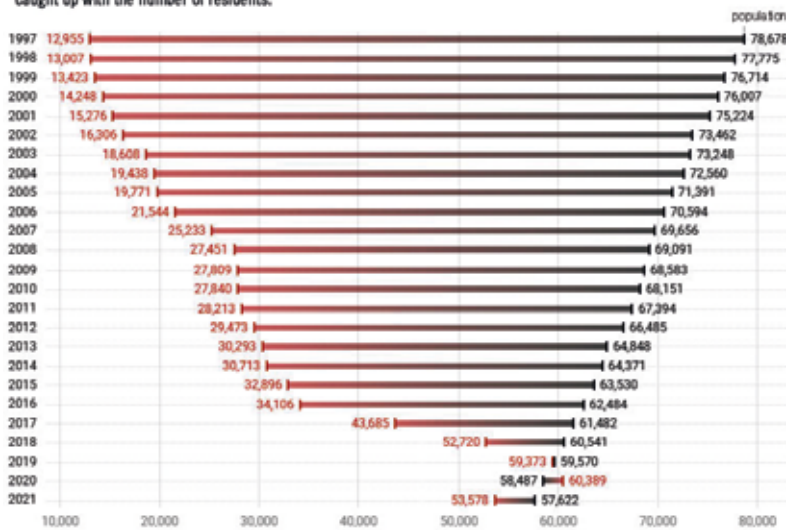
2. The 2nd management plan of 2021 should clearly define that world heritage zones are exclusion zones for high-rise buildings. The current building height of the InterContinental Hotel is 38 meters. This is the maximum allowable height possible in order not to disturb the famous view from Belvedere, the OUV of the world heritage site.

Tourism Overcrowding in Venice

Franco Migliorini

In 2020 More Beds than Residents (Insular Venice)

After the boom in tourist rentals in 2017 and 2018, by now the number of beds in the tourist market has practically caught up with the number of residents.



Source: Elaborated by OSIO from data by:
 1. Statistical Office of the Region of Veneto (hotel and non-hotel facilities)
 2. Commune of Venice - Service of Statistics and research on municipal registry data (population data)

Fig. 1: The ratio of beds and inhabitants in Venice from 1997–2021.
 Graphics: <https://ocio-venezia.it/report/categories/monitoraggio>

This paper is specifically addressed to the content of Recommendation No. 6 “Updating the Management Plan of the UNESCO Site “Venice and its Lagoon”, with particular concern to the subject “Sustainable Tourism” as expressed in the Report

on the State of Conservation to the World Heritage Committee, published on December 1st, 2022.

Tourism overcrowding and the impact on the historic City of Venice

The City of Venice is a clear example of tourism overcrowding due to a long-lasting meeting of interests between the international tourism industry and its interaction with the social conglomerate of local profits. This “overtourism” condition was recently described by a wide research on tourism promoted by the EU Parliament, especially focused on those factors influencing tourism attraction. This condition can perfectly be represented by Venice. (See research for TRAN Committee – Overtourism: impact and possible policy responses, Policy Department for Structural and Cohesion Policies Directorate-General for Internal Policies PE 629.184 – October 2018).

In particular, the identified factors of overtourism are tourism density (bed-nights per km²) and tourism intensity (bed-nights per resident); the combination of Airbnb bed capacity with its booking.com capacity; the share of tourism in the regional

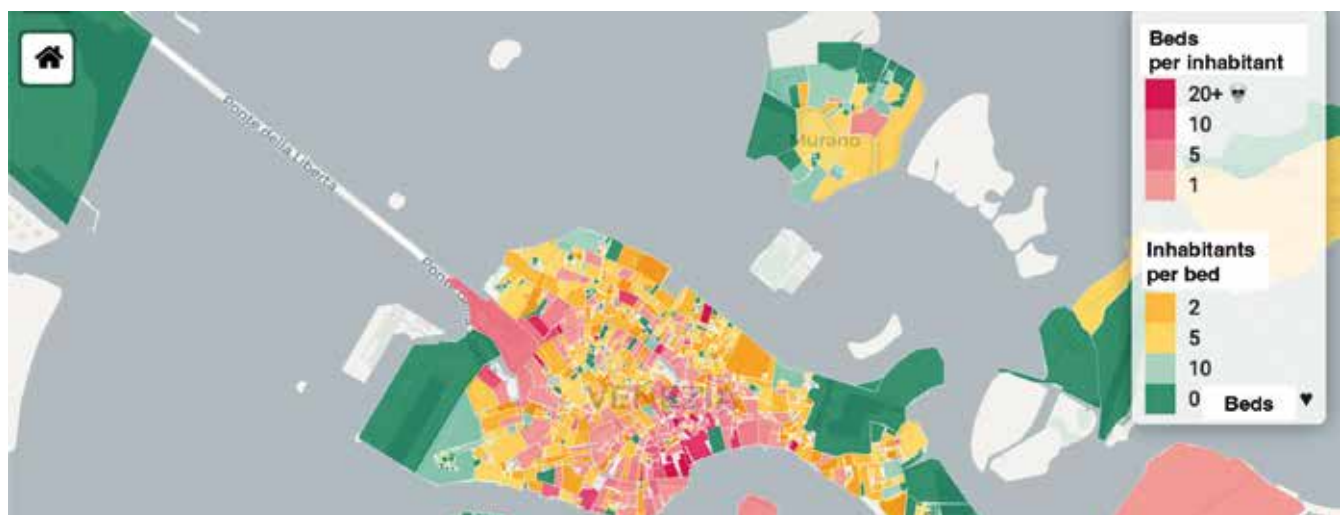


Fig. 2: Distribution of overtourism in Venice as indicated by bed/inhabitant ratio.
 Map: <https://ocio-venezia.it/report/categories/monitoraggio>

GDP; air travel intensity (arrivals by air per resident numbers); the presence of an international airport together with a cruising port and a recognized Unesco WH site.

Total tourist figures, accommodation beds, number of overnight stays across seasons

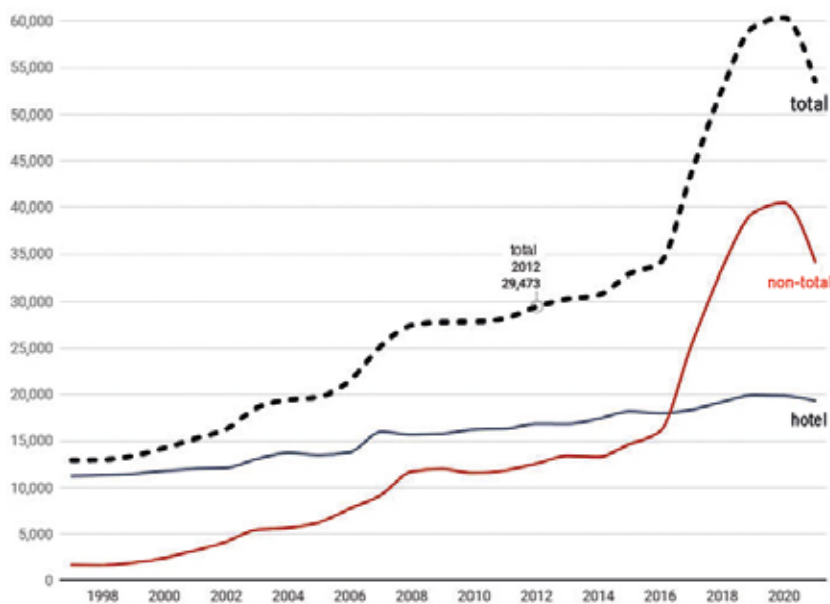
The historic city, an island in the middle of its lagoon, lays on a surface of 800 hectares (8 square kms) of reclaimed land (harbour excluded); its demography shows a long-lasting decrease still on with an average loss of about 700 units per year, now counting less than 50.000 inhabitants, with a clearly aging population.

Concerning the present impact of tourism on Venice's urban system, the figures synthetically show this hosting capacity: Historic city: 20.000 hotel beds + 40.000 complimentary B&B beds, modern town: 20.000 hotel + B&B beds; Venice' regional hinterland: about 20.000 beds. All these figures have been rounded up also considering the number of hidden activities in this very fragmented sector. The total capacity of Venice's accommodation system adds up to about 100.000 beds.

Exponential and Uncontrolled Growth

The trend of accommodation supply, insular Venice

Number of beds in accommodation facilities



Source: Elaborated by OSIO from data of the Statistical Office of the Region of Veneto • Get the data • Created with Datawrapper

Fig. 3: Increase of hotel and non-hotel beds in insular Venice.

Graphic: <https://ocio-venezia.it/report/categories/monitoraggio>

Daily and seasonal visitor flows

Related to the commuting flows of day trippers, the estimation can substantially vary on seasonal basis, for weekly or weather reasons, for great annual events, and other, so that a global figure for the whole tourism demand can only be realistically estimated. This is the reason why the figure of 30 m tourists for the last available pre-pandemic year 2019 can be assumed as representative of the recent global annual demand, whose amount

might go easily over in the future if the increasing trend of the post-pandemic year 2022 will be confirmed.

The estimated 30 m pre-pandemic annual visitors flow shows a statistical average number of around 80.000 visitors/day where it's more realistic to consider a daily average of 60.000 visitors to be increased and compensated with the weekend peaks of 100.000 daily visitors and even more during the special events provided by the local tradition and the cultural events.

The present carrying capacity of the urban property

Related to the pressure of tourism on the residents the figures show the yearly global amount of about 600 tourist/inhabitants, corresponding to the facility intensity of 1,2 tourism beds/inhabitants while the city of Barcelona, just for comparison, has established the rule of 0,1 tourism bed / inhabitant for the recognized urban tourism districts. In terms of Venice's urban surface (8 km²) this means an average density of 7.500 tourism beds/km² which in several districts shows more beds for tourists than for inhabitants.

As concerning the arrivals by air in 2019, the Venice airport attracted 231 pax/inhabitant, while cruise ship arrivals provided 32 pax/inhabitant in the same year. All these factors represent the strongly increasing attraction capacity of the City of Venice.

The so-called "Strategic objectives" of tourism management of the Local Authority

Due to the fact that tourism access to Venice has only two main ways: the trans lagoon road and parallel rail bridges, the Local Authority in the year 2022 proposed to introduce a complex system for the so-called "governance" of tourism flows, based on five elements: an entrance tax; a filter of electronic gates to check payments; a control room for monitoring the visitor flows by their smart phones; a very complex Access Regulations Text describing the 26 allowed tax exemptions; and finally the establishment of a new "police corps" for tourism.

However, the real and most important lacking factor of this complex approach is the definition of a Maximum Access Threshold, which was never established. Practically the newly-proposed system must be intended as an over-tourism practice legitimized "by paying". This mercantile abuse of the city, supplied as pure goods for the tourism market, has been strongly opposed by the Venetians with a public demonstration, also related to the wide opinion about the substantial privacy vio-

lation by the smartphone data processing without any security against abuse.

The opinion expressed by the National Privacy Authority was withheld by the Local Authority. Due to the strong diffused contradictory opinion on the whole proposed tourism management system, it was delayed more than once and at the moment (January 2023) it is not yet operational.

Ongoing trends of tourism-related urban damages

After many years of tourism overcrowding, we can identify its impact on the City of Venice: a stable decreasing demographic trend with the parallel loss of many service activities to the residents substituted by an increasing transformation of the whole urban service sector converted into support the increasing tourism demand which shows a strong boost in the post-pandemic period.

But the real structural impact that the historic city is undergoing is directly produced by the pressure of the real estate market on the local housing stock which is perceived as an opportunity by the international investment sector allowing good performance by short-term tourism rental management provided by small and big subjects recently created in 2015 – 2020. This is the outcome of the sharing economy platforms successfully operating as a competitive alternative to the traditional urban hotel supply market.



Fig. 4: It is estimated that 25 million tourists currently visit Venice each year – a figure expected to rise to 38 million by 2025. Photo: Manuel Silvestri / Reuters

On one side the traditional Venetian middle class has no more opportunity to access the residential rental market in Venice due to the unsustainable competition exercised by the short-term tourism demand providing much bigger incomes within a relatively locally deregulated market where tax evasion is easily possible as well as the real control on the number of beds supplied.

On the other side, the cohabitation between residents and tourists within the same residential building shows real problems of behavior and diminishes the market value of the permanent housing stock, thus pushing the exit of residents and

leading to an easier conversion into the tourism of the remaining housing stock. Substantially a sort of perverse social effect of the urban identity itself: more tourists than residents! The main engine supporting the idea of a “short-term city”. This dynamics produced by overtourism in the real estate market emphasizes the increasing values of the rent while depressing the value of labor, which substantially requires low specialization and temporary employment provided by metropolitan hinterland immigrants.

Can the present trend be considered an effective containment of visitors by the urban reception capacity?

Absolutely not! The ongoing strategy by the Local Authority considers that the overcrowding affects only those urban districts – the monumental ones - where the visitors are used to converge, representing we can say 50-60% of the whole urban surface. Further, the present visitor density does not involve, at the moment, the main islands of the lagoon, and the lagoon itself, as a relevant natural landscape attraction that is now proposed to be put on the market.

The strategic reflection elaborated by the Local Authority directly just takes into consideration the overcrowded accessibility factor whose limit should be the concentration of visitors on the two trans lagoon bridges, rail, and road, creating a sort of bottleneck for the city access, with the consequent congestion of a significant portion of the historic town.

With such premises the plan to be elaborated by the Local Authority should be redistributing the tourism flows on a much wider area, practically the lagoon, by sharing additional accessibility through four specific land-water intermodal nodes. All the new access points will be placed in Unesco’s buffer zone. This is to enable access to Venice by a third transport mode, the water bus, in such a way pursuing a double goal: to increase the number of accesses to Venice by water transport, and extending to the islands the over-tourism practice now affecting only the historic city.

The final consideration: Under the title of “tourism management innovation”, the Local Authority is planning a permanent increase of visitor flows by increasing the transport capacity which in practice means to facilitate access both to the small islands and to the peripheral areas of the City of Venice.

The peaks of tourist flows of about 100.000 daily visitors in the recent years, which we have considered exceptional, might become the standard flow of daily visitors for the years to come, under the proposed policy that “tourism management” must be intended as a strong permanent “overtourism promotion”.

The therapy supplies the disease. Exactly the opposite of the publicly-declared purpose!

Increased Commercial Development in Strategic View Corridors of Valletta



Joerg Sicot, Flimkien ghal Ambjent Ahjar

The City of Valletta (Malta), inscribed on the World Heritage List in 1980: Island of Malta N35 54 02 E14 30 52 Ref: C 131, boasts an iconic skyline as one of the most important views on the Maltese Islands.



Fig. 1: The Valletta Skyline.

Source: www.southsummit.com

As outlined by Flimkien ghal Ambjent Ahjar (FAA) in the WHW Report 2022, pg. 181, numerous proposals have been built or are currently seeking an approved planning application from the Planning Authority in Malta. The increasing commercialization of this World Heritage Site continues unabated.

The North Harbour Local Plan Strategic View Lines SE2 was issued by the Planning Authority of Malta in July 2006, with clear Strategic View Lines to be respected in order to ensure legible views of the Historic Bastions of the Valletta UNESCO World Heritage Site. Sadly, several development proposals were approved by the same Planning Authority, undermining the Strategic View Corridors, as illustrated by the four Planning Applications in Fig. 2 and as per descriptions below.

PA 10444/18 Grand Hotel Excelsior, Valletta/Floriana. Proposed extension to the hotel comprising of an additional new wing consisting of 77 guest rooms connected to the existing hotel structure. Refurbishment to outdoor area, including pool and bar area, and inclusive of bastion restoration works. This appli-

cation, once approved, will block out a large vista of the Valletta Bastions as viewed from Pieta and Ta'Xbiex and View Corridor 3.

The applicant explains at length the increased need for a superior hotel accommodation, whilst the Carrying Capacity Study for Tourism in the Maltese Islands, commissioned by the Malta Hotels and Restaurants Association and carried out by Deloitte (published 04 July 2022), indicates that Malta needs to welcome some 4.7 million tourists per year if accommodation occupancy is to reach 80% throughout the whole year. FAA maintains that projected business interests may not override the importance of our heritage. The value of the Maltese UNESCO World Heritage Status may not be compromised as a negotiable good.

PA/04417/22 & PA/02765/16 - ST Tower, Ta'Biex. To sanction demolition of a building and proposed construction of basement parking levels with an overlying business tower. The proposal has been constructed and towers upward 18 storeys high directly within Strategic View Corridor 3. FAA deplores that the Planning Authority of Malta ignores its own baselines, and allows commercial interests to disrupt the unencumbered views of the UNESCO World Heritage Site Valletta.

PA/01505/15 & PA01996/16 – 14EAST Tower, Gzira. Demolition of existing industrial/office block and construction of a mixed-use (commercial & residential) high-rise building with a public open landscaped plaza at ground level. This tower has since also been constructed and is fully operational. It stands directly in the Strategic View Corridor 3. The purpose of establishing strategic view corridors which are then simply ignored in favour of commercial interests indicates a gross disdain of the cultural value of the UNESCO World Heritage Site Valletta, in favour of short-termed commercial interests.

In order to protect the UNESCO World Heritage Site Valletta vista from both north and south, UNESCO had requested the Maltese Government in 2009 to establish a buffer zone in order to safeguard the view of Valletta's skyline for the enjoyment of all. A Boundary was declared and determined to be Areas of High Landscape Value (AHLV). Maps 5 & 6 below (Fig. 3, 4) were published accordingly.

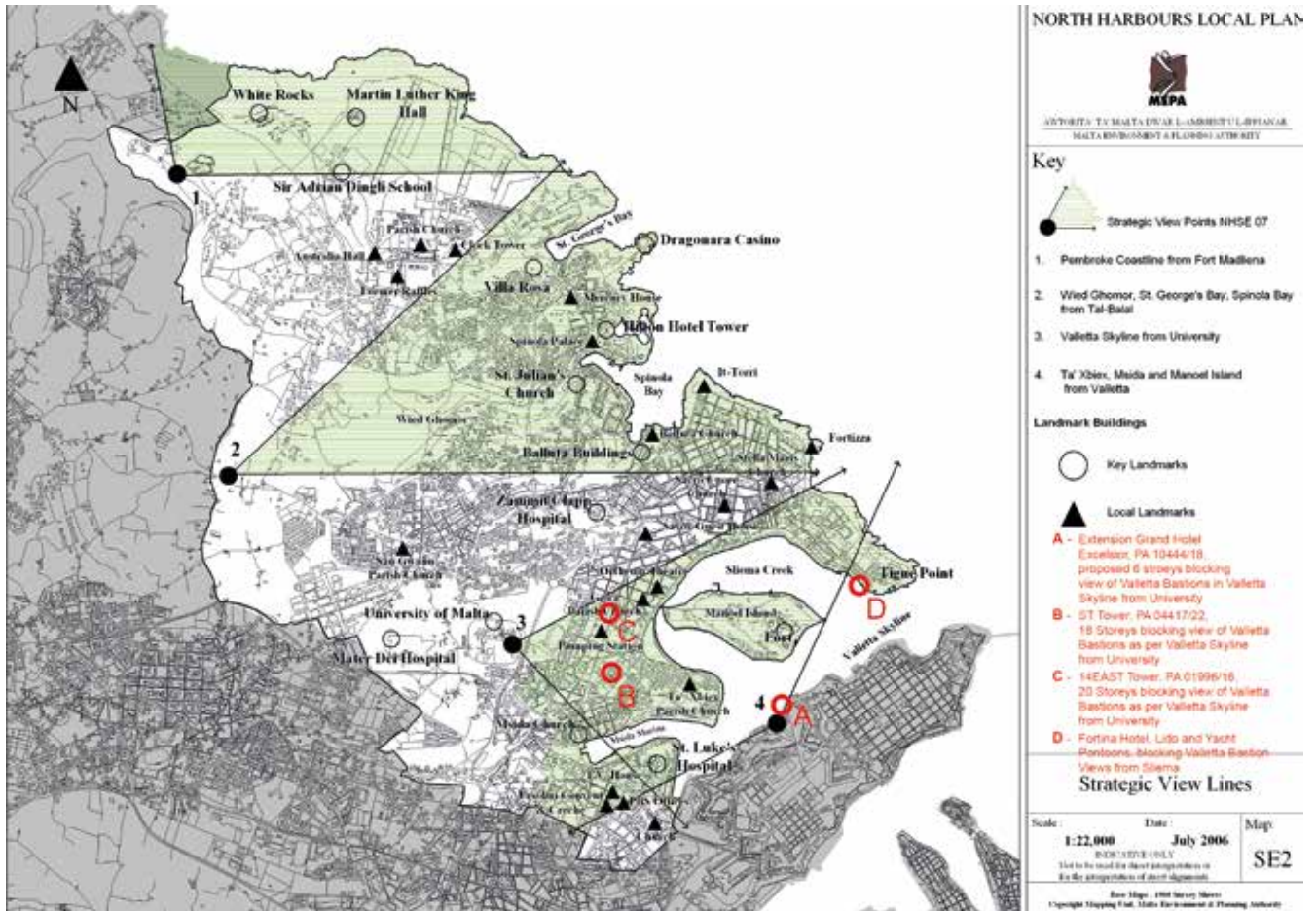


Fig. 2: North Harbour Local Plan Strategic View Lines SE2.

Map: Planning Authority Malta

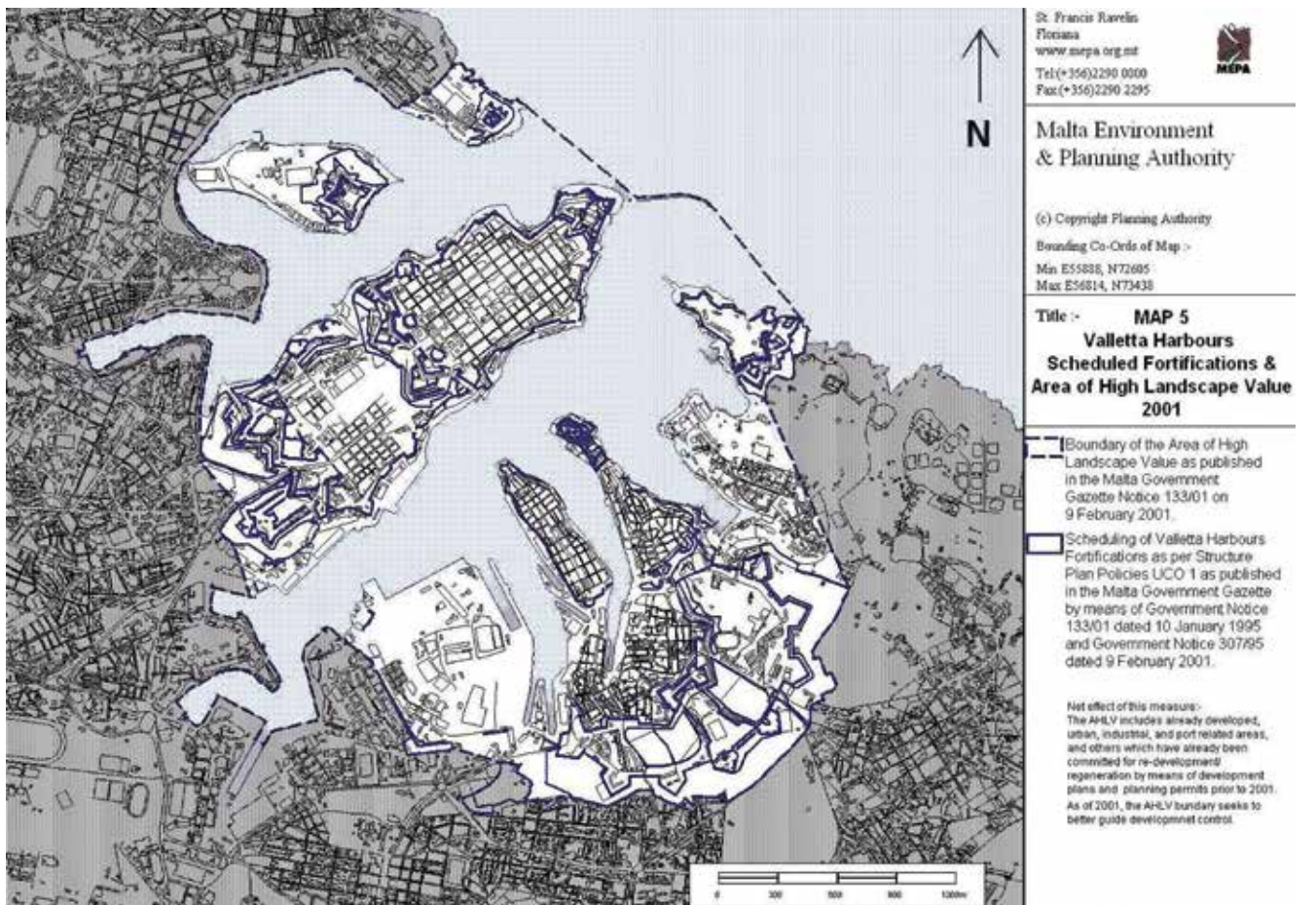


Fig. 3: Map 5 Valletta Harbours Scheduled Fortifications and Area of High Landscape Value 2001.

Map: Planning Authority Malta

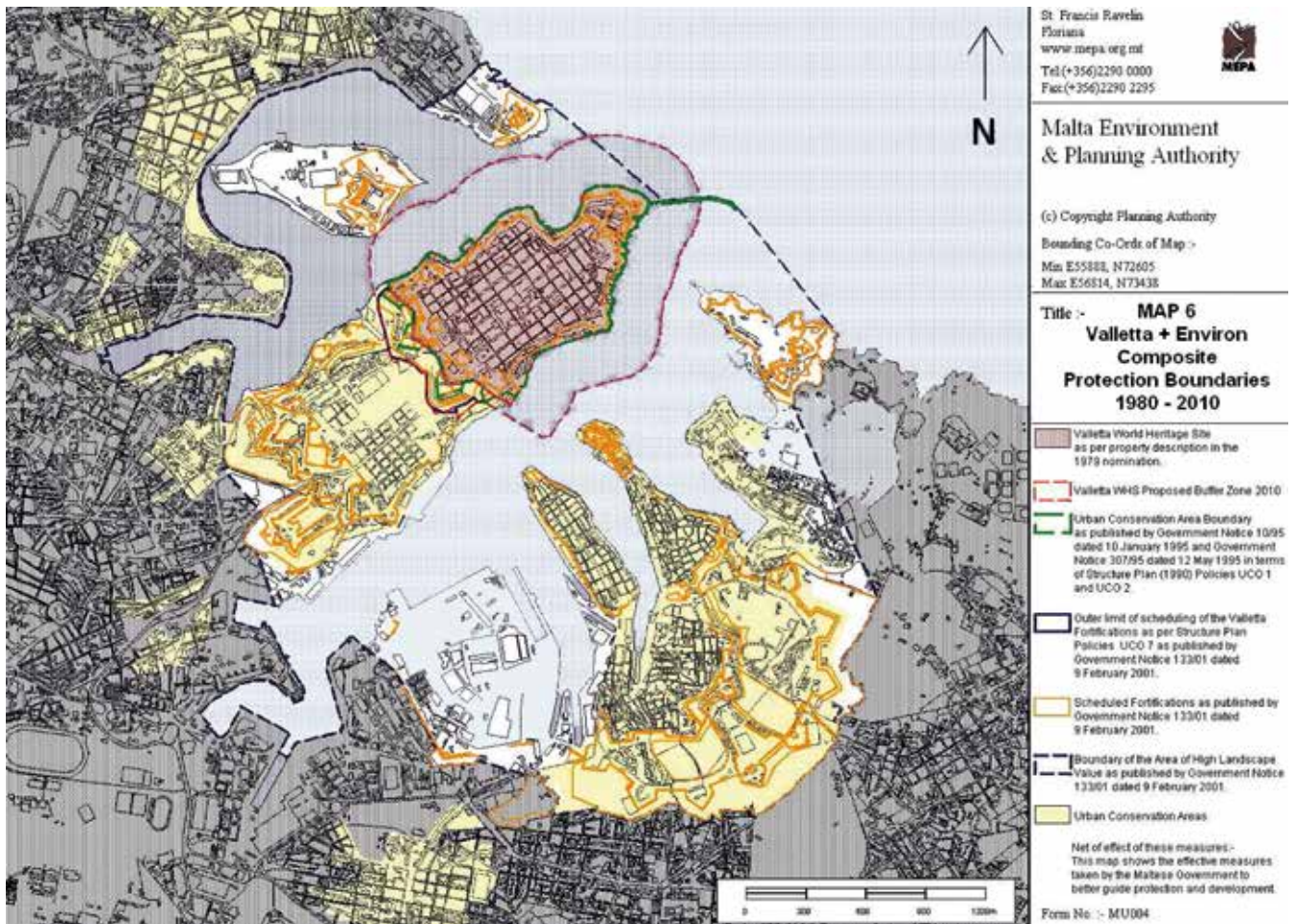


Fig. 4: Map. 6 Valletta + Environ Composite Protection Boundaries 1980-2010.

Map: Planning Authority Malta.

Despite clearly established boundaries, new planning application proposals are being entertained by the Planning Authority of Malta, which allow encroachment into these areas. Apart from land reclamation within the areas, numerous developments along the promenade are mushrooming.

A further application is currently under review: a proposed sea concession with two “temporary” yacht berthing pontoons for



Fig. 5: “Temporary” yacht berthing pontoons at Fortina Hotel, Sliema. Computer animation: Times of Malta.

guests of the Fortina Hotel behind. Apart from robbing residents of Malta of another prime swimming area, the pontoons with their yachts will disrupt the views toward Valletta from the already disturbed promenade in Sliema.

These developments cut away the free and unencumbered enjoyment of the historic bastion views of Valletta, allowing only paying patrons of the commercial establishments to enjoy these historic views. Essentially the World Heritage Status of Valletta is reduced to a commercial good for the interests of a small business community. Fimkien ghal Ambjent Ahjar is appalled at the blatant shifting of goal posts and disrespect for clearly determined buffer zones and demarcated Areas of High Landscape Value, in order to satisfy economic growth. World Heritage may never be reduced to a negotiable good.

Demands from the Malta State Party:

- The State Party of Malta must urgently intervene to ensure that no commercial development may obliterate the visual enjoyment and legibility of the urban skyline and fortifications of the UNESCO World Heritage Site Valletta, be that from the perimeter of or directly within the buffer zone as established at law.



Fig. 6: UNESCO Heritage Site Valletta – Current View Obstructions 2023.

Map: FAA

- The State Party of Malta must ensure that the enjoyment of its World Heritage Site is not treated as a negotiable good. It is unacceptable that its enjoyment is made available only to patrons of commercial establishments whilst depriving the general public its right to its cultural heritage.
- The State Party of Malta must ensure that the Buffer Zone around Valletta, which serves to safeguard the legibility of views to its historic skyline, is retained. Any visual disturbances within the buffer zone or along the perimeter are to be strictly prohibited.

New Construction in Safranbolu UNESCO World Heritage Town

Ibrahim Canbulat, M. Arch.

There are approximately 800 buildings, among 650 of which are registered, in Çukur, one of the three regions which together with Bağlar and Kıranköy constitute Safranbolu's World Heritage. There are currently about 200 parcels in Çukur that can be built with a reinforced concrete house with a simple survey. There will be 250 parcels in total, 50 of which can be divided into smaller parcels and 50 more houses will be built. With a rough calculation, the ratio of new buildings to total buildings in Çukur is 1/3. This ratio is too large to escape the perception threshold. The resulting urban landscape will in no way be authentic anymore. The main danger is the possibility of leaving the historic buildings which were made from timber and mudbricks to collapse and replacing them with new reinforced concrete replicas.

On the other hand, Safranbolu has been inscribed in the UNESCO World Heritage List for its unique architecture, which it has developed in a socio-economic harmony throughout history and preserved until today. The destruction on the physical texture of Safranbolu continues exactly on this basis.



Fig. 1: A 19th century mansion in Safranbolu Bağlar: Asmazlar Bağlar House.

Photo: Hüseyin Karataş

UNESCO World Heritage Safranbolu

When Safranbolu was added to the UNESCO World Heritage List, it met three of the 10 criteria. These are Criteria 2, 4 and 5. In, the 4th criterion is directly related to our subject, which is explained as follows: "(iv) to be an **outstanding example of a type of building, architectural or technological ensemble or landscape** which illustrates (a) significant stage(s) in human history."

In the 18th–19th centuries, besides the service sector, Safranbolu developed leather and leather goods production, realizing a pre-capitalist socio-economy, and by the 19th century, it became the wealthiest city in the region. By evaluating this existence and cultural accumulation correctly, it developed a competent city and a wooden house architecture with superior qualities coming from the Anatolian-Ottoman tradition, and successfully preserved this structure until the 21st century.



Fig. 2: Reinforced concrete house under construction in Safranbolu Çukur. The weakness of the design becomes evident in the absence of window lintels on the upper floor. The geomorphology of the place was destroyed by making very deep trenches.

Photo: Ibrahim Canbulat

After the 1999 Gölcük/Kocaeli Earthquake and the 2023 Kahramanmaraş Earthquake, we are now fully aware of the importance of this earthquake-resistant wooden skeleton experience. Safranbolu is located on the North Anatolian Fault, and the fault was broken in 1944, but it did not cause any loss of life in and around Safranbolu. This proves to us what an important experience Safranbolu's residential architecture has. However, new buildings in the Safranbolu cultural heritage areas started

to be built as reinforced concrete. Post-modern and “Safranbolu house” imitation (replicas) villas and apartments, which we will discuss and reject in detail below, have found an important place for themselves, especially in the buffer zones in between the three conservation areas of the inscribed World Heritage.

UNESCO & ICOMOS Acquis

Both UNESCO and ICOMOS do not reject new construction in cultural heritage areas. It even predicts that it can bring a new vitality and richness to cultural heritage sites that are gradually losing their function and power. When we examine the bylaws and final declarations in chronological order, 2 of the 12 documents reviewed, it was clearly written that non-authenticity should be avoided. In 7, it is stated that the addition can only be made under certain conditions. The UNESCO World Heritage Center does not only specify conditions, but also states that important additions must be notified in advance.

Premised Conditions

A new structure, demolition or change that would change the mass and color relations should not be allowed (ICOMOS Venice Charter, 1964). It is possible to the extent that it accepts the future development of existing tissue as a framework ICOMOS Budapest, 1972). Imitation should be avoided (ICOMOS Budapest, 1972). Contemporary architecture will be able to adapt to the ancient environment without disturbing the structural and aesthetic qualities of the other, only as long as the appropriate approach to mass, scale, rhythm, and appearance is provided (ICOMOS Budapest, 1972). Excessive economic activities can lead to the deterioration of the old structure and the installation of new elements that disrupt the harmony of the urban environment (ICOMOS Rothenburg, 1975).

It is necessary to monitor the current scale of the city, to respect its character, dominant buildings, and relationship with the landscape (ICOMOS Rothenburg, 1975). Special attention should be paid to regulation and control over new buildings to ensure that their architecture adapts to the spatial organization and that groups of historic buildings are established. The existing spatial order should be respected in terms of scale and group size (UNESCO Nairobi, 1976) (ICOMOS Washington, 1987). Changes that are enforced and acceptable by modern usage demands should be made with materials that are compatible with the general expression of the whole, and not contradictory in terms of appearance, texture, and form; Attention should be paid to the compatibility of building materials with each other (UNESCO Nairobi, 1976).

Traditional building systems and crafts is the basic requirement for traditional expression and is necessary for the repair and restoration of these structures. (ICOMOS Mexico City, 1999) With the belief that new buildings can preserve the environmental context, each architectural work should reflect its own time of

creation (UNESCO Riga, 2000). Respecting the heritage cityscape and landscape environment while responding to the dynamics of development (UNESCO Vienna, 2005). Contemporary architecture should be consistent with the existing spatial order in historic towns as with the rest of the urban setting (UNESCO Valletta, 2011). Contemporary architecture must find expression by respecting the scale of the site and have a clear relationship to the developmental patterns of the existing architecture and its context (UNESCO Valletta, 2011).

Post-modern architecture was the first style to deviate from contemporary architecture and can now be seen everywhere. It somehow goes against the development of European towns that are constantly changing, adapting, developing, and creating something new (OWHC, 2013). Notice should be given as soon as possible (for example, before the preparation of key documents for certain projects) and before making any decisions that are difficult to reverse so that the Committee can assist in seeking appropriate solutions to ensure the full protection of the Outstanding Universal Value of the heritage (UNESCO 44 COM).



Fig. 3: Post-modern building in Çukur. The exaggerated roof form has been used as an important feature of post-modern design. There are no shops or workshops on the ground floor of any house in Çukur, as in Ottoman towns there used to be a strict separation between residential and economic quarters. This feature is a transfer from the old Greek quarter Kıranköy. Photo: Ibrahim Canbulat

Safranbolu Today

As we mentioned above, in the 1968 Identical Plan, three separate protection areas were determined in Safranbolu. In 1985, the buildings to be protected were determined and published in the Official Gazette. It gained effectiveness by being approved in 1990.

An important note in the 1985–1990 İsmet Okyay’s *Safranbolu Conservation Development Plan* says: “...the historical environment creates a great potential... We remain sad spectators in the face of the destruction of the historical environment and nature day by day. We cannot interpret the ‘unconsciousness’ or ‘insensitivity’ of those who have made money gaining their business through destruction and corruption. **However, these**

groups are destroying the objective basis of their social identity, which they will one day try to acquire.”¹

In İsmet Okyay’s *Plan*, there are no restrictions on whether new buildings can be built or how they can be built in protected areas. İsmet Okyay must have thought that this issue would be resolved in accordance with the UNESCO and ICOMOS acquis. In this regard, there are no restrictive sanctions in the plan notes. As a result, new socio-economic developments in the heritage area emerged as accommodation establishments in Çukur and prestige mansions of the newly rich in Bağlar.

Ottoman Urban Fabric and House

Maurice M. Cerasi examined for the Ottoman urban texture is Safranbolu. He states the most important feature in the city of Safranbolu as follows:

*The complex and three-dimensional relationship that the house develops deeply towards the city street enables the street to become a complex spatial sequence of events one by one; each has its own interior (i.e. a garden and associated forms of the house towards that garden) which can be perceived from the street (here is also the difference with earlier historical types, like the pre-Byzantine Greek house, Asian and Persian houses with courtyards, which this model reminds) . For this reason, the house is the creator of the street architecture and the image of the city.*²

Wood or Reinforced Concrete?

Doğan Kuban prepared and published a report for İsmet Okyay’s *Safranbolu* Conservation Development Plan. In this report, it is seen that he is absolutely against the new construction:

*Wood is very expensive in Turkey. Wooden builders are almost gone. Since the 1930s, the progressive abandonment of old construction techniques, especially wood construction, has killed woodworking. On the other hand, reinforced concrete construction is common and easy. Prejudices about the insecurity of wood against fire are another cause of resistance. Concrete seems like a material that cannot be used for practical and economic reasons. However, the use of reinforced concrete in Turkey is also of poor quality. Moreover, it is unacceptable for a city that completely exhibits wood technology to turn into concrete. Considering Safranbolu’s special historical location, the adaptation of contemporary wooden building techniques should be accepted.*³



Fig. 4: Reinforced concrete replica hotel in Çukur, Safranbolu. Carelessness reveals itself by the fact that the protruding buttresses are too thin to be a carrier.
Photo: İbrahim Canbulat

What Cannot Be Done and What Can Be Done

The 2011 Conservation Development Plan and the property rights guaranteed by the Constitution make construction inevitable. On the other hand, UNESCO and ICOMOS also indicate the positive developments that new construction can provide. Based on these, livable residential areas can be created within the Safranbolu heritage area, which will revitalize the social life. What needs to be done is not post-modern or imitation, but a qualified modern architectural design that is compatible with the time and the place. Safranbolu has a unique house architectonics using wooden skeleton (carcass) structures that have reached perfection. This unique structure can be recreated with a modern architecture that can fully meet contemporary requirements. For the contemporary-modern-wooden Safranbolu house, which will not destroy the urban fabric, the notes of the Conservation Plan should be amended immediately.

1 Okyay (1990). Safranbolu Koruma İmar Planı, Yönetmelik, Rapor, p. 5. İstanbul.

2 M.M. Cerasi (2001). Osmanlı Kenti / Osmanlı İmparatorluğu’nda 18. ve 19. Yüzyıllarda Kent Uygarlığı ve Mimarisi (2. Baskı ed.), p. 98-99. İstanbul: Yapı Kredi Yayınları.

3 D. Kuban (2001). Türkiye’de Kentsel Koruma / Kent Tarihleri ve Koruma Yöntemleri, p. 196. İstanbul: Tarih Vakfı Yurt Yayınları.

IV. Cultural Landscapes and Mixed Properties

The English Lake District: Under Threat from Fell Track Motoring

The Lake District Green Lanes Alliance



Fig. 1: 4x4s negotiating the High Oxenfell track. Photo: Lake District Green Lanes Alliance

Six years ago the Lake District was inscribed as a UNESCO World Heritage Site. A year later, in April 2018, a group of Lake District residents wrote to the World Heritage Centre about the motorised use of two unsealed roads ('green lanes') in the Central Lake District. The letter warned that the Lake District National Park Authority was failing to carry out its commitments to protect the Lake District's Outstanding Universal Value (OUV) and to 'ensure the identification, protection, conservation, presentation, and transmission to future generations of the cultural and natural heritage to the utmost of its own resources', as laid out in the UNESCO World Heritage Convention.

We are grateful to the World Heritage Centre and to ICOMOS for carefully examining these concerns. ICOMOS issued two technical reviews about green lane motoring in May and October 2019. Both concluded that the use of green lanes by 4x4 vehicles and motorbikes for recreational purposes threatens the OUV of the property, and that this activity should be eliminated through the use of Traffic Regulation Orders (TROs). The second technical review from November 2019 focused on two routes near Little Langdale and specifically stated that the establishment of a partnership management group as proposed by the Lake District National Park Authority (LDNPA) was inadequate and that the routes should be closed to non-essential motor vehicles. This request has so far been ignored. A management group was set up with a disproportionately high representation

of motoring groups. It has now met five times and been unable to recommend any closure to motor vehicles because its terms of reference were restricted to monitoring and maintenance.

The LDNPA's inaction on green lanes is even more inexplicable when set in a wider context. Since 2006 when National Parks received extra powers to introduce Traffic Regulation Orders the Lake District National Park Authority has not closed a single green lane, in stark contrast to the Yorkshire Dales and the Peak District National Parks. Nobody would argue that there is less natural beauty to be found in the Lake District than in other National Parks, so the cause must lie in differing degrees of political will to protect the tranquillity and beauty of green lanes. That this should be so in the only National Park in the UK which is also a World Heritage Site is a matter of deep concern.

But the current position of the LDNPA is even more inexplicable when compared to its own statements in 2004. Although motorised usage of sensitive green lanes was then lower than it is today, the Authority was categorical in its opposition. In a summary on the Hierarchy of Trail Routes experiment, a voluntary restraint scheme, the LDNPA wrote:



Fig. 2: Track between Elterwater and Little Langdale.

Photo: Lake District Green Lanes Alliance

“The Lake District National Park Authority is opposed to recreational driving on unsealed routes (‘green roads’). The activity is considered incompatible with the special qualities of the National Park. The ability to enjoy the area in tranquillity is threatened by vehicle intrusion into its quietest parts. When vehicles are encountered or their physical impact is witnessed, the sense of peace and quiet is lost and enjoyment is diminished.”

A question of evidence

In a position statement on green lanes issued in January 2022 the Authority declares its intention to act once there is sufficient evidence:

“Where there is unequivocal evidence that motorised vehicle use of a specific unsealed road poses harm to OUV of the WHS, or special qualities of the National Park, then we will seek the introduction of an appropriate TRO to address the defined threat in accordance with DEFRA guidance and the tests required under Highways Act legislation.”

Crucially, where the harmonious beauty of the landscape, its tranquillity, its status as a symbol for conservation are negatively affected, this should be reason enough to seek a TRO. And indeed, the LDNPA is in possession of hundreds of testimonies from walkers, residents and others about such a negative impact, collected in its own online survey on the two routes near Little Langdale. An independent analysis of these responses by an environmental psychologist is unambiguous: it shows that visitors and residents who value the tranquillity and harmonious beauty of the landscape experience recreational motor vehicles as an intolerable intrusion which seriously harms the Lake District’s OUV and special qualities.

Many others have written to the LDNPA about the harm done to the Lake District by green lane motoring. Widespread media

coverage and a petition with 389,000 signatures are a further strong indication of the public concern about this practice.

The LDNPA has said that a second, face-to-face survey is less conclusive. However, the methodological shortcomings of the second survey are so severe that it can reveal nothing about the impact of motor vehicles on the area’s special qualities, in particular tranquillity. In any case it does not invalidate the hundreds of impact statements from respondents to the online survey.

What the LDNPA must do now

We understand that there are constraints on the speed with which the LDNPA can act in making TROs. In 2006 the Authority, through the Hierarchy of Trails Routes, identified 28 routes where motor vehicle use was less sustainable or unsustainable. Problems include significant safety concerns, degradation of OUV, including natural beauty and tranquillity, unauthorised repairs by motorists and potential for serious ecological impact. The World Heritage Centre should insist that the Authority now makes a start with some of the most affected of those 28 routes, as listed below:

1. High Tilberthwaite (U5001)
2. High Oxenfell (U5004)
3. Elterwater/Owlet’s Nest (U5529)
4. High Nibthwaite (U5051)
5. Tarn Hows or Old Mountain Road (U5015)
6. Old Coach Road (U2236/U3132)
7. Breast High Road (U3278)
8. Stile End to Sadgill (U5255)
9. Gamblesmire Lane (U5333)

Upper Middle Rhine Valley: The Destruction of a Landscape

Klaus Thomas, CI-Rheinpässagen



Fig. 1: Construction of wind turbines in Boppard-Weiler. Photo: Klaus Thomas

Wind power plants

In contradiction to Decision 44 COM 7.B 155, three wind turbines in Boppard have been erected in the core area of the World Heritage Site. (see Figs. 1–2). More are to follow there. These turbines are clearly visible from all vantage points according to the visibility study for wind turbines required by UNESCO and prepared by the state of Rhineland-Palatinate.



Fig. 2: Huge construction roads were built in the natural landscape. They now serve to supply the wind turbines. Photo: Klaus Thomas

The Higher Administrative Court of Koblenz has ruled that the landscape is not shaped by new wind turbines, but predominantly by the townscape of Bad Salzig. The commercial area there, the Mittelrhein Clinic, which is conspicuous by its cube and its white color, the railroad line, the federal highway and other already existing visible wind turbines already strongly shape the landscape. This landscape will not be significantly disturbed by more wind turbines.

The state of Rhineland-Palatinate wants to limit the construction of wind turbines with “exclusion zones” and height limits.

These are not legally effective regulations, however. When approving buildings, including wind turbines, the entire landscape must be taken into account according to the court decision. If adverse effects already exist, appeals against rejected building applications will now be successful. In addition, the state has decided to significantly expand wind energy. E.g., the distance between turbines and residential areas will be reduced and wind energy use will no longer be excluded in nature park core zones.

The State Party has also declared that it does not accept the statements on the wind turbines in the report of the 2022 joint UNESCO/ICOMOS Reactive Monitoring Mission.



Fig. 3: The construction of the wind turbines is based on a ruling by the Higher Administrative Court in Koblenz. According to this ruling, the visual axis from the Sterrenberg and Liebenstein castles to the opposite side of the Rhine is already dominated by buildings to such an extent that the new wind turbines will not cause any additional disturbance. Photo: Klaus Thomas



Fig. 4: View from the observation terrace of Sterrenberg Castle to the opposite side of Rhine River. Photo: Klaus Thomas

In the meantime, further multi-storey residential buildings have been built in Bad Salzig. In addition, the Klinik im Kurpark was extended by several buildings of up to ten floors. They dominate the landscape. Any landscape value there has been lost (see Figs. 3–4).

The World Heritage Committee should request the State Party to protect and preserve the cultural landscape values of the property to such an extent that applications for the construction of wind turbines or other high-rise structures can be successfully rejected.



Fig. 5: Wind turbines everywhere, here above the world-famous Rhine loop near Boppard
Photo: Klaus Thomas

Destruction of nature in Boppard

The 54 ha nature reserve “Eisenbolz-Hintere Dick”, located in Boppard, is protected by law for the preservation and development of a habitat of rare, endangered plant and animal species and the corresponding biotic communities.



Fig. 8: Nature conservation in Boppard. The 54-hectare nature reserve “Eisenbolz-Hintere Dick” in Boppard is protected by law. The purpose of protection is, among other things, the preservation and development as a habitat for rare, endangered plant and communities. This complies with the UNESCO requirements for the Upper Middle Rhine Valley World Heritage Site.
Photo: Maria-Anna Roth



Fig. 6: ...and from Jacobsberg Monastery
Photo: Klaus Thomas



Fig. 7: Wind turbines above Oberwesel. Here, new turbines are to be added in Wiebelsheim. If the “Günderodehaus” on the plateau is also developed into a large hotel, it can be assumed with certainty that there will be a dominant development in the sense of the court ruling. Approval for high-rise buildings, such as wind turbines, can then be enforced in court.
Photo: Klaus Thomas

In an unprecedentedly drastic manner, the responsible state authority has completely clearcut or permanently destroyed most of the reserve (Figs 8+9). The bare shadowless ground now dries out completely. A meadow orchard (Streubstwiese) planned to be developed there has never existed to this extent. Instead of biodiversity, a monoculture has emerged. The authority in charge is linked to the 2029 Federal Horticultural Show (BUGA).



Fig. 9: This nature reserve was changed in an unprecedentedly drastic way. Healthy trees were cut down, shrubs removed. What animal species and the corresponding biotic animals or rare plants were here was never studied.
Photo: Maria-Anna Roth



Fig. 10: The soil has been shredded to an extremely deep level Photo:Ulrich Kühl



Fig. 11: ...permanently destroying the habitats of the unique animal and plant species to be protected. Photo: Klaus Thomas



Fig. 12: Hundreds have demonstrated against the destruction of their local recreation area. Photo: Klaus Thomas

The World Heritage Committee may decide that

- the nature reserve is to be restored to its previous, original state with biodiversity
- a use of the area for purposes of the BUGA is to be excluded

Middle Rhine Bridge

The regional planning procedure (ROV) for the Middle Rhine Bridge has been carried out. The expert reports submitted for this describe a bridge of at least 450 m in length and 27 m in height. The long ramps required to reach this height are not



Fig. 13: The view from the Loreley plateau shows the planned location of the Middle Rhine Bridge in Wellmich in the background. Photo: Klaus Thomas

shown in the expert reports. The bridge would considerably impair the visual axis to Maus Castle and the view of Katz Castle, but also be clearly visible from the Loreley plateau via the “Dreiburgenblick” (Fig. 13).

The expert reports certify a considerable increase in road traffic noise on the roads running parallel to the Rhine and in the through roads of the villages. However, as already noted in the earlier expert reports, these figures are only of limited significance. For example, no figures were collected for supraregional traffic or in connection with access to the freeways. However, this is explicitly required. Roads leading to the freeways are not mentioned.

The ferry operators had informed UNESCO that for economic reasons they would not be able to continue their operations once the bridge was commissioned. Between the sister cities of St. Goar and St. Goarshausen alone, an equivalent replacement of the ferry would result in 1.5 million additional bus kilometers over the bridge, which would then be the only one available. This will cost at least 6 m EUR. Neither the increase in road traffic nor the costs are taken into account in the expert reports. An alternative crossing as a replacement for the four ferries is not mentioned in the expert opinions.



Fig. 14: The bridge, which according to the expert opinions is 27 m high and 450 m long, is almost as high as the belfry in Wellmich. The landscape will be dominated by the bridge. Photo: Klaus Thomas

According to the 2022 Mission Report, a new permanent river crossing should not affect the viability of the ferry services, which are a historical feature characteristic of the area. Their operation must be ensured in the long term. Years of discussion on the construction of the bridge have resulted in no investments in the modernization of the ferries having been made.

The court's landmark ruling on wind turbines also has an effect here: The landscape will be significantly changed by the bridge, providing a legal base for any further development. The World Heritage Committee, in particular in consideration of the landmark decision on wind turbines, should decide that

- The construction of a fixed crossing of the Rhine at this planned location in Wellmich / Fellen is not compatible with the OUV
- It is the task of the state party to develop the ferries into attractive means of transport.
- This includes in particular the adaptation of the landing stages to high and low water levels
- the assumption of the operating costs of the ferries by the state as with a state road and
- integrating the ferries, including fares, completely into the public transport system, and
- the extension of ferry times at at least one ferry location.

Loreley plateau

The UNESCO/ICOMOS mission in May 2022 has been informed by the State Party that the existing legal preconditions have not changed, and the investor intends to develop a new, although smaller-scale project for a hotel on the same location. In its December 1, 2022 report, the State Party stated that "the mapping and cultural landscape impact study have provided tools to ensure that the plans for the Loreley Plateau and for the construction of a hotel are compatible with World Heritage status and that important sightlines and views are protected." The limitation to protecting "important" sightlines and views likely means that most sightlines will not be protected.

