# International Photo Essay Contest for UNESCO World Heritage

UNESCO World Heritage through the Lens







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# Foreword

As Secretary-General of the Korean National Commission for UNESCO (KNCU), it is my distinct privilege to introduce the International Photo Essay Contest for UNESCO World Heritage: UNESCO World Heritage through the Lens this year.

With the support of the International Coordinator for the UNESCO Associated Schools Network (ASPnet) and sponsorship from the Ministry of Education of the Republic of Korea, KNCU initiated this event to enable ASPnet members to celebrate the vital role of UNESCO World Heritage in advancing the UN Sustainable Development Goals (SDGs, 2016-2030) through the promotion of peace, human rights, sustainable development, and respect and understanding for cultural diversity.

Centered on the theme "World Heritage in the Era of Climate Crisis," this contest aims to explore how UNESCO World Heritage sites are engaging with youth to address the challenges posed by climate change and inspire practical actions for creating a sustainable society. Additionally, we have worked to foster global citizenship among ASPnet students and promote active exchanges between domestic and international ASPnet schools. This event also serves as an opportunity to promote World Heritage Education, in partnership with ASPnet National Coordinators worldwide, as we celebrate the 30th anniversary of UNESCO's World Heritage Education Programme.

Over the past few years, KNCU has dedicated itself to moving beyond ethnocentric and nationalistic interpretations of UNESCO heritage, spreading awareness of its value, and overcoming disputes and misperceptions surrounding heritage. In alignment with these goals, KNCU launched the production of Embracing Peace through UNESCO World Heritage in 2023.

This resource kit was developed not only to highlight the cultural values of heritage properties but also to promote an understanding of these values from perspectives of peace, human rights, cultural diversity, and sustainable development, supporting UNESCO's founding mission to eradicate ignorance, prejudice, and misunderstanding and to achieve peace. In addition, we have endeavored to overcome common misconceptions about World Heritage, presenting various practical examples for accessible classroom use. In 2024, KNCU pilot-tested these materials in Korean middle and high schools within

UNESCO ASPnet, and an online teacher training course based on this book was

provided through the National Education Training Institute (NETI) in June.

Building upon these efforts, we believe this contest will serve as a gateway for  $% \left\{ 1\right\} =\left\{ 1\right\} =\left$ 

young people worldwide to explore UNESCO World Heritage Sites and grow as

global citizens with a real-life understanding of 'Outstanding Universal Values'

(OUV) and the ability to apply these values in practice. Furthermore, we hope

that this contest will contribute to ongoing exchanges between UNESCO schools

both domestically and internationally and further foster global citizenship among

ASPnet students.

This year's contest received a total of 324 entries from 83 UNESCO Associated

Schools across 24 countries. This album features remarkable photos and

essays from 50 participants, including the 10 winners. I would like to extend  $\,$ 

my heartfelt gratitude to all participants for their enthusiastic engagement and

congratulate the 10 students who were selected as winners. The outstanding

quality of submissions reflects participants' dedication and passion for UNESCO's  $\,$ 

mission to protect and promote World Heritage in the face of climate change.

The works featured in this album are not only artistic expressions; they are

powerful testaments to the enduring relevance of heritage in our lives and the

importance of preserving it across generations.

We hope this album inspires you to view the world through a new lens—one

informed by the beauty, history, and significance of our shared heritage. Finally,

I would like to extend my sincere thanks to everyone involved in this initiative,

including the Korean Ministry of Education for sponsoring the contest, Ms. Lydia

Ruprecht, UNESCO ASPnet International Coordinator for support, the UNESCO

school teachers who served as focal points for student participation, and the

contest judges.

December 2024

Han, Kyung Koo

Secretary-General

Korean National Commission for UNESCO

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#### Morena Paz

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#### Sethmuthu Liyanapathirana

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#### Tshenden Tashi

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Kyiv Gymnasium of Oriental Languages №1\_Ukraine

#### **Background**

With the support of the ASPnet International Coordinator, the Korean National Commission for UNESCO (KNCU) held the International Photo Essay Contest for UNESCO World Heritage: UNESCO World Heritage through the Lens, as a way for members of the UNESCO Associated Schools Network (ASPnet) to celebrate the role of UNESCO World Heritage in contributing to the UN Sustainable Development Goals (SDGs, 2016-2030) by promoting peace and human rights, sustainable development, and respect and understanding for cultural diversity in the current era of the climate crisis.

#### **General Information**

#### Title

International Photo Essay Contest for UNESCO World Heritage: UNESCO World Heritage through the Lens

#### Organizer

Korean National Commission for UNESCO

- Sponsored by: Ministry of Education of the Republic of Korea

- Supported by: UNESCO

#### **Theme**

World Heritage in the Era of Climate Crisis

#### Official language

English

#### Categories

Cultural Heritage, Natural Heritage, and Mixed Sites

#### **Participants**

Students from UNESCO Associated Schools worldwide (primary and secondary schools)

#### Schedule

Period (2024)	Details
Jun-Jul	Contest website built
28 Aug	ASPnet sent the open call for participation to all National Coordinators.
20 Sep	Deadline for the registration, which allows to gauge the interest and potential participation from ASPnet schools
4 Oct	KNCU held a Kick-off Webinar for preparing the submission process with all participating schools.
10 Oct - 8 Nov	Submission via website
Nov	<ul> <li>Online preparation meeting with jury (13 Nov)</li> <li>Evaluation of the photos and essays by jury (13-20 Nov)</li> <li>Announcement of contest results (22 Nov)</li> </ul>
Nov-Dec	<ul> <li>Issuance of certificates for participating focal points (teachers) and students</li> <li>Award ceremony during the UNESCO International Forum on the Futures of Education 2024 (Suwon, Gyeonggi-do, Republic of Korea / 3 Dec / hybrid format)</li> <li>Distribution of relevant materials to participants, including commemorative albums (on/off-line) with souvenirs</li> </ul>

# Submission Summary

#### **Per Country**

A total of 324 participants from 83 schools in 24 countries participated in the contest.

No.	Countries (in alphabetical order)	Number of Schools	Number of Participants	
1	Argentina	6	32	
2	Armenia	1	1	
3	Bahrain	2	4	
4	Belarus	2	2	
5	Belgium	1	1	
6	Bhutan	19	81	
7	Croatia	2	5	
8	Cyprus	1	1	
9	Germany	1	1	
10	Greece	20	61	
11	India	2	9	
12	Japan	1	3	
13	Kyrgyzstan	1	12	
14	Laos	1	2	
15	South Korea	5	25	
16	Palestine	2	7	
17	Peru	1	1	
18	Poland	6	26	
19	Portugal	2	12	
20	Republic of Moldova	1	5	
21	Romania	1	7	
22	Sri Lanka	1	9	
23	Tunisia	1	3	
24	Ukraine	3	14	
	Total	83	324	

#### **Per Region**

- Africa: 3 participants from 1 school in 1 country
- Arab States: 11 participants from 4 schools in 2 countries
- Asia and the Pacific: 141 participants from 30 schools in 7 countries
- Europe and North America: 136 participants from 41 schools in 12 countries
- Latin America and the Caribbean: 33 participants from 7 schools in 2 countries

No.	Regions (in alphabetical order)	Countries	Number of Schools	Number of Participants
1	Africa	Tunisia	1	3
	Total (Africa)		1	3
1	- Arab States	Bahrain	2	4
2	Alab States	Palestine	2	7
	Total (Arab Stat	es)	4	11
1		Bhutan	19	81
2		India	2	9
3		Japan	1	3
4	Asia and the Pacific	Kyrgyzstan	1	12
5		Laos	1	2
6		South Korea	5	25
7		Sri Lanka	1	9
	Total (Asia and the	Pacific)	30	141
1		Armenia	1	1
2		Belarus	2	2
3		Belgium	1	1
4		Croatia	2	5
5		Cyprus	1	1
6	Furanciand North America	Germany	1	1
7	Europe and North America	Greece	20	61
8		Poland	6	26
9		Portugal	2	12
10		Republic of Moldova	1	5
11		Romania	1	7
12		Ukraine	3	14
Total (Europe and North America)			41	136
1	Latin America and the	Argentina	6	32
2	Caribbean	Peru	1	1
Total (Latin America and the Caribbean)			7	33
Total			83	324



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#### **Lena Wolan**

2nd Grade

 ${\sf X}$ Liceum Ogólnokształcące im. prof. Stefana Banacha w Toruniu Poland



While I was taking a walk in the forest near my hometown, Toruń I decided to capture the sight of cut down trees. When I saw the remains of the trees I was shocked. I always knew that the trees were cut down to produce paper, furniture and many other things, but I never realized that it is happening so close.