The statements contained in this report cannot be verified because the steering group established in 2022 for the development of the Loreley Plateau and the hotel there makes its decisions "behind closed doors." The group includes only representatives of the municipality of Loreley, the Ministry of the Interior of Rhineland-Palatinate, the Baukultur initiative, the Federal Horticultural Show (BUGA) GmbH and the hotel investor. The parliamentary groups in the municipality council, civil society, the general public and press are excluded. The procedure is reminiscent of the earlier hotel planning which at that time envisaged a small hotel and was accompanied by ICOMOS. However, a large project was actually intended.

According to internal information the hotel investor has now submitted a building application for a new hotel. Its construc-

tion or design plans are unknown. If the building application is approved, it will have legal force. The Federal Court of Justice's landmark ruling on wind turbines also has an impact here: If the hotel building is a "development that characterizes the landscape," further building applications for all other high-rise buildings are legal and can be enforced. The hotel building planned previously would have fully met these criteria.



Fig. 15: The hotel investor wanted to build this hotel and holiday village with the permission of the state. This large-scale project which undoubtedly would dominate the landscape, was not built. Computer animation: NIDAG

The World Heritage Committee should decide with urgency that

- the state of Rhineland-Palatinate should deny the building permit for the hotel.
- the steering group should in future also include NGOs, the parliamentary group leaders of all parties represented in the council of the municipality;
- Decisions of the Steering Group are to be published.

Railroad noise

The reduction of rail noise was already requested in 2002 when the property was inscribed on the World Heritage List. Instead of reducing the number of trains, the freight corridor A Rotter-



Fig. 16: About 30 percent of all goods transported on the Rhine river are hazardous goods. They roll through the villages and towns every day. In order to achieve the climate protection goals, the number of freight trains is to be doubled by 2030. Photo: Klaus Thomas

dam-Genoa, created in the meantime, is the busiest rail route in Europe. Instead of taking measures to reduce train numbers and speeds, technologies are being developed to further increase them. The number of freight trains is expected to double by 2030.

The State Party has reported to UNESCO that noisy freight trains will be banned in Germany from December 2020. However, the ban applies to German freight cars only; all other freight cars continue to run freely throughout Europe, and the proportion of foreign freight cars is particularly high here. In 2013, the state of Rhineland-Palatinate examined the legality of nighttime driving bans or speed limits for freight trains. The legal opinion that “The operating restrictions considered in the Middle Rhine Valley are in principle compatible as such with both German and European (railroad) law”¹¹ has never had any consequences.



Fig. 17: Landslides on the Rhine are not rare, and extremely dangerous. If trains carrying hazardous goods derail as a result, disaster can occur. Freight trains do not belong in the narrow Rhine Valley. In the short term, however, their speed must be reduced to a maximum of 50 km/h. Photo: Klaus Thomas

The 2022 Mission Report proposed: Limit the speed of freight trains (as a matter of priority) between Rüdesheim/Bingen and Koblenz to 50 km/h, as soon as possible.”²

Recommendation: This proposal to reduce the speed of freight trains to 50 km/h should be supported and submitted to the World Heritage Committee for decision.

Federal Horticultural Show 2029

The current concept for the Federal Horticultural Show 2029 (BUGA) is designed to increase the number of tourists in the Middle Rhine Valley. Planning competitions are currently being prepared for the “base areas”. These are areas of 10–15 ha each in size in attractive locations along the Rhine which should be able to accommodate several thousand visitors a day. They are to be made attractive for tourism, but areas for roads, parking lots or buildings must also be created. However, the areas in the property are mostly protected nature or landscape reserves, bird sanctuaries or protected Rhine slopes between Kaub and Lahnstein.

The World Heritage Committee should decide:

- It must be ensured that protected areas are not used as BUGA event, traffic or supply areas;
- The total area to be used for the BUGA and the proportion of sealed surfaces must be determined in advance and communicated to UNESCO,
- The concept of the BUGA is to be oriented towards the protection and preservation of the natural and cultural landscape and is to be based exclusively on the OUV of the property.
- The entire planning process is to be submitted to UNESCO for approval before construction work begins.
- Civil society is to be involved in all planning for BUGA 2029 from the very beginning.
- All plans should give preference to sustainability, in particular fossil-fuels-free means of transport (train, bus, bicycle, ferries), thus minimizing environmental and climate impact.

Other recommendation

The WH Committee should decide that the roofing of the open-air stage of the Loreley should be repainted in a color that fits better into the surrounding landscape.

1 Prof. Dr. Urs Kramer, University of Passau, December 2013, EU Commission, E-011384/2013.

2 Report “Traffic infrastructure IV.3.1. No. 9

The Environmental Disaster at Semmering and UNESCO's Acquiescence

Christian Schuhböck, Alliance For Nature

ALLIANCE
FOR NATURE

At Semmering, the pass region on the border of Lower Austria and Styria, the environmental catastrophe that Alliance For Nature (AFN) has been warning about for decades is now looming: the construction of the Semmering Railway Base Tunnel (SBT) is massively affecting the natural water balance of the Semmering region. More and more springs are drying up; more and more farmers are complaining that they can no longer supply their livestock with water as they used to - both on the Lower Austrian and on the Styrian side of the Semmering. UNESCO may share a not inconsiderable blame for this looming environmental disaster.

Concerns about water sources on the Semmering

As early as the early 1990s, there was massive concern among the local population about the planned Semmering Base Tunnel. People feared the loss of the numerous captured and uncaptured springs that supply the entire Semmering region with drinking water. Therefore, the "Vereinigte Bürgerinitiativen Schwarzatal - Region Semmering" (United Citizen Initiatives of Schwarzatal - Semmering Region) turned to the environmental organization "Alliance For Nature" looking for help to stand up against this highly controversial large-scale construction project. To this end, "Alliance For Nature" launched the initiative "Semmeringbahn statt Tunnelwahn" (Semmering Railway instead of Tunnel Madness) in 1992 and vehemently warned against the negative consequences of such a massive technological intervention in the natural water balance of this geologically extremely complex region.

Nevertheless, the construction project, costing billions, was started (from the Styrian side), although the province of Lower Austria refused to grant permission, referring to nature conservation law. As feared, a massive water inrush occurred in 1996, flooding the entire exploratory tunnel, which was already several kilometers long. Construction of the Semmering Base Tunnel was halted and politically canceled.

The "World Heritage Semmering Railway" Initiative

Once "Alliance For Nature" had achieved that the Republic of Austria became a State Party to the UNESCO "Convention Con-

cerning the Protection of the World Cultural and Natural Heritage" (World Heritage Convention) in March 1993, it started the initiative "World Heritage Semmering Railway" as early as January 1993. The UNESCO World Heritage status of the "Semmering Railway with Surrounding Landscape" was intended to provide an international shield against the Semmering Railway Base Tunnel, which was still being demanded by the construction industry, and the associated encroachment on the Semmering region (which has multiple protection at the national level).¹

In 1995, the Republic of Austria submitted the documentation entitled "Semmering railway – cultural site – Semmeringbahn - Kulturlandschaft" to UNESCO for inscription on the World Heritage List². In this documentation, the Semmering Railway was described on eight pages and its surrounding landscape (including villas and hotels) on 39 pages; there was no subdivision into "core zone" and "buffer zones". In 1996, Salzburg's Old Town and Schönbrunn Palace were added to the World Heritage List, but the Semmering Railway Cultural Landscape was postponed for the time being, as its worthiness as a World Heritage Site was still to be examined in the context of an international comparative study with other important railroad lines.

The evaluation by ICOMOS

As part of the evaluation, ICOMOS reviewed both the Semmering Railway and its surrounding cultural landscape for their Outstanding Universal Value, for which specific documentation concerning the protection of the cultural landscape was also requested.³ ICOMOS finally concluded that the Semmering Railway with its surrounding landscape meets criteria (ii) and (iv) for inscription on the World Heritage List, and describes the characteristics of the potential World Heritage Site literally as follows:

1 Monument and Landscape protection at the Semmering: • Semmering Railway under Monument protection since 1923 • Protected Spring Areas • Protected Landscape Area „Rax-Schneeberg" in Lower Austria since 1955 • Protected Landscape Area „Stuhleck-Pretul" in Styria since 1981 • Protected Area under the Alpine Convention since 1995 • Natura 2000 Area „Nordöstliche Randalpen: Hohe Wand – Schneeberg – Rax" in Lower Austria since 1998

2 accessible at: <http://whc.unesco.org/uploads/nominations/785.pdf>

3 To be accessed at: http://whc.unesco.org/archive/advisory_body_evaluation/785.pdf

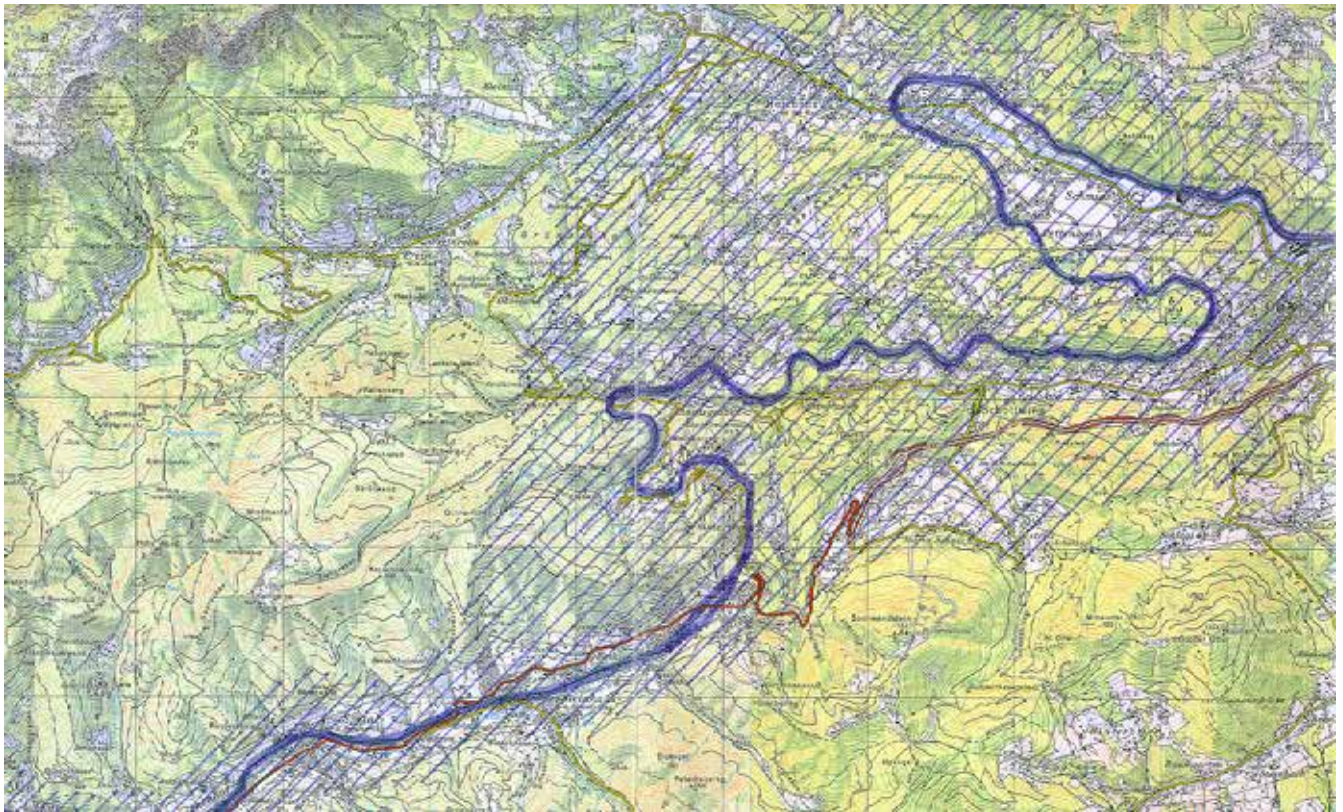


Fig. 1: Map of the nominated property from the official nomination documents, 1995.

Source: <https://whc.unesco.org/uploads/nominations/785.pdf>

The railway line over the formidable Semmering Pass was the first major project of this kind in the world. Building of the line led to the creation of a cultural landscape of villas and hotels over much of its route that is an outstanding example of the sympathetic insertion of buildings of high and consistent architectural quality into a natural landscape of great beauty.

With this formulation ICOMOS describes the Semmering Railway and the cultural landscape of villas and hotels in a natural landscape of great beauty resulting from its construction with-out differentiating the values of the Semmering Railway and its surrounding landscape. Both the Semmering Railway and its surrounding landscape meet the criteria of Outstanding Universal Value – and do so equally. Accordingly, the ICOMOS Recommendation of October 1998 states:

Recommendation

That this property be inscribed on the World Heritage List on the basis of criteria ii and iv:

Criterion ii: The Semmering railway represents an outstanding technological solution to a major physical problem in the construction of early railways.

Criterion iv: With the construction of the Semmering railway, areas of great natural beauty became more easily accessible and as a result these were developed for residential and recreational use, creating a new form of cultural landscape.

The decision of the UNESCO World Heritage Committee

In December 1998 the UNESCO World Heritage Committee followed the ICOMOS recommendation and included the Semmering Railway together with its surrounding landscape in the “World Heritage List”. Document WHC-98/CONF.203/18⁴, under the title “The Semmering Railway” (Id. N° 785), reads as follows:

The Committee inscribed this site on the World Heritage List on the basis of criteria (ii) and (iv):

Criterion (ii): The Semmering Railway represents an outstanding technological solution to a major physical problem in the construction of early railways.

Criterion (iv): With the construction of the Semmering Railway, areas of great natural beauty became more easily accessible and as a result these were developed for residential and recreational use, creating a new form of cultural landscape.

Several delegates supported this inscription as it reflected the inclusion on the World Heritage List of new categories of properties.

The UNESCO World Heritage Committee thus followed exactly the recommendations of ICOMOS and held that a new category of property had thus found its way into the World Heritage

4 To be accessed at: <https://whc.unesco.org/en/decisions/2746>

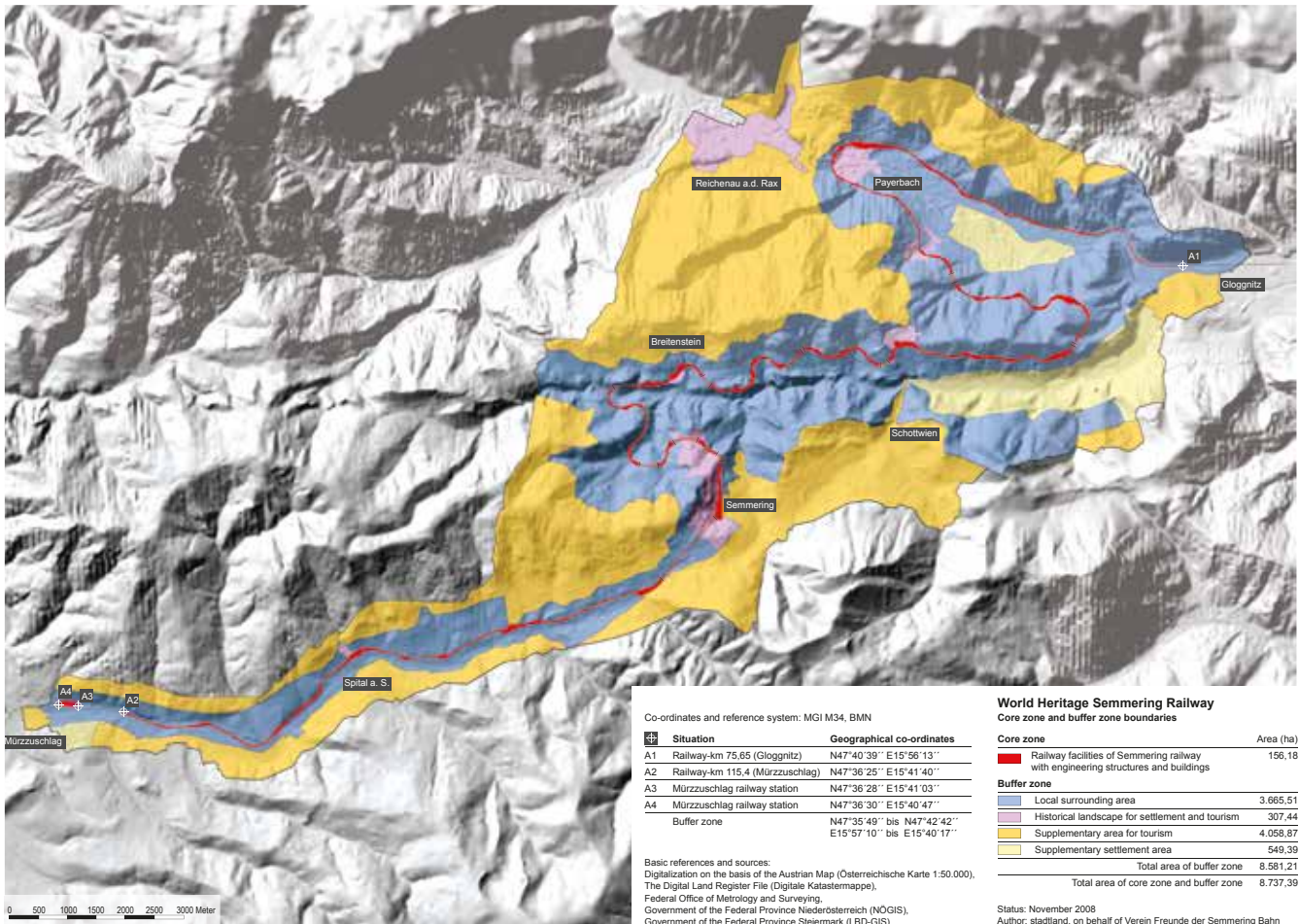


Fig. 2: Map of the controversial Management Plan of 2008.

Map: stadtländ, on behalf of Verein Freunde der Semmering Bahn

List. Bernd von Droste zu Hülshoff, then Director of the UNESCO World Heritage Center, later spoke of an “outstanding rail-road landscape as a World Heritage Site” and of “the Semmering Railway with the harmonious recreational landscape surrounding it as the first UNESCO Railway World Heritage Site”.

Disregard of the obligation to re-notify

For purely party-political reasons, an inner-Austrian decision was taken in 2005 to build a Semmering Base Tunnel after all. For this purpose, the Retrospective Inventory Project carried out by the UNESCO World Heritage Center coincidentally at the same time was used and a map of the controversial 2008 management plan was foisted on UNESCO, in which the originally 8,861 ha World Heritage Site “Semmering Railway with Surrounding Landscape” was suddenly subdivided into a core zone (route of the Semmering Railway, 156 ha) and a buffer zone (surrounding landscape). According to §165 of the Operational Guidelines, however, the Republic of Austria would have had to submit a new nomination, since from that time on it considered only the route of the Semmering Railway as a UNESCO World Heritage Site – favoring the new Semmering Base Tunnel project –, thus reducing the World Heritage Site area by more than 98 percent.

Since then there has been a serious discrepancy between the nomination (by the Republic of Austria in 1995), the evaluation (by ICOMOS in 1996-1998) and the declaration of the Semmering Railway and its surrounding landscape as a UNESCO World Heritage Site (by the UNESCO World Heritage Committee in 1998) on the one hand, and the current view of the Republic of Austria on the other hand – namely that only the Semmering Railway track constitutes the UNESCO World Heritage Site.



Fig. 3: For the construction site and the future north portal of the Semmering Base Tunnel, an entire district of Gloggnitz was razed.

Photo: Christian Schuhböck, Alliance For Nature

The serious discrepancy and acquiescence of UNESCO

When in 2010 the EIA approval procedures for the controversial Semmering Base Tunnel and in the following years the appeal procedures before the Austrian courts started, “Alliance For Nature” drew the attention of ICOMOS as well as the UNESCO World Heritage Centre to this serious discrepancy. ICOMOS then clarified that both the Semmering Railway and the surrounding cultural landscape were listed as World Heritage Sites. However, the (then) Director of the UNESCO World Heritage Centre, Kishore Rao, in his letter of 10 December 2013 (CLT/WHC/7061/AT/AOD), which he also sent to the official bodies of Austria, supposed:

1. *The property was inscribed as a cultural property by the World Heritage Committee in 1998. The inscribed area is 156.18 ha, closely following the train tracks, and is surrounded by a buffer zone of 8581.21 ha (Decision 22COM VIII.B.1). As you rightly point out, the Butter Zone is not considered part of a World Heritage property as such.*
2. *The property was inscribed on the basis of criteria (ii) and (iv), both of which are cultural criteria. The formulation of those criteria, as adopted by the Committee, highlights*



Fig. 6: Flood in the tunnel tube due to a massive water ingress.

Photo: Patrick Wammerl

that it is the technical aspects of the railway’s construction as well as the accessibility of those “areas of great natural beauty” and the subsequent built developments that constitute the property’s Outstanding Universal Value. The landscape itself is therefore not part of the Outstanding Universal Value for which the property was inscribed. Please also note that the property is not, to this date, inscribed as a Cultural Landscape. (...)



Fig. 4: For the dumping of the SBT excavated material, the forest in Longsgraben was cut down.

Photo: Christian Schuhböck, Alliance For Nature

This fateful letter provided a justification for the construction of the Semmering Base Tunnel which is now causing the drying up a correction, as the claim of Mr. Kishore Rao at that time does not coincide with the nomination document of the Republic of Austria, the evaluation of ICOMOS and the decision of the UNESCO World Heritage Committee. A letter is requested stating that the “Semmering Railway with surrounding landscape” in the extent of 8,861 hectares constitutes the UNESCO World Heritage Site.



Fig. 5: Because of the SBTn project, the Windhaber farming family had to give up farming in the Fröschnitz Valley in Styria and abandon the farm.

Photo: Christian Schuhböck, Alliance For Nature



Fig. 7: At the Göstritz SBTn intermediate intervention near the Maria Schutz pilgrimage site, groundwater drained from the mountain massif is collected in settling basins. According to media reports, this currently amounts to around 10 million liters of water per day. After completion of the Semmering Base Tunnel, 38 million liters of water are to be drained daily in the long term and removed from the natural water balance of the Semmering. It is feared that the Semmering region will sooner or later be karstified.

Photo: Christian Schuhböck, Alliance For Nature

Fertő / Lake Neusiedl is Under Threat from Construction Projects and Interventions

Christian Schuhböck, Alliance For Nature
Rudolf Golubich, Freunde des Neusiedlersees



For years, several construction projects in the Austro-Hungarian and thus cross-border UNESCO World Heritage Site “Fertő/Neusiedlersee Cultural Landscape” have caused a negative media echo and citizens’ initiatives, associations and environmental organizations in Austria and Hungary have been calling for more effective protection of Lake Neusiedl from further development – also on the part of UNESCO.

Lake Neusiedl shoreline degradation due to tourism projects

A planned hotel project in **Neusiedl am See** was just averted thanks to several citizens’ initiatives, but the now completed construction of associated lakeside villas has already caused massive damage due to the steel structures that were driven



Fig. 1: Steel structures placed during the construction of villas in Neusiedl am See. Photo: Rudolf Golubich

into the ground during construction. The required distance to the open water area was not observed, and instead a direct lake access for wealthy private individuals was built. The 23 lakeside villas that have since been built are each available for around one million euros.

Comparable construction projects can be observed around the lake. For example, a villa park with 47 parcels is currently being built in **Oggau**, and a further 12 lakeside villas have been built in Jois. Thus, in Austria alone, the construction along the shoreline of Lake Neusiedl continues unabated.

A considerably larger construction project has been started on the Hungarian side of the lake, in **Fertőrákos**. Port facilities, a large hotel complex, sports facilities and a parking lot for 800 cars are to be built on an area of 18,000 square meters. The project has been halted – not, however, because of UNESCO’s demand for a construction stop, but simply because of a lack of funds. In addition, an Environmental Impact Assessment was recently found to be faulty and dismissed in court, which is why the further progress of this tourism project is uncertain. However, the damage is already considerable. Historically valuable pile-dwelling houses had to make way for the tourism project, which is currently at a standstill. A beach resort that was previously open to the public and stood out for its natural beauty was destroyed by the construction work. The fenced-off, inaccessible area is now only a gravel desert with isolated trees that have been spared from the clearing.



Fig. 2: Gravel desert of the former beach bath of Fertőrákos. Photo: Christian Schuhböck

Desiccation of lakes and ponds in the Seewinkel region

The lakes and ponds of the Seewinkel east of Lake Neusiedl have been suffering from water shortage for years, and partly dry up again and again. Even the Austrian Court of Audit dealt with this problem in 2020 and showed the following reasons for this in its report “Nationalpark Neusiedler See – Seewinkel”: *Salt lakes are an excellent habitat for water birds. Interventions in the natural balance such as drainage, agricultural use or*

building development cause the groundwater level in the Seewinkel to drop; the result is the desertification of the salt lakes. Climate change and the associated decline in precipitation are also exacerbating this development. Due to the increasing cultivation of irrigation-intensive crops in the National Park region, the irrigated area increased from 22,240 hectares in 2014 to 23,720 hectares in 2018. Field wells were constructed or more water was withdrawn from existing field wells to irrigate the crops. Thousands of field wells in the Seewinkel region – constructed over the years without official approval – were subsequently approved by the district administration of Neusiedl/See in the mid to late 1990s.

This year, too, numerous lakes and ponds, such as the Zicksee, have dried up completely, and the water level of Lake Neusiedl has dropped by several decimeters.



Fig. 3: Dried-up Lake Zicksee in Seewinkel.

Photo: Christian Schuhböck

Doping of Lake Neusiedl with extraneous water

Due to the low water level of Lake Neusiedl, the muddy seabed is being dredged in some areas near the shore in order to allow navigation to continue.

In addition, it is planned to discharge extraneous water from the Hungarian Danube into Lake Neusiedl via a canal system by means of pumps in order to ensure summer tourism. Numerous experts warn against such an anthropogenic measure, as it could impact the chemistry to the disadvantage of this slightly saline steppe lake and subsequently to the detriment of the fauna and flora. For example, the partly endangered and protected halophytes (salt plants) which specialize in saline soils could be affected, which in turn may impact an important food source for certain faunistic species.

From a scientific and ecological point of view, the occasional desiccation of Lake Neusiedl and the surrounding lakes is not a catastrophe in itself, but a natural and dynamic process characteristic of this Pannonian habitat, which occurs repeatedly (about once or twice per century; most recently from 1865 to 1868). Moreover, dry periods are always followed by flood

phases. Lake Neusiedl, for example, showed its greatest expansions in the years 1741 to 1742, 1786, 1797 to 1801, 1838 and 1941, and was almost three meters deep in the mid-1870s (the maximum depth of Lake Neusiedl is about two meters on average).

The environmental organization “Alliance For Nature” therefore demands a transboundary environmental impact assessment for the anthropogenic doping of Lake Neusiedl with extraneous water from the Danube in view of “effective environmental precaution” according to the national Environmental Impact Assessment Act and the European Environmental Impact Directive.

Windpark Neusiedl-Weiden

A large number of distant wind farms is visible from Lake Neusiedl. The project “Windpark Neusiedl-Weiden Repowering”, which has already been approved by the authorities, will now replace 44 wind turbines of heights up to 120m by nine 200-m-high and fourteen 244m-high wind turbines in the immediate vicinity of the World Heritage Site. These new wind turbines project would further increase the visibility of the wind farm, and thus the visual axes of the UNESCO World Heritage Site would be affected even more.

“Alliance For Nature”, an Austria-wide recognized environmental organization, filed a complaint in April 2023 against the notice of approval issued by the Burgenland provincial government at the beginning of March 2023. In addition to the endangerment of the bird, bat and insect fauna as well as for other reasons, the landscape protection organization also asserted the impairment of the landscape and the scenery. In this context, “Alliance For Nature” requested the Administrative Court to obtain a written statement from the UNESCO World Heritage Center and/or ICOMOS International as to whether or to what extent the wind farm project near the villages of Neusiedl/See as well as Weiden/See would impair the UNESCO World Heritage Site “Fertő/Neusiedlersee Cultural Landscape” and its visual axes. For this purpose, an expert Advisory Mission should be arranged.

In 2006 a planned hotel with a height of 73 meters was cancelled because it was feared that the UNESCO World Heritage Site would be affected. An expert mission was held and the height of the hotel was restricted to 47 meters.

Five years later, in 2011, a heated dispute ensued over the approximately 100 wind turbines near the villages of Mönchhof, Halbturn and Andau northeast of Lake Neusiedl, each 189 m high. The representatives of ICOMOS had submitted an expert opinion, based on a photogrammetric visualization: The project represents a visual impairment of the UNESCO World Heritage Site (also on the Hungarian side). Although the height of the planned turbines exceeded the height limit mentioned in the

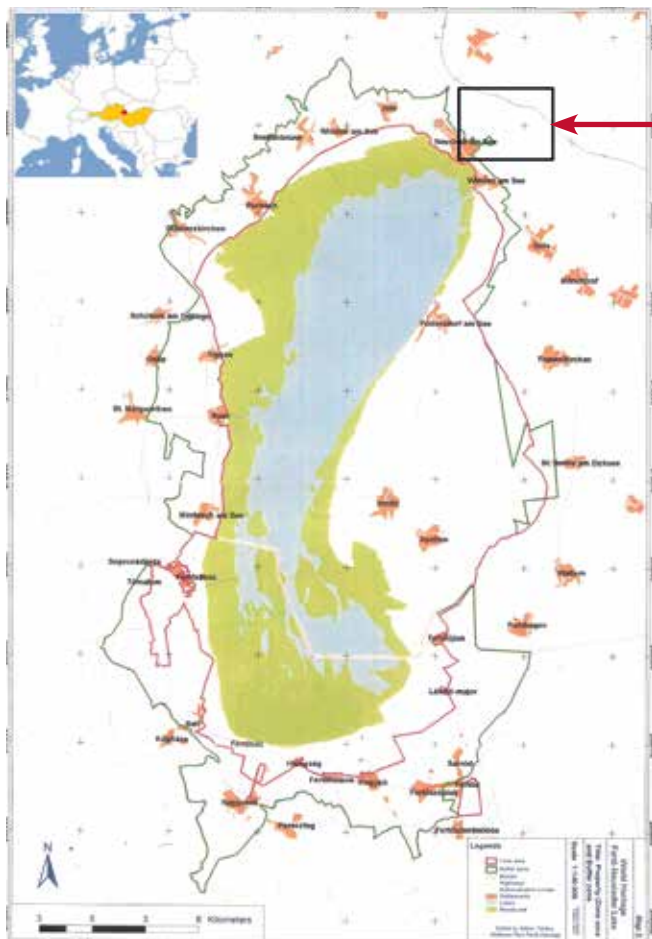
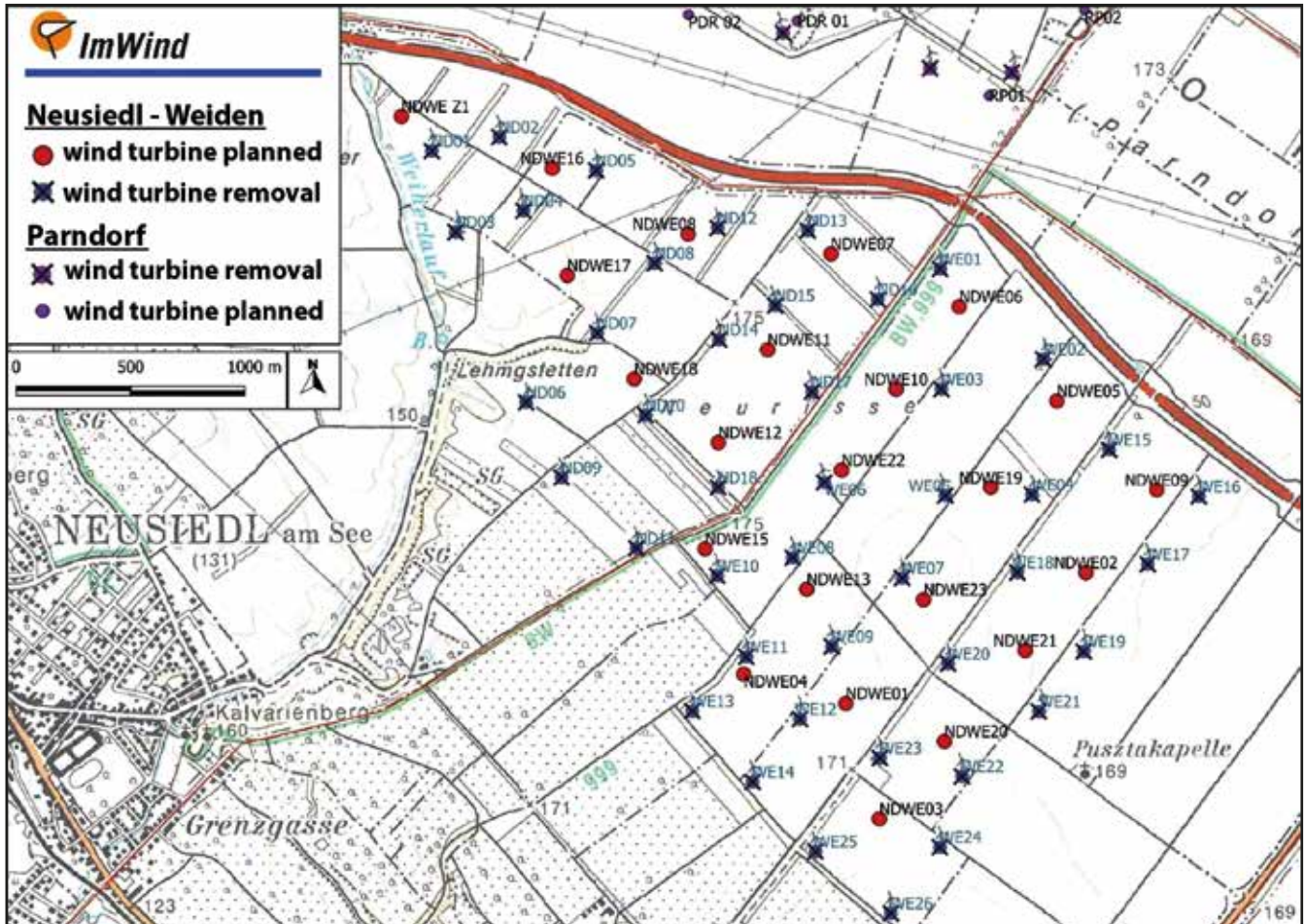


Fig. 4: The Fertő / Lake Neusiedl World Heritage property and the area of the wind farm. Map: ImWind Operations GmbH / UNESCO

management plan, the representatives of the Province of Burgenland denied an impairment of the UNESCO World Heritage Site. They also denied that the Province of Burgenland would be obliged to report this project to the UNESCO World Heritage Centre according to the UNESCO World Heritage Operational Guidelines. Since the Province of Burgenland had not reached a prior agreement on the project with Hungary either, the representatives of ICOMOS insisted on a notification to the UNESCO World Heritage Centre. This notification contained the request (as already in the case of the hotel high-rise project in Parndorf) to invite an Advisory Mission.

Continuing their complaint, "Alliance For Nature" stressed that an increasing soil sealing by the concrete and steel foundations of the wind turbines, each weighing more than 1,000 tons, poses harm: According to the notice of approval, the foundations of the 44 old turbines to be dismantled will not be removed. In this context, "Alliance For Nature" also argued in its complaint that there is no regulatory requirement for the 23 new wind industrial turbines to have their (even more powerful) foundations removed after the wind farm will be decommissioned.



Fig. 5: Aerial view of the existing wind farm northeast of the lake, just outside the village of Weiden. Photo: Freunde des Neusiedlersees

Due to the complaint of “Alliance For Nature” against the approval notice of the Province of Burgenland for the project “Windpark Neusiedl-Weiden Repowering”, an appeal procedure will soon take place at the Austrian Federal Administrative Court.

Appeal to UNESCO to carry out an Advisory Mission

The officially recognized environmental organization “Alliance For Nature” and the two associations “Friends of Lake Neusiedl” (on the Austrian and Hungarian side) have been demanding to enlist the property of Lake Neusiedl on the List of World Heritage Sites in Danger.

Since the problem of wind farms near the “Fertő/Neusiedlersee Cultural Landscape” and the impairment of the visual axes has recently become acute, we urge the UNESCO World Heritage Committee to request an invitation for an Advisory Mission.

Should the Austrian Federal Administrative Court reject the complaint of the “Alliance For Nature” and grant the application of the wind farm project with its up to 245m high wind turbines, it could be that the “Fertő/Neusiedlersee Cultural Landscape” has to be deleted from the UNESCO World Heritage List.

Ohrid Region Natural and Cultural Heritage: The Disappearing and The Disappeared

Daniel Scarry, Ohrid SOS



Designated under Criteria i, iii, iv, and vii, the Natural and Cultural Heritage of the Ohrid Region is a mixed World Heritage site shared by the Republics of Macedonia and Albania. It centers on the 2,000,000-year-old Lake Ohrid, which features numerous plants and animals that cannot be found elsewhere in the world, a rich birdlife, and oligotrophic water. The site also incorporates archaeology, architecture and art treasures from several millennia of human settlements as well as part of Mount Galichica, which holds rare and unique flora and fauna, too.

Since proclamation in 1979/80, the Ohrid Region has suffered intensifying pressure from diverse sources, most visibly urbanization, but also over-fishing, hydropower, wetland destruction, climate change and others.¹ In 2017 and 2020, ICOMOS, IUCN and World Heritage Centre Reactive Monitoring Missions visited the site, putting forward many recommendations, several of which have not been fully implemented². Twice, in 2019 and 2021, the World Heritage Centre drafted decisions to place the site on the List of World Heritage in Danger, yet, on both occasions, the World Heritage Committee rewrote them and obscured the true state of play³.

Here, we provide an update into critical recommendations from the 2020 Reactive Monitoring Mission (RMM2020) from the perspective of the Macedonian side of the World Heritage site.

Studenchishte Marsh

Recommendations 1.a, 2.h, 2.i, and 5.a concern the cancellation of marina plans, removal of seasonal tourism facilities, prevention of permanent structures, habitat restoration, and designation of Lake Ohrid's last wetland, Studenchishte Marsh, as a Ramsar Site and protected area. Of these, only the Ramsar proclamation has been achieved. No decision on the marina has been made, and seasonal tourism facilities have not been operating, but remain in place. While a partial protected area is nominally planned, its perimeters still misalign with Ramsar boundaries and exclude crucial wetland features: its main spring complex, the lakeshore, and Studenchishte Canal⁴. The draft Law on Proclamation of Studenchishte Marsh as a Nature Park meanwhile permits extensive agriculture and/or construction through 91% of the protected area's interior, which will

hamstring a restoration process that has not yet begun.⁵ No provisions limit visitor numbers as advised by the valorization study⁶ that underpins the designation.

Moratorium & Urbanization

No genuine moratorium on coastal and urban transformation has been put in place, ignoring RMM2020 Recommendation 1.g. Instead, erection of structures like a large new legally-disputed hotel at Gorica and apartments next to the Voska Hammam have proceeded alongside incremental changes in Ohrid Old Town, among others. Figures from the State Statistical Office show that, in 2022 alone, permissions for construction of at least 453 apartments were issued in the Municipalities of Ohrid and Struga.⁷ Future plans seen in media and official documents include a second marina in the village of Pestani,⁸ airport expansion,⁹ and a 100-house Tourism Development Zone at Kalishta.¹⁰ 3 large apartment blocks next to Studenchishte Canal and a tourism village at North Gorica¹¹ are approved too. Both are in the Ramsar Site. Neither holds an opinion from the Commission on the Management of the Natural and Cultural Heritage of the Ohrid Region, which is supposedly a control measure for urbanization, and the former has not received conservation approval from the Directorate for Protection of Cultural Heritage.

Illegal Construction

Macedonia's 2022 State of Conservation Report to the World Heritage Centre boasted removal of 17 illegal constructions in 2021, as per RMM2020 Recommendation 2. In fact, a total of 104 new illegal structures appeared in the Municipalities of Ohrid and Struga in the same period, contributing to the minimum 363 that have been built in the 2018-2021 period since ICOMOS, IUCN and the World Heritage Centre first required demolition activities and imposition of law.¹² Platforms in Ohrid City have not been satisfactorily removed in line with Recommendation 2.c. Hundreds of illegal structures still stand in Lake Ohrid's 50m Green Belt Zone, and Ohrid Municipal Assembly is legalizing objects in both Galichica National Park and the Lake Ohrid coastal area without heritage or environmental impact assessments. Civil society access to related Ministry of Environment approvals is blocked.

Legislation and Enforcement

Despite RMM2020 Recommendation 5.d requiring enforcement of the existing legal framework, restaurant facilities are remaining at the Springs of Saint Naum even as the National Red List identifies them harming the population and destroying habitat for a critically endangered species,¹³ in contravention of Article 21 of the Law on Nature Protection. Article 75 of the same law requires tourism and recreation activities in national parks to be conducted in a manner that does not imperil species or their natural balance. This does not seem to accord with multiple tourism practices, particularly at the springs, where evidence of a shift towards cosmopolitan species is emerging.¹⁴ Infringement to the Law on Green Industrial Zones is suspected in relation to Industrial Zone Maucker as it has not been formally established; has no management body; and lacks regulation of activities and conditions. The new Law on Management of the Natural and Cultural Heritage of the Ohrid Region has not yet been passed either, and punitive provisions are too weak to deter *Salmo letnica* poaching, which has been linked to organized crime.¹⁵ Interventions to the River Grashnica occurred twice without prior impact assessments, in conflict with the Law on Environmental Protection, too. An appeal to inspectorates and Ohrid Municipality from Galichica National Park for action over illegal rafts has been ignored¹⁶.

Wastewater

Improvements and expansion of the wastewater system are delayed from the timeline envisaged in the *Management Plan for the Natural and Cultural Heritage of the Ohrid Region 2020–2029*. Fecal matter continues to pollute Lake Ohrid due to rainwater infiltrating the wastewater system leading to overflows. A disconnected pipe is bringing wastewater direct to Studenchishte Canal and Mazija, a biodiversity hotspot. Algae only found in polluted waters have been recorded at the aforementioned Springs of Saint Naum, a hotspot for 30 endemic species.¹⁷ The wastewater system in their vicinity is inadequate with no formal plans to fix it.

Buffer Zone

Another potential source of pollution to Lake Ohrid is its sister, Lake Prespa, which delivers around 25% of its water. Although World Heritage Committee Decision 32COM 8B.49 has requested a Buffer Zone reflecting the lake's catchment since 2008, this has not been achieved. RMM2020 Recommendation 5.h reinforced the need for a Buffer Zone to be designed. In the meantime, Prespa has been disappearing, probably due to natural oscillations exacerbated by climate change and irrigation. In 26 years to 2020, its volume decreased by 54%, leaving agrochemicals and nutrients to concentrate in its waters prior

to their delivery to Lake Ohrid,¹⁸ presaging eutrophication. If this continues, impacts to the Ohrid water balance may occur.¹⁹

River Sateska

RMM2020 Recommendation 7.e required implementation of plans to redirect the pollution-bearing River Sateska and ensure its complete restoration. While a project is underway, its Environmental Impact Assessment appears to have been partially plagiarized and contains little analysis of fully aquatic species, habitat fragmentation, or sediment flows. No reference conditions seem to have been established, lowering hopes for restoration. At a volume of 15m³/sec, the diversion infrastructure has a capacity over 6 times lower than that recommended by the *Lake Ohrid Watershed Management Plan* (100m³/sec),²⁰ which means that, after heavy rain, eroded materials and wash-off from fields will still be directed to Lake Ohrid. Concern about the project was raised by two expert members of the Commission for the Management of the Natural and Cultural Heritage of the Ohrid Region, which did not issue an opinion prior to the start of work because project proponents had not provided more information as requested²¹.

Environmental and Other Impact Assessments

Impact assessments for matters from gas pipelines to All Terrain Vehicles are requested by RMM2020 Recommendations 2.diii, 4.a, 4.b, 6 and 7.i. Not only have these not been carried out, but the framework for competently conducting them is absent²²: Proponents copy material; the mitigation hierarchy is not truly applied; natural heritage is not fully considered; key species data has not been compiled; threats are poorly analyzed; and the Ministry of Environment is not checking content for the thoroughness of its analysis. Several interventions have taken place without any kind of prior evaluation. Comments submitted by Ohrid SOS to two public consultations within a year have disappeared. In any case, impact assessment documents are being submitted to the aforementioned Ministry before consultation procedures are complete.

Recommendations

From urbanization, illegal construction and endemic Ohrid trout — believed to be at the point of no return²³ alone, the Ohrid Region deserves to be on the List of World Heritage in Danger. This must only be reversed when the wastewater system is expanded and sustainably maintained; the impact assessment system is totally reformed; key laws are updated and enforced; keystone species are monitored; and a Buffer Zone incorporates Lake Prespa.

Endnotes

- 1 Kostoski et al. (2010) A freshwater biodiversity hotspot under pressure – assessing threats and identifying conservation needs for ancient Lake Ohrid. *Biogeosciences*, 7, 3999–4015.
- 2 Reports for both missions are available on the UNESCO website: <https://whc.unesco.org/en/list/99/documents/>.
- 3 Compare final World Heritage Committee Decisions 43COM 7B.36 and 44COM 7B.77 with draft Decisions 43COM 7B.36 and 44COM 7B.77 available via the World Heritage Centre, Paris France (<https://whc.unesco.org/>).
- 4 Ohrid SOS (2022) Everything Is Dead (And Other Lame Excuses) via <https://ohridsos.org/ohrid-sos-self-authored-documents/>.
- 5 *ibid*
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- 9 Ex Yu Aviation News (2 Jan 2022) Macedonian airports plan development, recovery and growth in 2022.
- 10 See Urban Plan Outside a Populated Area M.V. Krasta in Kalishta from the Agency of Area Planning of the Republic of Macedonia and TVM (27 Dec 2021) Во Струга ќе се гради туристичка развојна зона (Translation: In Struga a Tourism Development Zone Will Be Constructed)
- 11 Pendevski, V. (2021) Strategic Environmental Assessment for Urban Plan Outside a Populated Area North Gorica. Ministry of Environment and Physical Planning, Skopje, Republic of Macedonia.
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- 16 Letter 03-702/1 from National Park Galichica to the Mayor of the Municipality of Ohrid, the Local Municipal Inspector for Construction, and the Local Inspector for Environment and Ecology dated 20 Oct 2021.
- 17 Public Institution National Park Galichica (2022) Special Management Plan for the Saint Naum Complex (working version). National Park Galichica, Municipality of Ohrid, Republic of Macedonia.
- 18 Soria and Apostolova (2022) Decrease in the Water Level of Lake Prespa (North Macedonia) Studied by Remote Sensing Methodology: Relation with Hydrology and Agriculture. *Hydrology*, Volume 9, Issue 6.
- 19 Van der Schreik, T. and Giannakopoulos, C. (2014) The Water Level Fall of Lake Megali Prespa (N Greece): an Indicator of Regional Water Stress Driven by Climate Change and Amplified by Water Extraction? *Geophysical Research Abstracts* Vol. 16, EGU2014-3878.
- 20 Monetti, M. et al. (2020) Lake Ohrid Watershed Management Plan. Global Watershed Partnership: Mediterranean, Athens, Greece
- 21 See minutes to Sessions 7 (5 Oct 2021) and 20 (28 Oct 2022) of the Commission for the Management of the Natural and Cultural Heritage of the Ohrid Region.
- 22 UNEP (2011) 3rd Environmental Performance Review of North Macedonia. Nairobi, Kenya and European Commission (2022) North Macedonia Report 2022. Brussels, Belgium.
- 23 Monetti, M. et al. (2020) Lake Ohrid Watershed Management Plan. Global Watershed Partnership: Mediterranean, Athens, Greece

Photographic Documentation: New constructions

All photos by Ohrid SOS



Fig. 1: Commission-disputed construction continues in the Old Town Core of Ohrid in January 2023 despite the UNESCO recommendation for a moratorium on coastal and urban transformation.



Fig. 2: A platform at Aquarius Café in Ohrid City operates once again in May 2022. It had previously been partially removed in a voluntary demolition of illegal structures.



Fig. 3: In the Old Town Core of Ohrid in August 2022, a new construction moves forward with permission. Its height will exceed maxima set in the current Ohrid Region Management Plan.

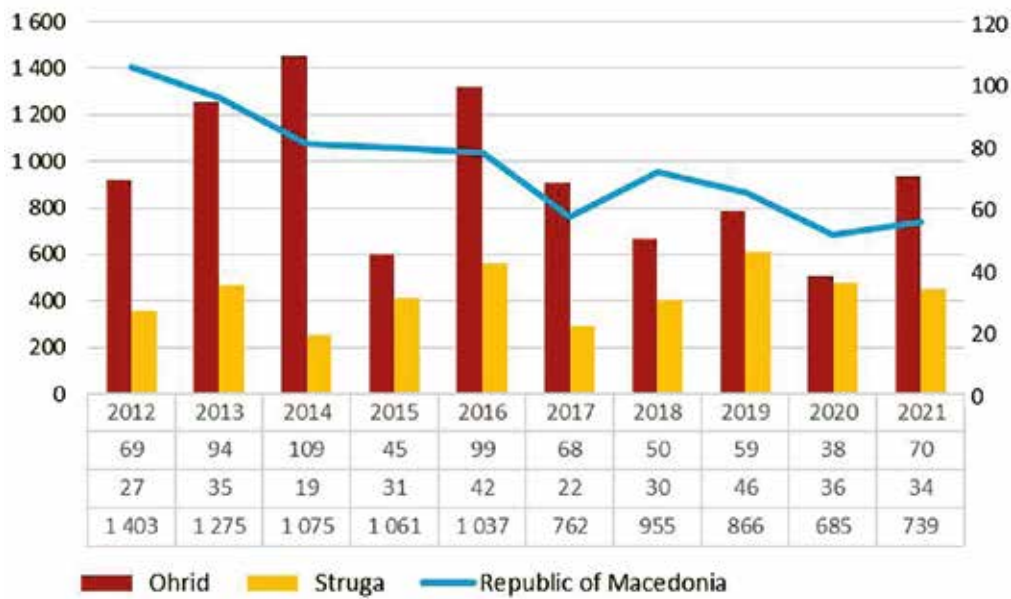


Fig. 4: This table and graph show the trends for illegal construction in the Republic of Macedonia and the two Ohrid Region Municipalities of Ohrid and Struga. National totals can be read from the left side of the Y-axis. Municipality totals can be read from the right side of the Y-axis. Figures are from the State Statistical Office for the Republic of Macedonia. Graphic: Ohrid SOS based on data of the State Statistical Office for the Republic of Macedonia



Fig. 5: A huge new development pops up on the mountainside at the depopulated village of Ramne, Ohrid Region in June 2022.



Fig. 6: An apartment block looming over 3 cultural monuments at the Voska Hammam on 19 August 2022 shows a massive advance in construction since early 2021.



Fig. 7: A State Environment Inspectorate photo in January 2023 shows the construction site for the new, legally-disputed hotel that is being built at the former Restaurant Park. It will encroach on Lake Ohrid's 50m Green Belt Zone.



Fig. 8: A Monument of Culture (right) sees its key features (windows and surrounding plasterwork) demolished in this picture of new constructions at Ohrid Quay in May 2022.



Fig. 9: (Aug 2022) In the Ohrid City suburb of Daljan, land was reclaimed with construction waste in November 2020. It has never been remediated despite an order for the Ministry of Transport to do so.



Fig. 10: The visible effects of sewerage outflow to Studenichiste Canal after heavy rain in June 2022.



Fig. 11: The site of sewage overflows to Lake Ohrid at Voska in August 2022.



Fig. 12: At Voska, suspected illegal tourism facilities remain untouched in Lake Ohrid's 50m Green Belt Zone.



Fig. 13: At Potpes in Ohrid City, July 2022, the remains of illegal structures blight scenery and interrupt ecological exchange between the shore and Lake Ohrid despite RMM2022 Recommendation 2.c.



Fig. 14: In August 2022, water is pumped directly from Lake Ohrid at a plot linked to property developer and then-Ohrid Municipality councillor Nefi Useini. Useini has been previously identified as the owner of illegal constructions.

Destruction in the Tigris Valley and Hevsel Gardens

Nevin Soyukaya, Dilan Kaya and Pınar Can,
Diyarbakır Kültür ve Tabiat Varlıklarını Koruma Derneği



The UNESCO World Heritage Site in Diyarbakır, including Diyarbakır Fortress and Hevsel Gardens Cultural Landscape Area, was first damaged by the armed conflict in December 2015 - March 2016 and the subsequent urban transformation projects. Then, on February 6, 2023, the Diyarbakır Fortress was destroyed by 7.7 and 7.6 magnitude earthquakes. This report synthesizes current observations and field studies on the interventions and destruction of the Hevsel Gardens in the heritage site.