The lack of trees makes it difficult for the air to be cleaned from pollution of nearby cities

and cars driving by. When we compare photo number 2 and 3 we can see how sad and depressing photo 2 looks compared to photo 3. Thinking how cutting out trees makes everything less colorful and lively makes me sad. In the 4th photo you can see how big the pile of wood is compared to a human. Seeing this in person was truly an eye opening experience knowing that trees in front of me were only a small percent of trees being cut down in Poland daily. In the last



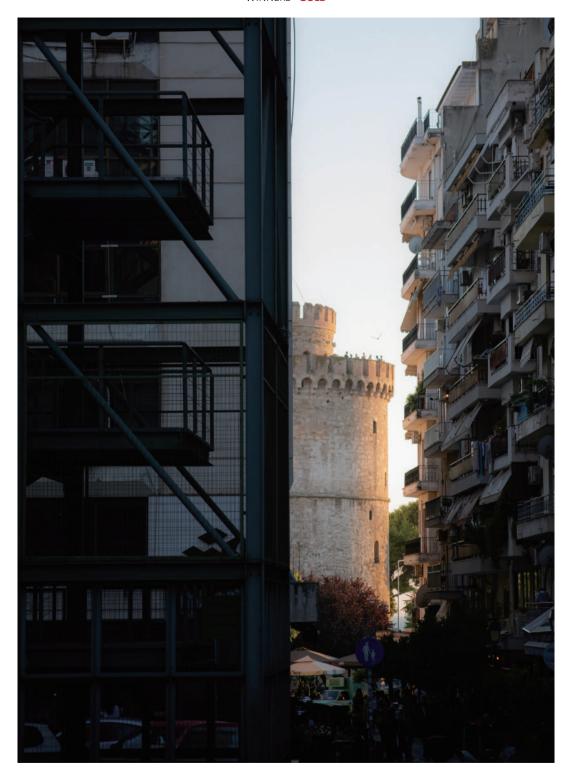


photo the visible growth rings indicate that the tree was growing in the forest for a long time when someone decided to cut it down.

Despite it still being an ongoing problem Poland is heading in the right direction fighting against deforestation. Unfortunately we still can see the effects of it. In the last months we could observe that because of the thinned out forests the aftermath of natural disasters such as floods worsened. The forest acts as a natural water pump which is crucial to water circulation. With the lack of trees, water coming down the mountains increases in speed and becomes more dangerous. Thousands of people lost their properties or even lives, which shows us that we really should take care of it.

Consumerism has taken over the world so people need to deprive forests of trees in order to have a place to plant edible plants or to have material for production of various things. What can we do to minimize or stop this? We need to stop the overconsumption, use our furniture longer and

try to repair them when they are broken. We also need to stop wasting food so we don't need to produce as much food as we do now. Another thing we can do is to plant new trees in the place of the cut out ones.



#### **Pavlos Gioras**

3rd Grade (High School) Hellenic College of Thessaloniki Greece

### My Beloved Hometown, Thessaloniki



1

I chose to submit these photographs because I want to show how the past and the present live side by side in my beloved hometown, Thessaloniki. Our cultural heritage, loved and admired by millions through the ages, is still today a big part of our everyday life. Thessaloniki is a fast-paced city with nice and polite people. Every day I sit at the Kamara (one of the city squares) to have my coffee and I see the Arch\_of\_Galerius which was built at the beginning of the 4th century as a tribute to the victory of Galerius over the Persian army. I watch the

workers restore its magnificent design and I feel a part of history. Then I turn to my right and there is the Rotonda, built in the same period, standing there majestic and mysterious since we are not definite about its original use (Roman\_Empire\_Era). Then we stroll south towards the seashore and we come to the White\_Tower. This tower is a monument of a completely different time in our history (15th century). It was built during the Ottoman\_Empire as a fortification project. It is not one of the 15 cultural monuments of the city but I include it because it is the eastern part of the Walls. If we walk toward the west then we



run to the western end of the city walls fused with our courthouse. Finally, St\_Dimitrios is the patron saint of the city and deserves to have a presence in this competition.