The Status of the Tigris River

The Tigris River is a transboundary river that originates in the Sivrice district of Elazığ and flows through Diyarbakır, Mardin, and Şırnak before crossing into Iraq. The Coastal Law No. 3621 of Turkey makes provision for the use and protection of the natural and cultural characteristics of the sea coasts, natural and artificial lakes, and river bank and coastal strips in Turkey by taking into account their natural and cultural characteristics, their use for public benefit and the limitation of construction conditions. The regulation on this law published in the Official Gazette dated March 25, 2011 and numbered 27885, specifies which rivers in Turkey fall under the definition of "river". Tigris River is ranked 7th on the list. However, along the 63 km line of the Tigris River' starting from its birthplace, crossing the heritage area in Diyarbakır and reaching the Bismil District it is not recognized as a river. This causes that specific coastal site area to be excluded from coastal protection legislation and to face many problems with respect to its preservation.

Destruction caused by the Tigris Valley Project

For the long-term implementation of the Tigris Valley Project, the Ministry of Environment, Urbanisation and Climate Change carried out "Tigris River Reclamation Works" in 2017 which especially targeted the World Heritage Site. These activities have destroyed the ecosystem along the coastal line. Hevsel Gardens Destruction Report, prepared by five civil society organizations in Diyarbakır, describes the destruction caused by human-made works as follows; *"In a healthy river, the ecological balance is established spontaneously and continues to exist through natural events as long as there is no external influence. In rivers narrowed and channelized by human intervention, irreversible*

*damage occurs in the habitats of micro and macro flora and fauna components. In addition to the river's relationship with upstream and downstream, its connections with the land system are also interrupted. Therefore, river restoration projects need to be correctly identified and implemented".*¹

Hence, it is not possible to define the work carried out on the heritage site as a restoration project. "Tigris River Reclamation Works" enabled the authorized institutions to intervene in approximately 1 kilometer of the coastal area with heavy construction equipment, destroying the river bed and the dunes, reeds, and marshy areas. The work on the 21-kilometer stretch of the river was halted upon local reactions and the request of the World Heritage Centre.



Fig. 1: An original view of the Tigris River from the World Heritage Site.

Photo: Mehmet Masum Sür, 13.04.2019

By the end of 2016, Phase 1 of the development plan was implemented in the Dicle Valley Recreation Area (Nature Park) and Afforestation Area targeting 31.85 hectares of the World Heritage Site. With this revision, the formation of ponds on the Tigris River and the construction of commercial areas are envisaged. Overall, this revision authorized the institutions to single-handedly carry out all of the planning and design decisions under this project. If implemented, this plan will change the river bed and shoreline, lead to a decrease in the water of the river as well as a decrease in the biodiversity living in the river

¹ Hevsel Gardens Destruction Report, 2022, page 16 (Prepared by Diyarbakır Chamber of Agriculture Engineers, Diyarbakır Chamber of Architects, Diyarbakır Association for the Protection of Cultural and Natural Assets (DKVD), Diyarbakır Bar Association, and Ecology Association)

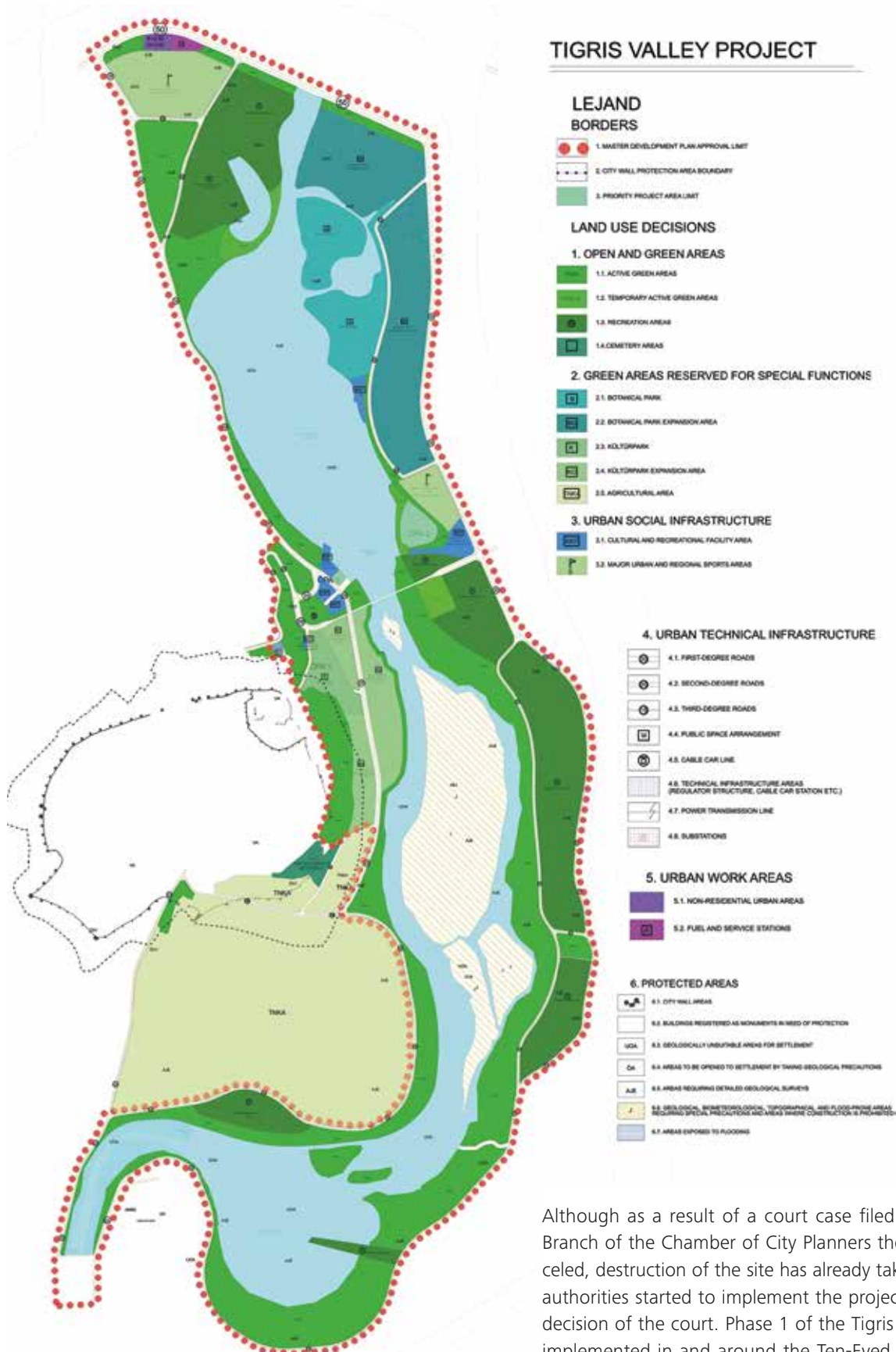


Fig. 2: Master Plan of the Tigris Valley Project.

Map: DKVD

and Hevsel Gardens. Moreover, it will transform urban agriculture, which constitutes the uniqueness of the site, into an urban park.

Although as a result of a court case filed by the Diyarbakır Branch of the Chamber of City Planners the project was canceled, destruction of the site has already taken place since the authorities started to implement the project prior to the final decision of the court. Phase 1 of the Tigris Valley Project was implemented in and around the Ten-Eyed Bridge. They have carried out recreational and urban landscaping works at the foot of Kırklardağı. They built a mosque and some buildings whose functions in the heritage site are yet to be understood. The project also allowed unauthorized intensive construction around the Ten-Eyed Bridge. Although the project has been



Fig. 3: The destruction of the Tigris bed on the northern border of the World Heritage Site, September 2017. Photo: Regional Directorate for State Hydraulic Works (DSI)

canceled, the heritage site still faces potential risks due to the ongoing implementation of the project that does not welcome the intervention of experts and civil society organizations.



Fig. 4: People's Garden.

Photo: Nevin Soyukaya, 13.03.2023

A "People's Garden" was built in the world heritage site. The area was opened to vehicular traffic with paved roads. They also planted foreign plants and trees by transforming the rural landscape into an urban recreation area. Opening the area to vehicular traffic also poses a danger to the city walls in the long term.

The planning and restoration practices carried out in the area within the scope of the Tigris Valley Project have certain problems in themselves. In addition, the implementation of projects



Fig. 5: Ten-Eyed Bridge and Kırklar Mountain region where the Phase 1 of the Tigris Valley Project is implemented. Photo: Nevin Soyukaya, 13.11.2020

affecting such a large area and ecosystem without a Cultural Heritage Impact Assessment Report for the Dicle Valley and Hevsel Gardens, which form the borders of the World Heritage Site and the buffer zone, is also contrary to the principles of holistic conservation.

Interventions and Destructions in the Hevsel Gardens: Changes in Agricultural Production

The destruction caused by industrial agriculture is described in the Hevsel Gardens Destruction Report as follows:

"Although in its historical development Hevsel Gardens predominantly were composed of subsistence family farming, where vegetables and fruits were cultivated in small areas, maize cultivation has recently been replaced by industrial monoculture agriculture (i.e. agriculture based on a single variety of crops such as corn or cotton). Trees on the borders of formerly small gardens are being cut down and large plots are being farmed with hybrid seeds that are uniform and dependent on excessive fertilizers and chemicals that pollute and exhaust the soil. After the corn harvest, fires are set several times in the field, leaving the species living in the area and their offspring to die.

Hevsel Gardens is also an exceptional biodiversity site, containing hundreds of native plant and animal species. Healthy habitats usually harbor a wide variety of species. Since monocultures only harbor a single species, they disrupt the food web in the areas where they are practiced, damaging the ecosystem balance. Beneficial insect species, reptiles, birds and bats naturally found in the region cannot sustain their natural life cycles due to the disruption of the food chain as a result of monoculture practices. Fertilizers and pesticides (insecticides, fungicides and herbicides) used in corn and cotton production with wild irrigation cause changes in the physical and chemical properties of Tigris River water. As a result of eutrophication caused by the increase in nutrients in the river water, all aquatic life, especially fish, are endangered".²



Fig. 6: Newly cut trees.

Photo: Pinar Can, 17.03.2023

² Hevsel Gardens Destruction Report, 2022, page 22

The widespread cultivation of maize, which is an industrial plant, creates warehousing needs and paves the way for construction. Again, since large transportation vehicles are needed for the collection and transportation of these plants from the area, it causes the expansion of existing roads in the area and the opening of new roads. As a result of this, there will be a decrease in the agricultural areas which will adversely affect the diversity of living creatures in the area as well as disruption in the cultural landscape, authenticity and integrity of the area.



Fig. 7: Wide roads opened in the area. Photo: Pınar Can, 17.03.2023

The conflict from December 2015 to March 2016 followed by the demolition and urban transformation projects led to the irreversible displacement of residents living in Suriçi, the buffer zone of the heritage site. The urban transformation decisions targeting Suriçi and its traditional urban fabric transformed the historical city center into a commercial and tourism area which not only led to displacement of people but also the end of its dense residential texture.³ The new urban form and human restructuring created by these urban transformation efforts accelerated the process that led to the destruction of the Hevsel Gar-

³ The Character of Diyarbakır's Suriçi Quarter is Changed from Residential to Commercial - https://world-heritage-watch.org/content/wp-content/uploads/2022/10/2022-Report_WHW.pdf



Fig. 9: Hevsel Gardens at the time of World Heritage nomination. Photo: Merthan Anik, 16.09.2013

dens. Although they have been used as an uninterrupted urban agricultural area from the past to the present, the ownership of Hevsel Gardens belonged to various institutions, foundations as well as individuals, and agricultural activities were predominantly carried out by the residents living in Suriçi.

One of the main points that ensured the sustainability of this production relationship was the proximity of the living spaces and the gardens to each other. During the 2015 conflict and demolition process, the forced displacement of residents to the far peripheries of the city (Diyarbakır) interrupted these production relations. This situation is one of the important factors of the transition to industrial monoculture production instead of vegetable and fruit production by abandoning the historically developed, unique production practices in Hevsel Gardens today.

On March 17, 2023, Murat Uğurlu, who continues their production in approximately 90% of the heritage area today within the scope of the fieldwork conducted in Hevsel Gardens, said that one of the main reasons for the transition from vegetable and fruit production on small plots to corn production on large

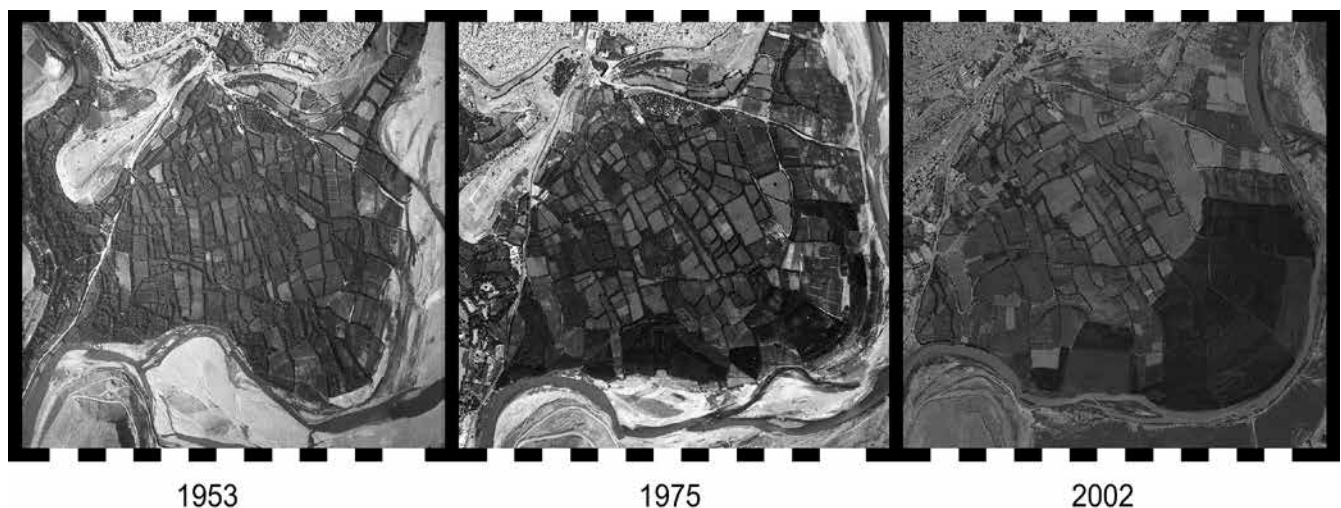


Fig. 8: Aerial views of Hevsel Gardens between 1953 and 2002.

Photo: DKVD

plots is human resources. Vegetable and fruit production needs more people and requires daily monitoring. However, the displacement of neighborhood residents after the conflict in Suriçi who were mainly involved in agricultural production in Hevsel Gardens was one of the main reasons that accelerated this transition to the mass corn production.



Fig. 10: A land in the Hevsel Garden that was enlarged and planted with corn.
Photo: Pinar Can, 17.03.2023

Illegal Constructions in the Tigris Valley and Hevsel Gardens

Unauthorized constructions along the Tigris Valley are becoming more intense. Especially after the project implemented by the ministry in 2017 at the foothills of the Ten-Eyed Bridge and

Kırklar Mountain in Phase 1 of the Tigris Valley Project, illegal structures which especially function as either cafe or restaurant have grown numerically and volumetrically in the area. The uncontrolled and gradual increase in construction raises the number of visitors and traffic density in this area as well as causes changes in vegetation cover with foreign germination and afforestation which in return negatively affects the ecosystem by increasing pollution.

Conclusion

These destructive practices in the Tigris Valley and Hevsel Gardens destroy the integrity, authenticity, and originality of the Cultural Landscape of Diyarbakır Fortress and Hevsel Gardens. A



Fig. 11: Hevsel Gardens.
Photo: Pinar Can, 17.03.2023

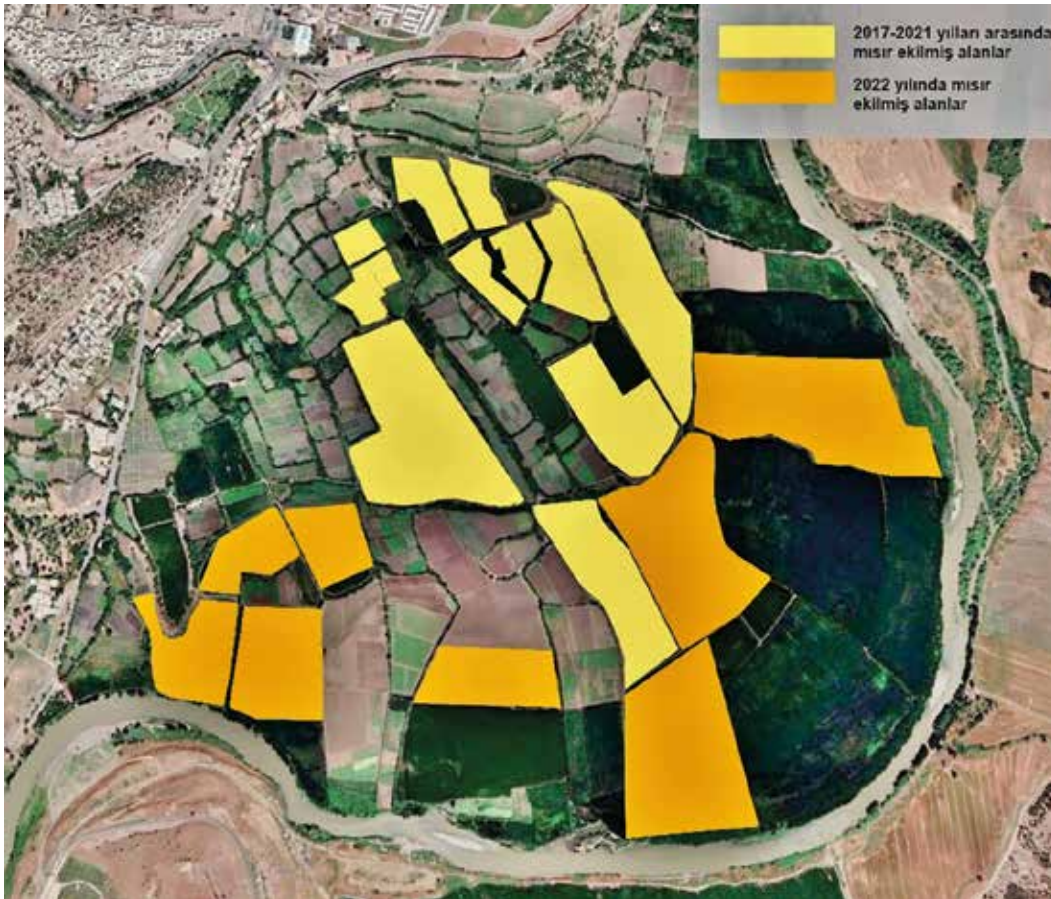


Fig. 12: Areas of maize cultivation in Hevsel Garden from 2017–2022

Map: Pinar Can / DKVD

Cultural Heritage Impact Assessment Report must be prepared to protect the Hevsel Gardens, which has existed for thousands of years as a rural landscape with its vegetable and fruit gardens right next to the city as well as its ecosystem that provides habitat for many species of living creatures, and to prevent its



Fig. 13: An illegal building in Hevsel Gardens. Photo: Pinar Can, 17.03.2023



Fig. 13: An area filled with rubble in Hevsel Gardens. Photo: Pinar Can, 17.3.2023

destruction. Until the report is prepared, all activities in the Hevsel Gardens and the Tigris Valley should be stopped. Furthermore, illegal construction and recreational activities that disrupt the authenticity of the area should immediately end to maintain the product diversity that has lasted for thousands of years, and to protect the traditional garden boundaries in the face of growing industrial agricultural facilities.

The Ahwar of Iraq: Water Scarcity is Persisting

Salman Khairalla, Humat Dijlah
Toon Bijmens, Save the Tigris



In Southern Iraq lie the Mesopotamian Marshes, a natural site inscribed on the UNESCO World Heritage List in 2016 consisting of the Central, Hawizeh and eastern and western Hammar Marsh areas. Together with three cultural sites they form the Ahwar of Iraq. The wetlands, fed by the Tigris and Euphrates rivers, have suffered from various issues related to the management of its water resources. Between the summers of 2020 and 2022, all of the Marshes of Iraq suffered a loss of 46% of their surface water. Most of the remaining Marshes have also suffered from a sharp drop in water levels. Presently, near the end of winter, the situation has not improved but current data suggests it could become worse. As of 6 March 2023, the water incoming from the Tigris River to the Hawizeh and Central Marshes was zero cubic meters. The income from the Euphrates River is higher, but does not reach the minimum level of inflow. As per Decision 44 COM 7B.73 of the World Heritage Committee, the minimum flow level into the Marshes of Iraq should be 5.8 billion cubic metres (BCM).

pend on the availability of water. Lack of water however has prompted the local population to emigrate. According to the International Organization for Migration, there are more than 600 families in the Marshes at risk of emigration if the situation remains as it is now. Many of the inhabitants of the Hawizeh Marshes, the Central Marshes, and the Hammar Marshes have lost large numbers of livestock. The Central Marshes particularly have suffered from water scarcity, which prompted its inhabitants to migrate to neighbouring villages or areas north of Dhi Qar. While much of the water scarcity can be attributed to the detrimental impacts of climate change, the wetlands are facing further water stress due to what many locals in the Marshes regard as “unfair water management” by authorities. Local activists have questioned water allocations for the Marshes and decry the lack of communication from the authorities. Indeed, inhabitants of the Marshes claim that water flows to the Marshes were diverted for agricultural lands at the expense of the marshlands.

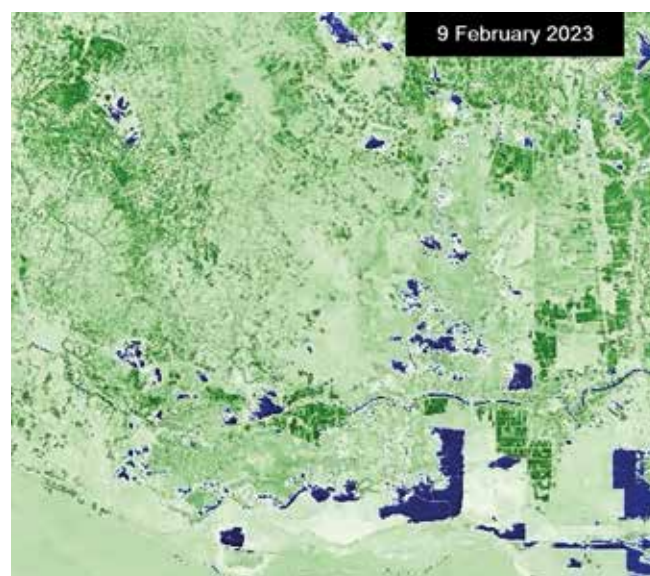
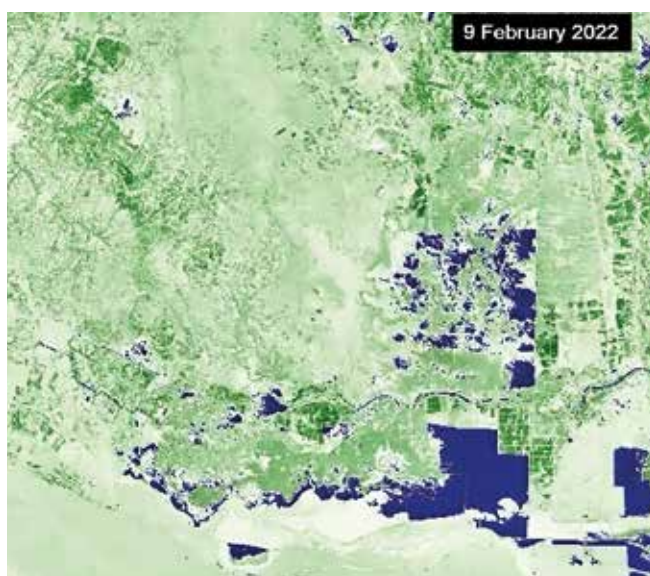


Fig. 1 and 2: Comparison of water levels in the marshes in February 2022 (left) and February 2023 (right).

Maps: Wim Zwijnenburg / Sentinel Hu

Impacts of water scarcity

Their drying up has resulted in less water available for water buffalos or fishing, on which local populations depend for their livelihood and income. The marshes are also home to many different kinds of species, including migratory birds, which de-

Water allocations

The Iraqi government attributes the lack of water in the Marshes to the lack of water inflow from the Turkish and Iranian riparian states. This is true. However, internal management has greatly affected the water provision within Iraq as

well. Plenty of water was stored in Iraq's reservoirs in 2019, a year with an abundance of rainfall across the country. In the ensuing years, the Ministry of Water Resources relied heavily on this storage to supply water and meet the country's needs in times of drought. According to data released by the High National Committee for Water Management, the flow of water from Maysan (including Hawizeh Marshes) to Basra was raised from 65 m³ to 95 m³ per second in the past year, at a time when the Marshes were experiencing a serious decrease in water levels. The reason for the increased flows from the Marshes to Basra, resulting in water scarcity in the Marshes, was not communicated by the Ministry. Water quotas allocated for the agricultural sector were cut by half in 2022, thus the increase was not meant for agricultural purposes. Possibly the purpose of the increase was to supply Basra with drinking water. In any case, the decision to cut agricultural water quotas was taken in June. Locals in Maysan claim that if this decision had been taken earlier (January), the Marshes would not have suffered from water scarcity as much as they did. Besides, local authorities restricted access to the Hawizeh Marshes, causing further suspicion among locals. Some claim that water outflow from Maysan was increased in order to instigate political chaos and protests in the governorate, since there was a power vacuum in Iraq as a new government was being formed following federal elections (The Saddrist movement, strong in Maysan Governorate, was competing with the Coordination Framework to form a central government in Baghdad).

Embankment

Further controversy surrounding the water crisis in the Hawizeh Marshes was caused by infrastructure works within the wetlands. Any constructions within the area must be pre-approved by the UNESCO World Heritage Centre as per Decision 44 COM 7B.73, since it is protected by its World Heritage status. In October 2022, supported by photos, activists reported on social media the construction of oil infrastructure within the eastern side of the Hawizeh Marshes. There has been much concern in recent years that the Ministry of Oil would drill for oil within the wetland area since oil exploitation has been ongoing in the vicinity of the site for many years, despite it being a protected natural site. It was revealed however that the infrastructure built by the Iraqi authorities consisted of an embankment with the purpose to fortify the border with Iran (note that one-third of the Hawizeh Marshes, Hoor al-Azim is located within Iran). Prior to construction of this embankment, the last Iraqi security checkpoint was located approximately 34 kilometers from the border. The newly-built embankment was constructed for security purposes about 100 meters from the Iranian soil-embankment, which was constructed a decade ago straddling 90 km along the border and effectively cutting the Marshes in Iraq from the Iranian side.

Complementing the Iraqi embankment on the border, two corridors were constructed to manage the water flows between

the Iraqi and Iranian side. Since the Iraqi side is located at a lower level, it is mostly on the receiving end. This implies that if there is a flood in Hoor al-Azim, the Hawizeh Marshes could receive water inflow from Iran. Since the Iraqi embankment was meant to secure the border, it was jointly built by the Ministry of Water Resources and the Ministry of Defense. It remains unclear whether this construction was approved by UNESCO. The outcry on social media when the infrastructure works within the Marshes were first exposed was emblematic of the distrust between the government and local communities of the Hawizeh Marshes. In a year of serious drought, the lack of transparency and communication from the authorities regarding the Marshes' water allocations has created the perception among local communities that the wetlands have not received their fair shares of water. They believe that authorities have blatantly disregarded the ecological value of the Hawizeh Marshes and have not taken adequate measures to protect the wetlands.

Solutions to the water provision

Activists from the Hawizeh Marshes area have proposed a number of options to better protect the water resources of these wetlands. One of them is to save the seasonal water from two rivers (Al Teeb and Dwerej/Qaib) which depend heavily on the quantity of rainfall and to not allow those rivers to flow into the Tigris, instead to have them flow into the Hawizeh Marshes – even if the water quality differs. Iran implemented similar measures on its side of the Marshes. Even if the waters on the Iranian side are shallow and the levels are low, it has managed to revive the Hoor al-Azim wetlands.

Twenty years have passed since regime change in Iraq, which greatly contributed to the destruction of Iraq's environment for political and military purposes. Yet twenty years on, water security in Iraq is still out of reach due to mismanagement. Civil society in Iraq aims to shed light on the issues and provide clear proposals for solutions to protect the World Heritage site of the Ahwar of Iraq. In order to sustain the Marshes and safeguard its UNESCO Outstanding Universal Value (OUV) status, they must receive their fair and equal shares of water. Save the Tigris calls upon the Iraqi authorities to create an atmosphere of trust and transparency by responding to water scarcity in a timely manner, and to communicate publicly any changes in water allocations for the Marshes. Save the Tigris also requests the WHC to support the Iraqi authorities to improve its internal water management by, as per Decision 44 COM 7B.73, implementing measures that guarantee adequate water flows to the property.



Threats to the Pattadakal WHS from Monumental 'Authenticity'

Kuili Suganya and Krupa Rajangam, Saythu...
Linking People and Heritage

SAYTHU
...linking people and heritage

Pattadakal World Heritage Site, in the semi-arid Malaprabha River Valley, northern Karnataka, India, was inscribed to the World Heritage Cultural list in 1987 as 'Group of monuments at Pattadakal'. Initially, practice and policy focused only on the Pattadakal group of temples, ascribing it as the 'cradle of temple architecture' and the heartland of Early Chalukyan (6th to 8th century CE) architecture.

In 2015 the State Party proposed a serial extension to the property, which carried forward the limited understanding of the site and its context, by listing only a few nationally-protected monuments at both Aihole and Badami. The proposal framed the former as the trade capital, the latter as the principal cap-



Fig. 1: View of the monument in context.

Source: Authors

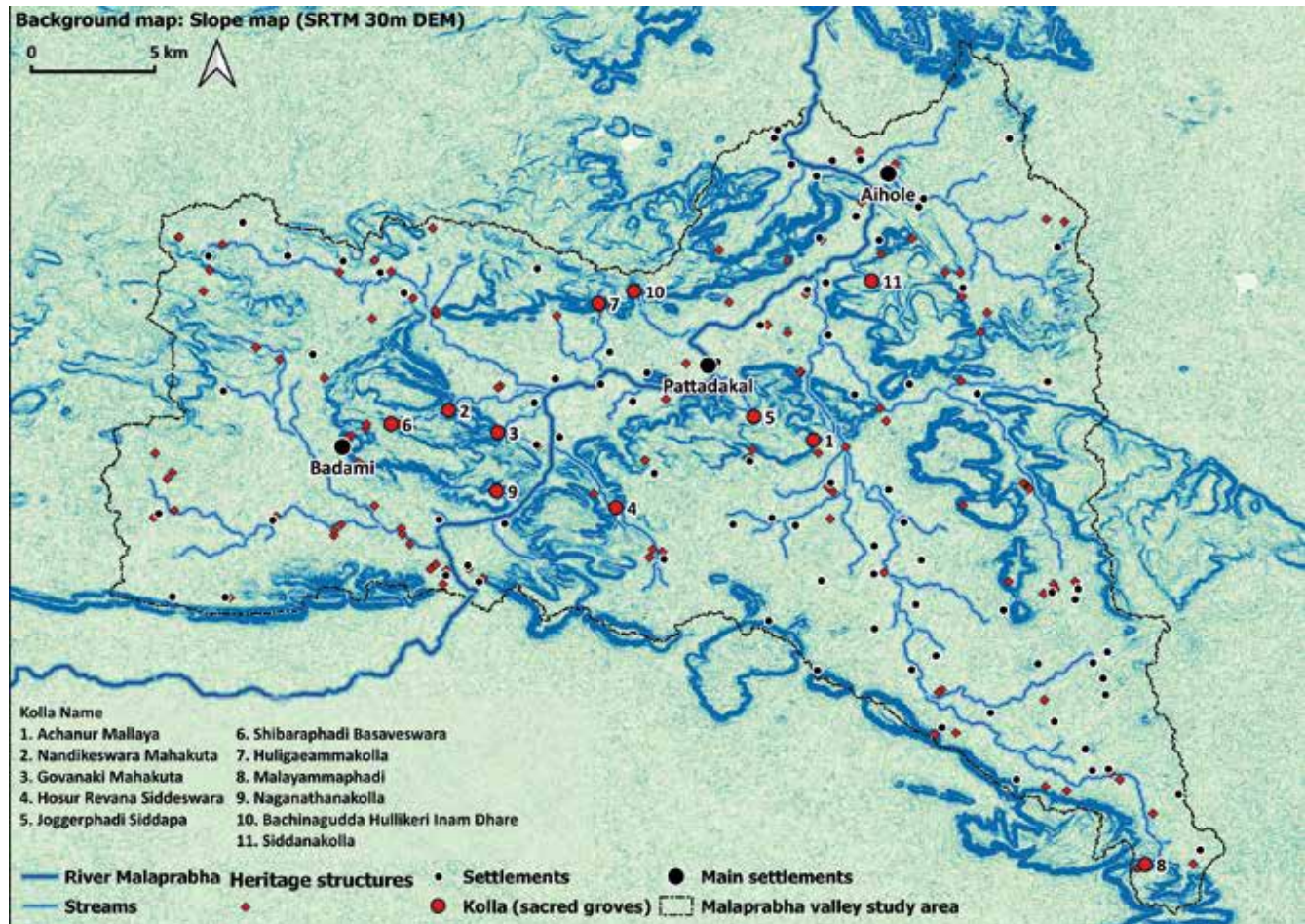


Fig. 2: Valley map showcasing the integrated network of water, built heritage and settlements.

Source: GIS-based overlay by Suganya

ital and Pattadakal as the religious capital (Abraham 1988, Filliozat & Filliozat 2015, Padigar 2017), in line with popular understanding.

Over the years, the proposal and allied plans to relocate settlements and villages (re)appear regularly in different guises; i) threat of floods, ii) to enforce protected area regulations, iii) towards tourism and infrastructure development, iv) for local economic development, and so on.¹ In addition to threats of resident displacement, our immediate concern is that the current ad-hoc and fragmented approach, by diverse stakeholders, to site interpretation, management, development, and the proposed serial extension, threatens distinctive local ways of living that have sustained the landscape and its people for millennia. In the process, the site's integrity as an outstanding cultural landscape is (unknowingly) being undermined.

Suganya's multidisciplinary study (2016–2022) establishes that far from being a group of monuments, the temple complexes at Aihole, Badami and Pattadakal are but a scatter of points within a millennia-old strong and complex network of minor order streams, sacred groves, shrines, seemingly unobtrusive ecological and socio-cultural markers, habitation sites and fields that continue to sustain the water-scarce landscape of Malaprabha Valley (Fig. 1 and 2) (Balan 2022, Suganya et al. 2022).

Not recognising the monuments as part-and-parcel of this network that is 'illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal' (UNESCO WHC 2008) is a crucial mis-recognition of the Valley: more than monuments it is an organically-evolved distinct cultural landscape. The Valley's residents, past and present, have recognised, sacralised and revered the Valley both for its ecological significance and socio-cultural values (Fig. 3) through their cultural memories and lived experiences. They continue to upkeep the links between natural features, various built environments, water features and non-monumental yet sacred structures, from well-before and after the Chalukyan period, through everyday rituals and periodic festivals at the various sacred groves.

Issues with favouring authenticity over integrity in site inscription and management

It is understood that the 2010 revision to the Ancient Monuments and Scheduled Remains Act demarcating the monument edge and two zones of protection around it (prohibited and

regulated zones) gave the Archaeological Survey of India the stimulus to propose the extension. In 2018, to aid site management of the property, a Chalukyan Heritage Area Management Authority, along the lines of the Hampi World Heritage Area Management Authority (HWHAMA), was constituted.²

Historically, this region was under various forms of feudal land tenure, and its resident population largely remains rural-livelihood dependent. As a result, various stakeholders often frame it as an under-developed region (Gavaskar 2003 and others) that will benefit immensely from infrastructure and industrial projects. Central and state governments have both introduced a number of well-intended schemes towards infrastructure, tourism and local economic development at Pattadakal and the historic core of Badami.³ However, the schemes remain monument-and time-period centric and (unwittingly) contribute to a general lack of discourse around the long-term implications of Pattadakal as a centrally protected and WH site and the future implications of the serial extension as proposed currently.

Rajangam's (2020, 2022 and with Equations, 2021) long-standing ethnographic work at the Hampi WHS, located on the neighbouring Tungabhadra river basin, about 150 km south of Pattadakal, offered a number of fresh insights into the consequences of establishing a non-grounded heritage authority such as the HWHAMA and the social marginalization and displacement resulting from attempts to manage rigid monument-centric classifications and boundaries. Given the good intentions of all concerned agencies, we strongly recommend learning from the mistakes of site management not just at Hampi but at other WH sites, such as Petra (Meskell & Luke 2021) and Angkor Wat (Winter 2007, Peycam 2016), and not repeating them at Pattadakal.

The possibility to re-align the site's inscription in line with its historic and on-going realities as a unique cultural landscape remains extant. Such a proactive approach would be especially relevant to a Global South context, where people have been residing amidst protected sites and landscapes for centuries, if not millennia. Hence a need to work towards inclusive WHS management strategies – instead of hastily conceived, reactive and fire-fighting missions, committees, action plans, and policies – remains pressing.

The proposed extension appears to be no more than a 'mere catalogue' (WHC 2010. See footnote)⁴ that will physically and

1 Including central government schemes, such as, HRIDAY, AMRUT, Adarsh Smarak and regional government acts:
<https://www.indiaculture.nic.in/annual-reports>
<https://mohua.gov.in/upload/uploadfiles/files/GuidelinesHRIDAY.pdf>
<https://archaeology.karnataka.gov.in/storage/pdf-files/Chalukya%20bill%20English.pdf>
<https://www.integrateddesign.org/karnataka-heritage-based-development>

2 We are currently attempting to obtain a map that indicates the extent of the area under the Authority's guardianship.

3 See footnote 2.

4 In its report on serial properties and nominations (WHC 2010: 2) the WHC has expressed a concern that the nominations and extensions ought not lead to 'a mere catalogue of sites without an adequate definition of the functional links between the component parts, or an explanation as to how they contribute to the OUV of the property as a whole'. The report further states that 'for cultural properties, component parts should reflect clearly defined, cultural, social, historical or functional links over time'.



Figure 3: Map (3a) and images (3b and 3c) detailing one of the Valley's sacred groves and its crucial cultural, ecological and economic role in sustaining the landscape.

Source: GIS-based overlay by Suganya and authors

virtually create multiple fences, boundaries and barriers by continuing to isolate the monuments as 'islands of protection' (Thakur 2007). Such barriers not only break the integrity of the geo-cultural landscape but also lead to 'spatial cleansing' (Herzfeld 2006).⁵

Plans to relocate residents living in the protected zones of Aihole, Pattadakal and Badami have been in place since at least 2006⁶ and were revived when the serial extension was proposed. At both locations, the protected temples and houses have co-existed at least until 1926⁷ but by the 1960s parts of Pattadakal and Aihole were relocated to showcase a particular style of architecture. Severe floods in 2009⁸ and 2019 led to a revival of the relocation plans. However, such discourses over-



⁵ Spatial cleansing: a conceptual and physical boundary proposed by Herzfeld (2006) based on his continuing engagement with heritage and bureaucracy. He defines it as a zone typically defined by local government that circumscribes who or what can legitimately belong within this bounded space; everything else is automatically deemed a nuisance and removed.

⁶ <https://timesofindia.indiatimes.com/city/bengaluru/aihole-set-to-relocate-for-monuments-sake/articleshow/13466505.cms> (Accessed: 11 Feb 2023)

⁷ Cousens (1926) describes Pattadakal's temples as being part of the village wall and extents. But by the 1960s the houses and settlements were no longer mentioned in text or seen in photographs (Annigeri 1961). Many temples in Aihole are named after residents who lived in and around them since before they were declared protected monuments, such as, Ladhkhan, Gauder gudi, Huchimalli gudi, Huchappaya and Charandi mathas.

⁸ <https://www.deccanherald.com/state/temples-are-a-godsend-in-pattadakal-755098.html>. (Accessed: 11 Feb 2023)

look reports that the floods were 'human-induced' and not natural disasters.⁹

The need for sensitive plans and policies is immediate. At Badami, the geological landscape is becoming more popular with tourists, especially for bouldering and rock climbing. Road widening works, towards improved tourist access to the three main sites of Pattadakal, Aihole and Badami, linking them to transport hubs, are already underway. Other infrastructure development projects, including drains, canals and barrages,¹⁰ were also given environmental clearances, due to the current limited understanding of the cultural landscape as isolated monuments of the past. Alongside, other economic activities, including sand mining, stone quarrying and change in agricultural patterns equally disrupt the organically-evolved delicate living cultural and ecological network.

Recommendations

We call on the World Heritage Committee to consider the following actions:

1. Recommend to the State Party to (re)submit the property under additional criteria (criterion v in addition to the existing iii and iv) in view of its distinct and complex ecosystem, human-nature interaction and cultural ecology, which qualify it as a cultural landscape, under the sub-category of 'organically-evolved landscape'.
2. Urge the State Party to introduce specific guidelines that clearly describe and delineate the Valley as a cultural landscape such that the existing linkages and various integral and distinct elements that form the living network are foregrounded and safeguarded.
3. Urge the State Party to re-examine the site's boundaries by first rationalising the applicable legal and administrative boundaries, under both regional and federal law, and then demarcating the rationalized boundary as the property boundary of the WHS, for ease of operation.
4. Urge the State Party to re-examine the constitution of the Chalukyan Heritage Authority and as an alternative suggest a management framework that fits within existing legal and administrative structures rather than impose another bureaucratic framework that is to the detriment of all stakeholders, including not just residents, but also local heritage and governmental agencies.
5. Urge the State Party to proactively engage with the local communities of the existing property and the tentative extension to evolve an effective conservation-management system that includes a shared understanding of the property as cultural landscape and ensures equitable benefits to local communities while not detracting from their current sustainable ways of living.¹¹
6. In line with UNESCO's sustainable development goals,¹² we recommend adopting an integrated approach to site management rather than continuing with policies and plans executed in an ad-hoc manner. The approach should commence with focus on the OUV pillar of integrity by first recognizing the tangible and functional ecological and cultural links that continue to sustain the landscape though some of the elements may not appear authentic to the Chalukyan period¹³ (some elements, in fact, pre-date this period).

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9 <https://www.deccanherald.com/state/unscentific-bridge-at-kudalasangma-led-to-flooding-of-14-villages-report-805707.html> (Accessed: 11 Feb 2023)
<https://www.deccanchronicle.com/nation/current-affairs/150919/a-flood-of-ideas-and-yet-the-floods-wreak-havoc.html> (Accessed: 11 Feb 2023)
<https://www.deccanherald.com/state/rampant-sand-mining-caused-floods-in-malaprabha-basin-report-949480.html> (Accessed: 11 Feb 2023)

10 There are seven barrages within the 30 km stretch of the Valley from Cholahagudda to Aihole.

11 One way to do this is to develop Individual Village Level Plans which have the participation of knowledgeable residents and these become a part of the Panchayats' planning system. For this, it is also important that capacities of Panchayats are built and a two-way communication between heritage agencies and Panchayats is established.

12 <https://sustainabledevelopment.un.org/sdg11> (accessed 02 July 2019).

13 As conservation architects we have observed the speculative reconstruction of monuments, both in India and Western Europe.

Current Condition of Bamiyan Cultural Heritage

Abdurrahim Ahmadi, Urban Planner/Architect.

Unfortunately, the Taliban regained power in Afghanistan on 15 August 2021, and all cultural activities ceased. There is no responsible entity or individuals to safeguard historical and cultural assets. Therefore, many factors threaten the UNESCO World and Cultural Heritage Sites in Bamiyan. This includes van-

dalism and looting of smugglers, locals, and landowners in the vicinity of those valuable heritage sites with the support of the de facto local and central governments of the Taliban and natural disasters.

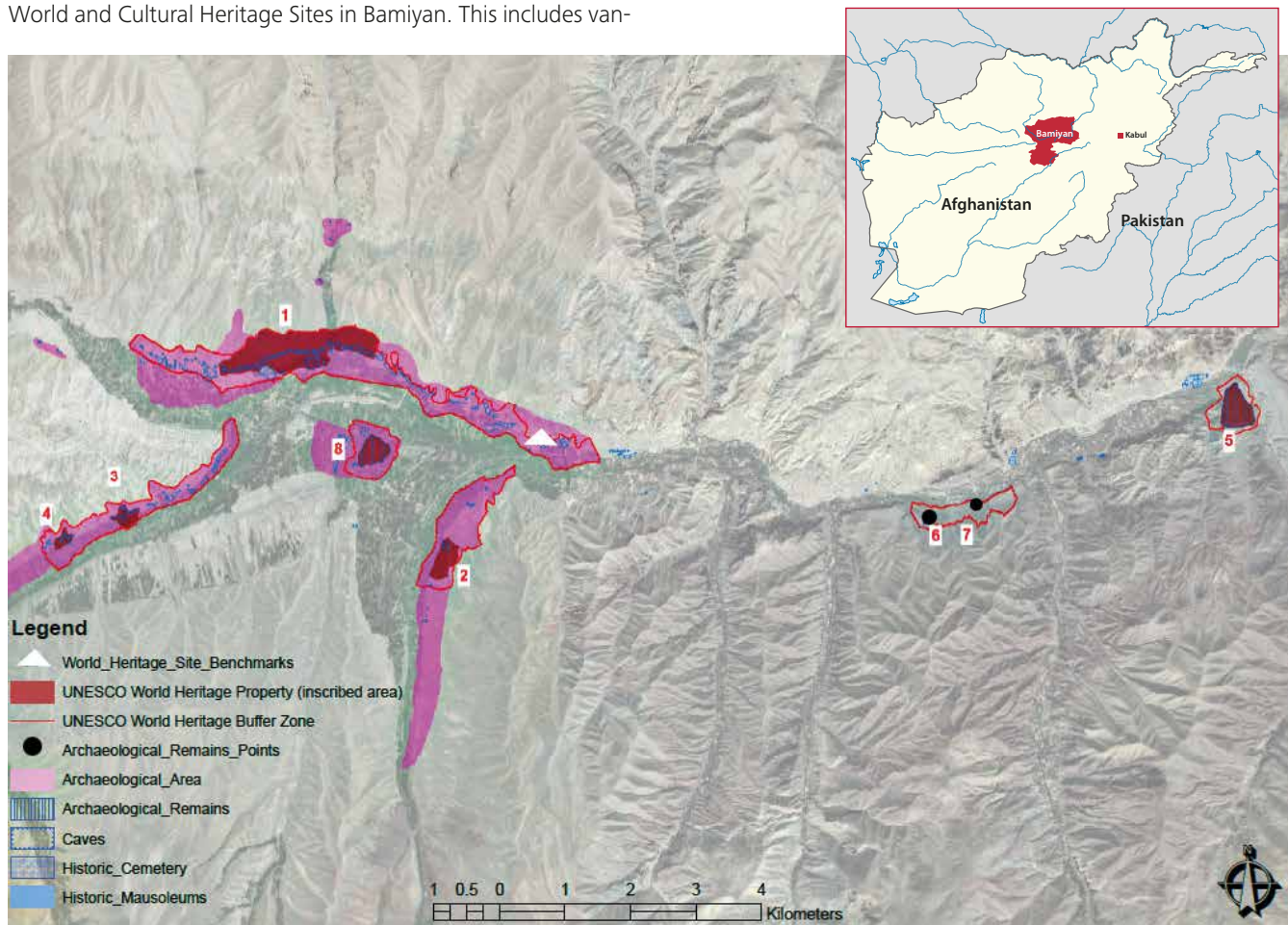


Fig. 1: Location of the UNESCO World Heritage Site in Bamiyan.

Map: GIS Data from Cultural Master Plan

Legend

1. The historical monuments that UNESCO inscribed on the List of World Heritage are listed below (see reference numbers on Fig. 1):
2. The Bamiyan Cliffs on the north side of the valley, including the two colossal niches that contained the 38 meter Buddha, seated Buddhas, 55 meter Buddha and surrounding caves (1);
3. The Karak Valley caves (2), some 3 km southeast of the Bamiyan cliff, dating from the 6th–13th century CE and formerly housing a more petite standing figure of Buddha, were also destroyed in 2001;

4. The two main important groups of the Foladi Valley caves, the Qoul-i Akram (3) and Kala-l Ghamai caves (4), have important decorative features;
5. The elevated citadel of Shahr-i Zohak guards (5) the entrance to the Bamiyan valley from the East;
6. The towers of Qala-i Kaphari (6–7) consist of fortification walls, towers, and citadels of earthen structures dating from the 6th–8th century;
7. The historic city of Shahr-i Ghulghulah (8) is a fortified citadel situated on a hill in the center of the valley, which dates from the 6th–10th centuries AD. (Bamiyan Master Plan Campaign, 2005, p. 152).

Landowners and Taliban are trying to rebuild the ruined Bazaar in front of Buddha niches. *“The Taliban have launched construction work on a tourism complex just meters from the cliff that held the Bamiyan Buddha statues, which archeologists and experts warn could cause permanent damage to the sensitive world heritage site.”*¹ Taliban claimed that UNESCO knows their plan and reconstruction will be according to the World Cultural Heritage values’ limitation. Still, UNESCO has refused and said: *“it has not been consulted on the project and local experts alarmed at Taliban plans.”*²

Afterwards, UNESCO announced that the construction had been stopped. But according to a local source, it is still in progress partially in the ruined Bazaar and on the land near to it.

Unfortunately, the excavation process is still occurring in different parts of the Bamiyan Historical Sites. Photos that have been sent to me show a new construction that will be done in front of the eastern Buddha (Shahmamah). The landowners transported some amount of stones for construction. Its location is next to the Historical Buddhist Temple and Buddha Statue (Shahmamah) and will endanger the temple and the whole historical site.



Fig. 2: On the left side of this picture is the wall in front of a Buddha, and stones are transported next to it for construction purposes. Photo: Anonymous



Fig. 3–6.: These pictures show new constructions in the Bamiyan Valley. Photos: Anonymous

During the spring and summer of 2022, many areas of the Buffer and Protection Zones have been occupied by new buildings for Sarai and Shops. Unfortunately, the agricultural lands on the southern part of the Bamiyan Bazaar have been entirely built over, and the green areas in the UNESCO Master Plan have been occupied. We will not have a cultural landscape in the Bamiyan Valley soon.

During excavations over the past 20 years, dozens of artifacts and antiquities were discovered by foreign archaeologists from



Fig. 7: Bricks and stones were transported to the site of the old Bazaar at the inauguration ceremony that announced plans to rebuild an old bazaar in Bamiyan Valley and develop it as a tourist destination. The historic Bazaar’s leftover ruins can be seen in the background. Photo: The Art Newspaper, 5 Sep 2022

1 <https://www.theguardian.com/world/2022/aug/02/fears-over-building-works-at-afghan-buddhas-of-bamiyan-site>

2 <https://www.theguardian.com/world/2022/aug/02/fears-over-building-works-at-afghan-buddhas-of-bamiyan-site>

historical sites and preserved in the Chunya and Pre-Buddha hills. Unit 012 of the former government police protected these works. These antiquities included small sculptures, the head and trunk of the statue, jars, spheres, oil paintings, and other artifacts. According to former officials, they have been looted.³



Fig.s 8–11: Caves in the Folangi Valley.

Photos: Anonymous

Historical caves, which are the main parts of the World Cultural Heritage Site located in the Folangi Valley, were used as warehouses and kitchens during this year. Pictures show those caves are relatively damaged. If this process continues, they will not remain at all.

Another threat to the UNESCO world cultural heritage in Bamiyan is natural disasters. Heavy rains, snowfall, and climate change are the factors that affect the property, especially the Buddha niches, which cracked due to explosions incorporated by the Taliban in 2001. Experts say those cracks continue to widen due to infiltration of surface water.

However, the Taliban claim to safeguard the UNESCO World Cultural Heritage sites and historical remains in Bamiyan. Still, recent incidents show that they did not protect them and endangered them by spontaneous excavations and looting of some valuable pieces from the Bamiyan Museum on 15 August 2022 and the days after.



Recommendations

To preserve the UNESCO World Cultural Heritage sites in Bamiyan, I propose the following activities:

1. As UN organizations, including UNESCO, are working in Afghanistan in coordination with the Taliban, the suspended projects must be enabled again as soon as possible to prevent further damage and inconvenient incidences. Consolidation of Buddha niches, restoration of Shahre Ghulghula, preparation of a Landscape Preservation Plan, and management plan for the archeological site and whole valley are the projects that will preserve all cultural heritage values in Bamiyan if launched again.
2. The Taliban must avoid any spontaneous interventions at UNESCO World Cultural Heritage sites such as excavations, and prevent construction in the core zone, buffer, and protection zones of all cultural heritage properties determined in the Bamiyan Cultural Master Plan.
3. Drainage channels on the top of Buddha cliffs should be rehabilitated and maintained clean, especially during rainy seasons, to prevent water penetration in Buddha niches.
4. The vulnerable sites should be recognized and demarcated in order to prevent locals and tourists from walking there until their restoration and consolidation has been achieved.

³ <https://www.dw.com/fa-af/طالبان-به-چه-هدفي-در-اطراف-تندیسهای-بودای-بامیان-کندنگاری-میکنند/a-60586615>

The Traditional Eri Irrigation System: The Lifeline of Agricultural Landscapes of South India

Aghash Natarajan, Induja Gandhiprasad



Fig. 1: Panoramic view of the eri landscape from a hilltop in Tamil Nadu showing the eris and the paddy fields.
Photo: Induja Gandhiprasad

A remarkable stage in human evolution was the control we gained over water. None of the early civilizations was specialized in the collection and large-scale management of surface water. Only during the iron age and late bronze age did urbanized civilizations such as Egypt and Harappa construct diversion weirs and check dams. These water structures diverted and collected rainwater in lakes and other natural depressions. This is the oldest recorded reference to water management systems at the regional level. One such landscape with this centuries-old traditional water management system still exists in the southern states of India.

As most parts of south India are rain-fed landscapes, centuries ago a system was devised to harvest the surface water into a series of man-made cascading tanks called “eris,” connected

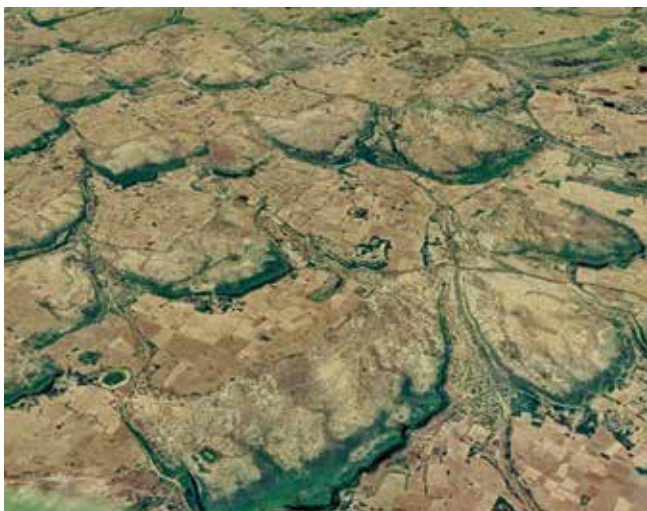


Fig. 2: Satellite image of a section of the Eri network in the Pudukkottai district of Tamil Nadu.
Photo: Google Earth

through earthen channels, where the overflow from one tank would feed into the next one in the series in accordance with the elevation profile (Fig. 2). Based on literary and epigraphic evidence, this traditional irrigation system dates to the fourth century BCE and has supported this region’s extensive agricultural demands for centuries.

Through a primary survey, epigraphic data, and archaeological evidence, this study establishes the outstanding universal value of the eri network and highlights its potential to attain world heritage status.

Extent of the eri network

The distribution of the eris was highly dependent on the topography of a region; hence, their spatial distribution and significance as a source of irrigation varied within Tamil Nadu. The semi-arid climate of districts like Ramanathapuram, Sivagangai, and Pudukkottai in Tamil Nadu necessitated such ingenious water management, and the gradual slope towards the eastern coast assisted the streamlined flow of water and natural drainage. This information is buttressed by the epigraphic evidence that suggests this region as the origin point of eri network. These initial tanks were rain-fed and are referred to as “non-system eris.” Fig. 3 shows a branch of the intricate network of non-system eris in the Kazhuveli watershed of Tamil Nadu. After the development of advanced water structures, a new typology called “system eris” evolved, which stored the water that was diverted from the river (Vaidhyanathan A, 2001).

This ensured the gradual spread of this system in districts along the Cauvery River and, eventually, in the northern region of Tamil Nadu. During the reign of the Cholas and Vijayanagara, this system was put into practice in other south Indian states like Andhra Pradesh and Karnataka, which had a similar contextual dependence on rain and river water for irrigation. The core zone of the proposed property, as shown in Fig. 4, represents the current location of densely connected eris, whereas sparsely populated eris are still present within the buffer zone.

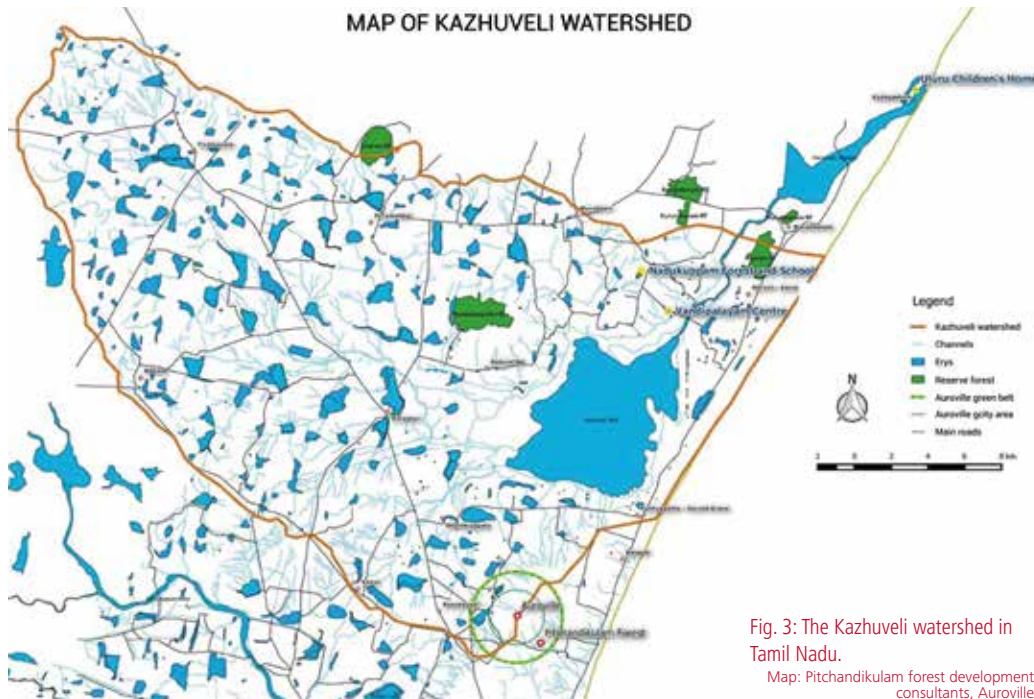


Fig. 3: The Kazhuveli watershed in Tamil Nadu.
Map: Pitchandikulam forest development consultants, Auroville

Components of an eri

The components of an eri include the (i) tank proper (tank bunds, sluices, and weirs); (ii) irrigated lands (*ayacut*); and (iii) catchment. Fig. 5 shows the various components of an eri, with its catchment on the right and the command area on the left of the eri (Ramasamy S, 2014). For hundreds of years, these technical components held these water bodies together in this landscape and ensured their effective functioning. Mechanisms like the sluice gates, weirs, and inlet channels show the superior technical prowess of these communities.

The cultural dimension

Conceptualizing and constructing these structures was commendable, but it required strenuous efforts to ensure their long-term functioning, as it totally depends on how they are maintained and managed. The decentralized management system of ancient times consisted of local bodies called *eri varyyam* (roughly translated to “tank committees”). These local bodies clearly laid out specific, codified norms and customary rights that guided communities in making sustainable and equitable use of these resources.

The very presence of eris played a key role in shaping the social fabric of this landscape. Settlements around the eri were divided into water communities and agricultural communities that maintained the water bodies and agricultural fields, respectively. What bears witness to the collective aspirations and shared values of these communi-

ties is the repair and maintenance work called *kudimar-amathu*, which the entire village got together and performed to keep the eri and its components intact. This strong nature-culture bond is further exemplified through the annual Chithirai Thiruvizha festival, which is practiced under different regional terms. Each village has temples dedicated to the eri (Fig. 7) and guardian deities, and the festival depicts the marriage between these deities, analogous to land and water. While the technical components anchored the water bodies to this landscape, it was these

temples and their cultural associations that anchored the people to this system and, in turn, to the landscape.

The decline of traditional irrigation

Traditional irrigation practices were sidelined during British rule. The colonial bureaucrats, who had little knowledge of the local context, used these water bodies as a source of revenue by centralizing their management and imposing taxes on them. Slowly, communal participation faded, and the focus shifted to

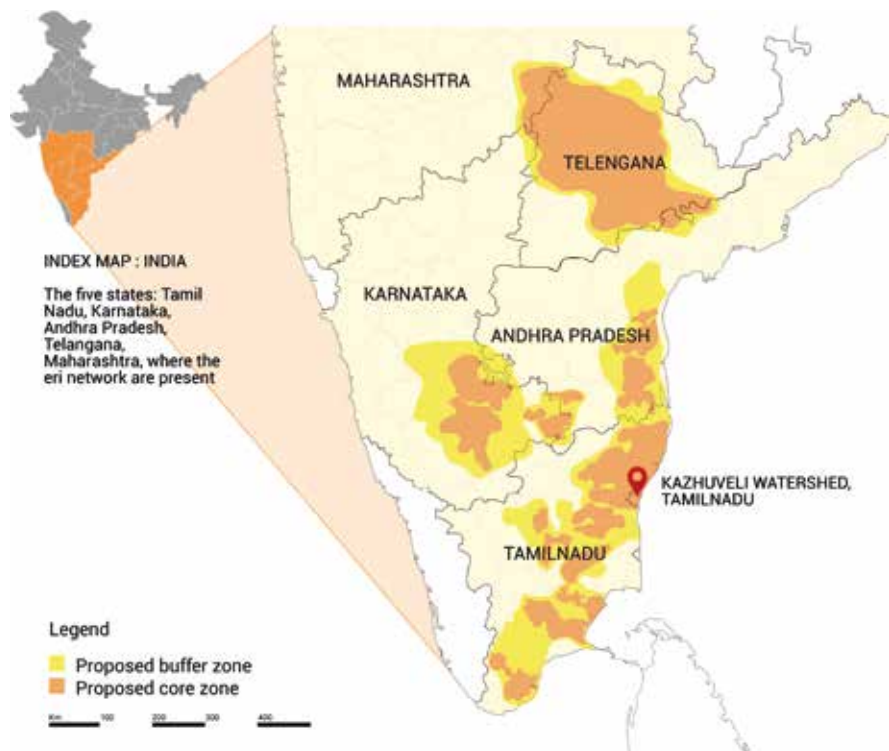


Fig. 4: Proposed core and buffer zones for the landscape depicting the location of the eri network.

Map: Aghash Natarajan

the construction of large irrigation systems like dams and barrages, resulting in the gradual decline of this traditional irrigation system. The disconnect from water bodies for more than 200 years has led to the loss of traditional knowledge among the natives.

This was further aggravated after independence, as most of the interventions by the government were Euro-centric and not context-specific. With the goals of maximizing the country's food production and the introduction of electric and diesel-powered pumps, the period after the 1950s brought the idea of drawing water from subterranean sources, which led to a major neglect of tank systems. Following the Green Revolution of the 1960s, the usage of tank systems was evidently reduced to 5%, and groundwater became their substitute (Vaidhyathan A, 2001). Data from sources like the Indian Agricultural Statistics, GOI, for the period of 1985–1990 bear witness to the trend of an acute decline in using tank systems as a source of irrigation in the country, whereas the usage of borewells and wells has substantially increased (Vaidhyathan A, 2001).

Issues and challenges

The primary concern is that these traditional irrigation practices are not acknowledged by the government, nor is there any specific act or law to protect these systems. The Environment Protection Act, 1986, and the Water Act, 1974, are the only general legislative provisions that govern the management of water bodies in India. The allocation of funds for the maintenance of these systems by the government has also shown a trend of decline since 1951 (Vaidhyathan A, 2001). There have been efforts since the 1970s to create a tank restoration scheme through which certain standards are set for the restoration and effective functioning of the tanks. Works like desilting the existing ponds and eris, bund reinforcements, repairs, etc. have been done through the National Rural Employment Guarantee Program, but they are clearly inadequate to revitalize the extensive network of the eri systems. (Vaidhyathan A, 2001) Besides these administrative-level challenges, others that account for the decay of these systems are the weakening of the community-level water management institutions, the encroachment of these water bodies due to urbanization, siltation in the eris and the supply channels, agricultural practices increasingly dependent on groundwater sources, and so on. The attempts made by the Public Works Department haven't been successful, and the references point out a few key deficiencies in their planning and implementation such as the exclusion of inlet channels from the ponds and eris, the failure of new screw-

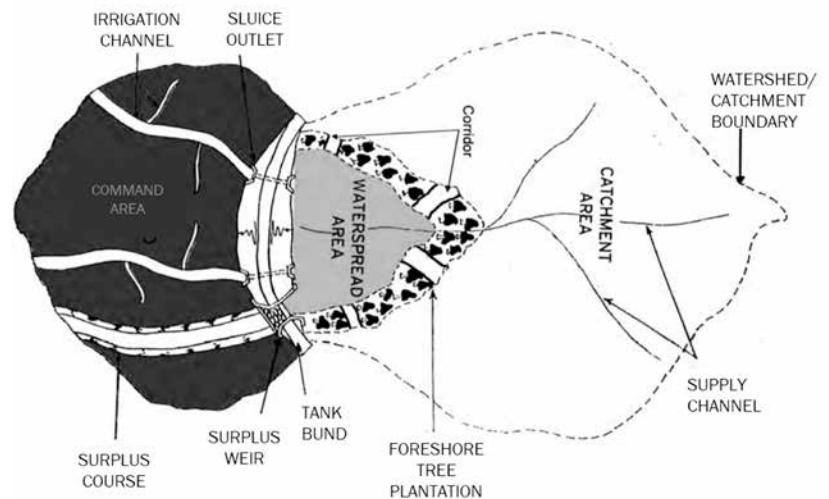


Fig. 5: Schematic diagram of typical eri irrigation components showing the catchment area, the water spread, and the ayacut with the water channels and the weirs. Graphic: Ramasamy S, 2014



Fig. 6: (Left) Irrigation channel that supplies water to the agricultural fields; (Right) Surplus weir that allows excess water from an eri to reach the next one in a series. Photos: Aghash Natarajan

gauge type shutters that replaced the traditional sluice gates, generalized methods of revitalizing, a lack of proper consultation with local communities before commencing the works, etc. (Vaidhyathan A, 2001).

Immediate action required

“Centralization of tank administration” has been agreed upon by both academics and practitioners as one of the main reasons for the old system's downfall. Decentralization of administration, formulating a new management system according to traditional practices and the implementation of effective revitalization strategies are the immediate necessities to be taken care of. Furthermore, sustainable tourism methods and educational programs must be adopted by the state to create awareness about the revival of traditional knowledge and other cultural practices associated with this landscape.

It is evident that the rehabilitation of the eri network should be carried out with a multi-pronged approach covering technological, socio-cultural, environmental, and policy aspects and various methodologies corresponding to each aspect. Geospatial technologies such as spatial analysis and remote sensing techniques shall be used for the delineation of eris and their

connecting channels, the mapping of the green cover around those eris, etc. It should also involve mapping the irrigation area (*ayacut*) and supply potential of the eris, temporal data analysis using satellite imagery to depict the changes in area and form of these eris over time.

The town planning authority and the Public Works Department must curtail the ongoing encroachment on these water bodies through actions like the creation of buffer zones around the eris and the channels, redefining the land-use regulations in this region, and preventing road networks from intruding on the natural drainage of the micro sheds. The Ministry of Water Resources must immediately consider these water bodies and the buffer zones as regions of high ecological and cultural significance and formulate specific guidelines for their protection within the land use plans of these regions under the prerogative of the state governments. On the other hand, the Ministry of Culture must create local bodies to assess the cultural significance of this landscape and to demarcate its boundaries, thus including it in India’s tentative list of UNESCO World Heritage Sites. These combined efforts from the state and central governments of India would aid in protecting this heritage-rich landscape that evolved with the Tamil civilization for future generations.

Conclusion

The eri networks survived centuries of invasion and climatic and political changes, acting as a primary source of water for the irrigation processes in south India. However, the authenticity of this landscape is kept intact over a long period of time through the sustained social and cultural practices of the natives. The system has proven to be relevant in the past, present, and for the future, with the potential of ensuring the water security of a region. Such a time-tested, meticulously crafted engineering marvel is dying today due to negligence and the loss of traditional knowledge systems. A blind replication and generalized approach, be it in terms of hydrology or equity, have put the local mechanisms for managing the eri network and the associated common infrastructure under strain. A shift in the approach towards conserving this landscape, and making it more



Fig. 7: Temple dedicated to the eri goddess in front of the tank bund at Pulichappallam village. Photo: Aghash Natarajan

robust is a need of the hour to tackle the projected imbalance in these regions due to water scarcity, decay of agricultural practices, rapid urbanization, etc. This will also directly contribute to the UN 2030 agenda by ensuring that the conditions of SDGs 1, 2, 3, 6, and 13 are met.

The value and significance analysis shown in Fig. 8 has been done based on Sir Bernard Fielden’s approach, which proves that this landscape possesses a high level of identity, rarity, social, and functional values. This unique landscape is a living testimony to the technical and cultural symbiosis of the ancient Tamil civilization, and it possesses all the necessary characteristics that satisfy UNESCO’s selection criteria (i), (iii), (v) and (vi). The World heritage recognition for this landscape will be primal in hastening the process of its revival and conservation.

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COMPONENTS	CULTURAL VALUES						CONTEMPORARY/SOCIO-ECONOMIC VALUES							
	IDENTITY VALUE		ARTISTIC/ TECHNICAL VALUE		RARITY VALUE		ECONOMIC VALUE		FUNCTIONAL VALUE		EDUCATIONAL VALUE		SOCIAL VALUE	
	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
PHYSICAL														
Kumizhithoombu														
Tank bunds														
Weirs														
Tank boundaries														
cascades														
Odai (inlet)														
Odai (outlet)														
Odai (surplus)														
Modern shutters														
Settlement pattern														
Processional routes														
Ery temples														
Guardian temples														
CULTURAL														
Social structure														
Water communities														
Management system														
Traditional techniques														
Kudimaramathu														
Chithirai thiruvizha														
Mayanakollai														
Orani pongal														
Processions														

Fig. 8: Value and significance matrix. Table: Aghash Natarajan

Destructive Chain Reaction Unfolds at the Sacred Mount Core Zone – Vat Phou, Laos

Anonymous Authors

In March and April 2023 Laos and the neighboring regions suffered from horrifying and unprecedented forest fires and air pollution. Air quality index had reached a level which attracted the attention of the global media. The author conducted seven field trips to the environmental conservation zone of the Vat Phou world heritage site from April 14 to April 30 to assess the damage caused by the fires on the Sacred Mount. This article presents the key findings of the survey.

In 2001 Vat Phou, an ancient Hindu temple complex and its associated surrounding landscape was listed as a 39.000ha cultural world heritage site. The understanding of the site, reflected in the OUV, follows a stringent landscape approach. The 10,000 hectares of the Sacred Mount, identical with the “environmental conservation zone” (zone 2) is inscribed as “nature protected for its cultural value”. This integral component of



Fig. 1: Degraded steep slope, just below the plateau at around 750m above sea level.
All Photos are by the authors.

the Vat Phou site holds an equivalent status of utmost significance within the core zone, comparable to the renowned archaeological zone. Due to some areas having not been cleared from Unexploded Ordnance and perhaps some other reasons, the Mount is not open for tourists. This article focuses on the current condition of Sacred Mount. However, interviews in surrounding communities have not been conducted. The Sacred Mount provides a high diversity of habitats and spectacular evergreen rainforest at higher altitude. It is also characterized by terrasses and multiple vertical cliffs making access difficult.

Protected Areas in Laos and the Sacred Mount

Despite the Sacred Mount, due to its size, may not be the most important protected area of Laos from a natural conservation point of view, its impressive 1400m high mountain range (10km of the crest are elevated 1000m or higher above the Mekong plain) ranks countrywide as the area with the highest protection status. The area is protected, as part of the southern region of the 22,000 hectares of Phou Kao - Phou Malong Provincial Protected Area (PPA), locally by Laotian law as well as internationally by the UNESCO World Heritage Convention. This dual protection is also reflected in ministerial responsibilities. While the PPA is protected by the Ministry of Agriculture and Forestry, the UNESCO World Heritage Site is managed by the Ministry of Information, Culture and Tourism.

Two favorable circumstances facilitate the protection of Sacred Mount: (A) the fact that, unlike most protected areas in Laos, there are neither settlements nor agricultural land¹ overlapping the Sacred Mount, and (B) the planners wisely did not delineate the protected area boundary at the base of the mountain massif, but for the most part 100m higher uphill the slope. In doing so, they hoped to preclude future conflicts of use. In 2001 most of the Sacred Mount was surrounded and buffered by forests.

¹ When the site was inscribed in 2001 farmland encroachment was not existing.

Forest fires – good management can make a difference

Hin Nam No National Park (Central Laos) has been on the tentative list for several years and despite there being no villages inside the park, occasional forest fires were documented over the past years. However, the trend has been decreasing. Long-term engagement of communities, implementation of co-management and regular patrolling by trained village and park rangers are showing positive results. The online fire map FIRMS² does not show forest fires inside Hin Nam No NP during the dry season of early 2023, except for a few fires along the boundaries.

The risk for natural wildfires is low for the majority of forest types in Laos. Instead, it is primarily the actions of individuals who deliberately set fire to the forests that lead to the occurrence of fires. The key takeaway from this observation is that if human-initiated forest burning were to cease, the problem of forest fires would largely be mitigated. Furthermore, the case study of the Hin Nam No National Park, where a co-management approach has been implemented, serves as a compelling example of how effective management practices can signifi-

cantly address this issue. It is worth noting that the nomination dossier for the park is anticipated to be submitted in early 2024.

Ground truthing to double check satellite forest fire data

Most of the wildfires detected between the period of mid-February to mid-April 2023, the FIRMS map did not provide a confidence level. To record the occurrence of forest fires and assess the prevailing forest conditions, surveys were conducted within the protected area at nine different locations: two in the east, one in the south, three in the west, and three in the north. The selection of these survey sites was based on their practical accessibility as well as the intention to cover diverse parts of the protected area. Remarkably, all quadrants indicated by FIRMS also exhibited clear evidence of forest fires incidents during the survey.

Additionally, the presence of recent burn marks observed at other locations can be attributed to the fact that transient fires, such as those occurring in bamboo thickets, can only be detected if satellite overflights³ coincide with the fire events. Con-

sequently, there exists a systematic underreporting bias. In the author's assessment, the fire season of 2023 was characterized not by a few sizable fires but rather an abundance of small-scale fires, resulting in a mosaic-like pattern of burned and unburned vegetation. The repeated burning, year after year (along with massive logging) has largely degraded and destroyed the natural vegetation of the many slopes of the Sacred Mount.

End logging or logging will end the Sacred Mount!

One of the fact-finding tours was conducted on Sunday, April 23, 2023, to assess a wildfire-affected area situated to the northwest of the Sacred Mount. The exploration revealed that a vehicle track indicating hand tractors (known as "toktok") entered 600 meters into the protected area. At this juncture, a parking space capable of accommodating 3-4 tractors was observed, visibly utilized for loading illegally logged timber (see Fig. 3). Progressing further along a foot path, it became evident that the steep straightaway trail serves as a timber chute exploited by loggers, logging from higher altitudes (see Fig. 4).

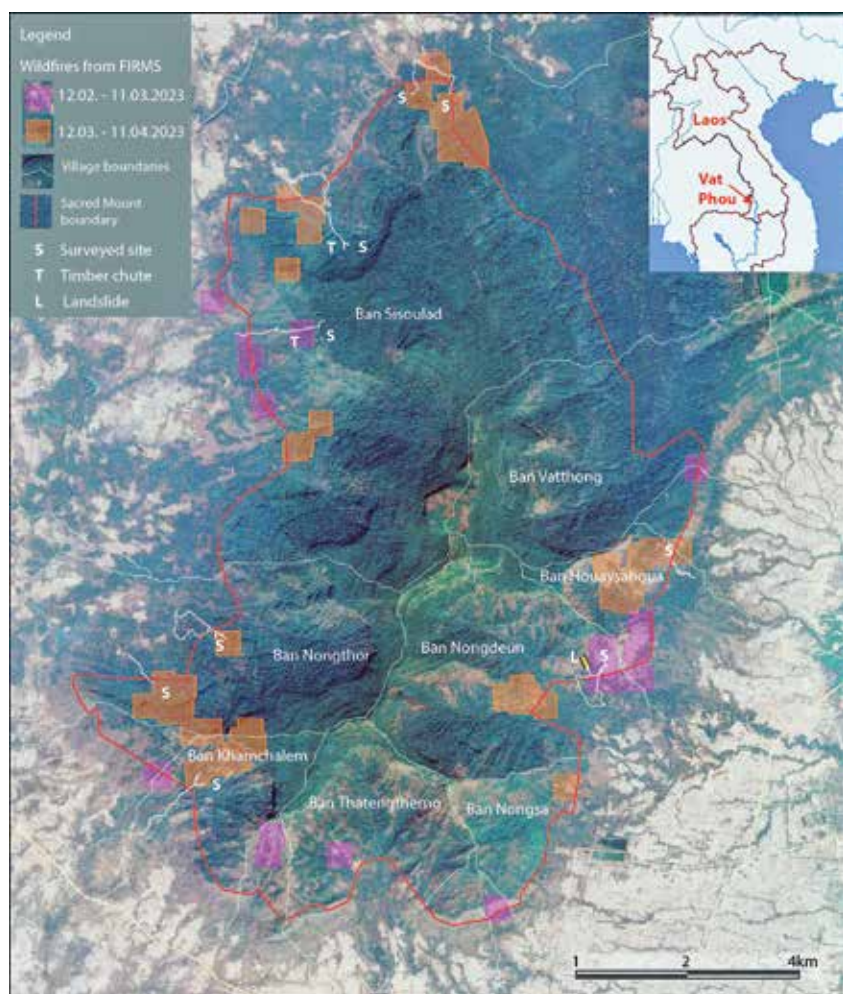


Fig. 2: Satellite map of Sacred Mount: Forest fires February-April 2023 and field survey.

² <https://firms.modaps.eosdis.nasa.gov/map> (Fire Information for Resource Management System)

³ The FIRMS database uses satellite data.



Fig. 3: At the end of the vehicle way where the timber is loaded onto the toktoks, there is a lot of saw cuttings lying around.



Fig. 4: It is obvious from the timber chutes that they have been used for a long time.

Audible chainsaw sounds emanated from the plateau summit, indicating ongoing logging activities. Regrettably, the trail itself exhibited a diminished area of true forests, and only encompassed by bamboo scrubs. Multiple recent fire incidents were noted along the trail, while neighboring slopes also displayed dominantly barren areas with no trees. The prevailing scene was devoid of sacredness. Historical satellite images corroborate the previous existence of forests on these slopes. Although the survey team did not ascend to the plateau, it is presumed that the timber chute extends to the summit.

In another location just a few kilometers south, a separate timber chute was identified and surveyed, leading to the same plateau situated approximately 800 m above sea level (see Fig. 5). The presence of freshly cut boards, ready for transportation (see Fig. 6), serves as irrefutable evidence of ongoing illegal logging within the strictly protected heritage forest. Analysis of satellite imagery from 2011, 2014, and 2017 further substantiates the

prolonged utilization of these two timber chutes. However, it is highly likely that other timber chutes exist depleting the Sacred Mount.

Some adjacent villages showcased the presence of new wooden houses, as well as ongoing construction activities. The procurement of materials in an extensively deforested region raises concerns.

Old growth forests and the Mount form a symbiosis: the landslide disaster

A healthy forest on the Sacred Mount plays a vital role in providing numerous ecosystem services, including wildlife habitats, and creating a favorable microclimate. It keeps the landscape cool and moist and prevents the many mountain creeks from drying up early after the rainy season. Additionally, the forest enables the collection of non-timber forest products.

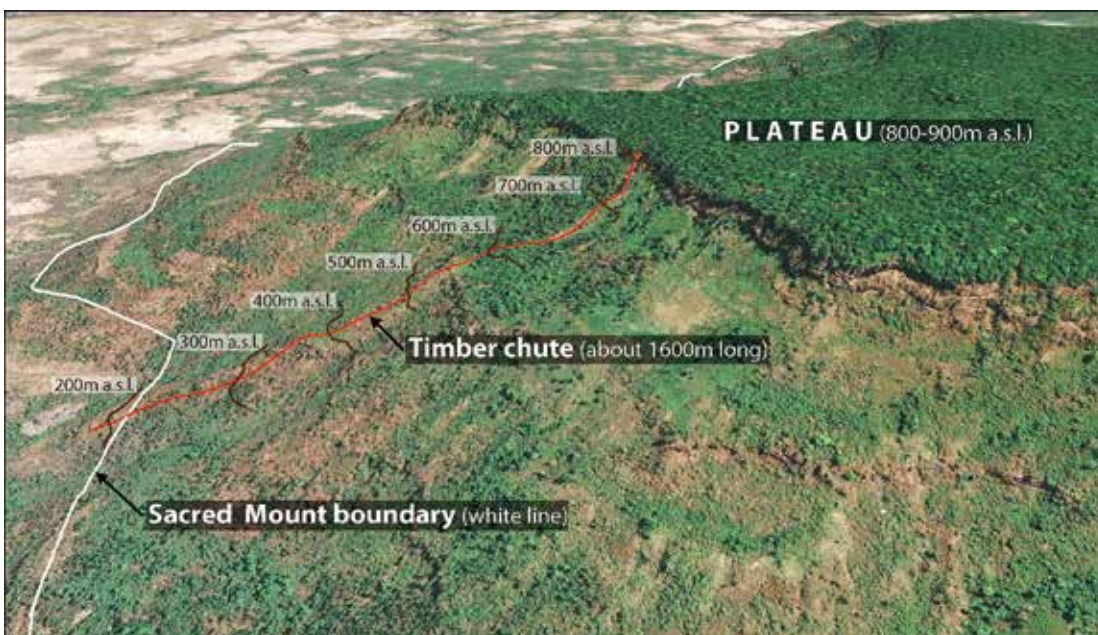


Fig. 5: Timber chute from the top of the evergreen forest plateau.

Photo: Google Earth image, 23 March 2021



Fig. 6: Along the timber chute there were stacks of sawn boards in several places.

The present fragmented state of the forest reveals a concerning reality: the robust root systems of trees are crucial in preventing landslides in the steep terrain. These are replaced by the soft roots of bamboo, which typically proliferate after deforestation, and fail to provide slope stability (see Fig. 7). An analysis of



Fig. 7: A crack in this bamboo-covered steep slope hints at an impending landslide.

current and past satellite imagery indicates a significant rise in landslide occurrences in recent years (see Fig. 8).

Considering the archaeological site's 1000-year history, numerous areas of the Sacred Mount remain largely unexplored. Consequently, there is an acute need for action to mitigate the risk of both known and previously unknown sites being damaged or even destroyed by landslides. To reverse this alarming trend, reforestation of the slopes is imperative. However, achieving



Fig. 8: Landslides and slope failures at Sacred Mount have significantly increased. At its base it is more than 100m wide.

this goal is challenging as long as annual forest fires persist, coupled with continued logging activities.

Encroachment: fenced farms, houses, charcoal production

Since the inscription of Vat Phou 22 years ago, there has been mounting pressure on utilization of natural resources due to population growth. Unfortunately, the opportunity to clearly demarcate the boundary of the UNESCO environmental conservation zone was missed, resulting in limited awareness among individuals regarding the exact extent of this core zone. In sections of the boundary that are less steep, patches of farmland have emerged, with recent cultivation of cassava becoming prevalent.



Fig. 9: Farmland for cassava is expanding into the Sacred Mount protected area.

In addition, a few houses and charcoal kilns are already situated within the territory of the Sacred Mount itself. Notably, "toktok" tracks crossing the boundary have been identified at least in three locations. However, given that the majority of the Sacred Mount falls within the jurisdiction of only eight communities (Ban Sisoulad, Ban Nongthor, Ban Khamchalem, Ban Thatengtherng, Ban Nongsa, Ban Nongdeun, Ban Houaysa-

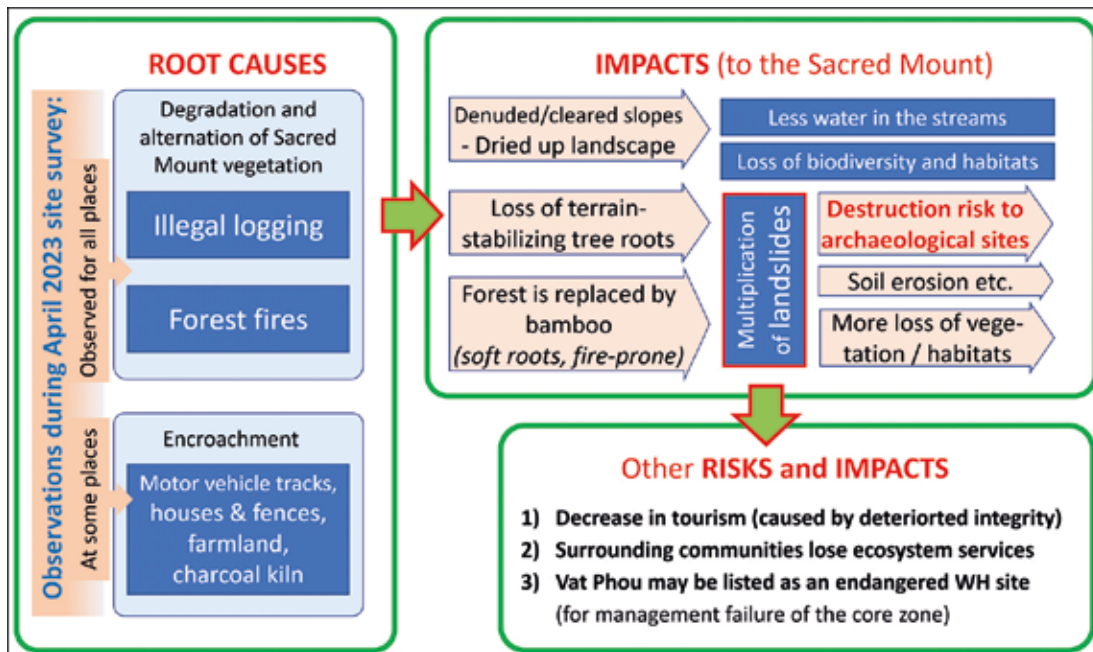


Fig. 10: Threats and impacts to the Sacred Mount.

houa, Ban Vatthong), the management of this area should be an attainable task.

Recommendations

- Creation of a database marking all footpaths and vehicular routes that enter the protected area.
- Demarcation of the boundary⁴ of the protected area on each entrance path.
- Dialogue initiation with surrounding communities.
- Preparation of a systematic, comprehensive damage report/mapping of the Sacred Mount region.
- Identification and implementation of effective measures against fire starters (zero wildfire strategy).
- Identification and implementation of effective measures against illegal logging through the deployment of rangers (zero logging strategy).
- Deactivation of all existing wood slides.
- Creation of an action plan and implementation to stop and reverse existing encroachment (farming, grazing, charcoal production, houses).
- Conducting a Participatory Land Use Planning (PLUP) with the Sacred Mount communities.
- Assess a “Land tenure for stewardship program” as most rural land users don’t possess land titles. Suggestion: (a) define, depending on current land use, a buffer-zone of 50-500m around the Sacred Mount, (b) offer contracts to land user along that buffer zone line providing them free of charge (!) with land titles. The first 12 years they have user rights only... (c) ...which will automatically converted into ownership rights after 12 years, under the condition no encroachment into the Sacred Mount has occurred.

⁴ According to Lao PDR legislation law enforcement foresees a warning. If the rules are announced on signboards, this counts as a warning and perpetrators could be fined easier. Thus, demarcation is critical to law enforcement.

The Return of Tourism and Deepening Challenges to Subak Farmer Livelihoods in Bali

Wiwik Dharmiasih, Yefta Sutrisno, I Gede Yudha Bhismaya, Ni Luh Emi Dwiyanti

We have been following policies and implementation around the Bali Cultural Landscape for many years. Our relationships are rooted with the farmer groups of both men and women across different generations, and we have specifically paid close attention to the ways UNESCO designation has changed local landscape practices, cultural institutions, and livelihoods. In this brief article, we will focus on the site's designation, review management challenges over time, and highlight some of the key issues affecting the World Heritage Site as Bali opens up to tourism after the COVID-19 pandemic.



Fig. 1: Subak water management.

Photo: Wiwik Dharmiasih

Bali's Cultural Landscape was inscribed on the UNESCO World Heritage List in 2012. The nomination was the government's effort to protect the subak system in Bali as the manifestation of the *Tri Hita Karana* philosophy. This philosophy represents a balance between humans and the spiritual world and was noted in the nomination process as the site's Outstanding Universal Value (OUV). As a socio-ecological governing system, the subak consists of traditional irrigation management that embodies the manifestation of *Tri Hita Karana*. Subak traditional farming practices have existed since the 9th century (UNESCO, 2023). The subak is governed by farmers in a distinct area of rice fields. It is an independent institution from the formal village institutions in Bali. The water that flows into the subak system usually comes from rivers or springs. Subaks that fall under one watershed are usually called Subak Agung (Norken et al., 2016). They establish traditional regulations called *awig-awig* that guide farming practices, which are overseen by a *pekaseh*

as the head of the subak, and neighboring subaks work together to manage water sustainably.

Nominating Bali's Cultural Landscape required more than a decade to complete and involved various stakeholders, including local farmers and other members of the community. The nomination aimed to address the increasing impacts from the tourism industry and urban development growth threatening the existence of the subak. Bali's Cultural Landscape aims to protect subak landscapes and consists of four clusters dispersed in five different districts in Bali, which include: the Supreme Water Temple Pura Ulun Danu Batur and Lake Batur; Subak Landscape of Pakerisan Watershed; Subak Landscape of Catur Angga Batukaru; and Royal Water Temple Pura Taman Ayun.

Implications of World Heritage nomination

Since its nomination in 2012, we have actively written about the different ways designation and management practices have affected Bali's Cultural Landscape. Much of our observations are from the most impacted areas in and around the iconic landscape views in the village of Jatiluwih in Tabanan Regency. Jatiluwih is part of the largest network of subaks in the World Heritage Site called the Subak Landscape of Catur Angga Batukaru. In 2015, we spotlighted the impacts of the first managing body. This top-down institution was not representative of the localized practices that give the subak its identity. In response to the limitations of the governing assembly, local *pekaseh* forums (subak leadership associations) banded together to try to cultivate bottom-up management approaches as a driving force of the site's management. Momentum for such a coordination structure, however, waned without formal institutional support.

The effects of tourism were also highlighted as a key concern during the ICOMOS/ICCROM Advisory Mission in 2015. Although aware that nomination was intended to protect the subak, becoming a World Heritage Site also attracts a sharp increase in tourism. In response, UNESCO and government institutions convened a sustainable tourism strategy (STS) with the objective of developing a visitor management system reflective of local community interests. The STS tried to cultivate community-based tourism that would fulfill the vision of support-

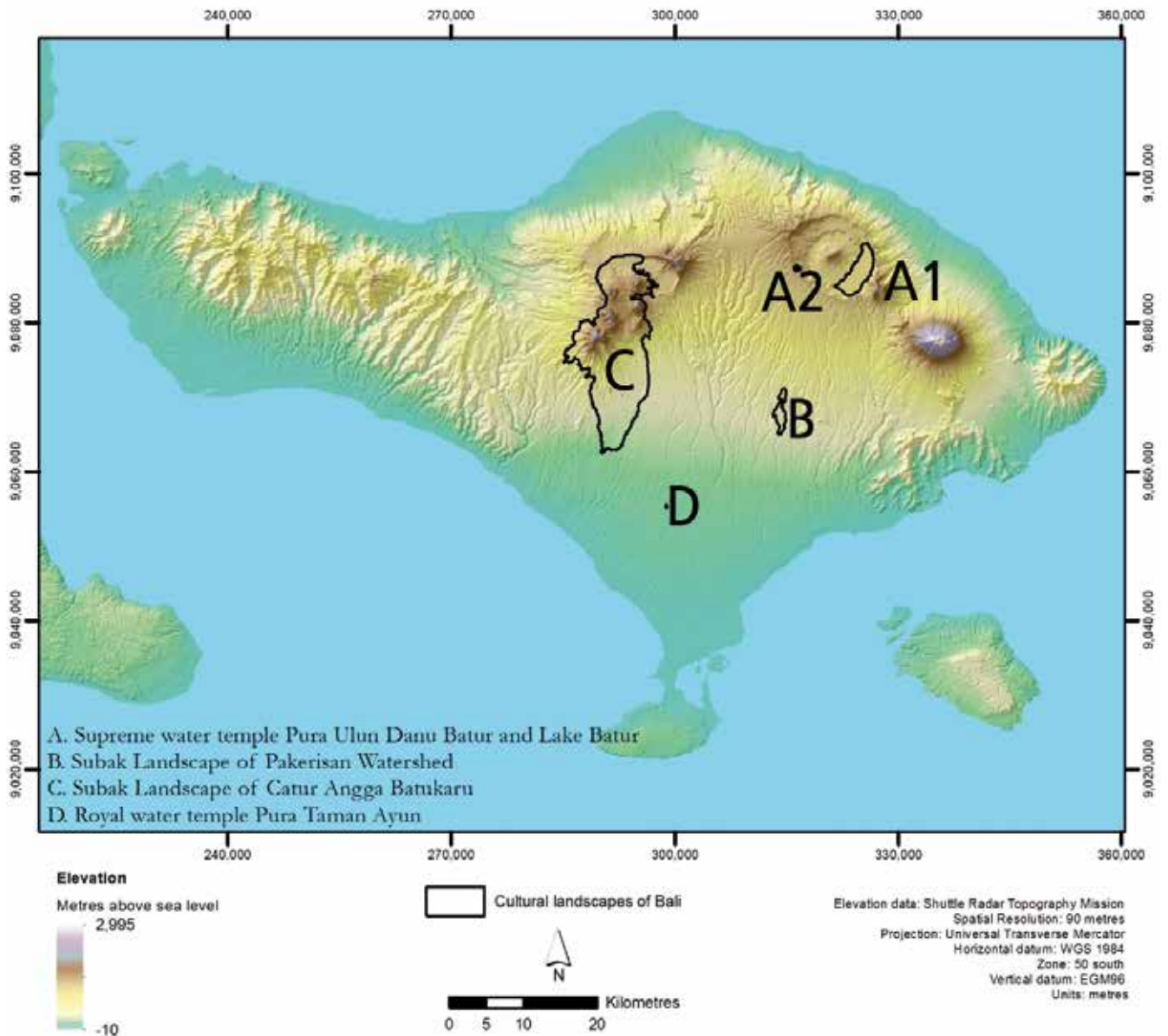


Fig. 2: Bali Cultural Landscape.

Map: UNESCO

ing complementary income to farmer livelihoods in ways that would educate tourists of the subak's complexity. Although successful in bringing key stakeholders together to devise a plan, the outcomes of the strategy gained little traction without institutional support.

Over time, tourism has continued to increase, resulting in significant land use change and reshaping local institutions. Subak institutions have garnered less attention to the more formalized village government structures. Site management is mostly driven by a destination management body that works on ticketing and facilitating the development of tourism facilities. As a result, the role of the subak has faded into the background, even though it is the cultural institution that the World Heritage designation originally intended to support and empower.

This has created divisions in the community whereby two distinct camps have emerged. One side supports continued tourism development to benefit from livelihood opportunities. The other side is concerned by the rapid irreversible changes taking place in their subaks. With increasing resources for tourism, development plans often succeed, which has taken place at the expense of rice fields. A "mushrooming" of tourism facilities of different sizes (hotels, homestays, cafes, stalls) are evident across the subak landscapes.

Although subak's have always relied on support from regional governments for irrigation management, it's the local decision-making processes rooted in place that shape its unique water management and farming practices. The experience of protecting the subak for its manifestation of the *Tri Hita Karana*

philosophy in Jatiluwih and across Bali's Cultural Landscape has had little success at stemming the pressures of tourism development. In many instances, it has accelerated development as new tourism destination sites are marketed. Furthermore, when viewed beyond the World Heritage Site's boundaries, spatial development plans currently under implementation across the island raise serious concerns about the future viability and existence of the subak.

Pandemic reset?

Effectively bringing tourism to a standstill, the COVID-19 pandemic offered a reset button. At its peak before the pandemic, Bali received over 6 million foreign tourists per year. In 2021 the island received fewer than 45 tourists (CNN, 2021). All of a sudden, across Bali residents lost their tourism industry jobs and found themselves in search of work. Some predicted the return and revitalization of the agricultural sector (Wirawan and Sasadara, 2020). Although many returned to their family farms, young people we surveyed across Jatiluwih expressed they were waiting out the pandemic in anticipation of the return of the tourism industry.

Indeed the type of agricultural industries that emerged during the pandemic were not focused on relearning cultural practices of rice farming, but rather seeking out potential high value crops such as fisheries, vegetables, fruits, cocoa, coffee, and others. Many experimented with product development and distribution through online economies. Our engagement with local young people in Jatiluwih highlighted that people were overwhelmingly waiting for the return of tourism. Development of tourism facilities were put on hold as capital streams dried up, but plans were to resume. Those with the ability to invest actively continued construction of tourism facilities expecting that tourism would quickly return.

The farmers in Jatiluwih also continued their daily activities in the rice fields as they had done for generations. Working out-



Fig. 3: Farmer

Photo: Yudha Bhismaya

doors in their open airfields posed little threat from COVID-19 transmission. "We maintained our distance as recommended by the government, but we keep going to the rice field to work," said one farmer over a phone call. Market volatility, labor mobility, supply chain disruptions, and lockdowns had a significant impact on farming livelihoods. This had little impact on local consumption practices and the role of rice harvests in ritual, however. As vaccinations became available, distribution campaigns began. Jatiluwih was among the first villages in Bali to receive COVID-19 vaccination (Palgunadi, 2021). This ordering is significant as it highlights how much Jatiluwih as a World Heritage Site has become a priority tourism destination. Vaccinating the community clearly indicated the importance of readying the community for a return to tourism.

The future of farming

Over the years we have tried to understand and explain youth perspectives on subak and World Heritage. Many express deep pride in their landscapes and the international recognition of the subak. However, young people continue to indicate their concerns around the limited livelihood opportunities from rice farming. Parents also actively encourage their children away from rice farming for its high cost of entry, lack of institutional support, uncertain yields, rising cost of inputs and maintenance, and what they describe as menial 'dirty' work under harsh conditions.

As Balinese have garnered global attention as one of the most attractive destinations in the world, youth are also drawn to work in metropolitan Denpasar, leave for the excitement of burgeoning tourism areas, or seek out networks for overseas work. Youth describe these pathways as success. Furthermore, given Jatiluwih's location, it is often difficult to find young people in the village. The remoteness of the village means that attending secondary schools requires commuting to neighboring subdistricts, often staying with extended family that can better access school facilities.

Meanwhile, farmers are getting older. There is increasing mechanization and a growing reliance on paying for external field labor from communities of poorer regions. Efforts to switch to organic inputs have also faltered as only three farmers in Jatiluwih are committed to organic principles. Similar to the agriculture sector across Indonesia, market volatility, alongside the rising access to, and costs of inputs, rising debt, and lack of attention from the government on infrastructure support, threatens livelihood security. Key roads and bridges are crumbling and increasingly susceptible to landslides in the upland areas. Residents express increasing intensity of rainfall that have led to landslides not just of roads but also cause rice fields to give way along sharp gradients. The only priority maintenance of infrastructure is devoted to larger scale irrigation infrastructure and trekking routes designated for tourism. Those fortunate to have rice plots along these trekking routes set up small stalls along

their rice fields to sell red rice tea and other snacks to visitors. They claim it is the best way to get direct benefits from the tourists beginning to return.

Conclusions

When comparing photographs of Jatiluwih from the time of nomination just over a decade ago, the landscape is noticeably more developed. Rice fields have given way to tourism facilities. Subaks are disappearing and threatened both within Bali's Cultural Landscape and across the island. Going forward, there needs to be greater attention to empowering and cultivating leadership among subak institutions. Management efforts must meaningfully support the initial goals of nomination that sought to establish more sustainable socio-ecological landscapes and livelihoods. This needs to proceed with more attractive opportunities and incentives that drive young people to want to sustain and learn cultural practices. There have been initiatives to do so in fits and starts around organic farming, bottom up coordination forums, establishing more supply chains, and others. Linking the heritage of subaks and its fundamental role in society is key. At present, site management only focuses on ticketing revenues and destination management that has led to a continued conversion of rice fields for tourism facilities.

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Fig. 4: Tourism facilities in Jatiluwih.

Photo: Wiwik Dharmiasih

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V. World Heritage Properties and Indigenous Peoples

Border Wall Threatens World Heritage Site and Biosphere Reserve



Alejandro Olivera, Center for Biological Diversity Mexico

Mexico's El Pinacate and Gran Desierto de Altar Biosphere Reserve World Heritage property ("El Pinacate") was inscribed on the World Heritage List in 2013, in part, to protect the area's extraordinary "biodiversity and threatened species." This diversity includes numerous species of imperiled wildlife that depend on cross-border connectivity, like imperiled Sonoran pronghorn, bighorn sheep, pygmy owl, and jaguar. El Pinacate's roughly 140-kilometer northern boundary abuts the Mexico – United States border, and the U.S. border areas have been deemed critical to El Pinacate's "integrity and ecological connectivity" and to the survival and recovery of many Sonoran species.

During the Trump administration (2017–2021), the United States completed 455 miles of border wall along the Mexico-US border. A 9 meters-high wall was built across the northern boundary of El Pinacate (Figure 1), blocking critical wildlife migration in and out of this unique protected habitat and endangering the area's connectivity and integrity. The wall now runs along the full 140-km Pinacate border leaving just 23 km in the mountains without a barrier (Figure 2). (See video from the U.S. side to El Pinacate: t.ly/XkCu). To build the wall, the U.S.-Tinajas Altas Mountains were blasted (Figure 3, see drone footage: t.ly/l7C-).

In 2017, the Center for Biological Diversity, Greenpeace Mexico and the Tohono O'odham Tribe in Sonora petitioned for "in danger" status for El Pinacate threatened by the U.S. border wall.

In July 2021, the World Heritage Committee urged (Decision 44 COM 7B.114) the United States to stop border wall construction. The Committee stated that the construction of the border wall will negatively impact the integrity of El Pinacate and negatively affect the wider ecological connectivity and movement of key wildlife populations. The Committee also called on the United States to work with Mexico to assess damage from the wall to El Pinacate and adjacent protected lands in the United States and recommend ways to restore the landscape and wildlife habitat.

Mexico's 2022 State of Conservation Report (SOC) states that the border wall will "inevitably have effects on regional biodiversity due to loss, degradation and habitat fragmentation, less access to vital resources and habitat, isolation and frag-

mentation of populations, conduct changes of certain species in response to moving activity on roads, increased human activity and alteration of the social structure of populations, among other aspects." Mexico concluded that "the construction of a barrier that prevents the free movement of wildlife is a threat" and have "significant impacts on the habitat conditions."

El Pinacate Site

El Pinacate encompasses an approximately 714,566-hectare area in the Sonoran Desert of northwestern Mexico. This remarkably undisturbed expanse of high-quality desert habitat is comprised of a large dormant volcanic area in the east (the Pinacate Shield) and North America's largest field of active sand dunes to the west (the Gran Altar Desert). The Mexican government declared the same area a Biosphere Reserve and Natural Protected Area. El Pinacate also bears two Ramsar sites: Agua Dulce (1813) and Humedales de Bahía Adair (1866).

The ecosystems in the border areas between the United States and Mexico is the result of thousands of years of movement of flora and fauna to the North or South. The boundary of the El Pinacate reserve directly abuts the United States-Mexico border; however, the broader Sonoran Desert and its extraordinary habitat extend far into the United States. In a 2020 evaluation, IUCN noted that the El Pinacate property is part of "the largest contiguous desert protected area complex in North America," which includes Mexico's Upper Gulf of California and Colorado Delta River National Biosphere Reserve to El Pinacate's south and the United States' Cabeza Prieta National Wildlife Refuge, Organ Pipe Cactus National Monument, and Barry M. Goldwater Range to the north.

Many of the threatened animals in this ecosystem exist nowhere else on Earth. The endangered Sonoran pronghorn, the world's second fastest land animal, has suffered severe declines. Pronghorns require vast areas of open range to search for food, particularly in dry periods. They rarely jump even low fences, and the proposed 9-meters wall will present an impassable barrier.

The wall will also harm the Tohono O'odham people who historically inhabited the El Pinacate and Gran Desierto de Altar Site and whose traditional lands are split by the U.S.-Mexico

border. El Pinacate is sacred to the Tohono O’odham, and the site is regularly used for ceremonial purposes, including a sacred salt pilgrimage across the border to Mexico’s Gulf of California.