#### 2

In these pictures it is evident that there is a fusion of the past and the present architecture in my hometown. As a citizen, I love it because I can enjoy both worlds at the same time, but as a lover of everything that is cultural, I need to point out that the new structures corrupt the image of the past and don't allow for proper restoration of the monuments.

#### 3

The protection of cultural heritage sites in Greece is a constant challenge. Some of the main challenges we face every day are:

1) Climate change creates extreme weather events such as heat waves, rainfall, earthquakes, which can cause damage. Mainly in ancient walls, buildings, etc.

Possible solutions are the development of

methods for monitoring climatic conditions, the use of modern maintenance methods, and damage restorations.

2) Insufficient funding, as the protection of monuments requires large amounts of money for maintenance and preventive protection.

A possible solution is the creation of more funding programs through the European\_Union and international organizations in cooperation with private sectors.

#### 4

The preservation of cultural monuments and heritage itself is not only the duty of citizens but also of the state itself. To ensure their protection, practical measures should be taken in several areas:

- 1) Awareness\_Training (SDG4 and 7) Educational programs: Creation of educational programs and excursions to museums that will enhance the appreciation of cultural heritage.
- 2) Protection of traditional settlements (SDG11)
  Design and implementation of protection
  measures for traditional buildings, ensuring the
  integrity of their cultural value.



#### **Lieselot Vanheertum**

7th Grade d-teach online school IVZW Belgium

#### The Namib Sand Sea



Over one million people visit the Namib Sand Sea every year. The beautiful natural dunes in Namibia are a treasure for this world. This world heritage site is one of the most well-kept in the world. It is a magical place that has awed not only me but also millions of other visitors. A place that should truly be experienced. One of my favorite memories which made my visit the most special trip I have ever made with my family, was sliding down the dunes. Nevertheless, tragically the Namib Sand and Sea is dealing with several climate change issues.

There are four main issues that the Namibian dunes have been challenged with. The first one is increased temperatures. The temperatures in Namibia have only been rising. This is shown since in every decade the temperature has

gone up 0.2 degrees Celsius. There are multiple species of plants and creatures yet, because of the increased temperatures, these animals have been struggling to survive. Most of them are dying due to either dehydration or overheating. The increased temperatures have also caused a decrease in tourists. Since many tourists do not like extreme heat, they are not that willing to go for a 10 km hike in the burning heat and sun. This has caused a decrease in profit, making it harder to preserve the natural site. A solution for this problem would be expanding renewable energy; this means we could add solar panels and windmills which would create energy, this would reduce fossil fuels which would help the climate in Namibia.

Another issue is the change in the rainfall



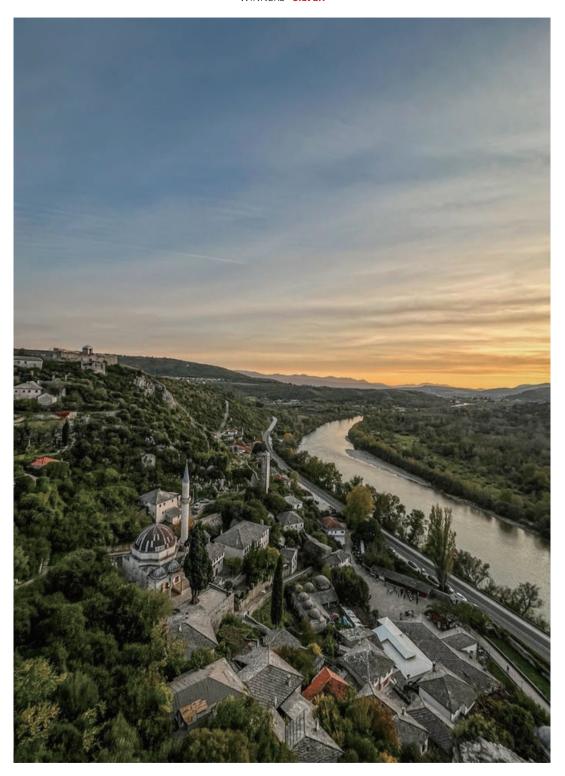
pattern. The Namib Sand Sea is one of the driest places in the world and its water supply is already relying on infrequent rainfall. Due to climate change the rainfall patterns have become even more infrequent which makes it even harder for the creatures and plants already in danger. It decreases the survival rate for animals and makes it hard for most plants to survive, thus, taking away the beauty of the natural world heritage site. A solution to this problem could be rainwater harvesting (RWH). This would increase the amount of water which could also be stored and used during the drier seasons.