Fig. 1: New border wall built in El Pinacate. Photo: Russ McSpadden / Center for Biological Diversity



Fig. 2: New border wall (red line) built 2017-2021. Modified from Sky Islands Alliance



Fig. 3: Wall construction in the Tinajas Altas Mountains. Photo: Russ McSpadden / Center for Biological Diversity

Affected wildlife

The Mexican government has recognized that the main environmental impact of the border wall is “connectivity and the effect it will have on biodiversity ... especially in animals such as pronghorn and bighorn sheep that have a long-life history.” Populations of the flat-tail horned lizard, the Yuma fringe-toed lizard, the Sonoyta pupfish, the Sonoyta mud turtle, the lesser long-nose and fish-eating bats, and Goode’s horned lizard, the

mountain lion, Sonoran Pronghorn, coyotes, Mexican bighorn sheep, Sonoran Desert Tortoise, and the mule deer, jaguars, and even low-flying owls must be evaluated and monitored due to the border wall impacts. Water reservoirs and oasis have been divided and become inaccessible to fauna in the Pincate side, like Quitobaquito spring now is now unreachable from Mexico. See video: t.ly/EB_6

The Sonoran Pronghorn

The Sonoran Pronghorn continues to face an uncertain future. Recently, further concerns emerged about the possible negative impacts on populations of several species due to the construction of the border wall, which disrupts free movement of wildlife. The entire Sonoran pronghorn population was historically connected and had a continuous flow of individuals, but this connectivity has been fragmented by human development. In El Pinacate region, the main human settlements that may affect pronghorn movement are highways, secondary roads, livestock grazing activities, and new security infrastructure that has been placed along the US-Mexico border.

Due to the impediment of the natural movement of the Sonoran Pronghorn, now pronghorns from Arizona are being translocated to be released in El Pinacate, in order to improve populations but mainly to improve genetic diversity. During the 2020 aerial census, the population in El Pinacate was estimated to be 126 individuals, and in 2022, only 85 individuals (Fig. 4).



Fig. 4: Historic and Current Sonoran Pronghorn Range. Map: Center for Biological Diversity based on map: worldometer.info

Mexican bighorn sheep

The Mexican bighorn sheep (*Ovis canadensis mexicana*) population has historically used natural water reservoirs located a few hundred meters away of the border, on the U.S. side, however that was interrupted by the construction of the border wall. Thus, the Magool Foundation, the ejidos Toboyori II, Vicente Guerrero and the Directorate of El Pinacate and Gran Desierto de Altar Biosphere Reserve started a program to pro-

vide water to the bighorn sheep populations that inhabit the Mexican side of the “La Lechuguilla and Tinajas Altas” mountain ranges.

Sonoran Desert Tortoise

The Sonoran Desert Tortoise (*Gopherus morafkai*) has also been affected due to the border wall construction. The infrastructure is “placing at risk of fragmentation and population decline.” However, there is a lack of information on the status of populations in this region and management coordination across borders. Most of the published research on this species has been done in the U.S. part of its range; much less work has been done in the border region.

Walling off the El Pinacate Site from habitat north of the border will cut the world’s largest swath of protected Sonoran Desert habitat in two. This has been and will continue to be a disaster for the wildlife the site was designated to protect and will alter the traditional ceremonies of the Tohono O’odham people, whose use of this sacred landscape must be preserved.

Building the border wall has been in clear breach of the World Heritage Convention which says in Article 6.3 that “Each State Party to this Convention undertakes not to take any deliberate measures which might damage directly or indirectly the cultural and natural heritage referred to in **Articles 1 and 2** situated on the territory of other States Parties to this Convention.”

We strongly urge the World Heritage Committee to:

1. Request a joint report from the United States and Mexico regarding the Site, the wall, construction progress, and its effects on El Pinacate, including particularly population studies on affected wildlife, including the Sonoran pronghorn, Mexican bighorn sheep, and Sonoran desert tortoise;
2. Request that the U.S. government remove the border wall in sensitive areas such as El Pinacate to allow the wildlife connectivity.
3. Request the IUCN/World Heritage Centre conduct a monitoring visit to evaluate the Site to assess impacts; and
4. Inscribe the El Pinacate property on the List of World Heritage in Danger at the Committee’s 45th Session.

These efforts will bring much-needed international attention to this emerging conservation issue.

Endnotes

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Assessment of Threats to Canaima National Park as of the Year 2023

SOS Orinoco



Canaima National Park (CNP), designated in 1962 and expanded in 1975 (Venezuela, 1962; 1975), is Venezuela's most world-renowned protected area, known mainly because it is home to Angel Falls, the world's highest free-falling waterfall. In 1996, UNESCO designated it as a Natural World Heritage Site (WHS). This recognition attaches responsibility to all Venezuelans, and especially to the governmental entity that is supposed to manage this national park, which is under the obligation of analyzing, conceptualizing, and applying measures that offer guarantees pertaining to the long-term conservation of its values.

SOS Orinoco has been monitoring the impact of mining on the WHS, given this is its most shocking and visible threat, which is rapidly eroding the site's value (SOS Orinoco 2018, 2020a). For three consecutive years, we have published in World Heritage Watch summaries of our findings, our intention being to alert UNESCO about the unstoppable advance of this damage (SOS Orinoco 2020b, 2021, 2022).

In our most recent estimate of the mining activity (SOS Orinoco 2020a), we determined an impact of 1,540 ha (500 more hectares than what we had measured in 2019). This area is 8.4 times greater than the area being mined in 2000. Additionally, we carried out an analysis of the change in vegetation cover and quantified a loss of 29,000 ha of forest between the years 2000 and 2020. This loss is equivalent to 1,489 ha of forest per year, which indicates an acceleration during the last 5 years under analysis (2015-2020). We also found evidence of high levels of mercury contamination in bioanalysis samples obtained from the Pemón indigenous people living within the WHS and drew attention to the need for a comprehensive assessment of mercury concentrations in the waters, sediments, and fishes.

At its meeting in 2021, the World Heritage Committee (UNESCO 2021) considered the Canaima situation and agreed to call upon the government of Venezuela to extend an invitation to the World Heritage Center to send a Joint Reactive Monitoring Mission (RMM). This mission's objectives would have been (1) to evaluate whether illegal mining activity is impacting the integrity of the WHS, and (2) to review the planning and development of (supposedly) lawful mining activity within that part of the Mining Arc that is adjacent to the WHS to assess

whether this represents a potential threat to the integrity of the exceptional and universal value identified in the park. Finally, in this session, the government was called upon to present an updated report for December 2022 and an official proposal regarding the clarification of the park's boundaries.

What Motivated this Report?

As a contribution toward taking this Reactive Monitoring Mission (RMM) into consideration, SOS Orinoco conducted a study that identifies and evaluates the set of threats that affect the values of the WHS and compares its current state with what was found in previous evaluations carried out in 2002 and 2007. We did this so that UNESCO's RMM would have inputs from an independent, non-governmental source for its own assessment.

Methodology

Real, et al. (2002), and Novo and Diaz (2007), acting within the framework of the UNESCO-sponsored "Enhancing Our Heritage" Project, of which CNP management was part (Table I), applied the project's methodological principles conducted a "Management Effectiveness Assessment" (Hockings et al. 2002, 2009). SOS Orinoco studied both reports and applied the same methodology in order to compare its results with those reported in 2002 and 2007.

To do this, we ranked the threats for each of the values or Focal Management Objectives (FMOs) previously identified by Real, et al. (2002) and by Novo and Diaz (2007), following the same methodology (Hockings et al, 2002, 2009), which consists of considering, discussing, and weighing the incidence of the different threats (in working groups made up of experts, as well as local informants). Given the risks involved in undertaking an evaluation using experts in a broad and open way and given the context of the government's intolerance to initiatives that are not controlled by them, SOS Orinoco decided to carry out the assessment through a systematic search (on-line) of the state of knowledge of the current situation and of the main sources of information. We then proceeded to compare our results with those obtained by previous authors to determine the trends shown by the threats during the last 20 years. We also relied on evidence found directly through satellite imagery

(Google Earth and Earth Explorer-Earth Resources Observation and Science Center), in addition to duly documented information published in scientific journals and/or corroborated press information.

Results

The overall results show an increase in the threat levels, as per the evaluation scores, for each of the FMOs, as well as the emergence of new threats, including mining, with a high impact on FMOs affected directly by such mining activity.

“Mining” was identified as having the greatest impact, scope, and irreversibility, and affected 4 of the FMOs (Moriche Palm Swamps, Gallery Forests, Waters, Areas of Interest for Tourist

Recreation) (Fig. 1): all of which presented a score of “VERY HIGH.” Furthermore, evidence was found of the continuous expansion of mining in localities close to where tourism activity is under development and where indigenous communities have settled.

The threat showing the widest spatial scope was that of “Fire,” which affected 9 out of the 11 FMOs (Fig. 2): 3 of them (Ecotone Savannah-Forest, Moriche Palm Swamps and Areas of Recreational Interest for Tourism) with maximum scores (“VERY HIGH”) and the rest (Gallery Forests, Grasslands and Shrubs on Peat, Shrubs on Rock, Threatened Species and Degraded Habitats, Water and Areas Used by Communities) with a score of “HIGH.”



Fig. 1: Mining activity inside CNP World Heritage Site. The impacts on gallery forests, riparian forests and moriche palm swamps are visible.

Satellite images: Google Earth and Earth Explorer-Earth Resources Observation and Science Center

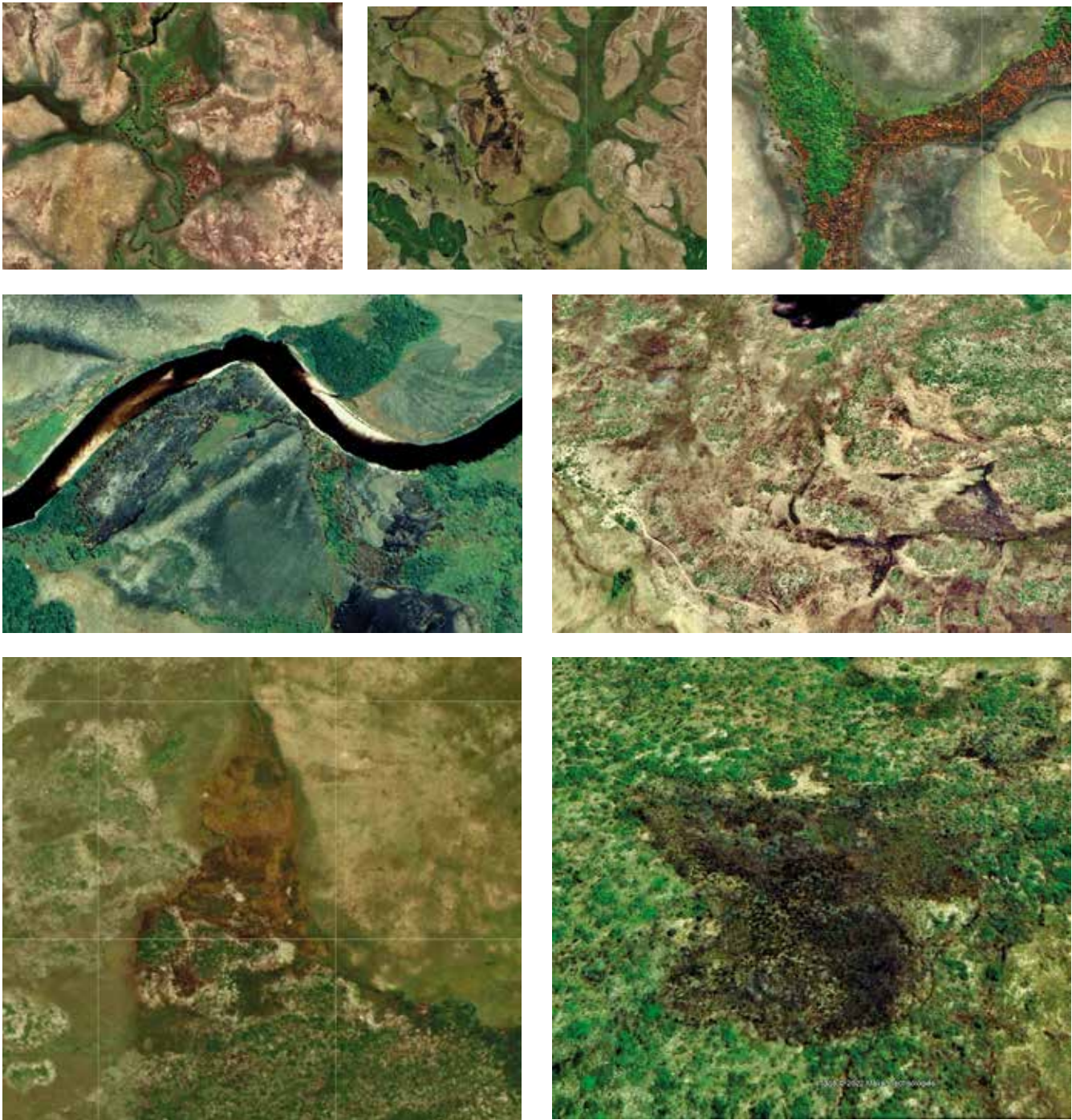


Fig. 2: Effects of fire on gallery forests, moriche palm swamps, shrubs growing over rock, and shrublands and grasslands growing over peats inside CNP. Satellite images: Google Earth and Earth Explorer-Earth Resources Observation and Science Center

“Uncontrolled Tourist Activities” were found to be a “VERY HIGH” threat for the Tepui Formations, and “HIGH” for the Moriche Palm Swamps, Threatened Species, Degraded Habitats, and Waters. (Fig. 3).

Finally, “Agriculture” and “Population Increase and Concentration” appear as “VERY HIGH” threats to Gallery Forests and Human Settlements, respectively. (Fig. 4).

Based on the obtained assessments, when comparing the degree of threat shown by each of the scores for the WHS with that reported for the years 2002 and 2007, a clear upward trend is observed.

The fact that all 11 of the FMOs in the WHS yield threat scores of between “HIGH” (4 of the FMOs) and “VERY HIGH” (7 of the FMOs) stands out clearly and offers evidence of the complexity of the state of danger in which Canaima (Table I) finds itself. The complete technical study, in *extenso*, is available upon request from info@orinocosos.org.

Conclusions

We found no evidence of any managerial or administrative activity by the WHS’s administrative body or any other governmental entity with the capability to attenuate the risks posed by



Fig. 3: Scars left on the tepui flat-top mountains, savannahs, shrublands and gallery forests as a result of uncontrolled tourist activity inside CNP. Satellite images: Google Earth and Earth Explorer-Earth Resources Observation and Science Center

these threats. This situation endangers the integrity and quality of the WHS and also neglects the environmental services that the WHS should be delivering. Quite to the contrary, it is evident that important allies have been lost because of the technical, logistical, and financial dismantling of the WHS's administrative body, which has been clearly unable to provide adequate management of the National Park and its status as a World Heritage Site.

Based on everything found in this evaluation, we conclude that today Canaima National Park is threatened as never before, in every one of its values, and this represents an enormous risk in terms of losses of biodiversity, scenic quality, and environmental services that are of primary importance for the local populations as well as for the whole country, and given its status as a WHS, for all humanity.

Of particular importance are the risks posed by damage to the water resources, which is an environmental asset for Venezuela, basis for all the ecosystem structure, serving as a regional source of drinking water and as a source for generating electric power on a national scale.

SOS Orinoco, in light of the findings, reiterates its consideration that Canaima should be classified as a WHS "In Danger" (<https://whc.unesco.org/en/danger/>) and urges UNESCO to influence the Venezuelan government to take immediate and urgent actions in favor of reducing all pressures, and especially mining, in order to guarantee the integrity of the World Heritage Site.

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Fig. 4: The effects of patchy agriculture by the communities of Kamarata and Wonken, located on the Akanan and Karuai rivers respectively. It is visible (bottom right) inside CNP, the impacts of agricultural and mining, side by side, conducted by mining communities on the southern limits of this World Heritage Site.

Satellite images: Google Earth and Earth Explorer-Earth Resources Observation and Science Center

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The Maasai Residing in the Ngorongoro Conservation Area are Evicted from their Homeland

Anonymous Author

Since the last report on the eviction of the Maasai from the Ngorongoro Conservation Area (NCA) World Heritage Site and the adjacent Loliondo Game Controlled Area, several months have passed. Months in which sadly not much improvement can be reported, but rather the deterioration of the situation.

Briefly after President Samia S. Hassan took office in 2021, the Government of Tanzania decided to evict an approximate 150.000 Maasai from their ancestral lands, app. 80.000 from NCA and app. 70.000 from Loliondo, claiming the multiple land-use area was dying and urgent measures were needed to rescue the ecosystem. An executive order was decreed to implement the 'voluntary' resettlement of the Maasai to the Handeni District near Tanga, an area already populated by other people with nowhere near enough land for the livelihood of such number of pastoralists. No participatory process worth mentioning was held. Contrary to the official version, Maasai leaders, who met with the Prime Minister in 2022, did not give their consent to the relocation.

Since June 2022, army, police and rangers were on site to set beacons in Loliondo, adjacent to the Serengeti and the Ngorongoro Conservation Area, indicating the conversion of 1,500km² of land. The Game Controlled Area, open to pastoral living, tourism and hunting, was (illegally) turned into a Game Reserve, in which pastoralism and agriculture would be banned in favour of trophy hunting and (exclusive) conservation. The sudden eviction was enforced through violent means, chasing the local population including with weapons, confiscating cattle and burning entire bomas (settlements). Many Maasai fled, women were hiding in the bush, sometimes at below 10°C. Gatherings to oppose the eviction asking for a dialogue with local government led to more violence, arrests, and beatings. Women were raped and children were lost. Some men disappeared after

being taken in by the police. In order to make people leave the area, social services were halted in both NCA and Loliondo, including the closure of hospitals, clinics, and the deletion of school buses.

As highlighted in the last report, this eviction goes against the founding principles of the NCA, a site created in 1959 to further conservation, tourism and pastoral living alike. The World Heritage nomination (1979, 2010) ignored the relationship between the indigenous people and the ecosystem and also did not include them in the nomination process. In the years since, UNESCO-IUCN expert missions focused on a very limited notion of conservation notoriously lacking any understanding of pastoral culture and its intricate and often beneficial relationship with conservation. A superficial notion of conservation and a bias towards tourism slowly impacted the ecology of the site, while blaming the Maasai for destruction and overuse. Numbers of lodges and campsites constructed along the crater rims of the Ngorongoro Conservation Area, highland forests and

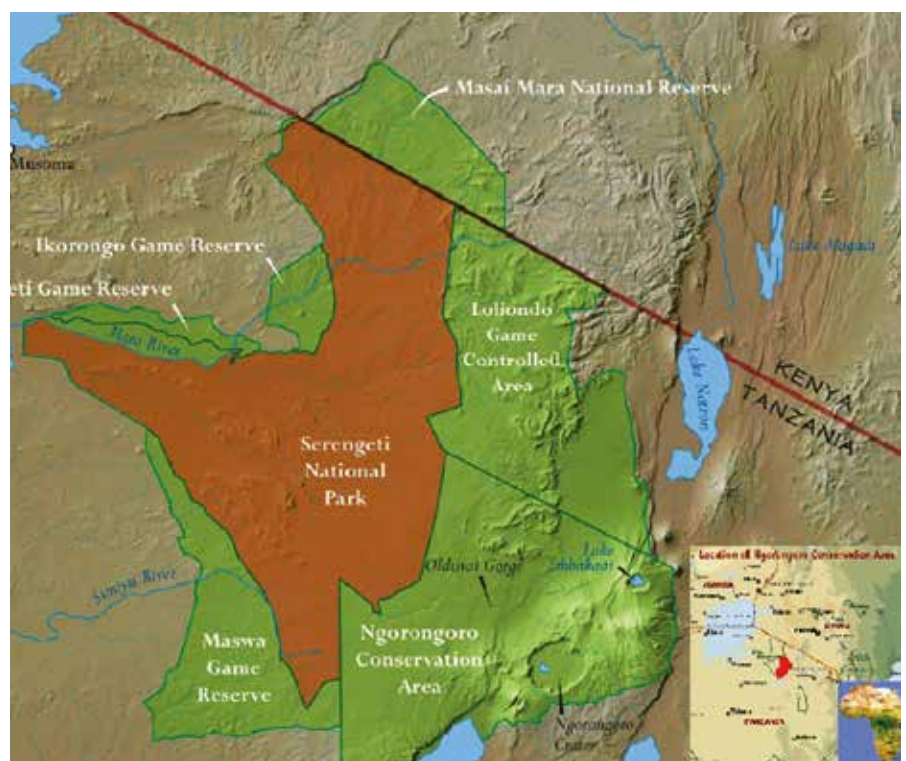


Fig. 1: Protected Areas in Maasai lands.

Map: Serengeti Watch

other niche areas for wild animals testify to this fact. All these helped creating an environment in which the Ngorongoro Conservation Area Authority (NCAA) was able to claim that evicting the Maasai was the only solution.

Today, the World Heritage Convention in theory honours human rights and respects indigenous peoples, including the way their lives are interwoven with the land which they have cared for over centuries and millennia. Linking the concepts of natural and cultural conservation, the Convention recognizes the non-intrusive manner in which indigenous people interact with nature. The fundamental need to preserve the balance between nature and culture is enshrined in the Convention, whence the World Heritage Committee should not tolerate such violations at a World Heritage Site.

What has happened since our last report

The crisis of the Maasai eviction has been publicized internationally, and an increasing number of civil society groups, foreign parliamentarians, few governments, and UN agencies, including the Arusha-based East African Court of Justice, called for the forceful eviction to be halted. However, the harassment and displacement continue.

In Loliondo, the lack of accessible grazing land has led to the death of large numbers of cattle. Where pastoralists trespass the beacons, they are put in prison, beaten and sometimes tortured only to be released on high bribes. Entire families go hungry as bribes of 5,000 USD and more are paid to release one man from prison. Some men have disappeared with no traces left. Police visit the bomas of more educated and vocal Maasai to threaten them into silence. Across large areas in Loliondo, Sale and Ngorongoro Divisions, cattle are being seized from their rightful owners, who are left with no livelihood whatsoever. Small fields, normally adding vegetables and beans to the local diet and provide some income to poor households, are now left uncultivated, adding to hunger and malnourishment of women and children. Where people gather to advocate for their rights, they do not find any counterpart, but are pursued as trouble

JAMHURI YA MUUNGANO WA TANZANIA
OFISI YA RAIS
TAWALA ZA MIKOA NA SERIKALI ZA MITAA
HALMASHAURI YA WILAYA YA NGORONGORO
(Barua zote zitumwe kwa Mkurugenzi Mtendaji)



Linaojibiwa tafadhali tajia:

Kumb. Na. NGOR/DC/F.1/ 02/VOLIII/ 69

Tarehe: 31/03/2022

Wakuu wa Shule,
Shule ya Sekondari Embaraway
Shule ya Sekondari Nainokanoka
Shule ya Sekondari ya Wasichana Ngorongoro
Halmashauri (W) Ngorongoro,
S. L. P 1,
LOLIONDO - NGORONGORO

YAH: KUHAMISHA FEDHA ZA MIRADI YA UVIKO 19 JUMLA YA SHS. 195,500,000/- KWENDA HALMASHAURI YA WILAYA YA HANDENI

Tafadhali rejea kichwa cha habari hapo juu

Nimepokea barua kutoka kwa katibu Mkuu TAMISEMI yenye kumbu Na BD.291/298/03/281 ya Tarehe 14/3/2022 inayohusu mada tajwa hapo juu kuhusu fedha za Miradi ya UVIKO 19 zilizoingizwa katika Akaunti zenu kwa ajili ya ujenzi wa vyumba vya madarasa kuwa Fedha hizo zihamishiwe katika Halmashauri ya Wilaya ya Handeni.

Hivyo kwa Barua hii Nawaelekeza kuhamisha fedha hizo kwenda katika Halmashauri ya Wilaya ya Handeni katika Akaunti ya – Handeni District Council Miscellaneous Deposit Na 41410000535 benki ya NMB. Kazi hiyo ifanyike kabla ya Tarehe 05/04/2022 bila kukosa. Mchanganuo wa fedha hizo baada ya kutoa matumizi ya madawati ni kama ifuatavyo:-

- | | |
|---|-------------------|
| 1. Shule ya Sekondari Nainokanoka | Shs. 80,000,000/- |
| 2. Shule ya Sekondari Embaraway | Shs. 66,000,000/- |
| 3. Shule ya Sekondari ya Wasichana Ngorongoro | Shs. 49,500,000/- |

Nawatokia Utekelezaji Mwema.

Dr. Jumaa Mhina
Mkurugenzi Mtendaji (W) YA NGORONGORO
NGORONGORO

Jengo la Utawala: S.L.P. 1 Loliondo; Arusha; Simu +255272535051; Nukushi +255272535051/2535264
Barua pepe: dad@ngorongoro.go.tz Tovuti: www.ngorongoro.go.tz

Fig. 2: Letter redirecting all the funds available for school development in NCA to Handeni, Tanga.

Source: Author

makers. Many fear for their lives. Migration is on the increase both internally in Tanzania and to Kenya. It is only a matter of time for land conflict to flare up in those areas between the farmers and pastoralists.



Fig. 3: A house in Oloirobi destroyed by the authorities. Its owner is not allowed to repair it. Photo: Marko Kipuyo

Maasai living in the NCA are not better off. The pressures on the population have grown. Restrictions imposed in the area include the total stop to social services, limitations to food availability, threats at the main gate of Lodouare in Ngorongoro, and constant threats to the people claiming they will be soon evicted by force.



Fig. 4: The school compound in Endulen is deserted, and construction of the dormitory (on the right) has been stopped.

Photo: Marko Kipuyo

Women have to travel to Karatu to safely deliver their children, sick and insured people have to drive for hours on dirt roads to reach the nearest clinic. People die. All the development projects have been stopped. No NGOs are allowed to be active in the area. Hunger follows the death of livestock due to restrictions in grazing areas and salts licks, especially at Oloirobi and Olbalbal. Men flee the area searching for jobs in the big cities of Tanzania, Kenya, Uganda, and elsewhere. Women and kids are left struggling without food for even a day. Fear reigns throughout the community, as threats by authorities are omnipresent.

Some agreed to move to Msomera village in Handeni, Tanga, sadly an utterly unsuitable location, given its climate and lack of land for cattle herding. Families were given just one room to be shared between parents and kids, which is culturally unacceptable and a humiliation to the Maasai, who generally carefully separate the spheres to protect the children. Residents who were shifted to Msomera continued to feel there are threats to their lives, safety and freedom, as the land they were given in reality belongs to the Msomera residents.

The 'voluntary' resettlement is linked to corruption at a very large scale, benefitting those in power. People who moved were paid handsome figures – but state outright that it was a mistake and not worth being humiliated and deprived of the dignity to establish a life for themselves. The Maasai Councilors who shifted to Handeni can only observe their democratic functions if they participate in the Council meetings in Loliondo, 800km away.

Finally, in Handeni, no jobs of any kind are available. Although it is said that the funds for schools were fully re-directed to

Msomera Tanga, where currently not even 0.2% of NCA residents live, not much is visible on the ground. People are secretly expressing their desperation, feeling let down by their own government. Their recommendation to the residents of NCA is clear: Do not move! It is the end of freedom, of any decent livelihood, and of Maasai traditional living.

The Maasai employees of the NCAA, who got transferred to other sites in May 2022, have still not gotten their earlier jobs in NCA back. In the past months, they had to put up with hundreds of miles between work and home, with no adequate reimbursement.

Solutions

In order to halt this desperate situation, solutions must be found to the perceived and real problems of the Maasai living in and around the protected areas. Maasai groups have come together to discuss, ready to talk to government.

The survival of the Maasai and their culture depends on **access to land for grazing** in a semi nomadic manner. This is suitable for dryland areas, as the movement of cattle to different grazing grounds according to the season prevents overuse. If cattle numbers are better managed as it used to be, conservation and pastoral uses can coexist. Research on mixed traditional grassland management and innovative techniques exist and can be applied. Traditional Maasai knowledge of nature and survival should be respected and consulted, as it is a treasure trove for 21st century solutions for climate adaptation and conservation.

The right to communal land must be secured. The Tanzanian law has all provisions needed to ensure the Maasai can continue living in their traditional manner, while also conserving the land. Land use plans, indicating zoning for pastoral activities as well as small-scale agriculture deflect conflicts between communities.

Trophy hunting, a colonial type of revenue stream for the Tanzanian government, should be regulated in such a manner that communities benefit and conflicts are prevented.

The Maasai are citizens of Tanzania and thus have a right to education, health care and social services. Corruption and racism must end. All communities in Tanzania should be treated equally by its government, including law enforcement.

Signed international conventions must be translated into national legislation and implemented at all levels. This includes the UNESCO Convention on Safeguarding of Intangible Heritage and the Diversity of Cultural Expressions of 2003 and 2005



Fig. 5: "We are tired of being provided raw food. We need freedom to use our land."

Photo: Marko Kipuyo. Note by the editor: Faces have been blurred in order to protect the safety of the protesters.

respectively, under which the Maasai cultural identity and customs are listed as universally valuable.

Maasai must receive education on ways to improve their livelihoods. This includes, amongst other, sustainable ways of agricultural cultivation, including permaculture and organic agriculture. Entrepreneurship is crucial to start small businesses, including those related to tourism, conservation, and hunting.

Modern-day livestock rearing and business development, as well as transformation of raw materials into secondary products, including traditional and modern systems, can be excellent basis for income generation. Community consultation is an intensive and challenging undertaking. However, it is the basis for any successful approach to change in complex circumstances, such as NCA and Loliondo.

Oil, Gas and Mining Threatens the Okavango Delta and Tsodilo Hills World Heritage Properties

Andy Gheorghiu with Jeffrey Barbee and Reinhold Mangundu,
Saving Okavango’s Unique Life (SOUL) Alliance



This report is an update on the latest developments regarding ReconAfrica’s activities and plans related to the Okavango Delta. On top of that SOUL also points to other mining and largescale industrial agriculture projects which increase dangers for the Okavango.

ReconAfrica’s permit area in northeastern Namibia and northwestern Botswana falls wholly within the boundaries of the Kavango Zambezi (KAZA) Trans Frontier Conservation Area. In Namibia the permit concession includes areas on Namibia’s UNESCO Tentative List for future World Heritage inscription –

ReconAfrica’s petroleum drilling plans in the Kavango Zambezi Transfortier Area and the Okavango Delta¹

Namibia	Botswana
<ul style="list-style-type: none"> Petroleum Agreement signed 26 January 2015 (ammended 2019) ReconAfrica owns 90% of the Petroleum License 73 (stretches over roughly 25,000 km²) NAMCOR (Namibia State Oil Company) still owns 10% but wants to sell 5% 	<ul style="list-style-type: none"> License (001/2020) granted in June 2020 (covers now roughly 9 thousand km²) ReconBotswana owns 100% Farmout option (50% participating interest) for Reconnaissance Energy (owned by Craig Steinke, founder of ReconAfrica)
<ul style="list-style-type: none"> 1st Environmental Clearance Certificate granted on 7th October 2019 	<ul style="list-style-type: none"> an initial 4-year exploration period, with renewals up to an additional 10 years Exploration period until at least 2024 (can be extended to 2034)
<ul style="list-style-type: none"> Production phase: at least 25 years (extendable to another 10 years) 	<ul style="list-style-type: none"> Production phase of 25 years (extendable to another 20 years)
<ul style="list-style-type: none"> 2021: Exploration drilling (two wells) and 450 km seismic survey carried out 2022: Drilling of a third well; application for and extension of the Environmental Clearance Certificate for continued drilling and seismic surveys to August 26, 2025² 2023: Application for drilling of multiple exploration and appraisal wells (at least 12 wells³) with supporting infrastructure⁴ 	<ul style="list-style-type: none"> January 2021: ReconAfrica and Botswana announce, that the Tsodillo Hills area (UNESCO World Heritage Site) will be carved out of the license 2022: Founder Craig Steinke talks of „establishing relationships with communities and government“ November 2022, ReconAfrica announced that the company is “carrying out a work plan – which includes stakeholder mapping – and a regulatory review in 2022, in anticipation of an Environmental Impact Assessment (EIA), to be conducted by a Botswana company identified through a tender process”

Fig. 1: ReconAfrica’s activities in Namibia and Botswana.

# (map)	Name	Country	UNESCO name	UNESCO status	Affected zones
1	Okavango Delta	Botswana	Okavango Delta	inscribed	wider setting
2	Tsodilo Hills	Botswana	Tsodilo Hills	Inscribed	wider setting
3	Bwabwata NP (Mahango core area)	Namibia	Okavango Delta	Tentative List	buffer zone (likely)
4	Bwabwata NP (Buffalo core area)	Namibia	Okavango Delta	Tentative List	buffer zone (potentially)
5	Nyae Nyae Conservancy	Namibia	Sân Living Cultural Landscape	Tentative List	buffer zone (potentially) or wider setting
6	N#a-Jaqna Conservancy	Namibia	Sân Living Cultural Landscape	Tentative List	
6a	N#a-Jaqna Conservancy	Namibia	Sân Living Cultural Landscape	Tentative List	
7	Mkata Community Forests	Namibia	Sân Living Cultural Landscape	Tentative List	

Fig. 2: World Heritage – related areas in the vicinity of the ReconAfrica concession.

including the Okavango River as well as two cultural sites sacred to San indigenous communities.⁵ ReconAfrica has acted several times illegally while conducting its exploration activities – this includes seizing land or conducting exploration within a conservancy without legal rights/permits.⁶

The eastern boundary of ReconAfrica’s permit area in north-western Botswana runs along the Okavango Delta UNESCO World Heritage site, Ramsar site and Key Biodiversity Area. It is one of the few remaining areas in the world of pristine fauna and flora, a significant source of clean water as well as a vital watershed for thousands of people. There is an urgent need to protect these areas and sites!

ReconAfrica activities in Namibia and Botswana seem to also have spurred desires in another bordering country. In February 2021, Angola announced that it revokes an existing ban and opens the Okavango Basin to oil and gas exploration.⁷

Strategic Environmental Assessment and Moratorium on current Exploration Phase

In July 2021, UNESCO expressed concern about the granting of oil exploration licenses in environmentally sensitive areas within

the Okavango river basin in northwestern Botswana and north-eastern Namibia, and urged the State Parties to conduct a rigorous Environmental Impact Assessment – with the requirement to *submit to the World Heritage Centre, by 1 February 2022, an updated report on the state of conservation of the property ... , for examination by the World Heritage Committee at its 45th session.*⁸

The urgent need for action to protect the Okavango from oil and gas exploitation was also expressed during the World Congress of the International Union for Conservation of Nature (IUCN) that took place in September 2021 in Marseille. Motion 136⁹ points to the human and indigenous rights aspects of the case, raises the climate change urgency and refers to UNESCO’s request calling on Namibian and Botswana to conduct a proper EIA *“prior to any further exploration and any future development of oil and gas resources and other extractive activities in and/or affecting the Okavango River basin and its people.”*

In the February 2022 State of Conservation Report, the Government of Botswana acknowledged the concerns raised by the World Heritage Committee and promised that a *“rigorous and critical Environmental Impact Assessment is a prerequisite to*

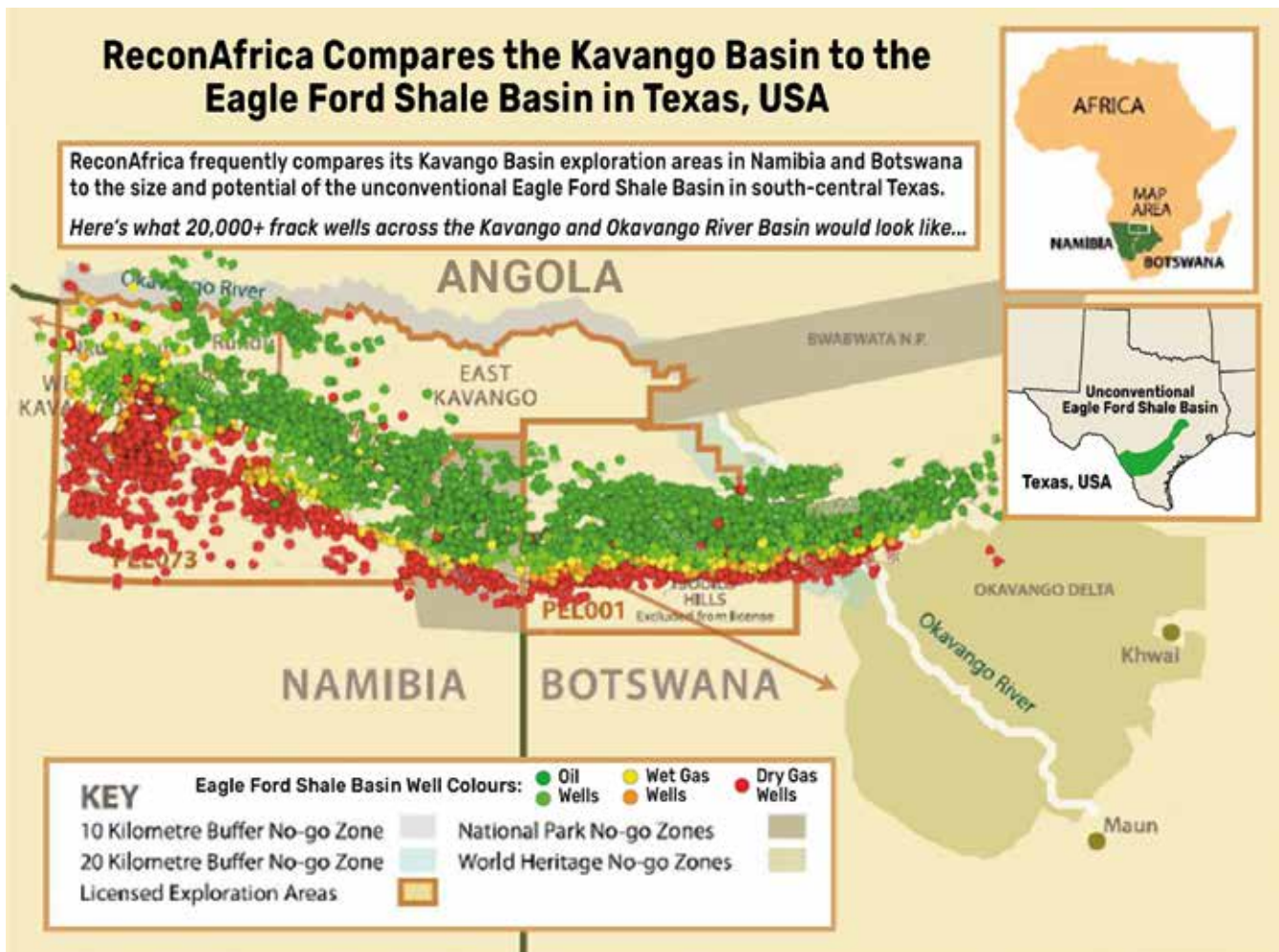


Fig. 3: Scenario of oil and gas development (wells) based on actual development of the Permian basin in the USA. ReconAfrica constantly compares the Kavango basin to the Permian basin in terms of its possible hydrocarbons potential).
Graphic: SOUL. Map: Matt Totten

any intrusive development in the area.” Botswana also pledged to monitor prospecting and mining activities within the Okavango River Basin and „to continue the engagement of Angola and Namibia on the management of the shared waters of the Cubango-Okavango River Basin.”

However, ReconAfrica and Namibia moved forward without the required robust transboundary Environmental Impact Assessment that critically looks at the cumulative impacts. In August 2022, the company informed that it “has received a three-year extension to its Environmental Clearance Certificate (the “ECC”), from the Office of the Environmental Commissioner, Ministry of Environment, Forestry and Tourism of the Republic of Namibia, covering the entire PEL 73 permit, which covers over 6.3 million acres (25,000 km²), in northeast Namibia”.¹⁰ In February 2023 the company applied for the drilling of more wells.¹¹

Namibian communities who have challenged this decision must now fear to pay nearly USD\$35,000 to cover the government’s legal fees. A court decision scheduled for February 21, 2023, has now been postponed.¹²

UN Human Rights Committee is asking Namibia to address oil and gas plans

In April 2023, the UN Human Rights Committee officially asked Namibia to “provide information on measures taken to obtain the free, prior and informed consent of indigenous communities affected by the exploration and extraction of oil and gas in the Okavango East and west regions and explain why (a) full social and environmental impact assessments for the Okavango project have reportedly not been undertaken, and (b) drilling has reportedly been carried out without the requisite permits.”¹³

Dangers to Tsodilo Hills World Heritage Property in Botswana



Fig. 4: Demonstrators took to the streets of Windhoek, Namibia, in front of the High Court to protest against filled bill of costs in relation to objections against the granting of the extension of the Environmental Clearance Certificate. February 2023.

Photo: Veruschka Dumeni

UNESCO declared in December 2020 that it remains vigilant on potential impacts of oil exploration in Namibia and Botswana on World Heritage properties.¹⁴ ReconAfrica and the Botswana government announced in January 2021 that the Tsodilo Hills World Heritage property has been excluded from the company’s prospecting license for oil and gas.¹⁵ No official exemption has been published by the Botswana government, however, and there is no demarcation of the boundary, including the distance from the property or its buffer zone.

According to the UNESCO Policy Compendium 2.2.6.2 – Buffer Zones published in the Operational Guidelines for the Implementation of the World Heritage Convention (WHC.19/01 – 10 July 2019), “Details on the size, characteristics and authorized uses of a buffer zone, as well as a map indicating the precise boundaries of the property and its buffer zone, should be provided”. None of this has been provided for the Tsodilo Hills Property exempted from ReconAfrica’s Oil and Gas Lease.

Iron mining licenses threaten the Okavango Delta

The Government of Botswana has apparently issued new mining licenses in the Okavango World Heritage Property Buffer Zone.

State of Conservation Reports (SCR) for the Okavango Delta (2015, 2017, 2020, and 2022), submitted by the Government of Botswana to the UNESCO WHC, consistently claim there are no mining prospecting licenses in the Okavango Delta buffer zone. Botswana’s State of Conservation Reports to UNESCO (2015, 2017, 2020, and 2022) assert that Gcwihaba Resources has agreed to relinquish all prospecting licenses within the buffer zone.

On April 27, 2022, the Director of Gcwihaba Resources denied agreeing to relinquish licenses, and accused the government of lying to UNESCO. Gcwihaba Resources asserts that a prospecting license (020- 024/2018) encroaching within the Okavango buffer zone was issued in 2018. In March 2023, Gcwihaba Resources presented papers to the Maun High Court, accusing the Government of Botswana of falsifying documents to mislead UNESCO.¹⁶

Danger to the Okavango Delta from large-scale industrial agriculture upstream

Large scale industrial agriculture is increasing quickly along the main channel of the Okavango River upstream of the Okavango Delta in both Namibia and Angola. These large scale farms are unregulated and potentially using the river’s water at an unsustainable rate while also introducing phosphates and other industrial fertilizers that end up in the river channel in amounts that recent studies have shown to be harmful to human health. The danger from this for the tens of thousands of people depending on water from the Okavango River for subsistence farming and drinking water has generally been ignored or

glossed over by the member countries encouraging this type of unsustainable land use in such an arid environment.

Many scientists, like John Mendelsohn (Ongava Research Centre) and Mike Murray Hudson (Okavango Research Institute, University of Botswana), believe that the complete loss of the Okavango River channel during the dry season is possible due to a combination of industrial farming water use and climate change, and other serious impacts like water pollution, species loss, fisheries collapse and more could happen if member countries do not do more to prevent this ongoing abstraction and pollution.¹⁷

Immediate action needed

UNESCO must now step in and urge all State Parties that all World Heritage sites and those on its Tentative List be excluded from any prospecting and exploration of fossil fuels. Too much is at stake for time to be wasted.

Endnotes

- 1 <https://www.nationalgeographic.com/animals/article/oil-drilling-reconafrika-okavango-watershed-protected-wilderness>
- 2 <https://www.newswire.ca/news-releases/reconafrika-announces-extension-of-environmental-clearance-certificate-to-august-26-2025-864074362.html>
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Ata Modo: The Guardians of Komodo National Park

WALHI (Friends of the Earth Indonesia)



“For indigenous peoples protecting their territories does not only mean protecting rights to land and territories but fundamentally protecting their civilization, which is the essence of their culture. As a legacy from the cross-generational adaptation process in placing a balance of life with the preservation of natural cycles.” Zenzi Suhadi

The survival of Komodo dragons cannot be isolated from the role of Ata Modo, the indigenous people of Komodo Island who look after them. People believe that Komodo and Ata Modo are siblings conceived from the same womb.

In the story of Ata Modo, the name Komodo comes from the Komodo language which consists of two words, Ko and Modo. Ko refers to the ownership of an object by an individual or group while Modo is the name of the original tribe on Komodo Island. Therefore, the word Komodo means belonging to the Modo or Ata Modo tribe.



Fig. 1: Akbar Al-Ayyubi, a native Ata Modo, explaining the history of Ata Modo and Komodo dragons in the Komodo Community Centre (KCC), Komodo Village, Komodo Island. KCC is expected to be a source of knowledge and a center for studies on the relationship between Komodo and Ata Modo.

Photo: WALHI

Ata Modo is uniquely tied in spirituality to the Komodo dragon. According to stories passed down from the ancestors of Ata Modo, Komodo is a brother assigned as a nature guard. They believe that the existing Komodo dragons are twin brothers of the ancestors of the Ata Modo tribe. Therefore, they really respect the Komodo as their spiritual sibling entity in protecting life. Komodo for Ata Modo is more than just a giant lizard. Komodo is the protector of their island.



Fig. 2: The Ata Modo community is hauling a deceased ora (Komodo dragon) in preparation for burial with the Nampji Ritual.

Photo: Ata Modo community

The Ata Modo indigenous people perform a traditional ceremony called the *Nampji ritual*. This ritual is a funeral ritual for Komodo dragons who have died on the island. They regard the Komodo dragon as a symbol of the forces of nature and ancestral spirits that protect their island. This ritual is to honor the services of the Komodo Dragons who have become the protectors of their island. The *Nampji ritual* is a form of burial that treats Komodo dragons like humans. Komodo buried properly. Fragrances are also given flowers. The Ata Modo people also grieve when a Komodo dragon dies.

They also regard the Komodo dragon as a symbol of harmony and balance in the ecosystem. They believe that protecting the Komodo dragon and the ecosystem around it is part of their duty as nature guardians. The local people live a lifestyle side by side with the Komodo dragons. They do not feel afraid or

threaten the dragons, but keep a safe distance and respect their presence. The community also does not tense or disturb the dragons, because they believe that their actions will disturb the harmony of nature, and trigger negative things.

The spirituality of the local people who are tied to the Komodo dragon is also reflected in local folklore and legends. Folklore about Komodo dragons is a cultural heritage that is passed down from generation to generation, depicting dragons as mythical creatures that have an important role in the balance of nature and the lives of local people. It is this spiritual value that has survived to this day that has made the Ata Modo people prohibited from hunting or consuming Komodo dragon meat. They are bound in the spirituality of brotherhood for generations.



Fig. 3: The process of making Mbuta, the original food of the Komodo village. About 50 years ago, before the Komodo Island was designated as a national park in 1980, the Modo tribe was free to take advantage of the forest around the village, by taking the inner buds of the gebang tree (*Corypa utan*) after being cut to be processed into food which is always consumed by themselves and served to guests.

Photo: Akbar Al-Ayyubi

However, the local knowledge and spirituality of Ata Modo and Komodo dragons are disappearing over time. This is because the state failed to take care of it. One of the basic problems is when the government determines an area to be designated as a certain area, a protected or conservation area, the inventory carried out by the related government is limited to the area. Meanwhile, an inventory related to humans who live and live in or areas of the area and their culture is the work of a different ministry. Thus, in making policies, humans are often not inventoried as part of an existing ecological unit.

The presence of large-scale investment on state permits is also a major problem that threatens the sustainability of the protection of the Komodo dragon and the Komodo National Park. Communities that fight for their living space with a certain entity (company) are narrowed down to a conflict of economic needs so that it directs the resolution to compensation.

For indigenous communities, including Ata Modo, protecting their living space does not only mean protecting rights to land and territories but to fundamentally protect their civilization on which the essence of their culture depends as a legacy from the cross-generational adaptation process in placing the balance of life with the sustainability of natural cycles.



Fig. 4: The indigenous leader of Komodo village, also known as Magu. As a Magu, he is the authority who explains the history of the Modo tribe's relationship with the Komodo dragons to the people.

Photo: Akbar Al-Ayyubi

Komodo National Park as a Biosphere Reserve

The national park area was designated as a Biosphere Reserve by UNESCO in 1977. The three main objectives of Komodo National Park are the preservation of biodiversity, increasing the economic welfare of the community through environmentally friendly and just economic mechanisms, and glorifying the culture of the community. However, this has not been achieved by the Komodo National Park (KNP), which has been operating for 42 years. For example, the Komodo dragon population is still threatened with extinction both in terms of size and ecosystem, the economic welfare of the people in the KNP area, and the absence of local culture in creating narratives of knowledge about Ata conservation and protection mode. The Komodo National Park Authority (BTNK/Komodo National Park Agency) in charge of managing the park failed to protect the Komodo ecosystem area from illegal practices such as deer theft as part of the Komodo food chain, fishing bombing in the sea and also galaxy coral theft.

Unresolved basic problems

The Komodo National Park Office easily changed the Core Zone to a Utilization Zone so that the tourism investment faucet expands in the KNP area. In addition, there has been no serious response to the hotel expansion in Labuan Bajo. This violates

Presidential Regulation Number 51 concerning Coastal Border Boundaries. On the coast of Labuan Bajo, this phenomenon has caused considerable losses in public areas and people's livelihoods. In light of plans to increase tourism to the super premium Labuan Bajo and Komodo National Park, the Indonesian government has announced to increase the entrance fee to the parks to Rp. 3,750,000, which was then responded with massive rejection from the local community, both on land and in the park. The government used excessive force to intimidate and stop people from resisting, which resulted in the arrest of 42 people by the police. The protests that took place for several days in July 2022 were also a form of protest over the imbalance in land management in the Komodo National Park. The government has issued licenses to private companies that have supported it.

Most recently, in 2022, the Ministry of Environment and Forestry again awarded PT. Flobamor, a Regional Owned Enterprise (BUMD) owned by the NTT Provincial Government, a tourism investment space. PT. Flobamor's investment is based on the 2022 Memorandum of Understanding between the Ministry of Environment and Forestry and the Provincial Government of NTT. Companies will also be given rights to arrange other tourism services, such as setting entry fees to Padar Island and Komodo Island, as well as land concessions and permits to build tourism infrastructure in KNP. Governor Regulation (Pergub) Number 85 of 2022 concerning the Implementation of Conservation of Biological Natural Resources and their Ecosystems in TNK also regulates the existence of PT. Flobamor. In terms of the substance test, the 11 articles in the Pergub only describe the mandate or delegation of authority that should be the responsibility of the government. As the only conservation manager in KNP, this Pergub violates the obligations of the Ministry of Environment and Forestry. Furthermore, PT. Flobamor as the company appointed to carry out the conservation mandate, has no experience in the conservation of the Komodo ecosystem.

In the most recent developments, Pergub Number 85 has been officially revoked by the provincial government. The revocation process does not necessarily make PT. Flobamor exit the KNP area. PT. Flobamor in April 2023 is actually still dealing with matters of ticket prices for entering the Komodo National Park. The implementation of the new tariff will begin on April 15, 2023, based on the Decree of the Directors (PT) of Flobamor Limited Liability Company Number: 01/SK-FLB/III/2023 concerning Nature Tourism Services in Komodo National Park on March 24, 2023. The ticket price issued is 250,000 for Indonesian citizens and 400,000 for foreigners. This price is only valid for short trips or short tracks.

WALHI sees the fact that tourism activities are still the *prima donna*. Conservation activities and strengthening/empowerment activities for Komodo Island residents are still minimal. This condition will endanger the survival of Komodo dragons in the future. Due to the solid commitment of the Indonesian gov-

ernment to conservation, it is questionable to understand that currently they have issued permits for private companies to invest in national park areas. This is clear evidence that the Indonesian government is prioritizing investment over conservation and protection of its people.

At the end of 2022, President Jokowi issued a Job Creation Regulation in Lieu which was clearly stated by the Constitutional Court as a formal defect. Instead of repealing the problematic Job Creation Law, Jokowi issued a regulation in lieu. This proves that the Indonesian government is blatantly more concerned with business interests and will always ignore the interests of its people.

Recommendations for the Indonesian Government

1. Evaluate and revoke all business concession permits that have been granted to private companies. Discontinue the licensing process for other companies. Development of resorts for business purposes should be conducted outside the conservation area, while still paying attention to the principles of sustainable development.
2. Follow UNESCO's recommendation on WHC draft decision 44 COM 7B.93 to stop ongoing projects within the region and conduct a new Environmental Impact Analysis (AMDAL) for plans to build tourism and conservation facilities within the KNP region and ensure infrastructures are designed in accordance with the principles of conservation and management of World Heritage Sites.
3. Improve coherent conservation programs for both land and sea areas for short and long-term periods.
4. Work together with communities within and around the area as well as position them as active practitioners of conservation and community-based tourism.
5. Control the pace of tourism business expansion through policies such as regulation of visit quotas to prevent mass tourism which could threaten conservation efforts and the integrity of local culture.

Recommendations for UNESCO, IUCN

1. Urge the Indonesian government to optimize conservation efforts that not only protect wildlife but also protect the lives of local and indigenous people living in the region.
2. Demand the Indonesian Government to stop all development projects for investment interests that could potentially damage the Komodo dragons' natural habitat as well as the living areas of local and indigenous communities.
3. Ensure the Indonesian government carries out the World Heritage Convention to protect the Komodo National Park's function as a conservation area.
4. Demand the State Party of Indonesia to submit to them, according to § 172 of the Operational Guidelines to the WH Convention, any plans for projects in or near KNP in order to allow UNESCO/IUCN an assessment whether these projects, if implemented, would adversely affect the Outstanding Universal Value of the property.

VI. Natural Properties

Vaquita Porpoise Remains Threatened with Extinction in its 'In Danger' World Heritage Site



Alejandro Olivera, Center for Biological Diversity

The Islands and Protected Areas of the Gulf of California property in northwestern Mexico was inscribed on the World Heritage List in 2005 to protect the area's "extraordinary" "diversity of terrestrial and marine life."¹ Two endangered species in particular were identified as part of its "Outstanding Universal Value" ("OUV") – the critically endangered vaquita, which is a small porpoise endemic to the upper Gulf of California, and the critically endangered totoaba, a large, endemic, marine fish.²

However, the site was inscribed on the List of World Heritage in Danger in 2019 due to escalating illegal fishing including for totoaba, which entangles and threatens the vaquita's imminent extinction (Decision 43 COM 7B.26). At 44th Session, the World Heritage Committee found that Mexico had not fully implemented, and had failed to enforce its own vaquita protection regulations, and retained the property on the list of World Heritage in Danger (Decision 44 COM 8C.2). As detailed herein, the Mexican government has continued failing to effectively enforce its vaquita protections, and no substantial progress in conserving the vaquita has been made.

The vaquita and totoaba

The vaquita (*Phocoena sinus*) is a small, rare porpoise.³ With a rounded head and black patches around its eyes and mouth, the vaquita measures just 1.5 meters in length (Fig. 1). The porpoise occurs only one place on Earth, a small, 225 km² area in Mexico's Upper Gulf of California.⁴ The vaquita has declined precipitously from around 570 animals in 1999 to likely around 10 animals today, a 98% decline in over 20 years.⁵ The vaquita's decline has only one cause: entanglement in gillnets set by fishermen to catch totoaba, shrimp, and other fish.⁶ IUCN considers the vaquita "Critically Endangered."⁷

The totoaba (*Totoaba macdonaldi*) is a large, schooling marine fish in the croaker family that exclusively inhabits Mexico's upper and central Gulf of California,⁸ overlapping with the vaquita's habitat. The fish can grow up to two meters in length and live up to 25 years with late sexual maturity, a life history that makes it vulnerable to exploitation.⁹ IUCN considers the totoaba "Vulnerable" with a population that is decreasing.¹⁰

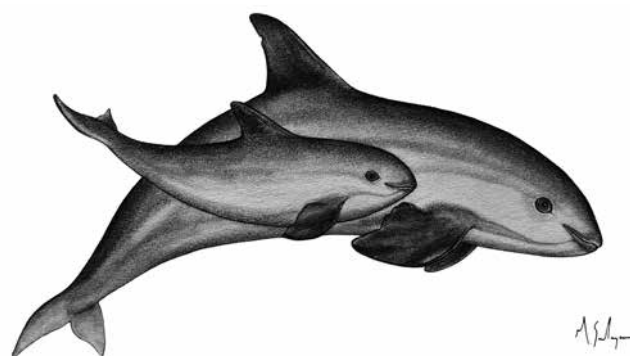


Fig. 1: A Vaquita with its young.

© Drawing: Center for Biological Diversity

Despite the species' conservation status, totoaba are fished illegally for their swim bladders, which are dried and smuggled abroad, primarily to China, where the product is sought for its supposed health benefits and investment value.¹¹ The dried bladder, referred to as "maw" or "buche," can be sold on the black market for extraordinary prices, reaching \$46,000 per kg¹² to even \$100,000 per kg by some reports.¹³ Totoaba are caught using illegal gillnets, which entangle and kill vaquita. To save the vaquita from extinction, numerous scientists and international bodies have urged Mexico to remove all gillnets from vaquita habitat.

Mexico's inaction

In response to international pressure, in September 2020, the Mexican government adopted new fishing regulations (the Agreement), including banning possession and use of gillnets in the vaquita refuge and banning all unauthorized vessel use in the core vaquita habitat, called the Zero Tolerance Area or "ZTA." However, Mexico's implementation and enforcement of the Agreement remains woefully inadequate. This is particularly alarming because multiple organizations including the World Heritage Committee,¹⁴ CITES, the International Whaling Committee,¹⁵ IUCN – SSC Cetacean Specialist Group,¹⁶ and the International Committee for the Recovery of the Vaquita (CIRVA) have repeatedly advised Mexico to protect the vaquita by eliminating illegal gillnet fishing in the vaquita's habitat.

Violations of the Agreement continue to occur daily.¹⁷ As recently as 2 February 2023, for example, the Sea Shepherd Conservation Society (SSCS) documented a high of 30 vessels in a

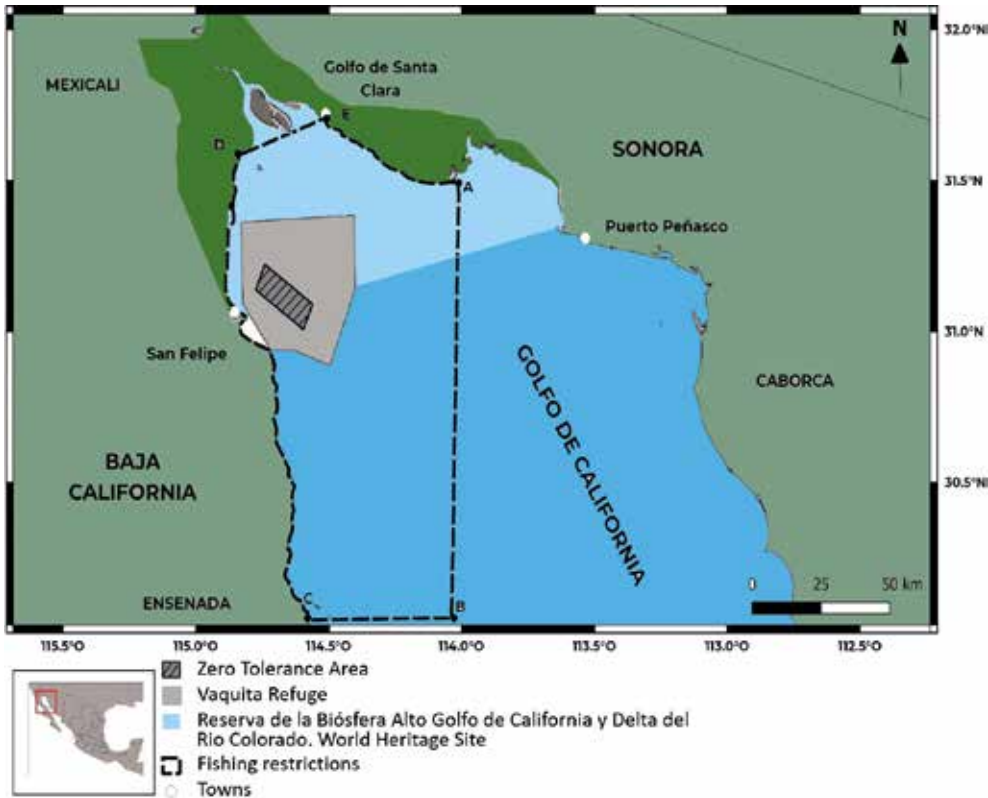


Fig. 2: The vaquita refuge and Zero Tolerance Area in the Islands and Protected Areas of the Gulf of California WHS.

Map: Center for Biological Diversity

single hour inside the ZTA where, by law, unauthorized vessel activity is prohibited. On the same day, a high of 25 pangas were observed potentially engaging in illegal net fishing in the vaquita refuge in a single hour. The IUCN – SSC Cetacean Specialist Group documented in December 2022 that illegal fishing continues with impunity in the area.¹⁸ Furthermore, during a December 2022 visit to the Upper Gulf, an employee of the Center for Biological Diversity documented considerable evidence of illegal activities including illegal fishing, a lack of the required inspection of fishing pangas, and the illegal possession, manufacturing, and transport of gillnets.¹⁹

For the vaquita to survive, Mexico must maintain a net-free zone in the ZTA and vaquita refuge as a priority. However, the Agreement requires many more measures critical to the vaquita's conservation, including banning sale and possession of gill-

nets in the region. Only by fully and urgently implementing the Agreement and taking all other necessary actions will Mexico make meaningful progress towards conserving the vaquita and totoaba.

At its last meeting (Decision 44 COM 7A.56), the Committee agreed that if the September 2020 regulations were enforced, they “could have the potential to reduce totoaba poaching and vaquita bycatch” but acknowledged that Mexico “has not fully implemented the regulations and has failed to enforce them.” Mexico’s failure stems from its “lack of meaningful law enforcement to prevent it, layers of corruption, and failed efforts to identify legal livelihoods for the totoaba poachers.”²⁰ This has not changed to date.

Actions Needed

At its 45th Session, we urge the World Heritage Committee to ensure strict corrective measures are adopted for the Islands and Protected Areas of the Gulf of California World Heritage Site and to set a high bar for the Desired State of Conservation for Removal (“DSOCR”) of the site from the “in danger” list. In particular, corrective measures should direct Mexico to:

- Prevent fishers and unauthorized vessels from entering the Zero Tolerance Area and Vaquita Refuge, as already required by law, through relevant agencies including Semar, Semarnat, Conapesca, and Conanp.
- Eliminate illegal and derelict fishing gear in the Vaquita Refuge and the Zero Tolerance Area, in coordination with relevant stakeholders, fishing communities, and cooperatives.



Fig. 3: A vaquita killed in a gillnet.

Photo: Anonymous

- Strengthen law enforcement effectiveness through vastly increased surveillance and inspection, including strengthening interinstitutional cooperation in this field through relevant agencies.
- Secure the necessary legislative changes to increase the penalties foreseen for illegal traffic, capture, possession, import and export of wildlife species, parts and products, considered, threatened, endangered or specially protected and/or regulated under Mexican national law, or by international treaties adopted by the State Party of Mexico; and strengthen criminal prosecution procedures.

Fully implement and fund all aspects the Agreement and increase funding to relevant conservation agencies, including Semarnat and Conanp, which suffered a 61 and 75% budget cut, respectively, in recent years.

Ensure the large scale availability and use of alternative fishing gear systems which do not cause entanglement of vaquita and other protected species that are already developed by providing appropriate incentives and accompanying measures; continue to develop and test alternative fishing gear systems; facilitate the acquisition of alternative gear, training in its use, and issuing permits to authorize the use of alternative gear systems determined to be effective, and promote sustainable fisheries based on environmentally friendly fishing gear throughout the entire Property.

While the vaquita remains perilously close to extinction, the best available science shows that the species can recover if illegal gillnet use in vaquita habitat is stopped.²¹ Mexico has repeatedly failed – for well over two decades – to take the necessary action to stop illegal fishing that risks the vaquita’s survival, threatens the totoaba population, and harms local communities. Mexico is aware of what actions must be urgently taken to address this crisis based on repeated recommendations from the Committee and other international fora. The Agreement, if fully implemented and enforced, is a solid framework to save the species. However, if this situation continues, the vaquita may be the first OUV species to be extirpated and potentially before the next Committee meeting.

Endnotes

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- 12 Id.
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- 14 Decision 44 COM 7A.56
- 15 Draft Resolution on the Critically Endangered Vaquita
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- 17 Between 29 September 2022 and 10 February 2023 (135 days), SSCS has published panga observation reports for 44 days (32.5%). These reports only provide data for the ZTA and vaquita refuge. For those days for which reports are not available, the number of illegal vessels and illegal fishing vessels in the ZTA and vaquita refuge is unknown. SSCS has reported that, compared to a similar period in 2021, illegal fishing declined in October to early December 2022. See <https://seashepherd.org/2022/12/27/operation-milagro-reduces-illegal-fishing-activity-in-vaquita-habitat-by-72/>. However, the 2022-2023 shrimp season has been particularly poor, with lower catch than normal and minimal profitability. See, e.g., <https://rockypoint360.com/2022-23-shrimp-hauls-drop-below-average/>. Accordingly, a reduction in illegal vessels may have been caused by fewer fishermen desiring to fish this season.
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The Jurassic Coast is Not a National Treasure, it is an International Treasure

Anne Collier Morriss

UNESCO states, in its Statement of Outstanding Universal Value, “The Dorset and East Devon Coast has an outstanding combination of globally significant geological and geomorphological features. The property is renowned for its contribution to earth science investigations for over 300 years, helping to foster major contributions to many aspects of geology, palaeontology and geomorphology. This coast is considered to be one of the most significant teaching and research site (in the field of natural history) in the world.”

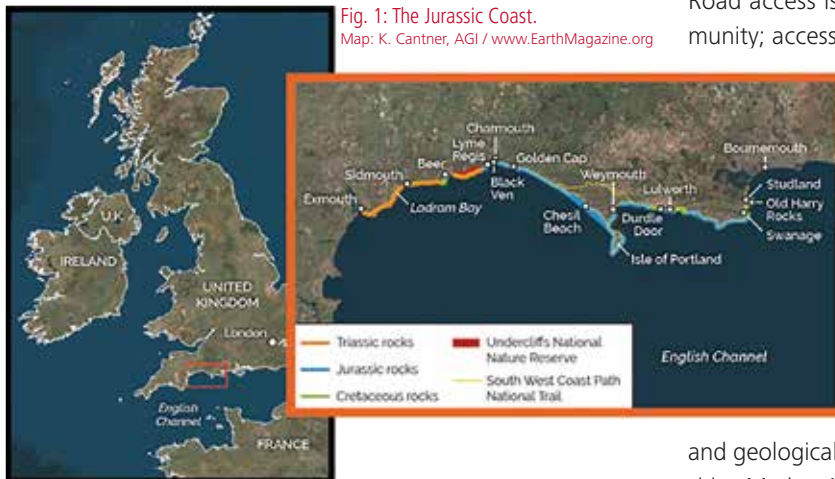


Fig. 1: The Jurassic Coast.
Map: K. Cantner, AGI / www.EarthMagazine.org

The Jurassic Coast is England’s only natural World Heritage Site; it was granted that status in 2001 by UNESCO because of its unique insight into Earth sciences as it clearly depicts a geological “walk through time” going from the Triassic, Jurassic and Cretaceous periods. It has Outstanding Universal Value because of its rocks, fossils and landforms. This World Heritage Site extends from Orcombe Point in Exmouth, Devon and continues for 95 miles, ending at Old Harry Rocks, near the town of Swanage in Dorset. Between these two points, the site’s boundaries are broadly defined as the average low tide mark to the top of the cliffs. This span takes in four distinct geographic regions – East Devon, West Dorset, Weymouth, and Portland and Purbeck – each containing their own iconic towns, villages and natural landscapes.

The proposed waste incinerator in Portland would be funded by Dutch and Japanese holding companies, meaning not just the local community but the national community would have little control over what would be done at the facility, and given the

British behind this plan do not live anywhere near Portland, that means that two sets of outsiders who have no stake in preserving the Jurassic Coast would be making incredibly dangerous decisions without input from real experts. Given the prevalence of incinerator fires in the UK, approximately 300 a year, emergency workers would be responsible for dealing with any emergencies, not the companies involved meaning the local community would have to pay for those services, not the company.

Road access is and has long been a serious issue in the community; access to Portland is either by sea or a single road. This is the only access route for what would be hundreds of large trucks going through areas dominated by private homes, schools and small businesses; those trucks would add volumes to the air pollution already an issue and represents a real danger to wildlife, adding to the climate change we are already experiencing. Much of that part of the journey is directly along Chesil Beach, a unique area made up of millions of stones, along with areas of great ecological importance for flora, fauna and geological features including Portland Harbour, itself a Sensitive Marine Area.



Fig. 2: Chesil Beach with the access road to Portland that trucks to and from the waste incinerator would have to take. Photo: www.top10todolist.com/chesil-beach--west-bay.html

The tidal activity along the coast is unusual for a variety of reasons, but beginning at the Fleet, where hundreds of protected swans live on sea grass, as do the migrant Brent Geese, would

pick up the toxins being spilled into the water right next to the plant and into the water and the environment in general caused by burning rubbish would not just endanger the flora and fauna in the immediate area, the heavy metals this kind of facility creates would be caught by the tides, going into the Fleet, but also, all the way to Studland Bay, where the Seahorse Trust works to assure those endangered fish are protected, but there is no way to protect them from heavy metals and other fallout from burning toxic materials.

Those tides would also end up in other areas along the Jurassic Coast, such as Poole Harbour, an Area of Outstanding Natural Beauty (AONB) and home to many important bird varieties and the protected red squirrel, an endangered native species. Those same toxins also pose a danger to Jurassic rock formations along the coast. Even Portland Harbour is an important home to species like Chameleon Prawn (*Hippolyte varians*) and Chameleon Shrimp (*Praunus flexosus*) to name just a few.



Fig. 3: A Chameleon Prawn.

Photo: Jim Galloway

In the “plan” for building an enormous, potentially very dangerous facility in such a delicate area, there is nothing about who would manage it, how emergencies would be handled and by whom, where the work force would be coming from, and there is no one named as the head of the plant, that person who makes vital decisions to protect public health and wellbeing. This would also be the only incinerator in the world built against a naturally occurring stone base, backed by a naturally occurring sheer stone “wall,” causing the stack to deposit toxic pollutants to “bounce” back into the sea. This means that emissions from the chimney stack, as well as the stack itself, will exit at 90 meters above sea level and will be visible for miles around the Jurassic Coast.

The facility itself is enormous, 201 m long, 54 m wide and 47 m high, and the average plume would measure 250 m high. It will vent not only directly onto rare and precious limestone grasslands but also housing on the slopes of the Verne, and at the Grove, as well as HM Prison The Verne. The close proximity of human residents, some as close as 500 metres, is also an unusual feature of the chosen site. The heavy metals exiting the chimney and other polluting substances would also do serious damage to the important and unique rock formations along the coastline. Also, Portland itself is a dead end, far removed from waste treatment centres, the nearest being Wimborne. There will be more pollution, more vehicles, and much more pressure on local residents.

From a social stand point, this location is wrong in all regards, to include the terrible impact this “plan” would have on the small community which is one of the poorest in the country, with high rates of suicide and poor educational attainment. British politicians have gone on and on about “levelling up” British society, but here is an example of wanting to put more burdens on an already burdened community.



Fig. 4: Proximity of the proposed incinerator to inhabited areas on the Isle of Portland.

Map: Stop Portland Waste Incinerator

Portland’s unique weather conditions, location and being completely surrounded by the sea mean eddying and turbulence caused by the steep cliffs of the Isle will result in conditions that are not discussed by the model predictions claimed by “the company,” nor is there anything about the unique cloud cover common over Portland. These covers can hold in pollutants for days.



Fig. 5: The Isle of Portland is often enshrouded in clouds which keep polluted air from being blown away.

Photo: Ardea

Because records are kept regarding the capture of smoke coming out of the stacks of cruise ships that visit this coast, this phenomenon is well documented. All of the pollutants that would be produced by an incinerator are extremely damaging to the environment, to include the coastal beds that house precious

fossils and other geological features. Portland is also prone to extreme flooding, which impacts the ability to get on and off the isle and carries with it debris that pollutes and impedes access to large parts of the WHS. This also means that emergency vehicles are unable to access the isle during flooding episodes.

The proposed plant would be an enormous eyesore, significantly damaging not only the iconic character of the Isle of Portland but also views from miles around, including the impressive views of the Isle as approached along the A354 causeway, distant views from Dorset's Area of Outstanding Natural Beauty and views from the sea. This would fundamentally harm the setting of the Jurassic Coast World Heritage Site and the landscape character of the whole region. The site lies directly next to areas of international, national and local ecological importance with others such as the Chesil Beach and the Fleet Special Protection Area nearby. The pollutants, especially acid gases, in the emissions from the chimney stack would threaten not only the protected coastal rock itself but also exceptionally rare and sensitive plants and insects, such as butterflies, some unique to Portland, which are vulnerable to nitrogen deposition and changes in air quality.

The site is too close to a densely populated area. The nearest homes are less than 500 metres away and would be on a level with emissions from the chimney. Also close-by are vulnerable populations, such as HM Prison The Verne, Foylebank Court Retirement Housing and Care, and a proposed special school. The polluting emissions, for example about 577 tonnes of CO₂ a day and ultra-fine particles, together with noise and light pollution, would threaten the amenity and health of residents, not least those with respiratory conditions such as asthma and COPD.

Source of waste fuel

No information has been given as to where the Refuse (=waste) Derived Fuel (RDF) which the plant would burn would come from. New government legislation includes major changes to waste management, and this will change the economics of incineration, making it unviable. The British government is cutting way back on burning and burying waste, with taxes on any plastic packaging that is not made from a minimum of 30% being taxed, and they are banning the use of some single-use plastics, requiring waste tracking, and there are other plans in the pipeline.

With all this in mind, the site certainly makes no logistical sense in the management of Dorset Council's black bin waste. It is not one of the sites identified for development in the current Waste Plan; it is far removed from Canford where the RDF from our waste is created and therefore does not comply with the 'proximity principle' whereby waste should be handled close to source. Whatever the source of the RDF, most of it would come from far afield, including perhaps from abroad. The com-

pany states they would accept no restriction on the geographical source of the RDF. At a time when "the World" knows that we are living on borrowed time, the British government along with the United Nations have agreed that saving the world's seas is priority in the fight against climate change. Scotland and Wales have made incinerators illegal and England needs to follow suit.

The Dorset Council Decision

As of this day, planning permission to build a waste incinerator on Portland, the Jurassic Coast, has been denied by the Strategic and Technical Planning Committee of Portland. In fact, not a single councillor voted in its favour – the decision was unanimous.



Fig. 6: The denial of the planning permission was made possible only through years of public education and campaigning by the local community.

Photo: Finnbar Webster / The Dorset Echo

In its Planning Decision Note, the Dorset Council refers to the World Heritage listing:

"2. The proposed development, as a result of its scale, massing and height, in the proposed location, would have a significant adverse effect on the quality of the landscape and views of the iconic landform shape of the Isle of Portland within the setting of the Dorset and East Devon Coast World Heritage Site, particularly when viewed from the South West Coast Path and across Portland Harbour..." (Dorset Council Planning Services WP/20/00692/DCC, 24 March 2023)

However, it is more than likely that the investors promoting the incinerator are working on an appeal, meaning the Coast's status as part of the UNESCO World Heritage family remains in danger and those fighting this have to keep working against these business entities. The Portland Port Authority is also now pushing to have an old three-story Dutch barge placed on the same site as the proposed incinerator, with 300 to 500 male economic refugees living on board the vessel. The Dorset police have warned that they would not be able to deal with illegal behaviours or be able to police the refugees and their impact on the local community and natural environment could be very negative, to include making potential visitors to this part of the Jurassic Coast unwilling to visit Portland, which is a lost opportunity to learn about the importance of this place that has so much to teach us about our ancient past.

Victoria Falls – World Heritage on the Edge

Anonymous Author

Last year a report submitted on the increasing tourism development pressures threatening the Victoria Falls/Mosi-oa-Tunya World Heritage Site, highlighting the launch of tours to the previously pristine wildlife refuge of Cataract Island and the devel-



Fig. 1: Riverside Restaurant construction

Photo: Keep Victoria Falls Wild



Fig. 2: Riverside Restaurant construction, October 2022. Photo: Keep Victoria Falls Wild

opment of a riverside restaurant immediately above the Falls (currently under construction, see Fig. 1 and Fig. 2). Following the visit of the World Heritage Committee’s Reactive Monitoring Mission in February 2022, a wave of further development threats in the river corridor upstream of the Falls and within the southern (Zimbabwean) side of the World Heritage Site (WHS) have become known (see Fig. 3).

The developments include the allocation of the Zambezi National Park (ZNP) Kandahar Camp as a private concession; the proposed Victoria Falls Resort development, located between A’Zambezi Hotel and Palm River Lodge on council-controlled land with river-frontage within the Victoria Falls National Park (VFNP); and the proposed riverside „Tree Lodge“ development, a significant new 57-room lodge development stretched along approximately 2 km of the river-side fringe.

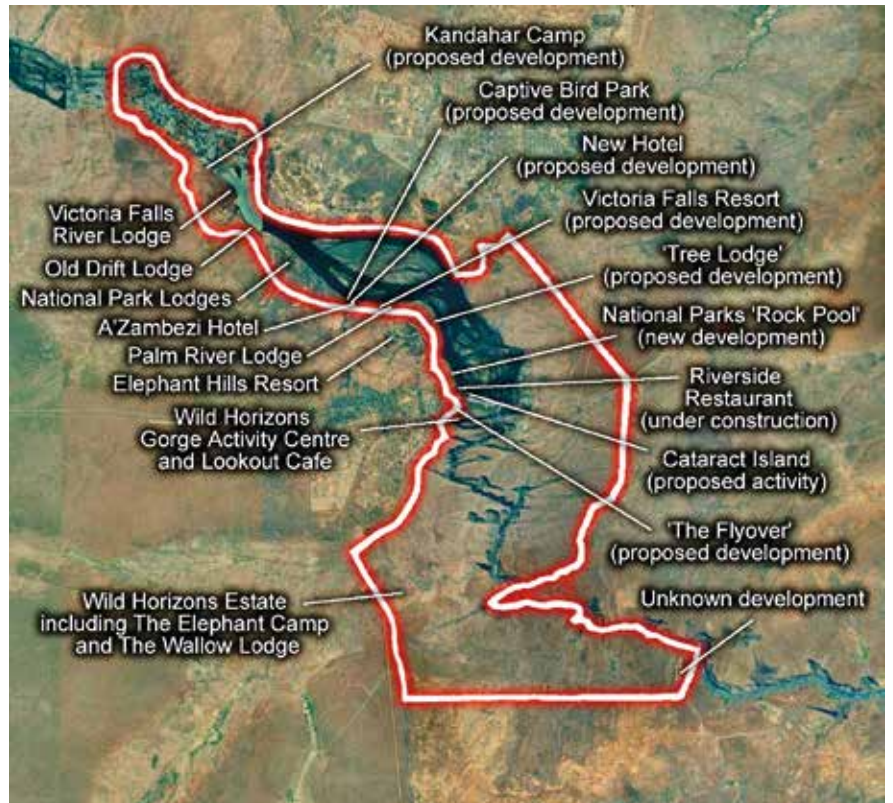


Fig. 3: Sketch outline of World Heritage Site boundary showing the location of existing and proposed developments in the south bank upper river corridor of the World Heritage Site. Map: Author, based on satellite image by Google Maps

Finally, in December 2022, National Parks launched the Zambezi Drive 'Rock Pool,' offering picnic and braai (barbecue) facilities with evening bar and entertainment sound system, operated from a new brick and thatch building that appeared along the riverside above the Falls in early 2022. A vague reference to formalizing the use of sites along Zambezi Drive was disclosed in the 2018 and 2020 State of Conservation Reports, with no further details.

Concerns over Concessions

In May 2022 National Parks hosted a stakeholder planning meeting as part of an IFAW-funded process to develop a new Management Plan for the Zambezi and Victoria Falls National Parks. Participants raised concerns over the public disclosure, bidding process, and allocation of commercial leases and concessions by National Parks and the poor standard of independent ESIA surveys and reports, where conducted. Park representatives declined the opportunity to present further information on the wave of new tourism development proposals, indicating that *"lease allocations will be discussed at a different forum"* (ZPWMA, May 2022).

News of these developments, together with the release of the highly critical draft UNESCO Reactive Monitoring Mission Report, led to widespread negative national, regional, and international media coverage, raising increasing concerns over tourism development pressures and the future of the site. A group of local residents raised a legal challenge against the proposals, which has still yet to be heard, and an online petition was launched (over 19,750 signatories as at the end of February 2023) together with a Facebook page and website campaigning against the developments under the 'Keep Victoria Falls Wild' banner (www.keepvictoriafallswild.com).

Conservation Concerns

The riverine forest fringe is a protected feature of the WHS and is noted for its importance to wildlife and wider scenic value. The vulnerability of this habitat is also recognized in the 2016-2021 Joint Integrated Management Plan (JIMP) presented by the State Parties Zambia and Zimbabwe for the management of the World Heritage Site and agreed by UNESCO:

"The Zambezi River, in common with all rivers in tropical Africa, has a distinct fringing vegetation of gallery or riparian woodland. The Riverine Forest is found along the banks of the Zambezi, Songwe and Maramba Rivers and on some islands. On the riverbanks it is with a width rarely more than 20-100m wide from the high-water mark (Fanshawe, 1975, Meynell et al., 1996). At its best development, riparian forest is a three storeyed forest with a closed evergreen canopy attaining 21m in height... This habitat houses the highest concentration of animals and is the most sought and threatened by human developments." (State Parties, 2016, p.18-9)

The draft ZNP/VFNP Management Plan, circulated in November 2022, identifies the forested riverine fringe as being particularly at risk from tourism developments, the river, islands, and gorges, together with the springs and drainage lines which flow into the river, being under very high risk from development (ZPWMA, November 2022, p.19). Yet despite the fragility and vulnerability of this habitat being widely recognized in management documents, tourism developments continue to impact and threaten the river corridor, especially in the upstream section of the site, the draft report of the Reactive Monitoring Mission concluding:

"For the area upstream from the Falls, the mission observed that the rationale for the 1989 recommendation to focus on the riverine strip of the National Parks remains justified, with most pressure actually felt by the NP areas near the river that are most relevant to the integrity of the site. While MoTNP and ZNP have been identified as buffer zones, the tourism developments have shown that the status of National Park has not provided the envisaged protection" (UNESCO, 2022).

Zoning Issues

The text of the 2007-12 JIMP clearly identifies the riparian vegetation above the Victoria Falls as within the 'Highly Ecologically Sensitive Zone' (State Parties, 2007, p.39). The supporting map (State Parties 2007, p.38) is unclear in showing the zonation of the property in the upstream river corridor.

The 2016-21 JIMP detailed revised zones for the property: *"Modifications to these zones have been made in line with the 1989 World Heritage Bureau recommendations as well as the prevailing inconsistent historic land use. Future modifications can only be made if only they contribute to the enhancement of the OUV."* (State Parties, 2016, p.26)

The text description again indicates that the riverine vegetation is included in the 'Highly Ecologically Sensitive Zone' (HESZ) Block 6 and is described as *"...following the Victoria Falls Rainforest, thence up the Zambezi River covering the riverine vegetation strip to where it joins the Zambezi National Park boundary"* (State Parties, 2016, p.29).

The 2016-21 JIMP identifies the boundary with 'Medium Ecologically Sensitive Zone' (MESZ) Block 7 as extending along Zambezi Drive Road.

"The zone covers the Victoria Falls border and the Rainforest car park area and continues from the Victoria Falls Rainforest VIP entrance gate, thence along the Zambezi Drive Road to beacon R11, thence westwards following the boundary beacons to where it joints Zambezi National Park boundary" (State Parties, 2016, p.29).

This clearly indicates that the 'HESZ' includes the entire area of the land between Zambezi Drive Road and the river – the area

commonly known as the riverine fringe or strip – extending along this whole section of the river immediately above the Falls. This interpretation is also consistent with the historical management of this area which has been part of a strict ‘no new infrastructure’ policy since its management was taken over by National Parks in the early 1950s. It follows that the land from the road away from the river is considered to be within the ‘MESZ,’ an area which is described in the 2016–21 JIMP as including the road and rail transport corridor which dissects the site below the Falls.

The supporting map presented in the 2016–21 JIMP (State Parties, 2016, p.27) confuses the issue by not clearly showing the line of the river above the Falls and appears to incorrectly show the riverside fringe within the ‘MESZ’ (yellow area). The confusion, or error, is more clearly apparent in the map presented in the 2012 Retrospective Inventory, which while clearly indicating the line of the river and area of the upstream riverine fringe covered within the VFNP and WHS, mistakenly identifies the area as being in the ‘MESZ,’ an error which is repeated in the most recent map of the property, presented in the 2021 State of Conservation Report (State Parties, 2021, Appendix 2a, p.2; see Fig. 4).

We believe that these maps are clearly incorrect in not showing the area of riparian fringe within the VFNP and WHS as being within the ‘HESZ,’ as indicated by the text of the JIMP documents (and illustrated in Fig. 5). For this section of the riverine fringe to be in anything other than the ‘HESZ’ would be a significant shortcoming in the administration and management of the site. For it to be within the ‘MESZ’ - the same zone as the rail and road transport corridor and visitor car parking area – would be a serious neglect of Parks core conservation aims and mandate.

It should also be noted no management zonation is detailed for the upstream area of the ZNP which is included in the WHS in either of the JIMP documents - a significant omission that subsequently allowed the development of two lodges along this section of river, the Victoria Falls River Lodge (opened in 2012) and the Old Drift Lodge (opened in 2018). Although the river itself upstream to Kandahar Island is identified as being within the ‘HESZ’ (State Parties 2007, p.39) this still did not prevent the development of lodge units on the island (opened in 2017, part of the Victoria Falls River Lodge development). The revised zonation

Proposed Tourism Infrastructure within and around Mosi-Oa-Tunya/Victoria Falls World Heritage Site

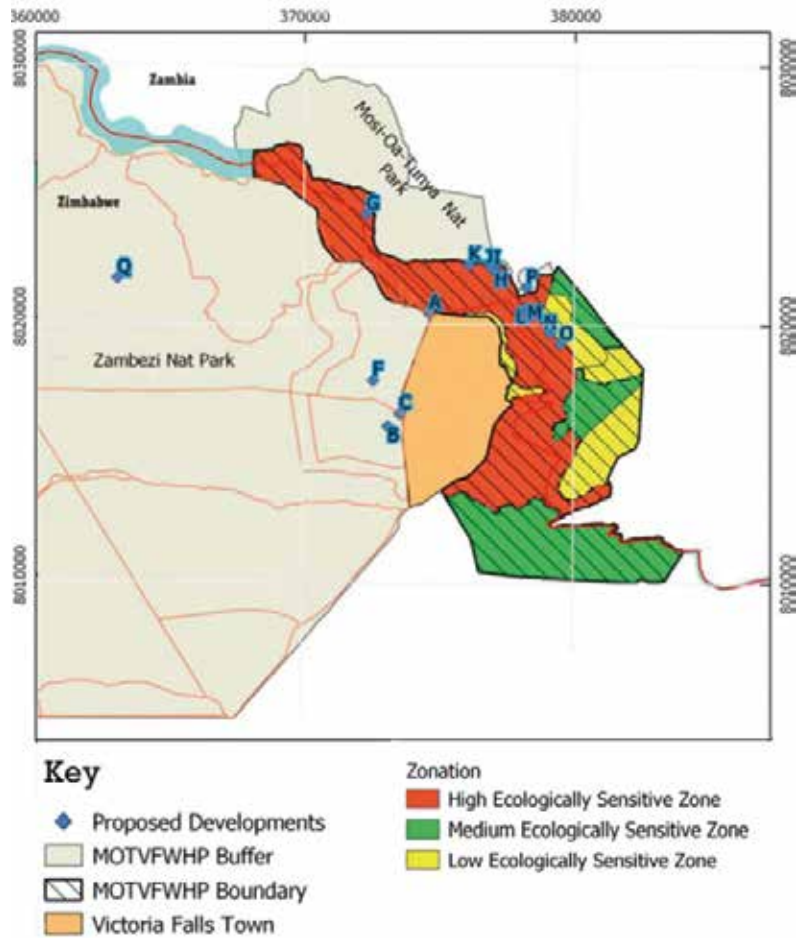


Fig. 4: Map showing management zones and proposed tourism developments within the WHS. Map: Adapted from State Parties, 2021, Appendix 2a

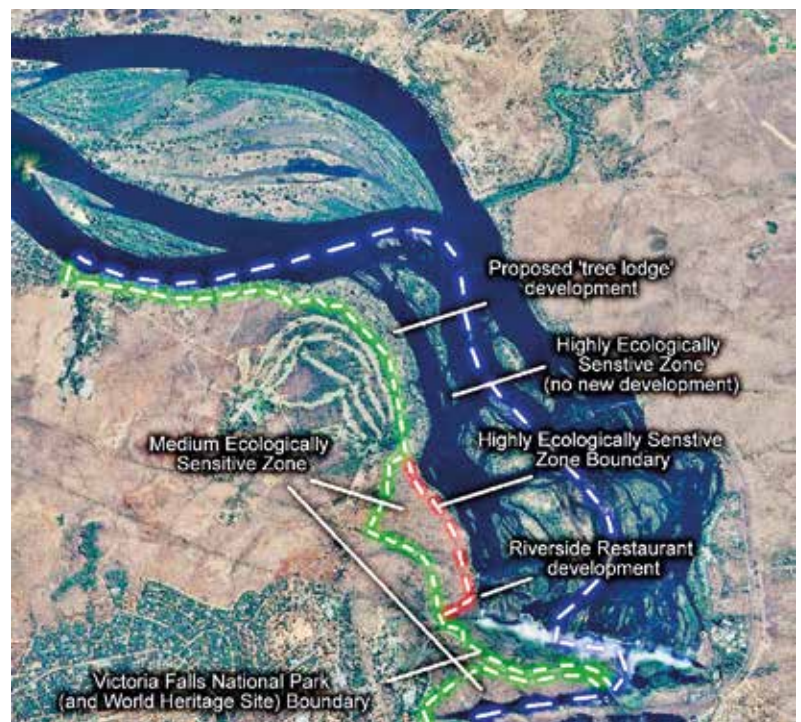


Fig. 5: Map showing approximate lines of VFNP and WHS (green line), international boundary (blue line), and management zones (red line). Map: Author, based on satellite image by Google Map

map subsequently presented in the 2021 State of Conservation Report shows the whole WHS section of the ZNP within the 'HESZ' (State Parties, 2021).

The 2016-21 JIMP also presented revised guidelines for permitted activities and developments allowed within the management zones. The original 2007-12 JIMP prohibited all new infrastructure developments (with the exception of existing facilities) both the High and Medium management zones (State Parties, 2007, p.39-41). The 2016-21 JIMP, while still prohibiting all new infrastructure development within the 'HESZ,' permits the development of "semi-permanent facilities" within the 'MESZ' (State Parties, 2016, p.32).

Urgent Implications

The errors and discrepancies shown in the management zonation maps are of particular concern in relation to three developments along this stretch of the river – the riverside restaurant (with on-site construction well under-way), the new National Park structure (constructed in early 2022) and the proposed 'tree lodge' development (again with preparatory work already underway on the ground).

All these developments are clearly in the 'HESZ' which prohibits all new developments. There must therefore be an immediate halt to construction of these developments, all impacts on the sites mitigated and their lease concessions with National

Parks rescinded. There are also concerns over the allocation of Kandahar Camp for development as a lodge concession after the 2021 State of Conservation zonation map shows this site within the 'HESZ'- where no new infrastructure or facilities are allowed.

Considering the widespread development proposals which threaten the integrity of the WHS and surrounding Buffer Zone (see the Keep Victoria Falls Wild website for more information) the World Heritage Committee would be wise to request a total moratorium on all developments in and surrounding the WHS until suitable management plans and maps are in place and agreed by all parties and all issues relating to the National Park and WHS boundaries and management zones are confirmed and clarified.

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- Zimbabwe Parks and Wildlife Management Authority (November 2022) Victoria Falls-Zambezi National Park Draft Management Plan

UNESCO and the European Union Must Come to the Rescue of Doñana



Juanjo Carmona and Teresa Gil, WWF Spain

With the objective of assessing the conservation status of the Doñana Protected Area, in the southeast of Spain (Andalucía region), in January 2011 a joint Reactive Monitoring Mission was carried out by IUCN, the World Heritage Centre (WHC) and the Ramsar Council Secretariat, which concluded with a report detailing the challenges and problems faced, as well as possible solutions.

Since then UNESCO has approved 8 decisions on Doñana. In the last one in 2021 it advises the State Party to implement all recommendations of the 2020 joint mission report, in particular ten of them. Doñana is facing a key moment in its history. The marshes have not had acceptable flooding in the last five years, and this past summer the permanent lagoons in the heart of the National Park have completely dried up for the third time in recorded history.

The Doñana Natural Area closed the year 2022 with records on maximum temperature, minimum rainfall and a shortage of wintering waterfowl, according to the results of the Natural Processes Monitoring Program presented by the Doñana Biological Station (EBD-CSIC).

Meanwhile, the regional government of Andalusia does not implement the “Strawberry Plan”, (spatial planning tool for irrigated areas located in the northwest outside Doñana World Heritage site) that is essential for the recovery of the aquifer, and intends to consolidate illegal irrigation in the area of Doñana.

The EBD warns of the bad situation of Doñana

The data from the Natural Processes Monitoring Program in the Doñana Natural Area during the year 2022 carried out by the Doñana Biological Station leave no room for doubt: The Natural World Heritage site Doñana is, possibly, at the worst moment in its history since the monitoring of its conservation status has been carried out.

According to the Director of the EBD-CSIC, Eloy Revilla: “The intense and prolonged drought caused by climate change, and the pressure that human activity exerts on the surroundings of

the Doñana protected area, leave their footprint on several indicators of the state of conservation of Doñana’s biodiversity. The Report of the 2021–2022 hydrological year shows what has been one of the worst hydrological years since WWF began its work in Doñana in the 70s decade of the last century.”

The hydrometeorological cycle 09/2021–09/2022 was characterized as dry and warm, following the trend observed during the last decade. Data from the “Palacio de Doñana” meteorological station place us before the fourth driest year in the National Park since 1978 and the one with the lowest annual rainfall in the last ten. Regarding temperatures, it has been the cycle with the highest maximum temperature (46.30°C) and the highest average annual temperature (18.53°C) recorded.



Fig. 1: Santa Olalla lagoon in August 2022.

Photo: WWF Spain

Therefore, the time that the marsh remained flooded was short, which contributed to the fact that the wintering of aquatic birds has been very scarce. The census in January 2002 – when the International Census of Aquatic Birds was carried out – yielded a worryingly low number of registered birds, 80,880 when in previous years it was 470,000. This is the second worst figure in the entire historical series of January censuses. Since 1975 such a bad figure has not been given. The drought also affected the breeding season of waterfowl in Doñana and the amphibian populations whose February census reflected a number of specimen almost 20 times lower than in 2021.

The *Santa Olalla lagoon*, the last refuge during the summer, the largest permanent lagoon in Doñana and the only one that usually has water at the end of the summer, ended up drying up in the last days of August 2022. This had only happened twice before since there are records at the Doñana Biological Station. According to the EBD, this situation is not only due to the drought that affects all of us, but also to the overexploitation of the Doñana aquifer.

New attempt to amnesty the illegal irrigation of red berries

The ruling party in Andalusia (South Spain) is pushing through a new law that endangers the internationally protected Doñana wetland and would breach EU rules.¹ The legislation would decriminalise thousands of hectares of strawberry farms that illegally extract water, thus drying out this precious and unique ecosystem.

The law, tabled using an emergency procedure in the Andalusian Parliament ahead of local elections in May, would drastically expand the area of legal cultivation. It would also pardon farmers whose looting of groundwater to irrigate their illegal fields during several years has been driving the destruction of Doñana.

In a strong letter sent to the Ambassador Permanent Representative of Spain to the European Union, the Director General of DG Environment affirmed that the Commission was monitoring the situation and would consider taking all necessary measures, including bringing further action before the Court of Justice requesting the imposition of financial penalties, if the law is adopted in its current terms. The Commission asked the Ambassador to make sure that the law proposal will not have a detrimental impact on the integrity of the protected areas, and to accelerate the actions to control and close all the illegal abstractions that are currently affecting Doñana.

In 2021, the European Court of Justice already condemned Spain for breaching EU rules due to excessive water extraction in Doñana. But the new law is a flagrant violation of the EU rules and could lead to further disastrous drying out of this vital wetland, threatening a wealth of wildlife from hundreds of thousands of migratory birds to protected habitats at European level. A healthy Doñana is also critical to the region's water security, its multi-billion Euro legal strawberry and red berries industry, and its capacity to adapt to climate change.

The new proposal lacks the consensus of a large part of the stakeholders in the territory, being rejected by the national government, water authority or the Doñana Biological Station, in addition to many legal farmers, in particular from Almonte municipality, European supermarkets or hundreds of scientists.

From WWF, we consider it reckless for the regional Parliament to continue with the process of modifying the law proposal to legalize illegal farmers from Doñana, since it could lead to strong economic sanctions, which will be paid by all Spanish citizens, and that might call the Next Generation funds for Andalusia into question.

WWF urges the Andalusian regional government to withdraw this proposal and to comply with its powers and legal obligations and implement once and for all the Strawberry Plan in its current wording. With this, it would be possible to benefit the overexploited aquifer, the threatened universal values of Doñana and the legal agriculture of this territory, providing solutions to many of the environmental and social problems that are currently taking place in relation to irrigation in the County.

The Spanish Government presents an Action Plan to recover Doñana

For the Spanish Ministry of the Environment (MITECO), "Doñana is subjected to unsustainable pressure due to the human activity that takes place on its periphery area". The growth of industrial and intensive agriculture, based on water extraction from the aquifer, and the population increase in the region, especially in the high tourist season, have caused a serious impact on groundwater.

Surface waters have also been seriously modified. The marsh, the main pillar on which the ecosystem is sustained, has lost most of its natural water contribution before the creation of the National Park with the diversion of the Guadiamar River. All this has been aggravated by the effects of climate change in recent decades.

This situation is not new. WWF has been denouncing it for decades (see, for example, the Hollis report from 1989). Since 2010 WWF have been demanding a holistic restoration plan that will recover the natural hydrological functionality and will

¹ <https://www.wwf.es/informate/actualidad/763340/Denunciamos-el-nuevo-intento-del-Gobierno-de-Moreno-Bonilla-para-legalizar-y-recompensar-a-las-explotaciones-de-fresas-que-expollian-el-acuifero-de-Donana>



Fig. 2: A public action by WWF demanding to “Stop the Robbery of Water”.

Photo: WWF Spain

allow saving the main ecosystem of this protected area, the marsh. As well, WWF is challenging administrations to end up the illegal wells and farms as a priority measure to recover the overexploited aquifer.

For this reason, we consider that the MITECO Action Plan is important for the conservation of Doñana if it achieves the objectives and implement most of the actions included following quality standards – WWF considers that some of its measures, such as the transfer from Tinto-Odiel to Doñana, has less impactful and cheaper alternatives.

The recovery of water contributions from the Guadiamar basin, as announced by MITECO, will contribute to improving the situation of the marsh ecosystems and the fauna and flora associated with them.

The acquisition of land in the surroundings of the Doñana marsh, for its restoration will make it possible to recover a cer-

tain balance in an area where the unstoppable growth of intensive irrigated agriculture and the emerging new projects for the installation of solar farms put the future of Doñana in jeopardy.

For WWF, the regional government of Andalucía must also assume its responsibility and complement the Action Plan of the Government of Spain with concrete actions to rescue Doñana from its current situation as it has the regional spatial planning and agriculture competences as well as is responsible of the Doñana protected area management.

WWF understands as a priority the closure of all illegal irrigated farms in the area of Doñana by the Junta de Andalucía, as well as the creation of a Coordination Office for the implementation of the “Strawberry Plan” in its current wording, which accumulates significant delays in its execution due to lack of personnel and technical and budgetary resources.

Threats to the Western Caucasus World Heritage Property Keep Evolving

Anonymous authors

The Western Caucasus World Heritage property consists of several specially protected natural areas including the Caucasus State Nature Biosphere Reserve, the River Tsitsa Headwaters Nature Park, and the Mountain Adygeya Nature Park. In this text, we provide an overview of the most actual dangers to the property.

Plans to exclude the site from the Caucasus Reserve

In the summer of 2022, it became known from the media¹ that upon instructions of the Ministry of Natural Resources of Russia, materials are being prepared to justify the exclusion from the Caucasus Reserve of a site in its southeastern part (presumably the Turyi Gory mountains and the Agepsta range) in order to include it in the Sochi Wildlife Refuge.



Fig.1 : The area of the Caucasus Reserve proposed for exclusion. Map: Authors

Kommersant newspaper that they are studying the possibility and expediency of transferring part of the lands of the Caucasus Reserve to the Sochi Wildlife Refuge. The Scientific Research Institute of Environmental Protection (VNII ECOLOGIYA), on the instructions of the Ministry of Natural Resources of Russia, organized a field investigation to the Caucasus Reserve to justify the exclusion of the site.

It is important that the area that may be excluded from the Caucasus Reserve is a key habitat for West Caucasian tours, chamois, bears, and Caucasian grouse. According to scientists

of the Caucasus Reserve, the area is the habitat of 20% of the protected population of western tours,³ 12% of the population of Northern Chamois,⁴ about 5% of the population of Caucasian Red Deer,⁵ and at least 15% of the bear population.

After several appeals by Greenpeace and a State Duma Deputy to the General Prosecutor's Office, it declared that a field investigation organized to justify the site transfer is illegal, and warned the Scientific Research Institute of Environmental Protection about the inadmissibility of these works. After that, nothing has become known about this matter anymore.

2. The road in the Sochi National Park

As we have already written in the previous World Heritage Watch Report, a road was being built on the territory of the Sochi National Park, 1.5 km from the border of the World Heritage property. This is exactly the territory adjacent to the site that is planned to be transferred from the Caucasus Reserve to the Sochi Wildlife Refuge.



Fig.2: The road in the Sochi National Park (July 2022).

Photo: Authors

By now, the road has been completed. In the documents, it was called "A temporary forest road with landscaping facilities and supporting infrastructure". In fact, it is a linear object of capital construction. The project documentation for the specified road did not pass the State Environmental Expertise and was not sent to the World Heritage Center and the IUCN to assess its potential impact on the Outstanding Universal Value of the property.

This part of the Sochi National Park is leased for tourism development. Thus, the construction of infrastructure for the development of a ski resort in the area adjacent to the property continues.

3. Roads on the territory of the Mountain Adygeya Nature Park

Roads and other linear objects are being built also on the territory of the Mountain Adygeya Nature Park. A section of the road to the Lunnaya Polyana resort has already been built. In this section, the road already looks like a roadway for vehicles. According to satellite imagery, the road has actually been brought to the borders of the Lunnaya Polyana resort. The World Heritage Committee has repeatedly made decisions on the inadmissibility of the construction of this road (32 COM 7B.25, 43 COM 7B.18, 44 COM 7B.110).



Fig. 3: The road to the Lunnaya Polyana resort (July 2022). Photo: Authors

In addition, a water conduit has been built on the territory of the nature park, and a road has also been laid along it. The road is not fortified, so in places along it, there are areas of ero-

sion, including the death of trees as a result of soil shedding. There is a real threat of a landslide in the Pshekha River.

Logging equipment and timber warehouses were also found on the territory of the Nature Park, which gives reason to believe that logging is being carried out on the territory of the park.



Fig. 4: New road in the Mountain Adygeya Nature Park (along the water conduit, July 2022). Photo: Authors

4. Plans for the construction of a reservoir in the River Tsitsa Headwaters Nature Park

According to the public cadastral map, plots for the construction of a reservoir on the Tsitsa River have been allocated near the border of the River Tsitsa Headwaters Nature Park (the former River Tsitsa Headwaters Nature Monument)⁶. Also, an area for water tanks has been allocated on the territory of the park itself⁷.

There is reason to believe that the placement of these objects will require deforestation and other negative impacts on the territory of the Nature Park.

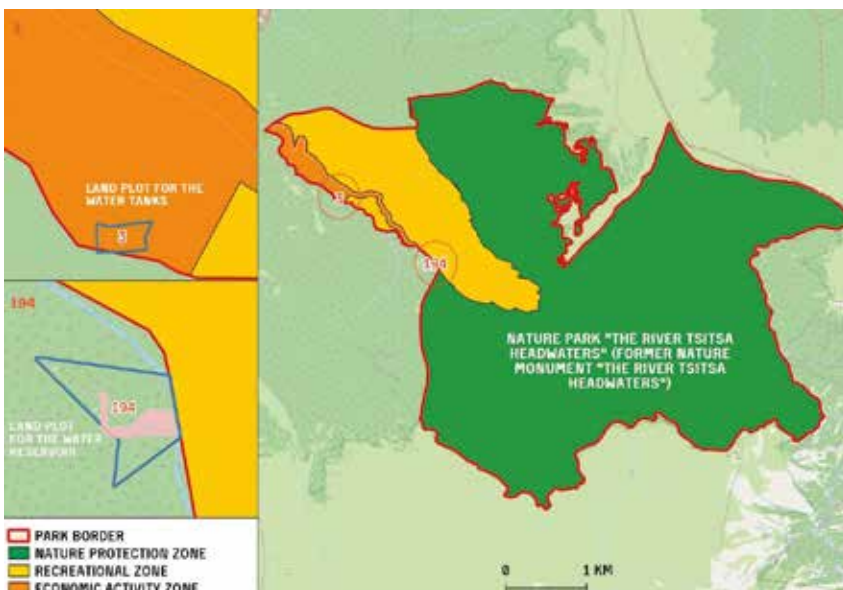


Fig. 5: Sites proposed for reservoir and water tanks. Map: Authors

5. Plans for the construction of a railway and highway between the proposed Lagonaki resort, the Arkhyz resort in the Karachaevo-Cherkessia Republic and resorts around Krasnaya Polyana

In September 2022, Vice Prime-Minister Dmitriy Chernyshenko ordered the Ministry of Natural Resources and Ecology, the Ministry of Transport, the Ministry of Building, the Ministry of Economic Development and some others to prepare until December 2022 the road map for the construction of the highway between the proposed Lagonaki resort and resorts around Krasnaya Polyana, and a railway between the Arkhyz resort and resorts around Krasnaya Polyana⁸.



Fig.6: Proposed railway and highway routes.

PMap: Authors

the new Grusheviy resort is planned to be located in the Sochi National Park, the Aishkho resort in the Sochi Wildlife Refuge, and the Tabunnaya resort in the Caucasus Reserve⁹.

Mount Tabunnaya is one of the most valuable parts of the Caucasus Reserve. Persian leopards were released in this area under the program of their reintroduction in the Russian Caucasus.

The Grusheviy Ridge is also a very valuable territory, practically unaffected by economic activity. In preparation for the Winter Olympics in Sochi, it was planned to place a luge and bobsleigh track, a mountain Olympic village, and a biathlon complex on this territory. After a mass protest campaign, and the demands of UNESCO, UNEP, and the International Olympic Committee, it was decided to transfer all objects away from the Grusheviy Ridge. Now that threat emerged again.

According to published data, the proposed routes of the highway and railway will pass through the territory that is part of the Caucasus Reserve, the Sochi and Teberdinsky National Parks, and the Sochi Wildlife Refuge of federal significance.

The construction of railways and roads on the territory of the Caucasus Reserve and national parks is contrary to Russian law. It will lead to the fragmentation of these territories, which will undoubtedly have a negative impact on the biodiversity of the region and, first of all, on the state of populations of large mammals that have large individual plots and make seasonal migrations. We don't know if this road map has been prepared.

5. Plans of Gazprom for the construction of new mountain resorts in the Caucasus Reserve (Tabunnaya mountain) and a strictly protected zone of the Sochi National Park (Grusheviy ridge)
Gazprom continues to expand the network of its resorts at the expense of specially protected natural areas. According to published materials,

Greenpeace has appealed to the General Prosecutor's Office with a request to prevent the implementation of these plans, but there are no answers yet.

6. Active preparations are underway for the construction of a large-scale ski resort on the Lago-Naki plateau, which may begin in the very near future

The decision of the World Heritage Committee,¹⁰ the demand by 213 scientists¹¹ and over 52,000 citizens¹² to stop the plans for the construction of the resort were ignored. In August 2021,



Fig. 7. Photo: Authors

a new Regulation on the Caucasian Reserve¹³ was adopted, allowing large-scale construction.

In August 2022, preparatory work for the construction began: route markers were installed (Fig. 7), temporary housing for builders and construction equipment were brought to the adjacent territory, geodetic and hydrological studies were carried out. After an appeal of environmental organizations, the responsible department (Rosprirrodnadzor) recognized the illegal nature of the work,¹⁴ and the markers, equipment and temporary housing were removed.

A plot was allocated¹⁵ on the plateau for the construction of sports, hydrotechnical and other capital structures. This site was leased to a subsidiary of NAO Krasnaya Polyana. A change in the General Plan of the adjacent territory is being prepared in order to legalize the construction of a hotel city in the immediate vicinity of the World Heritage Site.

Approximately \$ 26 million have been allocated for the development and construction of a water pipeline and wastewater disposal for the resort.¹⁶ Construction is planned with water intake from the Zhelobnaya River, which flows in close proximity to the boundaries of the facility.



Fig. 8

Photo: Authors

7. Large-scale road construction continues on the abolished Heritage buffer zone in the Republic of Adygea under the Stone Sea ridge¹ (Fig. 8)

The “Western Caucasus” is one of the most threatened Russian properties. A large number of stakeholders of different levels have plans for this territory. Some of these plans are already being implemented despite the position of environmental organizations and World Heritage Committee’s decisions. Only close attention to this property and a firm position can stop the implementation of destructive plans.

Endnotes

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- 2 <https://docs.cntd.ru/document/727700604?marker=6520IM>
- 3 <https://www.iucnredlist.org/species/3794/22143809>
- 4 <https://www.iucnredlist.org/species/39255/195863093>
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- 8 <http://government.ru/news/46905/>
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- 10 <http://whc.unesco.org/archive/2021/whc-21-44com-18-en.pdf>
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- 15 <https://pkk.rosreestr.ru/#/search/65.64951699996111,122.7301439999278/4/@1bivq7ddg?-text=1%3A4%3A5901003%3A168&type=1&nameTab&indexTab&opened=1%3A4%3A5901003%3A168>
- 16 <https://zakupki.gov.ru/epz/order/notice/ok20/view/common-info.html?regNumber=0176200005522002028>

1 <http://www.adygheya.ru/press-room/novosti-regiona/adygee-vydeleny-dopolnitelnye-sredstva-na-stroitelstvo-avtodorogi-guzeripl-plato-lagonaki/>

Lake Baikal as a Casualty of War

Eugene Simonov, Rivers without Boundaries International Coalition



Fig. 1: Lake Baikal.

Photo: Eugene Simonov

Russia's invasion of Ukraine and the subsequent changes in its political and economic cooperation with the world inevitably have an impact on the Russian government's commitment to protect its internationally recognized biodiversity hotspots and the intensity of cooperation with relevant international organizations.

Lake Baikal possesses unrivaled freshwater biodiversity and endemism: 56% of the 2,595 species of its animals are endemic. Recently, scientists have documented an alarming number of problems, mostly in the lake's near-shore zone. Serious ecological issues include harmful algal blooms due to nutrient pollu-



Fig. 2: "Lake Baikal – World Heritage Property" says the poster at Baikal Harbor Special Economic Zone.

Photo: Eugene Simonov

tion, mass mortality of endemic sponges, pollution from PCB compounds and microplastics, and unnaturally fluctuating lake levels.¹

A special law "On the Protection of Lake Baikal", adopted in 1999 following World Heritage inscription, prescribes that any proposed development project in the Lake Baikal watershed is subject to a thorough Environmental Impact Assessment (EIA) and imposes many Baikal-specific limitations on land-use types and pollution. The gradual weakening of this law and associated regulations has been a long-term aspiration of many business interests, national and regional agencies.² The war creates an additional opportunity for that.

"Infrastructure" projects exempt from EIA procedures

The urge to weaken environmental regulations to facilitate exports of more natural resources to Asia predates the war but became a more urgent priority for the government as sanctions were brought to bear. In July 2020 Russia adopted a new federal law abolishing EIA requirements within Baikal Natural Territory's boundaries for "primary infrastructure" projects.

On 25 March 2022, the Russian government submitted for parliamentary approval anti-sanction measures³ including amendments to the law "On primary infrastructure." Those would widen the application of the law to include "modernization and expansion of (any) priority infrastructure projects" (e.g. pipelines for oil, gas, "other infrastructure", etc.).

Russian civil society rose in protest⁴ and successfully prevented a further relaxation of environmental standards within the World Heritage property's boundaries, but the new law⁵ paved the way for the development of the Power of Siberia-II gas pipeline within Tunkinsky National Park. That pipeline will link gas fields that previously connected Europe with China's large market by way of Mongolia. This project still contradicts the "Law on Protected Areas".

The "List of activities prohibited in the Central Ecological Zone of BNT" was also amended in 2023 to allow the development of Goryachinsk airfield at the lake-shore to facilitate tourism.⁶

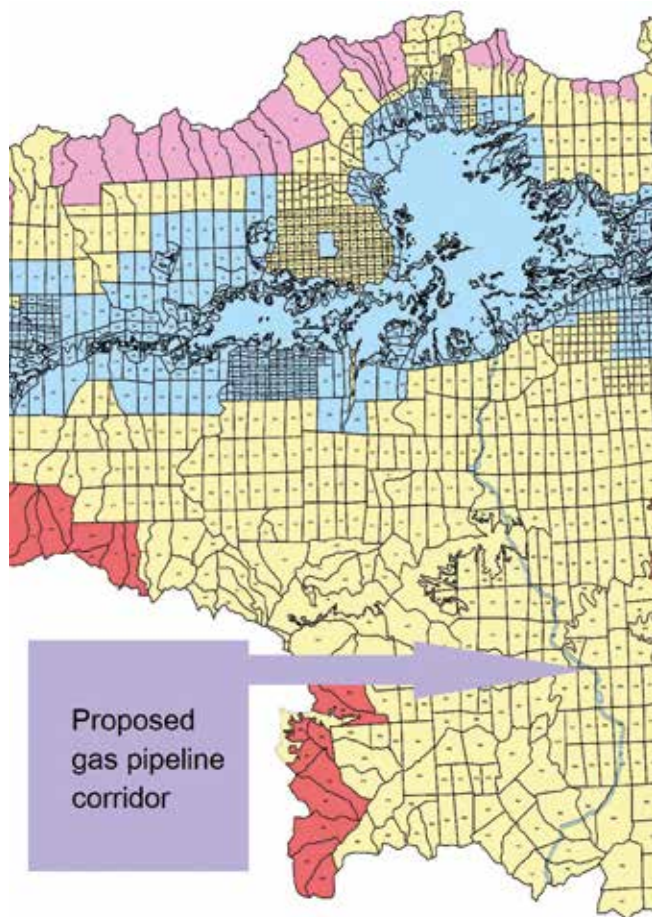


Fig. 3: Draft zoning regulations with the pipeline corridor envision dissecting for 125 kilometers Tunkinsky National Park in the area adjacent to the World Heritage Site. Jan.2023. Ministry of Natural Resources of Russia (blue – “economic development zone”).

Source: Draft regulation: <https://regulation.gov.ru/projects/List/AdvancedSearch#npa=135771> and <https://greenpeace.ru/news/2023/02/21/125-kilometrov-gazoprovoda-mogut-projti-po-tunkinskomu-nacionalnomu-parku>

Managing “salvage timber” forests

As wartime hardships accumulate, various actors seek to exploit new natural resources. On 8 July 2022, several parliament members from Irkutsk and the Republic of Buryatia proposed to amend⁷ the law “On the Protection of Lake Baikal” to enable clearcut logging to salvage pest-affected forests within the Lake Baikal World Heritage site. CSOs confronted the proposal, subjecting it to comprehensive critique at a meeting of the Russian Civil Chamber.

Under the existing national forestry management system, salvage (“sanitary”) logging can only take place at a significant scale as a commercial activity financed by the proceeds of sellable harvested wood. In practice, allowing clearcut salvage logging near Lake Baikal is equivalent to allowing ordinary commercial logging, which is also one of the main causes of forest fires. Such clearcut logging also increases erosion and will directly contribute to the Lake’s eutrophication. For this reason, the current Law prohibits any forest clearcuts.

The last version of the proposed amendment from February 13, 2023⁸ proposed the replacement of the prohibition on clearcuts by a prohibition on “commercial logging” (Article 11, Part one, §1). This opens way for “non-commercial salvage logging” for “the prevention of pest outbreaks”, as well as land clearing for infrastructure, residential and recreational facilities and any other clearcut logging which nominally is not “commercial”. If passed, this will ease war-time hardships of the Selenginsky Pulp and Paper Mill and related wood processing in the Republic of Buryatia, but ruin lakeshore forest ecosystems.



Fig. 4: Forestscape with “salvage clearcut” adjacent to World Heritage property border in Buryatia, 2021.

Photo: Kristian Rinchinov

Opening the lakeshore for tourism development

Tourism has always been considered the most important economic activity at the Lake, but without proper regulation, planning and oversight it has been turned from a sustainable development opportunity into a major threat to the OUV of the World Heritage property.⁹

Much of the coastal pollution and eutrophication results from the poor management of municipal wastewater, tourism facilities, and ill-organized tourist hordes trampling fragile coastal vegetation. In addition, previously protected lands are being privatized using various “grey” schemes supported by local and regional officials. Local entrepreneurs are rapidly building new tourist facilities along the lakeshore, often in habitats of endangered species.

The 2022 “anti-sanctions” measures package approved by the Russian government includes accelerating the allocation of

land for domestic tourism since travel abroad is constrained by sanctions. To this end, on 2 March 2022, Russia's development bank VEB convened an in-house meeting to discuss intensifying tourism at Lake Baikal in 2022.¹⁰

The same group of parliament members started drafting a wide series of amendments to the "Law of Protection of Lake Baikal", mainly directed at opening the territory of the World Heritage site to residential and commercial development, construction of infrastructure (in addition to massive salvage logging). On February 13, 2023, they revealed the already mentioned draft legislation that may altogether ruin the protection regime of the Lake, by allowing that:

- c) Transfer of land from category to category is executed according to general Russian legislation (unless special norms are introduced by this Law) (Article 10, part 2).
- d) Any real estate in settlements registered in the State Registry by individuals and legal bodies and in special tourist economic zones can be privatized (Article 10, part 3).
- e) Removing § 2 of Article 11, part one, which contained the key requirement of the Law, that "Forest Fund Lands" occupied by "protection forests" cannot be converted in any other category, except in case of the creation of protected areas.¹¹

As a result, all regulations limiting the expansion of infrastructure, residential and recreational development would be practically removed. Any land plot can be converted from protected category to less protected, developed and privatized by individuals or firms. If these amendments are adopted, they will trigger a massive spread of settlements, special economic zones and the privatization of accessible shoreline areas. Since the clearing of forest land would no longer be prohibited, development may proceed unimpeded practically anywhere. As noted by their proponents, the amendments replace specific norms safeguarding the Lake with general provisions on national legislation, and that removes any special protection from the WH property.

Baikalsk Pulp and Paper Mill (BPPM) – remediation adding pollution

BPPM closed in 2013 after having dumped waste directly into Lake Baikal for decades, but the remaining ponds filled with roughly 6.5 million tons of the mill's sludge pose a risk for accidents. Given new economic commitments to war and sanctions, reclamation activities were postponed for one year or more as critical imported equipment became unavailable.

The absence of proper equipment to "enable BPPM remediation" is addressed by lowering environmental requirements, which threatens Lake Baikal. The Russian Nuclear Corp. subsidiary "FEO", tasked with cleaning up BPPM sludge ponds, spent 400 million roubles from the state budget in 2021 on un-

proven reverse-osmosis equipment, but failed to meet the strict allowable impact limits for wastewater set to be discharged into Lake Baikal. To solve the problem, it was proposed that allowable concentrations for the discharge of multiple industrial pollutants be increased, some of those by 1,000%. After a fierce debate with the scientists, the amendment of "Standards of allowable impact on Lake Baikal" was still approved by the Government on July 4, 2022, and has weakened norms for industrial wastewater discharged into any water bodies of the Lake Baikal watershed,¹² but not the Lake itself. Thus, lack of technology coupled with lucrative opaque contracts for "environmental remediation" create irresistible temptations to spur the weakening of the environmental requirements, which "impede" the execution of multi-million state contracts.

The VEB preparing a Master Plan to revive Baikalsk¹³ presents another similar example. The plan envisions a 30–60% increase in the town's population and massive development, including a huge influx of temporary workers, all of which may have negative impacts on the Lake. The plan includes the construction of lucrative lakefront properties inside the water protection zone, land currently void of housing or businesses. The VEB asked for an exemption from an EIA for its plan to build wooden multi-storey buildings. President Putin urged the government to approve the Baikalsk Master Plan in September 2022 to allow its speedy implementation. However, the VEB's "Center for Baikal Development" fell under the sanctions in 2022, reducing its ability to implement the planned activities with due rigor.



Fig. 5: Lakefront tourist development in the Baikalsk Master Plan, 2022.

Source: <https://план.байкальск.рф/solutions/48289>

Threats from hydropower in Russia and Mongolia

Since 2016, the World Heritage Committee has urged Russia to produce an Environmental Impact Assessment (EIA) of potential impacts of existing water use and management regulations on the Outstanding Universal Value of the property, and not to introduce any further changes in the regulations until their effects on the property are fully understood. Despite solid evidence of



Fig. 6: Trees toppled by human-induced water level fluctuations near Baikol Harbor Special Economic Zone.

Photo: Eugene Simonov. October 2021

extensive damage to the Lake Baikal ecosystem from high water levels in 2021¹⁴, the Government of Russia on March 16, 2022, reissued a new “temporary” Decree #379 “On Minimum and Maximum Levels of the Lake Baikal in 2022–2023” with the same 2.3 m of allowed water level fluctuation.¹⁵ Issuing such a decree again contradicts all previous Decisions of the UNESCO World Heritage Committee.

The Government of Mongolia, which earlier, due to concerns of the WH Committee and other parties, was forced in 2017 to postpone the development of several large dam projects in the Lake Baikal basin, is now seeking international support for ist Egiin Gol Hydro and other projects to “get rid of Russia’s energy dependence”.¹⁶ Officials claim they have commissioned additional “international” assessment of hydropower impacts on Lake Baikal (and found none), while local authorities, communities, and CSOs in the Lake Baikal basin have never been informed or consulted on the scope and outcomes of this ESIA.

Mongolia’s Minister of Justice undertook attempts to blackmail and persecute CSOs which may take a stand to protect the World Heritage.¹⁷ In August 2022 the Director of Rivers without Boundaries Mongolia was put under criminal investigation for alleged “cooperation with foreign agents,”¹⁸ which evoked international condemnation and expression of concern from UN Human Rights rapporteurs.¹⁹

Conclusion

From 2022 to early 2023, many aspects of Lake Baikal legal protection were further weakened or attacked, in all instances without any proper scientific justification and in the absence of EIAs with meaningful public participation. It is clear that the Lake Baikal World Heritage property is in grave danger. Taking into account the observed widespread environmental degradation and the systemic problems facing Lake Baikal (e.g., the absence of an effective management system), this property deserves to be inscribed on the List of World Heritage in Danger.

In a time of peace, such a move could trigger the development of a comprehensive plan for solving Lake Baikal’s accumulated problems. Unfortunately, the current political situation makes such a move potentially counterproductive in the near future, since it would very likely be interpreted by almost all stakeholders as another political sanction imposed on Russia and intentionally repudiated by relevant Russian agencies.

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Local Communities are Key Groups to Protect the Ulz River Ecosystem in the Landscapes of Dauria

Gankhuyag Purev-Ochir and Amarkhuu Gungaa,
Mongolian Bird Conservation Center



The Landscapes of Dauria in Northeastern Mongolia along the Russian and Mongolian border has been listed as a natural World Heritage Site under criteria (ix) and (x) by Decision 39 COM 8B.4 during the World Heritage Committee meeting in June, 2017 (<https://whc.unesco.org/en/list/1448/>). Shared between Mongolia and the Russian Federation, this site is an outstanding example of the Daurian steppe eco-region, which extends from eastern Mongolia into Russian Siberia and north-eastern China. Cyclical climate changes, with distinct dry and wet periods, lead to a wide diversity of species and ecosystems of global significance (Simonov et al. 2013). The different types of steppe represented, such as grassland and forest,

as well as lakes and wetlands serve as habitats for threatened species of fauna, such as the Mongolian gazelle, White-naped Crane and the Asian Great Bustard, as well as millions of vulnerable, endangered or threatened migratory birds.

Mongolia occupies largest part of the Landscapes of Dauria, and this part is officially managed by the Eastern Mongolia Protected Area Administration (EMPAA), the Ministry of Environment and Tourism of Mongolia. The property is also a good example of transboundary ecosystem cooperation, shared between governmental, scientific and non-governmental organizations.

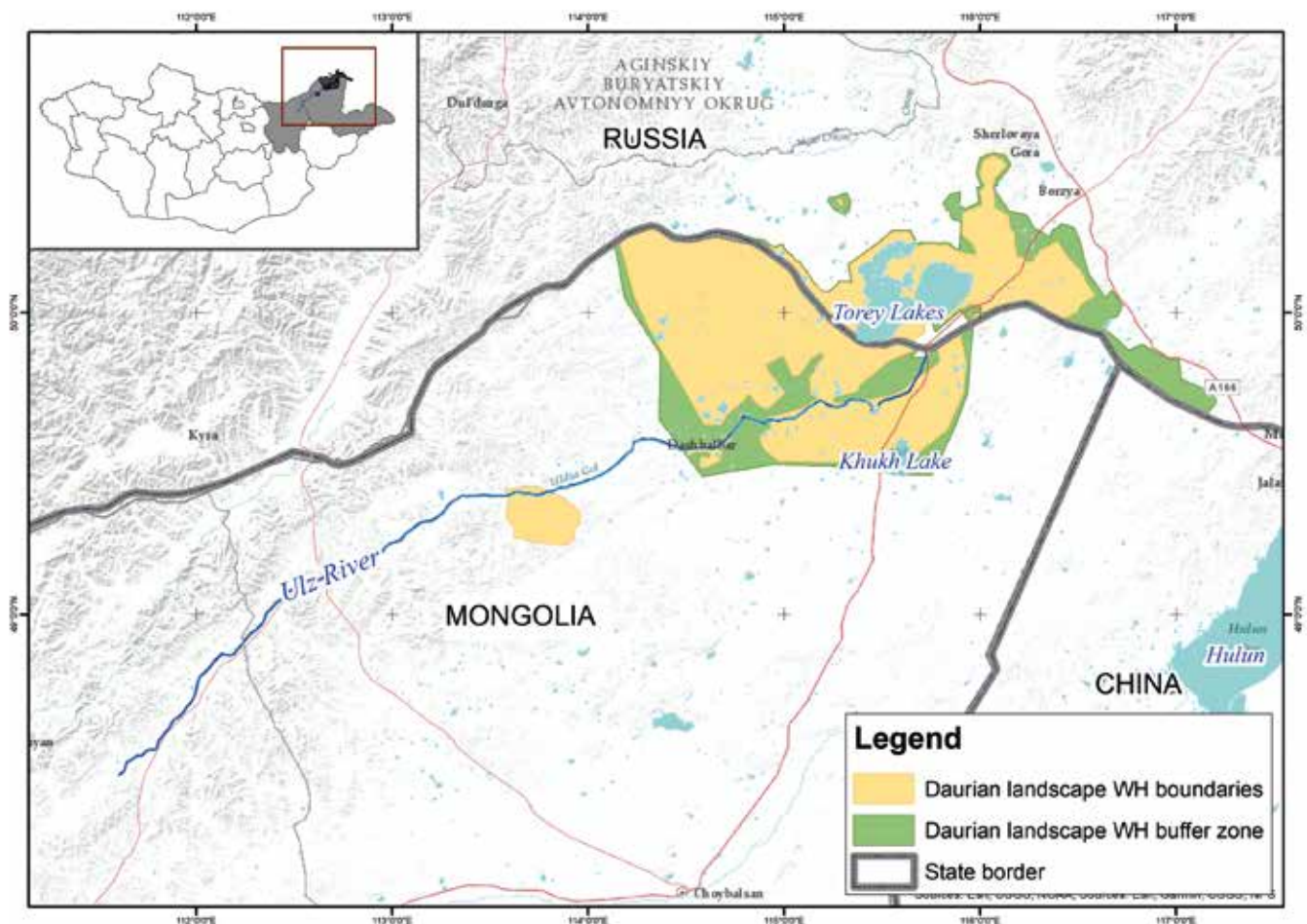


Fig. 1: The Landscapes of Dauria World Heritage property.

Map: Mongolian Bird Conservation Center

We have established the Chukh Bird Research Station (CBRS) at the Chukh Lake, a part of the Landscapes of Dauria, and this station has been monitoring threatened species of birds in the heritage site such as White-naped Crane, Common Crane, Asian Great Bustard, Cinereous Vulture, Saker Falcon and the migratory shore birds since 2019, collaborating with EMPAA and other organizations (CBRS annual report 2019-2021). Also, we conduct biodiversity research in the Ugtam Nature Reserve, also a part of the Landscapes of Dauria World Heritage site, including camera trap surveys and migration and breeding studies of threatened birds. It is vital to establish the science-based long term monitoring in the Landscapes of Dauria World Heritage Site in northeastern Mongolia in order to evaluate the population status of its key species.



Fig. 2: The Chukh Bird Research Station.

Photo: Gankhuyag Purev-Ochir

In this paper, we briefly describe the result of our monitoring of the globally threatened White-naped Crane (*Antigone vipio*) along the Ulz River, the key species of the heritage. There are two separate bio-geographical populations (Meine and Archibald 1996) of this crane: the western and eastern populations in Asia. The western population breeds predominantly in eastern Mongolia, north-eastern China, the Daurian regions of south-eastern Russia, and in winter at Poyang Lake, China (Lang et al. 2020). The eastern population breeds in Russia along the Amur, Argun, and Ussuri rivers, as well as the Muraviovka, Khinganski, and Khankaiski State Nature Reserves, and winters on the Korean Peninsula, Izumi, and Kyushu, Japan (Higuchi et al. 2004). The eastern population is currently thought to be increasing, whereas the western population is declining (Lee 2022). The western population has decreased sharply from 4,000 individuals in 2002 to 1,000 – 1,500 individuals in the last 15 years (IUCN 2018). Ulz River provides an important nesting habitat for the western population of the White-naped Cranes (Goroshko, 2015).

The surveys of the White-naped crane breeding population along the Ulz River have been conducted since 2019 (MBCC annual report, 2022). The monitoring results from 2019-2021 were analyzed and compared to previous surveys conducted

in 2001 (Bradter et al. 2005) and 2011 (Gilbert et al. 2016). The surveys showed that along the Ulz River, crane pairs declined from 42 territorial pairs in 2001 to 17 territorial pairs in 2011 during the summer drought period, and then increased to 30 territorial pairs in 2021 due to summer rainfalls (MBCC annual report, 2022). This indicated that changes in the territorial pairs of the White-naped Crane along the Ulz River were affected by the rainy season. The number of territorial pairs decreased in 2010 and 2011 during the periods of drought and, increased during the rainy season in 2021. This also clearly indicated that breeding populations in the Ulz River are vulnerable to cyclical climate changes. But there were still a high percent of non-breeding individuals among the territorial pairs in 2021 (MBCC annual report, 2022).



Fig. 3: A White-naped crane with its chicken.

Photo: Amarkhuu Gungaa

We expect that these non-breeding territorial pairs can be limited by providing suitable nesting habitats even when the ecosystem recovers during the rainy seasons. Additionally, the nest site limitation can be the reason of the heavy grazing by large livestock in the wetland along the river.

Based on these outcomes, the population of White-naped Crane along the Ulz River in the Daurian region increased in the last three years but it will decrease during the future dry periods. Therefore, a proper management of the Ulz River wetland is more important during the dry periods. Especially, strong regulated pasture management in the river basin is needed during the dry periods. If the river basin is heavily used by large numbers of livestock regularly during the dry period, it will completely destroy the whole river ecosystem which then may not recover by itself naturally even when the rainy season begins.

We predict that overgrazing also increases the mortality of the crane chicks because there is no tall grass for the chicks to hide from predators such as red fox, corsac fox and even from do-



Fig. 4: A herd of horses grazing in the Ulz river plain.

Photo: Amarkhuu Gungaa

mestic dogs. Unsuccessful nesting pairs of cranes due to predator attacks along the river basin have been recorded during our monitoring periods.

Local herder families and conservation communities are key part of the management of the heritage. It is important to support the quality of livestock, not a large number of livestock in the region to prevent the threats. Thus, here we highly recommend to increase the local conservation communities' activities along the Ulz River Basin, involving local herder families to develop sustainable conservation approaches. A strong cooperation between all parties such as local governments, herder families, conservation communities, both Mongolian and Russian environmental organizations who work in this region is still vital to protect the river basin. Long term sustainable research and conservation of this wonderful and unique ecosystem are an essential, and there is a need for a comprehensive study of factors such as Mongolian nomadic culture, biodiversity, ecosystem services, and adaptation to climate change in the future.

In addition, White-naped Cranes mostly prefer a unique resource of wetlands with reeds and well vegetated areas. These cranes are rapidly losing their populations and habitats due to human activities such as farmland and agriculture. Therefore, the status of these birds should be regularly assessed to prevent extinction (Collar et al. 2017).

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Further Development of Tourism Project on the Volcanoes of Kamchatka

Anonymous authors

The implementation of the “Three Volcano Park” tourist project on the Volcanoes of Kamchatka World Heritage site continues. In 2022, the Kamchatka authorities began the construction of a road from Thermalny village to the area where the “Three Volcano Park” is planned to be located.

At the presentation of the project, which took place at the Eastern Economic Forum in September 2022, it was announced that the construction of the “Three Volcano Park” itself should begin on July 1, 2023¹. Chairman of the Board of Directors of the “Three Volcano Park” S. Bachin said that the project of the park is already ready and work is underway on the formation of design and estimate documentation.

On February 16, 2023, Deputy Prime Minister Yuri Trutnev approved a Comprehensive plan for the implementation of this project². Among the approved deadlines for objects falling within the boundaries of World Heritage site:

- Registration of land plots for the construction of tourist infrastructure is planned to be completed by November 2023
- Highway to Vilyuchinskaya Bay: completion of design and survey work - September 2023, completion of construction: October 2026
- Creation of a passenger sea terminal in Vilyuchinskaya Bay: completion of project documentation development: March 2024, completion of construction: May 2027
- “Passenger suspension cable cars “Elevator D”, “Elevator E” with a panoramic complex on the volcano Vilyuchinsky”: start of construction and installation works: June 2023, putting into operation: January 2027
- Park-hotel “Bay Zhirovaya”: completion of design and survey works: September 2025, commissioning of the facility: September 2028
- Tourist infrastructure in Vilyuchinskaya Bay: completion of design and survey works - December 2024, commissioning: September 2028

In order to implement the tourist project, the change in the regional system of specially protected natural areas was also continued. At the end of 2022, the nature monument of regional significance “Rare landscapes of the Vilyuchinsky volcano (up to and including the Levaya Topolovaya River)” was transformed into a Vilyuchinsky Regional Nature Park³. The new nature park partially falls into the World Heritage site.

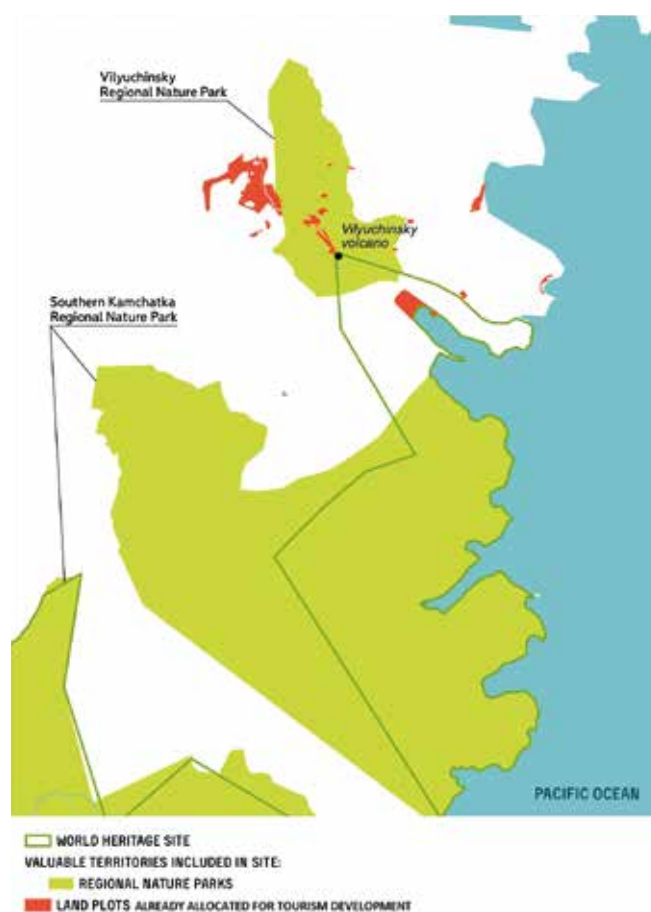


Fig.1: Schematic map of the Vilyuchinsky Regional Nature Park location and land plots already allocated for the tourism project.

Map: Authors

1 <https://kamchatkamedia.ru/news/1353682/>

2 <https://t.me/greenserpent/17157>

3 Resolution of the Government of the Kamchatka Territory dated 12/28/2022 No. 743-P “On changing the category of a natural monument of regional significance “Rare landscapes of the Vilyuchinsky volcano (up to and including the Levaya Topolovaya River)”.

Unfortunately, the protection regime of this protected natural area is weak. On the entire territory of the Vilyuchinsky Regional Nature Park, it is allowed:

- the construction, reconstruction and operation of linear objects
- selective logging of forest, including for the needs of legal entities and individual entrepreneurs engaged in recreational and hunting activities
- conducting sports and mass cultural events
- hunting activities within the boundaries of fixed hunting grounds specified in hunting agreements (except for the protection zone of unique natural complexes and objects).

Several zones are specified in the nature park. The “zones of special protection” and the “zone of protection of unique natural complexes and objects” together make up less than 1% of the area (66.19 ha), the “zone of economic purpose” 8% (1,254.44 ha), the “zone of regulated tourism and recreation” 91% (13,740.09 ha).

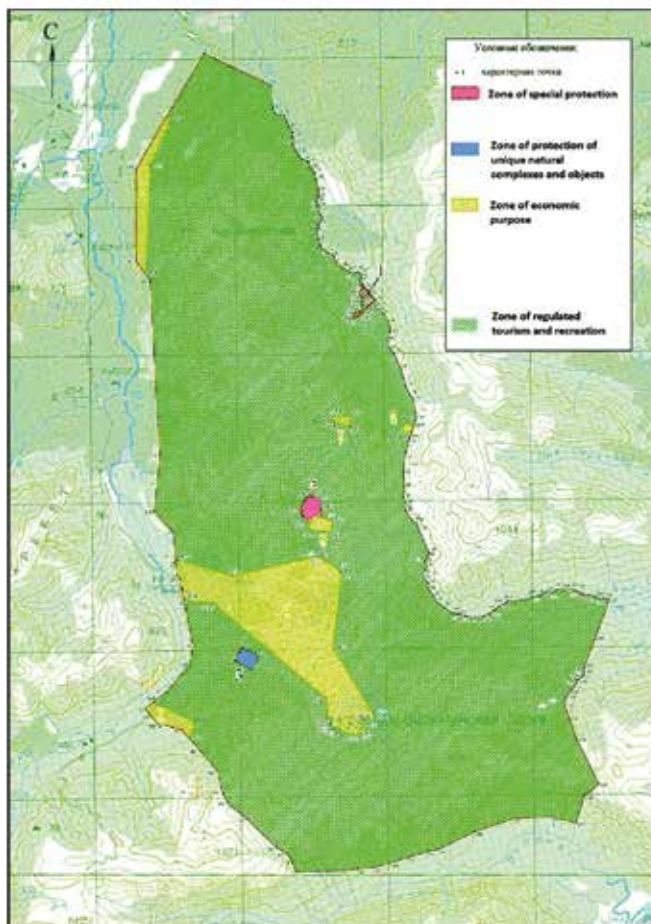


Fig. 2: Zones of the Vilyuchinsky Regional Nature Park.

Map: Authors

Only the “zone of regulated tourism and recreation” falls into the World Heritage site, however, the Regulation of the nature park allows further expansion of the economic zone to any territory of the nature park, therefore we will also give its features.

The zone of regulated tourism and recreation is intended for “the organization and implementation of regulated recreational activities, recreation of citizens, including mass, in natural conditions, permitted types of hunting, amateur and sport fishing, as well as for the placement of tourist, hunting and recreational infrastructure, information centers, signs and stands”.

The economic zone is intended for the “implementation of regulated economic and other activities, including activities aimed at ensuring a comfortable stay, the creation and placement of recreational and tourist infrastructure facilities, cultural and information services for visitors”.

In the zone of economic purpose, it is additionally allowed:

- construction, operation, reconstruction, overhaul of facilities, including capital construction facilities, linear facilities, transport, engineering, recreational infrastructure facilities, their improvement, including the organization and arrangement of locations of stationary observation points, tourist parking lots, sightseeing trails and routes, stationary bases and camps, observation decks, places parking lots of motor vehicles, helicopter pads
- provision of land plots for use, rent or ownership
- hunting management, including the creation of hunting infrastructure within the boundaries of fixed hunting grounds
- fish farming and fishing
- logging of forest, including for the needs of legal entities and individual entrepreneurs engaged in recreational and hunting activities.

Thus, the “Three Volcano Park” tourism project continues to be implemented in accordance with the initially announced plans. Most of the territory that lost legal protection during the reorganization of the Southern Kamchatka Nature Park continues to remain without it. According to our information, the Environmental Impact Assessment (EIA) requested in Decision 44 COM 7B.109 has not been carried out. Based on all of the above conservation of this cluster of the Volcanoes of Kamchatka World Heritage property continues to be of concern.

Permission for Military Activities on Wrangel Island

Anonymous authors



Fig. 1: Wrangel island with the location of the military base.
Source: <https://www.csis.org/analysis/ice-curtain-why-there-new-russian-military-facility-300-miles-alaska>

In late October 2022, the Ministry of Natural Resources of Russia posted on its website for public consultation a draft updated regulation on the State Nature Reserve "Wrangel Island"¹.

The document contains 34 restrictions on activities within the reserve territory. However, 9 of these restrictions do not apply to the activities "in the field of national defense and security", including construction and maintenance of infrastructure and communication lines in the interest of the protection of national borders of the Russian Federation. Those exempted activities include:

- Presence on the reserve's territory with firearms, killed game animals, accompanying dogs;
- Extraction of groundwater, changing its hydrological regime;
- Construction of permanent structures;
- Transportation by off-road vehicles, the passage of boats, and aircraft.



Fig. 2: Wrangel island as part of the Russian military posture in the Arctic.

Map: CSIS and Business Insider

All these exceptions relate to the whole territory of the Wrangel Island World Heritage property. In addition, the Federal Border Service is granted a right to dispatch its staff to any point in the reserve at any time. The types of permitted use of land plots² which are indicated in the draft regulation provide for the pos-

¹ <https://regulation.gov.ru/projects#npa=132581>

² <https://base.garant.ru/70736874/53f89421bbdaf741eb2d1ecc4ddb4c33/>

sibility of conducting military exercises, organizing landfills, and disposing of waste from military activities.

In 2017, Russia has been warned about possible danger listing by the World Heritage Committee when a military base had been built without an EIA and notification on “Wrangel Island”³. In the 2021 report, the State Party emphasizes the fact that the military facility is rebuilt on the spot of pre-existing human disturbance and occupies “less than 0,001% of the total area of “Wrangel Island” World Heritage Site”⁴.

The new draft regulation stipulates that there are “land plots designated for defense purposes” but does not contain a list of

those plots with an indication of their size and location. Meanwhile, Attachment 3 contains lists of land plots “for partial economic use”, “for natural resources harvest for personal needs of reserve staff” and “for educational visitation/tourism”, which is a standard practice in Russian national-level protected areas.

Possible defense activities may cause significant harm in critical habitats of endangered wildlife (polar bears, walruses, whales, etc.), unless those activities are confined to specific limited areas. Besides, the passage of boats and especially aircraft may frighten marine mammals and cause massive deaths. In any case, opening the whole island to such activities may lead to a deterioration of its OUVs.

3 <https://whc.unesco.org/en/decisions/7007>

4 <https://whc.unesco.org/document/190988>

The Strategic Environmental Assessment of South West Region of Bangladesh Needs to be Revised

Sharif Jamil and Sultana Kamal,
National Committee for Saving the Sundarbans



We call for the “Final” Strategic Environmental Assessment of South West Region of Bangladesh for Conserving the Outstanding Universal Value of the Sundarbans (SEA) and accompanying Strategic Environmental Management Plan (SEMP) to be revised with scientific integrity, transparency of data, adequate assessment of all large industries and infrastructure that may impact the OUV of the Sundarbans, and robust public participation.

During the SEA implementation industrial development adjacent to the World Heritage property did not pause.

The Committee at its 41st session requested the State Party to ensure that any large-scale industrial and/or infrastructure de-

velopments will not be allowed to proceed before the SEA has been completed, and to submit a copy of the SEA to the World Heritage Centre for review by IUCN. (Decision **41 COM 7B.25**).

Please see photographs documenting rapid progress in development of several large industrial facilities during the time of the SEA design and execution. Such gross violation of the WH Committee decision puts in question the guarantees for implementation of any SEMP measures in the future.



Fig. 1: Uncovered transportation of coal to Barishal coal-based power plant at the estuary of Payra River in Taitoli, Borguna.

Photo: Arifur Rahman



Fig. 2: Drone Photo of Patuakhali Power Plant in Payra.

Photo: Kamal Hasan Rony, 20 March 2023



Fig. 3: Rampal Power Plant in operation from Pashur River.

Photo: Dewan Nurtaf Alam, 8 March 2023

The SEA failed to fulfill its initial objectives for the following reasons:

1. The SEA failed to consider specific alternatives to development (which is one of its stated objectives) and instead became an instrument focused on increasing development by evaluating “low”, “medium”, “high” development scenarios. It emphasized various quantities of development rather than quality of development and did not differentiate between substantive development options;
2. The SEA failed to identify and conduct robust analysis of pressures from the key sectors. Rather than evaluating environmental impacts from these sectors it attempted to kick the can down the road and avoid establishing enforceable standards by recommending to conduct in “next 5 years” new sectoral SEAs for shipping, agriculture and key indus-



Fig. 4: Sharif Jamil speaking on a community protest meeting at Banishanta against dredging in Pashur River.

Photo: Hasib Sardar, 28 September 2022

trial sectors. These substantive omissions postpone crucial assessment conclusions that were expected to come from this SEA;

3. The SEA failed to create a useful systematized knowledge base about the pressures and impacts on Sundarbans and possible remedies, with weak and insufficient system of references to original data sources. Most data used in the study are vague and imprecise; recommendations for the future action generic and/or not supported by credible information sources or option analysis. Based on the SEA document it is impossible to rank various pressure factors in terms of severity of their impacts for specific process and features in Sundarbans ecosystem.
4. The SEA disregarded and downplayed many impacts from industrial development, including toxic ash pollution from coal power plants or water pollution from industrial facilities being developed along the eastern border of Sundarbans.
5. The SEA failed to incorporate timely and meaningful consultations and produce useful information in local languages.
6. The SEA leapfrogged assessment of development and mitigation options and instead adopted an overoptimistic and improbable wish list in the SEMP. The SEA fails the most fundamental credibility test by claiming that the more destructive development is implemented in the area, the higher are the chances that all negative impacts can be fully mitigated. This methodology is so fundamentally flawed, it simply cannot be allowed to stand. It must not be used as a basis for any future SEAs. The reality is that most of SEMP is

a collection of arbitrarily chosen measures to let industrialization proceeds without strict environmental standards or requirements for best available technologies.

In response to NCSS critiques, the SEA officials confirmed in writing that the SEA design did not take into consideration the IUCN World Heritage Advice Note: Environmental Assessment (2013), because “Projects *should be subjected to EIAs. It is not the function of SEA to do this.*” But the fact remains that the World Heritage Committee called for this SEA since 2014 in order to assess the cumulative impacts of specific projects,

The SEA and SEMP, which both claim to focus on World Heritage issues, failed to do so in variety of dimensions.

There is no credible assessment of impacts on the OUV of the Sundarbans. This is true for all major impacts from freshwater flows, shipping impacts, to pollution and fishing pressure: the SEA does not contain robust assessment of those impacts on the OUV.

Lack of specific chapter on World Heritage matters. Except for three pages with unverifiable data, the SEA does not include chapters dedicated to analysis of the environmental assessment findings regarding possible impacts on the OUV and ways to avoid/mitigate those. The SEA process failed to define paths/limits for development necessary to protect of the OUV. The SEA Report does not contain discussion of development options and limits in relation to World Heritage protection needs.

The SEA failed to suggest useful indicators of impacts on OUV and credible ways to monitor them. In our opinion at least 6 out of 8 assessment principles put forth in the IUCN Advice Note on EIA have been neglected.

Climate change, water management and shipping are inadequately addressed in the SEA and SEMP.

Climate impacts, strongest in the south of the Sundarbans (where the WH property is located), such as salt water intrusion, necessitate that protection of OUV be strengthened in all remaining natural areas of the Sundarbans. Old-fashioned industrial development and disrupted inflows are two major local factors affecting the WH property, which could and should be effectively managed.

The water management part of SEA does not contain credible assessment of impacts and downplays the importance of trans-boundary cooperation with India to sustain ecosystem processes. It is largely confined to encouraging river dredging and river diversion as two primary and sufficient tools for ecosystem conservation.

The SEA Report says that the government is pursuing a programme of dredging to increase river depth and water availability as well as navigability, which makes clear that economic interests are the primary driver in developing and sustaining extensive dredging capabilities and programs in the SW Bangladesh and Sundarbans themselves.

We argue that recommendations for construction of specific water-diversion infrastructure and implementation of wide-scale dredging are not based on sufficient research.

The SEA mentions that negative impacts from increased shipping are not limited to effects of dredging, but include pollution, severe bank erosion, increased accidents, continuous disturbance from noise (including underwater noise) and other factors. However, this evidence is scattered in different parts of the report and systemic analysis is avoided by attempting to address them in proposed future “sectoral SEAs”.

In September 2021, the Mongla Port Authority announced plans to construct six more jetties. In 2020 the port had the capacity of handling 100,000 TEU, but with the recent addition of modern equipment, the port’s capacity has doubled. The six new jetties will add 800,000 TEU to the port capacity for a total of 1 million TEU¹.

While the SEA has mentioned in passing “limiting development of Mongla port”, albeit without any detail, the Strategic En-

vironmental Management Plan does not include any decisive measures to limit navigation-related environmental impacts. Rather it prescribes generic mitigation measures, like “All boat operators should adhere to the code of conduct” We have reasonable doubt on both likelihood of implementation of those “good conduct” instructions under the current governance system and on the SEA stance that such cosmetic measures are sufficient to solve the problem under the “high growth scenario”.

Both water resources management and increased shipping will be largely determined by cooperation between Bangladesh and India. Unfortunately, the progress and possible specific objectives of Bangladesh-India cooperation in sustaining freshwater flow to the Sundarbans and pollution control on shared rivers has not been addressed in the SEA Report in sufficient detail. Meanwhile, long-term protection of the Sundarbans in both countries is highly unlikely without comprehensive cooperation, despite being prescribed by a series of bilateral agreements signed in 2011. Implementation of these agreements has been slow and uneven. The SEA failed to discuss what are specific objectives and parameters of water management crucial for Sundarbans conservation that should be taken into account in upcoming renegotiation of the 30-year Ganges Water Treaty on sharing of the Ganges water (1996-2026).

Finally, technocratic bias in the SEA report leads to irresponsible recommendations for OUV protection, which can be illustrated by data on dolphin conservation under the “high growth scenario”: *“Dolphin population and habitat extent will both increase due to higher level of fresh water supply (dolphins are sensitive to salinity) as a result of river flow augmentation interventions, diversion facilities, dredging within Bangladesh...”*;

The “Bangladesh Dolphin Action Plan 2020-2030” commissioned by the GoB notes: *“Degradation of dolphin habitats might be caused by widespread dredging across the country’s major rivers. The growing vessel traffic and tourism in the Sundarbans are directly contributing to chemical and sound pollution, of which the most dangerous is accidental sink of cargo vessels with harmful chemicals...”*

It is reasonable to assume that continuous dredging will increase all those negative factors, while construction of “water diversion facilities” and other water infrastructure may limit and degrade dolphin habitat in the region.

¹ <https://www.fleetmon.com/maritime-news/2021/35481/mongla-port-announces-plan-construct-six-more-jett/>

Conclusions

We expect that the IUCN and World Heritage Centre will recommend in the 2023 draft decision that the World Heritage Committee recognizes that the SEA conducted so far is not adequate for ensuring protection of the Sundarbans and asks the GoB to revise the assessment and provide additional strategic assessment(s) focused on key factors threatening the OUV of the Sundarbans World Heritage property.

The SEA Report actually supports such course of action by proposing several subsequent “sectoral SEAs” which are necessary to understand the impact on the OUV and ways to avoid it.

Given that so far the SEA process has failed to provide an adequate planning instrument to ensure the protection of Sundarbans, while industrial development and expansion in shipping proceed around the property with growing negative impacts, we urge the IUCN and World Heritage Centre, in line with §180 of the *Operational Guidelines for the Implementation of the World Heritage Convention* to recommend in the draft decision to add the Sundarbans of Bangladesh to the List of World Heritage in Danger.

Still a Long Way to Go in Northern Okinawa Island and the U.S. Military's Northern Training Area

Hideki Yoshikawa, Okinawa Environmental Justice Project
 Masami Mel Kawamura, Informed Public Project
 Shin-Ichi Hanawa and Akino Miyagi



Since before the Yambaru forest was inscribed in the UNESCO World Heritage List as the Northern Part of Okinawa Island (NPOI) along with three other areas, local communities and NGOs have expressed concerns regarding the presence of the U.S. Military's Northern Training Area (NTA) located next to the World Heritage site, and the U.S. Military's dangerous waste left in the NPOI. We have insisted that this small size fragile biodiversity ecosystem should be free of impacts from military training and hazardous military waste. Thus, we welcomed that, in the inscription process, the Japanese and the U.S. governments made an agreement and designated the Environment Subcommittee of the U.S.-Japan Committee to ensure "the effective cooperation to conserve the natural environment of the NPOI" (p. 243).

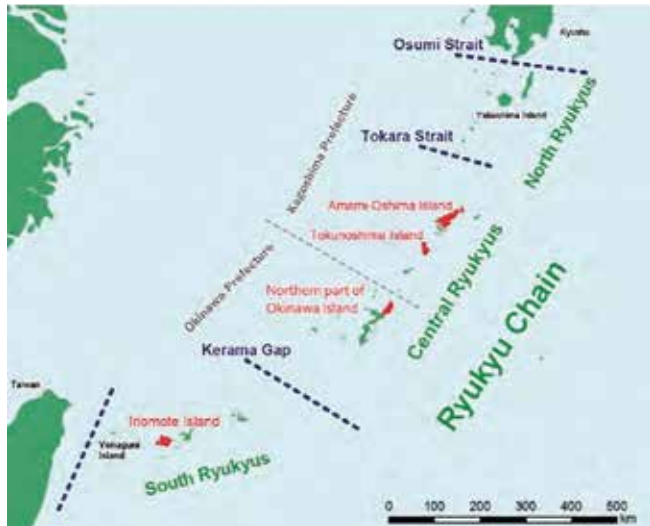


Fig. 1: Map of World Heritage Sites: Amami-Oshima Is., Tokunoshima Is., Northern Part of Okinawa Is., and Iriomote Is. Source: Government of Japan

However, since the inscription, while there has been some positive development, especially regarding the issues of military waste, we have seen no demonstrable progress on other issues. Instead, we have encountered the reluctance of the Ministry of the Environment (MOE) to take action, and the inaction of the Environmental Subcommittee. Moreover, in light of the escalating political tensions between China, the U.S., and Japan, military training has intensified in Okinawa, including in the NPOI. If proper actions are not taken, these situations can undermine the NPOI's World Heritage status and the World Heritage Convention.

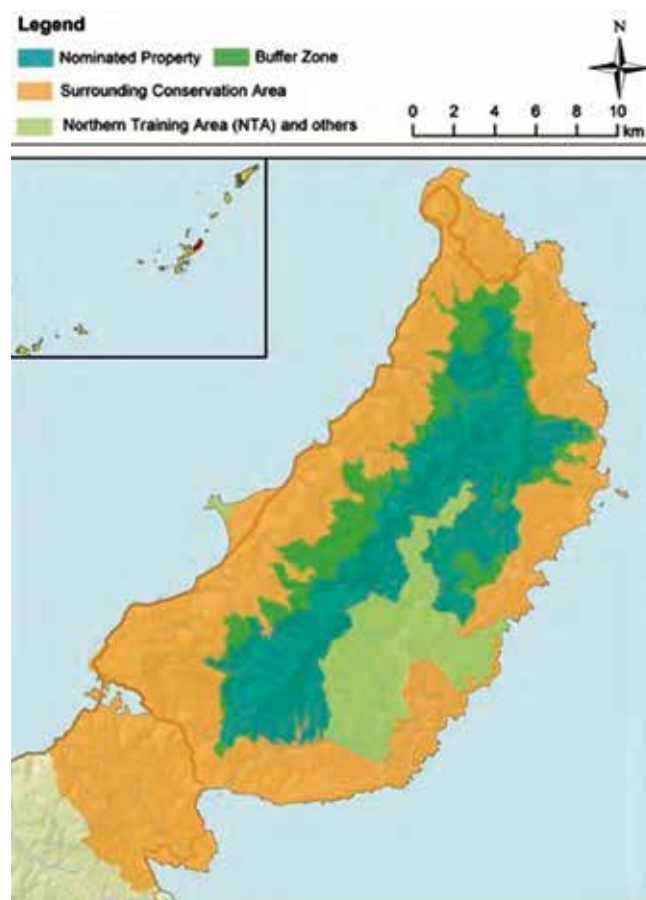


Fig. 2: Map of the Northern Part of Okinawa Island (NPOI) and the U.S. military's Northern Training Area (NTA). Source: Government of Japan

In the following, we discuss the issues the NPOI and the Yambaru forest face by updating our previous report in the *World Heritage Watch 2022 Report*. We also provide suggestions to resolve these issues. Our discussions and suggestions are based on our review of documents, meetings with government officials, and eyewitness accounts.

Issues and Suggestions

The MOE and the Japanese Ministry of Defense (MOD) have admitted that the "returned NTA areas" now incorporated since 2016 into the NPOI are scattered with U.S. Military waste and need cleanup. Our obtaining an Okinawa Defense Bureau (ODB) report through the Freedom Information Act has led to their admission. According to the report (2022), the ODB found



Fig. 3: A U.S. Military Helicopter landed in the NPOI in February 2019. Photo: Akino Miyagi

and removed military waste from the NPOI, and the waste included more than 4,500 blank shells, one rifle grenade, one training hand grenade, and two live bullets. They are a legacy of the military's 50-year use of the area as a training ground. The report and related documents indicate that tons of dangerous military waste remain in the NPOI. They also show that the ODB has tried to restore the environment. We regard the ODB's efforts as, at least, a positive development from its misleading claim that "the returned land was confirmed to be free from soil contamination and water pollution" (p.128).

①処分品写真

①整理後の空包（5.56mm、7.62mm空包）導電箱1～11及びその他火工品等



②その他火工品等（突包）写真番号①

Fig. 4: U.S. Military Blank Shells and Grenades found in the NPOI in 2022.

Source: Okinawa Defense Bureau Report (2022)

Upon obtaining the ODB report, we requested that the MOE provide information based upon the report to the WH Centre and IUCN following Chapter IV of the *Operational Guidelines for the Implementation of the World Heritage Convention* (Operational Guidelines). The MOE has declined to act upon our request, however. The MOE did not include information on military waste in its "State of Conservation Report" submitted to the WH Centre and IUCN in December 2022. Moreover, the MOE made no mention of military waste in its Draft Management Plan for the Yambaru National Park, which should serve as a requirement for the NPOI to maintain its World Heritage status. The MOE insisted that the MOE does not have jurisdic-

tion over military waste and that the task of cleaning up military waste falls under the jurisdiction of the ODB.

We request the WH Centre and IUCN to urge the MOE:

1. to provide the WH Centre and IUCN with information on the OBD reports;
2. to develop a long-term cleanup plan in junction with the ODB and incorporate it into the monitoring and management of the NPOI and the Yambaru National Forest;
3. to include the ODB in the list of "Sources of Expertise and Training in Conservation and Management Techniques" for the NPOI.

We also request the WH Centre to address the issues concerning the lawsuits against the entomologist Akino Miyagi for her protest against military waste in the NPOI and the ODB's misleading insistence that the ODB completed cleaning up military waste in the NPOI.

2. Despite civil society's repeated demands, the MOE has yet to study the impacts of the U.S. military's training on the NPOI, particularly those of military aircraft noise and low-frequency sound on the endangered endemic Okinawa rail and Okinawa woodpecker. The U.S. Military's aircraft engage in landing and taking-off practices in the NTA. They conduct low-altitude flight training over the Yambaru forest, including the NPOI. Also, despite our demands, the MOE has not provided information on how the NTA functions as a Buffer Zone for the World Heritage NPOI, and what restrictions are in place for the NTA as a Buffer Zone.



Fig. 5: U.S. Military's Osprey Aircraft flying over NTA and NPOI.

Source: Tsuyoshi Kitaweda

The U.S. Military recognizes the presence of endangered endemic species in the NTA and the need for their protection. Also, given that the size of the NTA was reduced (a significant portion of the NTA was transferred and incorporated into the NPOI in 2016), the U.S. Military explains "This transfer of lands places the same amount of training on a smaller land base, which may create the possibility of increased adverse effects. It is important that training areas be monitored, rotated, and rested to ensure realistic training environments as well as to protect flora and fauna" (ibid., p. 128). However, the U.S. Military has yet to make publicly available their studies of the impacts of military training on the NPOI and the Yambaru forest.

We request the World Heritage Center and IUCN to urge the MOE to conduct a study on the impact of military training on the NOIP, especially those of aircraft noise and low-frequency sound on the Yambaru rail and the Okinawa woodpecker, in collaboration with the U.S. Military and the ODB. We also request the WH Centre to urge the MOE and the U.S. Military to provide information on the restrictions for the NTA as a Buffer Zone.

We inform the WH Centre and IUCN that civil society has begun a citizens' project, "Yambaru Forest World Natural Heritage Watch," to monitor the U.S. Military's activities around the NPOI and that we will submit a report before the World Heritage meeting this year.

3. Despite civil society's repeated demands, the issues concerning the boundary between the NPOI and the NTA have not been resolved. The boundary remains unmarked on the ground, the U.S. Military's aircraft fly over the NPOI. No proper mechanism has been established to deal with situations where U.S. (and possibly Japanese) soldiers in the NTA or visitors visiting the NPOI cross over to the other side by accident. There have been reports of incidents where U.S. soldiers carrying guns strayed out of the NTA onto the prefectural road and were confronted by local residents.¹ Although these reported incidents did not occur in the NOIP, they all indicate that boundary crossings might have already happened or could happen between the NOIP and the NTA. **We request the WH Centre to urge the Japanese and U.S. governments to resolve the boundary demarcation issues and set up a proper mechanism to deal with accidental boundary crossings.**



Fig. 6: U.S. soldiers strayed out of the NTA onto the prefectural road.

Source: The Okinawa Times / Akira Shimizu, 10 December 2022

4. Despite our repeated demands, including the Freedom of Information Act requests, the MOE has not made fully public the document titled "Document Concerning Cooperation with the United States Government in the Northern Training Area." While this document is one of the most critical documents regarding the NPOI, only the content part (the second page) has been open to the public. The first page, which should bear the names of the authorities who signed the document, the date of

signing, and most critically, the legal status and effectiveness of the document, has not been made public. This situation undermines the intents of §135 of the Operational Guidelines.



Fig. 7: Redacted Document.

Source: Government of Japan

We request the World Heritage Centre to urge the Japanese and U.S. governments to release the entire document.

Concluding Note

To resolve these issues discussed above requires that the Ministry of the Environment, the Ministry of Defense, and the U.S. Military closely work together, adhering to the *Operational Guidelines* of the WH Convention under the guidance of the WH Centre and IUCN.

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Comments on the Advisory Mission Report on the Great Barrier Reef¹

Imogen Zethoven,
on behalf of the Australian Marine Conservation Society



In 2021, at its extended 44th session, the World Heritage Committee requested Australia to invite a joint World Heritage Centre/IUCN Reactive Monitoring Mission to the Great Barrier Reef in 2022 to assess whether the updated Reef 2050 Plan² adequately addresses the threats posed to the property by climate change and determines a pathway for accelerated actions in other areas affecting the conservation of the property.”

The mission team travelled through the Great Barrier Reef (Reef) region in March 2022, during the fourth mass coral bleaching event in the Reef since 2016. The mission report found that “the property is faced with major threats that could have deleterious effects on its inherent characteristics, and therefore recommended “that the Great Barrier Reef be inscribed on the List of World Heritage in Danger.” The report made 10 Priority Recommendations and 12 Other Recommendations. The recommendations address three key issues: climate change, water quality and fisheries.



Fig. 1: Coral bleaching on Stanley Reef, March 2022 during the Reactive Monitoring Mission visit. Photo: Harriet Spark

Climate Change

Recommendation P6: “Review and strengthen, by 31 December 2022, the Reef 2050 Plan to include clear government commitments to reduce greenhouse emissions consistent with the efforts required to limit the global average temperature increase to 1.5°C above pre-industrial levels”.

The Reef 2050 Plan has not been reviewed or strengthened since WHC COM 44.

Recommendation P6(b): “Develop and implement ambitious emissions reductions activities consistent with limiting the global average temperature increase to 1.5°C above pre-industrial levels”.

Although Australia has made some progress towards emissions reductions, its actions remain inconsistent with a 1.5°C pathway. In June 2022, the newly elected Australian Government legislated a 43% emissions reduction target by 2030 and a net zero emissions target by 2050. Climate Analytics assessed the 43% target as consistent with a 2°C pathway. Experts have concluded that Australia’s *fair share* 2030 target must be 74% below 2005 levels with net-zero emissions by 2035 for a 50% probability of limiting warming to 1.5°C.³ This difference is significant because according to the IPCC, “Coral reefs, for example, are projected to decline by a further 70–90% at 1.5°C (*high confidence*) with larger losses (>99%) at 2°C (*very high confidence*).”⁴

Although actions are underway,⁵ collectively these continue to be inconsistent with a global 1.5°C pathway as the Australian Government remains committed to expanding fossil fuel production and export. For example, although the Environment Minister rejected a major coal mine 10 kms upstream of the Great Barrier Reef due to concerns about the impact on Reef water quality, the Minister recently approved a gas expansion project in Queensland.

¹ This report is a sharply reduced version of more in-depth reports which can be accessed here: <https://www.marineconservation.org.au/world-heritage-briefing-great-barrier-reef-fisheries-threats-and-solutions/>
<https://www.marineconservation.org.au/world-heritage-briefing-great-barrier-reef-water-quality-threats-solutions/>

² The Reef 2050 Plan is Australia’s framework for managing the Great Barrier Reef World Heritage Area until 2050. The plan was last updated in Dec. 2021.

³ A/Prof Malte Meinshausen and Dr. Zebedee Nicholls, Climate Resource, “Comparison between Australia’s 2030 and 2050 emissions reduction targets and 1.5°C pathways” (March 2022).

⁴ IPCC 2018 Summary for Policy Makers: Global Warming of 1.5°C.

⁵ AMCS assumes the Australian Government will provide this information to UNESCO and IUCN.

An additional 69 coal and 35 oil/gas major projects are at various stages of the development process across Australia.⁶ As at 2019, Australia was the third largest exporter of carbon dioxide equivalent behind only Russia and Saudi Arabia.⁷

Recommendation O6: Recommends that the Queensland Government “ensure the 1.5°C target is supported by legislation, and clear, actionable steps to achieve this target are set within the state’s existing climate related strategies and plans; with associated opportunities optimized to become a ‘climate action hub’ for the GBR”.

In September 2022, Queensland released an Energy and Jobs Plan which builds on the existing commitment to 50% renewable energy by 2030. It commits to legislating new targets for renewable energy: 70% by 2032 and 80% by 2035. The electricity sector specific target of 50% reduction in emissions by 2030 and 90% by 2035-36 is more in line with a 2°C pathway. Currently Queensland has not strengthened its 2030 economy-wide target of 30% emissions reduction by 2030. It remains the lowest in the country when compared to other states who have set targets.

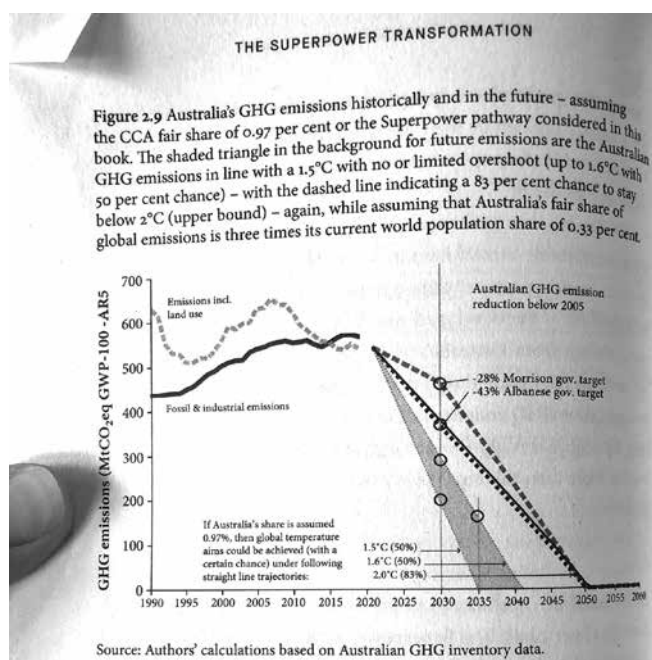


Fig. 2: Australia's greenhouse gas emissions historically and in the future.
Source: The Superpower Transformation, Ross Garnaut, October 2022.

Water Quality

The first five Priority Recommendations in the mission report are related to poor Reef water quality, the second biggest threat to the Great Barrier Reef. Given the scope of this chapter, it is not feasible to report on each of the water quality recommendations. AMCS focuses below on three priority recommendations:

Recommendation P3: This recommendation focuses on two remedies to reduce nutrient pollution from entering the in-shore area of the Reef: increasing the scale and pace of adoption of best management practice by sugar cane and banana farms; and “**upscaling of land restoration activities, including where feasible the purchase and/or buy-back of land areas for restoration and return to wetland or riparian ecosystems**” [bold added].

Upscaling land restoration is crucial to meet the water quality targets yet it has been largely neglected over the past 20 years of Reef water quality plans. The focus of previous investment has been farmer land management practice change, however, uptake has been too slow and will not meet the water quality targets alone. AMCS strongly supports this recommendation and urges UNESCO and IUCN to focus much more on land restoration, particularly coastal wetlands, for water quality improvement.

Recommendation P4: Prioritise the protection of remnant vegetation and review sites where clearing is currently allowed without permits. The intent of this recommendation is to “limit conversion of HCV areas”.⁸

Latest data for vegetation clearing in the GBR catchment shows only a slight decrease in clearing rates from the previous year from a total of 215,491 ha in 2018/2019 to 175,807 ha in 2019/20, a reduction of approximately 40,000 ha. More than three-quarters of the clearing in reef catchments in 2019–20 resulted in the full removal of the woody vegetation. As far as we understand, the government has not undertaken a review of sites where clearing is currently allowed without permits. The government did seek a review of what it could do to reduce clearing rates, however, the report has not been publicly released and does not contain any recommendations to strengthen the *Vegetation Management Act*. Without any action, clearing rates are likely to remain high.

Recommendation P5: “Ensure Reef 2050 WQIP water quality targets, to be updated in 2023, and actions implemented through the WQIP are sufficient to ensure the OUV of the property is not further adversely impacted by low water quality”.

The Reef 2050 Water Quality Improvement Plan is to be updated every 5 years. However, **the next WQIP 2023–2028 is delayed by potentially two years.** The WQIP should be informed by an updated Scientific Consensus Statement which is, however, about 12 months behind schedule. An independent review of proposed WQIP agricultural management practice adoption targets has been completed, but both the Australian and Queensland Environment Ministers have decided not to

⁶ Australian Government Department of Industry, Science and Resources. Resources and Energy Major Projects 2022.

⁷ T. Swann/The Australia Institute, High carbon from a land down under July 2019.

⁸ HCV: high conservation value

⁹ Plantation harvest figures removed. Queensland Statewide Landcover and Trees Study.

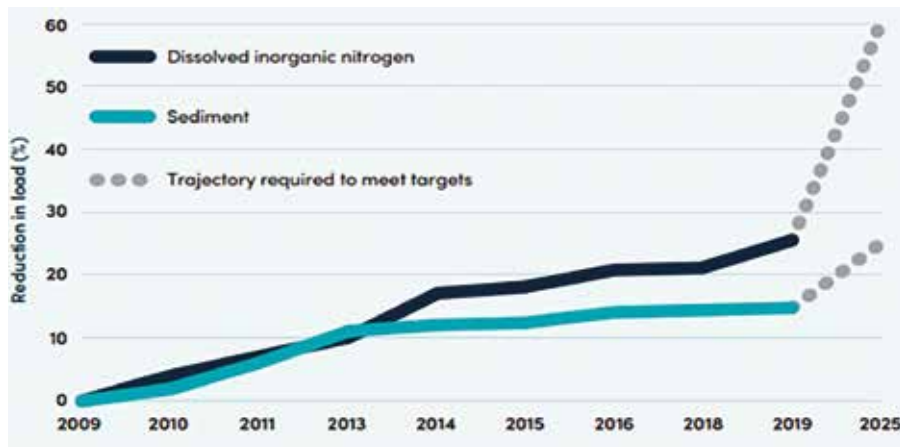


Fig. 3: Progress to reach the water quality targets of the WQIP. Source: AMCS

licences; retiring of other gill-net fisheries (N2) and the establishment of net-free sub-zones in areas of high conservation value for protected species.”

At the time of writing, the Queensland Government has not announced any actions to implement this recommendation. The recommendation also needs to apply to all large mesh gill-net licenses, including the N1 licenses

which are also responsible for the bycatch of protected species and contributing to the declines of populations of dugongs, turtles and sawfish within the property.

Fisheries

The monitoring mission report made two High Priority and four other recommendations in regard to fishing impacts within the property. Again, with limited space, AMCS focuses on the following recommendations:

Recommendation P9: “Accelerate the implementation of the Queensland Sustainable Fisheries Strategy”. The recommendation called for temporary closures of some fisheries areas to enable recovery, particularly in areas of spawning aggregations.

On paper, the Queensland Government’s strategy is consistent with best-practice, however, implementation of some key elements is running behind schedule. One egregious example of the failure to implement the strategy is Spanish mackerel, a prized commercial and recreational species. AMCS argued that the fishery should be closed for two years given the stock is depleted and below its limit of 20% unfished biomass. The government failed to follow its own policies and scientific advice, instead allowing the fishery to remain open under reduced commercial quotas and with spawning closures. However, spawning closures cover less than 50% of key spawning periods and are opened to fishing once a month.

Under current management settings more than 300t are likely to be harvested by the commercial and recreational sectors, prohibiting a rapid rebuild of the stock and ensuring 2027 targets of 60% of unfished biomass are impossible to meet. There are four other species in the property which continue to be fished despite the stock being considered depleted or below the limit reference point, which is supposed to trigger a fishery closure.

Recommendation P10: “Phase out destructive gill net fishing in the property through appropriate mechanisms, including purchasing, and/or retiring all remaining industrial (N4) gill-net



Fig. 4: Dugong captured within a gillnet and stranded at low tide within the Great Barrier Reef World Heritage Area. Photo: supplied anonymously to the AMCS

Recommendation O7: “Develop and implement appropriate mandatory independent mechanisms for discard and bycatch monitoring, such as e-monitoring via vessel-based cameras, on all gill-net and trawl vessels within the property.”

Independent data validation is not in place for bycatch and discard reporting in any fisheries operating within the property. Early work to establish a voluntary trial of e-monitoring is underway in the trawl fishery although at present less than 10 vessels are operating with cameras (<3% of vessels). It is AMCS’s position that all gill net vessels should be removed from the World Heritage property and all trawl vessels should operate with independent data validation, via e-monitoring technology.

Recommendation O8: “Advance research into effective bycatch reduction devices (BRDs) and accelerate the adoption... in relevant fisheries.”

The Queensland Government in partnership with the trawl fishing industry and AMCS have recently submitted a proposal to the Fisheries Research and Development Corporation to trial bycatch reduction devices that reduce the capture of sea snakes and small sharks and rays within the fishery. Should the proposal be successful, it will be undertaken from July 2023 until December 2025.

Annex

The Authors

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Birgül Açıkyıldız is an associate professor at Harran University in Turkey. She has a Ph.D. degree in Art History from Paris I Panthéon-Sorbonne University in France. She worked as a research fellow at Oxford, Harvard, and Paul Valéry Montpellier III Universities. Her research interests include Yezidi and other Kurdish Art and Culture; Islamic art and architecture; Ottoman Modernization and Architecture; Armenian, Chaldean, and Syriac Art and Architecture; Cultural Heritage.

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Abdurrahim Ahmadi

Abdurrahim Ahmadi was born in Bamiyan, Afghanistan in 1988. He graduated from Kabul Polytechnic University Architecture Department in 2013 and worked as a senior Architect in Bamiyan Urban Development and Housing Directorate until 2017. After that, he joined a master's Course in Urban Analysis and Management at Florence University of Italy. He was part of the Bamiyan Strategic Master Plan project from 2017–2018, and a member of the technical team of this project in Afghanistan when it was handed over in 2018. Again he joined his colleagues in Urban Development and Housing Directorate as a Senior Architect, and worked there until September 2020. Then he moved to the UNESCO Kabul office, which started a project in Bamiyan on Landscape Preservation Special Plan and Management Plan for Archeological sites. He worked there as Urban Planner from 2020 to 2021.



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Soulaiman Mefrej Al-Mhanna



Soulaiman Mefrej Al-Mhanna is a professor of architecture, a town planner & heritage consultant with more than thirty-four years of both local and international experience in the education and teaching of engineering architectural and urban planning studies and practice. Soulaiman studied in Bari, Italy, and Columbus, Ohio, before receiving his PhD in architecture from the National University of Construction and Architecture in Kyiv, Ukraine. He taught architecture at the Al-Baite University, Al-

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Victoria Andreeva

For safety reasons, Victoria Andreeva has not provided her bio and portrait photo.



ANSCH

The Arab Network of Civil Society Organizations to Safeguard Cultural Heritage (ANSCH) is a joint initiative of the non-governmental organization (NGO) Heritage for Peace (H4P) in coordination with several Civil Society Organizations (CSOs) in different Arab countries. The initiative works with government agencies, CSOs and non-profit organizations to identify, manage, plan and conserve archaeological sites, historical monuments, museums, and other cultural heritage resources. Our work is now concentrated in Syria, Iraq, Libya and Sudan. ANSCH believes that local communities have the power to protect and preserve their heritage assets, and is committed to empowering them to protect their tangible and intangible heritage. Therefore, ANSCH supports diverse proposals from different civil society organizations that aim at preserving our shared cultural heritage.

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Jeffrey Barbee

Jeffrey Barbee is an expert witness who as an award winning investigative journalist and film maker focuses on groundbreaking environmental and science issues around the world. Numerous newspapers and magazines, including National Geographic, The Guardian and others commission his writing. His 2015 film The High Cost of Cheap Gas has been translated into seven languages – winning numerous awards including the LA Independent Film Festival, Envirofilm, an International Award of Merit and others. Barbee is also the Director of AllianceEarth.org, an international non-profit organization that supports environmental and scientific education.



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I Gede Yudha Bhismaya (29) is the Data and Archive Officer at Photovoices International. He graduated from Udayana University with a major in International Relations. He is an avid photographer who's been actively involved in using camera as a tool for community development in rural communities in Bali, Lampung and Aceh in Indonesia. He has also worked with AIESEC Warszawa, and other international initiatives focused on youth empowerment.

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Toon Bijmens



Toon Bijmens (1987) is a Belgian civil society activist with a focus on the Middle Eastern region. He has worked in advocacy for Amnesty International and the Iraqi Civil Society Solidarity Initiative (ICSSI). In particular he has been involved with the Save the Tigris and Iraqi Marshes Campaign and is the current international coordinator. As part of this

initiative, he has been campaigning in Iraq and internationally for the inclusion of the Iraqi Marshes on the UNESCO World Heritage List. Bijmens holds an MA in Modern History. He has worked on various development and humanitarian projects in Egypt and Iraq, and is currently project manager for a Dutch non-profit organization supporting sustainable economic development in developing countries.

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Pinar Can

Pinar Can graduated from Hasan Kalyoncu University, Faculty of Architecture, in 2018. She was employed as an interior architect and a restorer architect in different offices. She has been working in various non-governmental organizations in Diyarbakir both voluntarily and as a professional architect. Besides, she is writing articles and making interviews about urbanization and protection for bianet.org, a digital news portal. She is currently a freelance architect and continues to work voluntarily in the civil field as well. Subjects such as the city, cultural heritage and social memory are among her main areas of interest.

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Ibrahim Canbulat

Ibrahim Canbulat (75) is a conservation architect, hotelier, cook and writer with a Masters of Architecture. In 1972, he worked in the team that designed the Gaziantep Campus Plan Faculty of Architecture. He has held various positions at the Department of Architecture of the Middle East Technical University (1973-1982) and at Karabük University. From 1992-2006 he worked as an independent consultant in Turkey's transportation, automotive and energy sectors. Since 2006, he has been a hotelier in the mansions which he restored in Safranbolu. He was granted an award for Best Conservation and Revitalization Project in 2006 by the Turkey Chamber of Architects for the restoration of the Macunağası İzzet Efendi House. and for Best Kitchen in the Black-Sea Region of Turkey in 2015 by the Government of Konya.

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Juanjo Carmona

Juanjo Carmona has been a lawyer and environmental consultant since 1999. In 1996, he started volunteering in Doñana through WWF Spain, so he lived through one of its blackest moments, the Aznalcóllar mining catastrophe. In 2001, he was hired for WWF's Doñana office, located in Hinojos, where he lives. Since then he has been working to conserve Doñana in close collaboration with local communities, NGOs, businessmen, farmers and administrations. When talking about Doñana and its OUV, its beaches, lagoons, marshes, forests, dunes, lynx or imperial eagles, for him it is talking about his home and people.

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Louay Dakhel

Louay Dakhel (1958) is an architect from Aleppo has owned a consulting engineering office there since 2000. He is a member of ICOMOS International and has participated in several international conferences such as an International Symposium on Arab and Islamic Urban Heritage at Aleppo University in 2007, and a Technical Coordination Meeting on Old Aleppo organized by UNESCO in Beirut in 2017. From 2017 - 2020 he has also been a lecturer at the Faculty of Archaeology of the University of Aleppo, and since 2020 he has participated in the project of restoring the wall of the Citadel of Aleppo. Mr Dakhel is the author of books such as "The Art of Islamic Decoration" (1993) and "Aleppo" (2017).

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Wiwik Dharmiasih



Wiwik Dharmiasih (38) is a lecturer at the Department of International Relations, Universitas Udayana, in Bali, Indonesia. She provided social and legal analysis for the World Heritage nomination of the Balinese irrigation system, subak, (2010-2011) and was the Coordinator for Program and Planning Unit at the Governing Assembly for Bali's Cultural

Heritage (2012). She was involved in the establishment of Forum Pekaseh Catur Angga Batukau and helped design the monitoring and evaluation system of the management of World Heritage property in Bali under the Subak Research Center, Universitas Udayana (2014). She is currently active in supporting community participation and youth involvement in the management of Bali's Cultural Landscape. She recently facilitated a photovoices community engagement initiative in Subak Jatiluwih to elicit local perspectives on the future management of the site.

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Ni Luh Emi Dwiyanti (24) served as the field facilitator of the Photovoices International initiative in Subak Jatiluwih, Bali. She is a local resident of Jatiluwih and recently graduated with a degree in tourism management from Politeknik Negeri Bali. She is an active member of youth initiatives in Jatiluwih and works to enhance local participation and raise awareness on management of the World Heritage Site.

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Equations

EQUATIONS (Equitable Tourism Options) is a research, campaign and advocacy organization working on tourism. EQUATIONS envision forms of tourism which are non-exploitative, where decision making is democratized and access to and benefits of tourism are equitably distributed. EQUATIONS believes in the concept of public action as elaborated by the famous economists John Dreze and Amartya Sen (1989). EQUATIONS has been a part of interventions and action research in Hampi for the last ten years. The interventions in Hampi have been to support communities to assert their rights in planning and development of tourism that comes to their doorstep. This contribution is based on interviews, conversations and observations with local communities as a part of the research on local governance



in Hampi and support provided to those who were fighting legal battles in Hampi.

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Kate Fielden



Dr Kate Fielden is Honorary Secretary to the Stonehenge Alliance. As an archaeologist and Trustee of CPRE Wiltshire Branch she has been involved in planning issues at Avebury and Stonehenge for around 30 years and helped in the formation of successive Local Development Plan policies and WHS Management Plans

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Edna Franco Vargas is a lawyer who graduated from the Autonomous University Benito Juárez of Oaxaca in 1993. She holds various degrees on labour, human rights, constitutional, tax, electoral arbitration law, and a LLM in International Law from King's College, England. She has participated in a number of seminars and congresses as an expert on several legal issues and legislation reform processes.

She has represented vulnerable members of society in high profile cases, among them children, having won legal recourses forcing the Mexican government to supply health care coverage to which it already has an obligation derived from the Constitution. She is the founder and current president of the Oaxaca Chapter of the Mexican Lawyer Bar Association and a member of the Oaxaca Lawyer Bar Association.

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Henning Frase



Henning Frase is a Graduate Engineer (University of Applied Sciences) and works as a freelance architect and expert for damage to buildings, mainly in Berlin and Lower Saxony. Through years of work as an architect as well as an expert in the field of recording structural damage and the associated restoration and repair

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Andy Gheorghiu



Andy Gheorghiu works as a free-lance campaigner, consultant, and activist for climate and environmental protection. During the last decade, he co-authored several reports about the negative climate impact of gas and fracking. Andy collaborated with grassroots groups, NGOs, scientists, attorneys and political decision makers to introduce several fracking bans and moratoria in Europe and beyond. He also contributed to the final session of the Permanent Peoples' Tribunal on Fracking, Human Rights and Climate Change. Andy currently supports and is a member of the Saving Okavango's Unique Life (SOUL) Alliance.

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Teresa Gil

Teresa Gil is a Spanish biologist with 20 years of professional experience in Natura 2000-Protected Areas management and habitats and flora conservation. Since April 2019, she has been the Head of the WWF-Spain Freshwater Programme. WWF-Spain's origin is closely linked to Doñana. Over the last 50 years, WWF has been fighting to ensure the preservation of its OUV, trying to stop the illegal theft of water that is degrading outstanding aquatic ecosystems like Doñana National Park, and promoting marshland restoration in the Guadalquivir Estuary as a way to restore some of the losses of the past and giving a green economic alternative to intensive agriculture and tourism. Teresa is a member of several NGOs like WWF, SEO Birdlife, Territorios Vivos and SEBICOP. She is member of the IUCN WCPA (World Commission on Protected Areas) and EAGL-Spain.

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Rudolf Golubich



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Fritz Groothues



Fritz Groothues studied in France and Germany and after two years as a social researcher in Ghana he moved to the UK in 1974. He spent most of his working life in the BBC World Service, first as a producer, then as Head of Strategy Development.

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Induja Gandhiprasad

Induja Gandhiprasad is an architect and GIS analyst working in Sunlit Future, Auroville, an international township in South India. She has 3 years of experience working in integrated town planning works in Auroville and is currently managing social impact projects at Sunlit Future, focusing on SDG 6, providing water access at doorsteps to the rural population in India. She is a GIS analyst integrating GIS capabilities in her past and current works, and a registered member of the Society for Conservation GIS trying to use her capabilities at its best in sustainable planning and conservation related works.



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Gankhuyag Purev-Ochir and Amarkhuu Gungaa

Gankhuyag and Amarkuu have been working on bird research and conservation in Mongolia since 2007. They work for Mongolian Bird Conservation Center (MBCC) as ornithologists. The mission of MBCC is to create tools and research that shape new solutions to the challenges of sustainable development, and to make a clear contribution to the understanding and preservation of national avian species and their habitat through implementing scientific research and conservation activities. Chukh Bird Research Station (CBRS) was established in 2019 and coordinated by the MBCC. Chukh Lake is



one of the important components of the Landscape of Dauria World Heritage Site where many species of migratory birds' stopover during its migration seasons. They have been conducting surveys on migratory birds, especially crane species in eastern Mongolia since 2016 and it implements a number of research and conservation projects on avian species and their habitats in Mongolia. The main aim of the CBRS is to carry out

long-term and sustainable monitoring of breeding and migratory bird populations of Chukh Lake and Ulz River in eastern Mongolia. Currently, they have been working on Eastern Mongolian Steppes World Heritage nomination project collaborating local and international organization supporting by both Ministry of Mongolia and Germany since 2021.

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Shin-ichi Hanawa



Shin-ichi Hanawa is a retired and freelance environmental conservationist. He serves an advisory role for various environmental NGOs and communities. Trained at Tohoku University and Tokyo University of Agriculture and Technology, he is specialized in ornithology, ecology, and environmental conservation. Shin-ichi worked for the Wild Bird Society

of Japan, conducting extensive surveys around Japan. He also worked for the WWF-Japan, planning and implementing conservation measures for endangered environments. His involvement in protecting the environment of Okinawa has been well recognized. He was a crucial figure in IUCN's adoption of recommendations (2000 and 2004) which called for the inscription of the Yambaru Forest as a World Natural Heritage Site.

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Saad Hanif

Saad Hanif is an interior architect, researcher and cultural heritage student. Born in Lahore, Pakistan and having lived and studied in Bahrain, Saad graduated from University of Bahrain in 2019 and has over 5 years of Architectural Design field experience. He has worked on Projects in Bahrain, Saudi Arabia and Lebanon.



Currently Saad is pursuing his Master's degree in Cultural Heritage from Eastern Mediterranean University in Famagusta, Cyprus. He is also working as a Research Assistant and Teaching Assistant at the Architecture Department of Eastern Mediterranean University. Saad is an active volunteer member of World Heritage Watch. He is an avid reader and travel enthusiast with a keen interest in cultural monuments and urban Heritage. His area of research includes heritagization, intercultural identities, adaptive re-use projects and contemporary theories of conservation.

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Sharif Jamil



Sharif Jamil is an internationally recognized leader and activist in the global environmental movement. For more than two decades he has been organizing civic action for environmental justice in Bangladesh. He is a Council Member of Waterkeeper Alliance and the Coordinator of Waterkeepers Bangladesh. Sharif is currently serving as the General Secretary of the civil society initiative, Bangladesh Poribesh Andolon (BAPA). He was declared a Waterkeeper Warrior in the world on the eve of the 20th anniversary of the organization in 2019. He has been organizing grassroots movements against dirty industries and promoting global campaign against climate change. He is a founding member of the National Committee for Saving the Sundarbans (NCSS) and working in the global campaign for the Sundarbans World Heritage Site and promoting renewable energy in Bangladesh.

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Mzia Janjalia



Mzia Janjalia is senior research fellow at George Chubinashvili National Research Center for Georgian Art History and Heritage Preservation and associate professor in the history of medieval Georgian art at Tbilisi State Academy of Arts. Her research focuses on medieval Georgian art and covers issues of medieval cultural identities, intercultural

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Sultana Kamal



Sultana Kamal is the Convener of the National Committee for Saving the Sundarbans (NCSS), a coalition of more than 50 civil society and non-governmental organizations of Bangladesh having shared interest in the environment, is concerned that the Government of Bangladesh continues to disregard the 2017 deci-

sion of the World Heritage Committee (WHC) 41COM 7B.25 to protect the outstanding universal values (OUV) of the Sundarbans Bangladesh World Heritage site.

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Masami Mel Kawamura

Masami Mel Kawamura is the Director of the Informed Public Project (IPP) in Okinawa, Japan. IPP engages in research and advocacy regarding environmental contamination related to the U.S. military bases in Okinawa. Her research utilizing the Freedom Information Act has helped reveal the contamination of former and present U.S. military bases in Okinawa, including the UNESCO World Natural Heritage Yambaru Forest. Masami holds a Ph.D. in International sociology from Hitotsubashi University, and she teaches as an adjunct lecturer at the University of the Ryukyus and Okinawa International University. She is a member of the IUCN Commission on Ecosystem Management.

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Dilan Kaya Taşdelen

Dilan Kaya Taşdelen graduated from the Department of Urban and Regional Planning at Istanbul Technical University and completed her master's degree at Yıldız Technical University in the field of post-conflict reconstruction on cultural heritage sites in 2020. She carried out several projects on oral history and archiving in collaboration with documentary producers during her university education. On behalf of various civil society organizations she has worked on the role of civil society on peace processes as well as the access to rights-based mechanisms for families displaced as a result of the conflicts in Suriçi, coordinated urban memory projects focusing on Diyarbakır, Suriçi between 2019-2021, and took part in the management of civil society organizations. Currently she is coordinating the Mapping Women's Cultural Labour in Diyarbakır project.

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Salman Khairalla

Together with Toon Bijmens, Salman Khairalla is the coordinator of the international campaign 'Save the Tigris' (www.savethetigris.org), which is a network of over 15 civil society organisations from Iraq, Iran, Turkey, Syria and other countries with the aim to advocate for the preservation of heritage in the Tigris-Euphrates basin. Particularly, Save the Tigris has been advocating for the protection of the natural heritage of the marshlands in Iraq through advocacy with stakeholders, research and awareness activities. Through their campaign members Un Ponte Per and Humat Dijlah, Bijmens and Khairalla are also coordinating 'Sumereen', a major UNDP-supported project to develop the natural and cultural heritage of the Ahwar through the construction of infrastructure, training and livelihood support.

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Zoltán Kun



Zoltán Kun studied forestry, gained an MSc degree on landscape architecture, and a professional engineering level on soil sciences. He has worked in both the civil society sector and also in the for-profit sector as a nature conservation expert. He is a research fellow of the Wildland Research Institute and currently serves as Head of Conservation of the Wild Europe Initiative. Zoltan Kun is a member of the IUCN's World Commission on Protected Areas and serves in various specialist group of WCPA as well as in two IUCN Task Forces about Primary Forest and Rewilding. His main focus of expertise includes the following topics: protected area management effectiveness, old-growth forests and their importance for biodiversity and climate change, wilderness protection across Europe.

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Amelia Lara Tamburriño

An authority on cultural management and restoration initiatives, Amelia Lara Tamburriño was on two separate occasions the general coordinator of the Santo Domingo Cultural Centre, a cultural complex that is located in what was one of the most important convents of the Spanish colony, which houses the Museum of Cultures of Oaxaca, the Fray Francisco de Burgoa Library and the Ethnobotanical Garden. She was Director of the Anthropology and History National Institute in Puebla, and cultural advisor within the Mexican Embassy in Rome, Italy, for 6 years. She was also the Director of the National History Museum in the Chapultepec Castle from 1983 to 1990. She currently resides in Oaxaca where she owns a hotel in downtown Oaxaca called La Casona de Tita, with a first-hand account of the evolution the city has gone through.

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Francisco J. López Morales

Francisco López Morales is an architect from the National Autonomous University of Mexico (UNAM) in 1973 and holds a Master in Architectural Restoration from the National School of Conservation, Restoration and Museography Manuel del Castillo Negrete, INAH, OEA, UNESCO (1974). He received a PhD in Urban Studies and Planning from Grenoble II University (1980). He was the Director of World Heritage in the National Institute of Anthropology and History (2000-2005; 2007-2018), achieving the inscription of more than 30 cultural and natural properties on the UNESCO's World Heritage List and other Registers. He was Secretary General of the 15th General Assembly of ICOMOS International celebrated in Xian, China, 2005. He has advised on heritage and restoration issues with a number of international organizations and was Secretary General of ICOMOS Mexico (1991-1994; 1994-1997).

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for many years conducting excavations in important archaeological sites around Greece, supervised projects on protection and presentation of monuments and sites as well as on the foundation and operation of museums. She served also at the Permanent Delegation of Greece to UNESCO, and as elected vice chair of the World Heritage Committee contributed to the international dialogue on the protection of World Monuments and the promotion of Greek Monuments (inscription of Vergina, Mycenae, Tiryns and Patmos on the WHL). She is a member of the Greek National Committees of ICOMOS and ICOM.

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Franco Migliorini

Franco Migliorini is an architect with 45 years practice in urban and regional planning, and a former part-time researcher and teacher at Venice University. He is the author of books and essays on spatial planning in Italy and Europe, a past Italian representative in the European Council of Town Planners (ECTP), and an opinion-maker in regional papers and the digital press. Recently he has been active in the implementation of EU Inter-reg spatial projects and in the critical debate related to the urban policy of the Venice City Council.

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Reinhold Mangundu



Reinhold Mangundu is a poet, community development planner, researcher and environmental activist passionate about conservation. He holds a Masters of Philosophy in Sustainable Development, Planning and Management, as well as a Post-graduate Diploma in Sustainable Development from the University of Stellenbosch. He has an Honors Degree in Regional and Rural Development from the Namibia University of Science and Technology. He is the current chairperson of the Namibian Environment and Wildlife Society, and a board member of the Namibian Chamber of Environment. Reinhold holds the ITRI Visionary Young Leaders Award 2020 and the Next Generation Foresight Practitioners Development Award 2021.

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Akino Miyagi

Akino Miyagi is an entomologist and independent researcher specializing in studying butterflies. She is one of the most visible environmental researcher-activists for the UNESCO World Natural Heritage Yambaru Forest. She worked at the Uruma City Sea Cultural Museum in Okinawa, where she helped bring the public's attention to the lives of insects in the Yambaru Forest. After parts of the U.S. military's Northern Training Area in the Yambaru Forest were returned to Japan in late 2016, Akino began to survey the impacts of the U.S. military training area on the Forest. Her discovery of the U.S. military's discarded materials and land contamination in the former training areas now incorporated into the World Natural Heritage site has prompted a public call for the Japanese and U.S. governments to clean up.

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Helen Methodiou



Helen Methodiou, archaeologist, is currently scientific associate at UNESCO Chair of Ionian University on Threats to Cultural Heritage. She combines experience in field archaeology, museology and on international organizations related to the protection of cultural heritage (UNESCO, ICOMOS, ICOM, ICCROM). She has worked in the Ministry of Culture

Anne Collier Morriss

Dr. Anne Collier Morriss is a Professor of Academic Research and Writing. She has published five books and worked, before beginning her teaching career, as the historian on a number



of high visibility projects, to include acting as the historian for the Howard Hughes Spruce Goose Museum and the Olympics Committee photograph project. She has been involved, as a volunteer, in many environmental issues both in Europe and in the United States, to include the current fight to stop the building of an incinerator on the Jurassic Coast, a World Heritage site.

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Aghash Natarajan

Aghash Natarajan is a conservation architect hailing from Puducherry, India. He is currently pursuing his graduate degree in World Heritage Studies at the Brandenburg University of Technology in Cottbus, Germany. His academic research is focused on traditional water management systems and cultural landscapes. Aghash has worked as an architect in PATH architects and planners in Auroville, specialized in vernacular construction techniques. He is an active member of ICOMOS India, involved in water heritage documentation, and ancient monuments protection and restoration.

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Alejandro Olivera

Alejandro Olivera is the Mexico Representative of the Center for Biological Diversity. He works to conserve Mexican wildlife, including highly endangered vaquita porpoises and loggerhead sea turtles. He is a marine biologist from the University of Baja California Sur and has a master's degree in the use, management and preservation of natural resources as well as a diploma in environmental law. He comes to the Center after years of work at the Mexican Center for Environmental Law (Cemda) and Greenpeace México. He is a petitioner for "in danger" designation of two World Heritage Sites in Mexico: The Islands and Protected Areas of the Gulf of California and Reserva de la Biósfera El Pinacate y Gran Desierto de Altar.

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Krupa Rajangam



Dr. Krupa Rajangam is a critical heritage practitioner-scholar with over 19 years of field-based dedicated conservation experience, which includes 4 years of fieldwork at Hampi WHS for various projects and initiatives. Her doctoral thesis on Hampi sought to understand the everyday realities of conservation-management of the

Hampi site. Her contribution is based on discussions, conversations, interviews, and observations with various groups/individuals (over 200 interviews) interested in and/or living on site. She is the founder of the Bangalore-based heritage collaborative Saythu...linking people and heritage, a non-institutional collective run by heritage management professionals invested in socially-inclusive and interdisciplinary approaches to conservation, that aims to bridge theory and practice through a methodologically based approach to heritage conservation-management.

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Herbert Rasinger

Herbert Rasinger has been the chairman of the Cityscape Protection Initiative (Initiative Stadtbildschutz), based in Vienna, Austria since 2015. He is active in cultural heritage site (last atelier of Gustav Klimt) and city protection matters (Wien Mitte, Vienna ice skating ring). He is a graduate of the Vienna Technical University and of a high school in Wilmington, Delaware, USA.

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Mikhail Ryzhov

For safety reasons Mikhail Ryzhov has not provided his bio and portrait photo.

Daniel Scarry

Daniel Scarry became engaged with Ohrid SOS, a local citizen initiative in the Republic of Macedonia, in 2015 after proposals



were announced to drain the vital Studenchishte Marsh wetland and impose large-scale tourism infrastructure upon the Ohrid Region WHS. Fascinated by habitats, biodiversity and the interplay between them, he has co-authored two journal papers and several reports/articles related to socio-ecology, wetland protection, and natural heritage

conservation in Macedonia.

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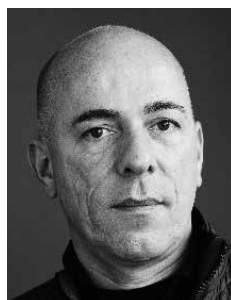
Christian Schuhböck

Prof. DI Christian Schuhböck, Secretary General of the nature, culture and landscape conservation organization "Alliance For Nature", is a court-certified expert for nature conservation, landscape ecology and landscape management, specializing in UNESCO World Heritage Sites, national parks and other protected areas. Due to his initiative "World Heritage Semmering Railway", for the first time in the history of railroads, World Heritage railroads have been recognized as a distinct type of World Heritage sites. In addition, his initiative was instrumental in UNESCO adding two new categories of properties to the World Heritage List. His initiative (1993-1998) has become a model worldwide. Countries such as India, Switzerland and Iran followed his initiative, so that as of today, six railroad lines have been inscribed in the UNESCO World Heritage List.

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Jorg Sicot



Jorg Sicot, Dipl.-Ing., age 53, is an architect and environmental activist. Born in Germany and having lived in South Africa, Germany and France, he is now working and living in Malta since 2005. For ten years he has been a committee member with Flimkien għal Ambjent Aħjar, and is currently its chairperson. He is an avid photographer with a special interest in architecture and built urban environment. Further interests and hobbies include gardening, painting, drawing, reading, cinematography and social justice. He is fluent in German, English and Afrikaans, with basic knowledge of Dutch, Maltese, French and Sanskrit. Currently he is self-employed as an Interior Architect.

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Eugene Simonov

Eugene Simonov is an environmental activist and expert. He is the International Coordinator of the Rivers without Boundaries Coalition (RwB) focusing on North Eurasian transboundary rivers. He collaborated with the WWF Amur Program to curtail three hydropower projects and designed a methodology for basin-wide environmental impact assessments of hydropower and analysis of the role of hydropower in flood management. He also works with the trilateral "Dauria" International Protected Area and the Sino-Rus-



sian Expert Committee on Biodiversity and Protected Areas. Since 2012, RwB has campaigned on hydropower projects sponsored by the World Bank and China Exim Bank. Since 2016 Eugene has worked with the Green Silk Road Coalition that pushes for more accountability and environmental sustainability of China's Silk Road Economic Belt integration initiative.

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SOSOrinoco



The purpose of SOSOrinoco is to shed light on the existing body of work regarding the situation in the Amazonia and Orinoquia regions of Venezuela, to raise awareness of the tragedy that is occurring and to outline some urgent measures that need to be taken in order to halt the unfolding human and environmental disaster. SOSOrinoco is an advocacy group started in 2018 by a group of experts inside and outside of Venezuela. They have been working anonymously, concealing the names of team members and witnesses, due to the high risk of doing this type of research in Venezuela. Their commitment has been to document and create an in-depth diagnostic of the region south of the Orinoco River and to raise awareness about the tragedy that is occurring, as well as to outline urgent measures that need to be taken in order to halt this disaster.

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Nevin Soyukaya

Nevin Soyukaya graduated from Atatürk University, Department of Archeology. Between 1989 and 1994, she worked as the Culture and Art Director at the Diyarbakır Municipality. Between 1994 and 2013, she served as an Archaeologist and Museum Director at the Diyarbakır Museum. She served as the head of the Diyarbakır Castle and Hevsel Gardens Cultural Landscape Area Management during and after the UNESCO candidacy process. In 2017, she was dismissed from civil service by a decree-law. Simultaneously with her duties in the public sector, she participated in voluntary work and carried out projects in various NGOs, designating the cultural inventory of Mardin and Diyarbakır provinces. She has been running the Archive and Portal Project on Diyarbakır/Sur under the Diyarbakır Association for the Protection of Cultural and Natural Assets since 2018.

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Kuili Suganya



Dr. Kuili Suganya is a heritage scholar with two decades of professional experience in heritage conservation. Her specialisation is documentation of historical structures, condition assessment, and formulation of conservation strategies. Her doctoral dissertation titled 'Beyond the protected built heritage sites: A geospatial study of Malaprabha River Valley' was awarded

the IALA Best Dissertation Award 2022. The work had broader implications for historical and archaeological studies adopting geospatial analyses and fieldwork methods. Her research interest is studying the relationships between landscape elements and built form with a particular focus on water systems. She is a senior partner at Saythu...linking people and heritage.

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Yefta Sutrisno

Yefta Sutrisno (29) is a freelance researcher interested in social issues in Bali. He has been involved in Jatiluwih working with the local community since 2013. He is currently working on research project in Jatiluwih that is part of a multi-country study on "resiliency in indigenously engineered, yet vulnerable, rice farming landscapes."

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Syrian Center for Cultural Heritage Protection

The Syrian Center for Cultural Heritage Protection is a group of volunteers comprising former employees of the Directorate-General of Antiquities and Museums (DGAM) in the Syrian region of Idlib, which is not under the remit of the Syrian government. The Center works independently, without any political affiliation to any group, and has been cooperating with several international heritage organizations. Their actions include documenting smuggled antiquities, documentation of damaged and destroyed sites, awareness-raising actions in the local communities, and first aid and emergency measures at different sites. The Centre's biggest project is the documentation and protection of the museum of Ma'arat al-Nu'man. For six years, it has monitored and documented damage at the Ancient Cities of Northern Syria World Heritage Site.

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Tasos Tanoulas

Dr. Tasos Tanoulas is an architect who worked in the Greek Ministry of Culture from 1976-2016, at the Service for the Preservation of the Acropolis Monuments (1977-2010), and in charge of the Propylaia Restoration Project (1984-2010). After retirement, he was superintendent of the Restoration of the Propylaia South Wing (2013-2016). A member of Greek and international scientific institutions and committees, he published more than seventy articles in scholarly periodicals and volumes, on architectural history and theory from antiquity to date, and published several books on the Propylaia. He received the Europa Nostra Award for Conservation and the Europa Nostra Public Choice Award in 2013, as the leader of the Propylaia Restoration Project. In 2020, he founded the initiative Acropolis SOS.

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Klaus Thomas

Klaus Thomas (1948) is an MBA who has retired from the Federal Ministry of the Interior and is now the spokesperson for the Bürgerinitiative Rheinpassagen ("Rhine Transit Routes Citizens' Initiative") which works for the conservation of the landscape and culture of the Middle Rhine. This includes various activities to fight against noise harassment from rail and road traffic in order to transmit this unique landscape unscathed to future generations.

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Imrana Tiwana



After graduating from the National College of Arts, Lahore, Imrana Tiwana went to the Massachusetts Institute of Technology (MIT) for graduate studies on an Aga Khan Scholarship. She headed the MIT Environmental Design Forum and did course work from Harvard University. She was the first and only recipient of the Aga

Khan Scholarship to be selected by the President of Malaysia, Mahatir Muhammad, to reassess Malaysian urban planning. After working in New York she returned to Pakistan to work as an architect. However, she soon plunged into efforts to save the built heritage of Lahore, recruiting many of her colleagues to the cause. She is an architect by profession but an environmentalist at heart.

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Voluntariado “Vale un Potosí”



Voluntariado “Vale un Potosí” is a group of professionals with activities to protect the Potosí World Heritage site, for which it coordinates with several Institutions, such as the Mayor’s Office of Potosí, T. Frías University, the Potosí Civic Committee, other organizations and institutions of the city of Potosí. The general objective of the group is to promote and implement sustainable alternatives for better production, preservation, environmental and social management in the Cerro Rico and Potosí. Voluntariado “Vale un Potosí” raises awareness among the population and mining cooperatives regarding the economic, social and environmental importance of the extractive activities of Cerro Rico and its link with local and regional development, with a social responsibility approach. It is also forming the Youth Guardians of Heritage Volunteer group.

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WALHI



Wahana Lingkungan Hidup Indonesia (Indonesian Forum for the Environment) was founded in 1980 and joined Friends of the Earth Indonesia in 1989. WALHI is the largest and oldest environmental advocacy NGO in Indonesia. WALHI unites more than 479 NGOs and 156 individuals throughout Indonesia’s vast archipelago, with independent offices and grassroots constituencies located in 27 of the nation’s 31 provinces. Its newsletter is published in both English and the native language. WALHI works on a wide range of issues, including agrarian conflict over access to natural resources, indigenous rights and peasants, coastal and marine, and deforestation. WALHI also has several cross cutting issues such as climate change, women and disaster risk management.

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Hideki Yoshikawa



Hideki Yoshikawa is the Director of the Okinawa Environmental Justice Project (OEJP) in Okinawa, Japan. OEJP engages in research, advocacy, and lobbying to protect Okinawa’s Environment from the overwhelming presence of U.S. military bases in Okinawa. Hideki was trained as an anthropologist at U.S. and Canadian universities. For 15 years, he has been at the forefront of internationalizing Okinawa’s military base-related environmental issues. His work has highlighted the controversial situations of the UNESCO World Natural Heritage Yambaru Forest and the U.S. military’s Northern Training Area sitting next to the World Heritage Site.

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Imogen Zethoven

Imogen Zethoven is director of Blue Ocean Consulting. She has 30-years of experience working to conserve nature on land and in the ocean through the development of public policy and environmental advocacy. She has worked for several NGOs in Australia, the USA and Germany including WWF, The Pew Charitable Trusts and the Australian Marine Conservation Society (AMCS) on matters such as marine park establishment, environmental law reform and climate change. She is currently advising AMCS on the Great Barrier Reef and World Heritage Committee advocacy. AMCS is the Australia’s only national NGO dedicated solely to protecting Australia’s ocean wildlife and ecosystems. AMCS was established in 1965 by a community of scientists and conservationists to protect the Great Barrier Reef.

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Map of the properties covered in this volume