Furthermore, a shift in the wind pattern is another issue. Due to climate change, the wind has changed its direction multiple times. This can cause the dunes to shape into another form and may even cause their destruction as one of the dunes is famous for its century-old trees surrounded by dunes. The change in wind causes the harsh sand to land on the old trees causing the world heritage site to lose its beauty and some of its purpose. A solution to this could be tree planting. The trees would act as wind

breakers which would decrease the wind in the dunes. This would help save the original shape. It would also reduce the chances of sandstorms and avalanches.

The last issue is biodiversity threats, this means unique species which rely on water, may struggle to survive since fog has become less predictable. This also threatens migratory birds and other species that need specific environmental conditions. For this, we could expand the protected areas for the animals. This would protect the animals and help keep the ecosystem intact for the animals and plants. This would also give the animals more space to reproduce and decrease their chances of dying due to stress. Another way is to promote the area to receive donations from international countries.

In conclusion, there are many reasons why the Namib Sand Sea struggles; however, if we use the solutions mentioned in the essay it would help save this incredibly beautiful world heritage spot.



#### **Mateo Nikšić**

2nd Grade Gimnazija Metković Croatia

## Počitelj: A Wonder of Nature, Challenges of the Climate Crisis



#### The Old Town of Počitelj: Protecting a special Place in a Changing Climate

Počitelj is an old town by the Neretva River in Bosnia and Herzegovina. It is famous for its beautiful, historic buildings, like the stone clock tower, old houses, and the Hadži Alija Mosque. Počitelj has a mix of different cultures, showing both Ottoman and Mediterranean styles. Many people come to see Počitelj because it is an important part of Bosnia's history and culture. But today, Počitelj faces serious problems because of climate change.

#### Why Počitelj is Important

Počitelj is a place that shows Bosnia's long and rich history. It was built in the 15th century and has kept many of its old buildings. Walking in Počitelj feels like stepping back in time. The town's old stone streets and buildings tell stories of the past, making it very special. That is why it is so important to keep Počitelj safe.

#### **Problems from Climate Change**

Today, Počitelj has some big challenges. Climate change is affecting the town in many ways. There are now more heavy rains, very hot days, and



strong storms. These weather changes damage the old stone walls and wooden parts of the buildings. The hills around Počitelj are also at risk of landslides, which could damage the town.

Tourism is also a challenge. Many people visit Počitelj, which helps the local economy, but too many visitors can damage the old streets and buildings. Balancing tourism and preservation is not easy.

#### **Solutions to Protect Počitelj**

To protect Počitelj, we need to use a mix of new ideas and careful planning. For example, we can use technology to watch the buildings and check for damage. This way, we can make repairs before the damage gets worse.

We can also make the buildings stronger with eco-friendly materials. This will help protect the buildings from rain and heat. Planting trees and plants on the nearby hills can help keep the soil stable and reduce the risk of landslides.

#### **Steps for Long-Term Protection**

To protect Počitelj in the long term, it's a good idea to limit the number of visitors. A ticket system or guided tours could help control the number of people visiting, reducing damage to the old paths and buildings.

It is also important to include the local community. By teaching residents about climate change and how to take care of old buildings, we can give them the tools to protect their town. This way, everyone can work together to keep Počitelj safe.

#### Conclusion

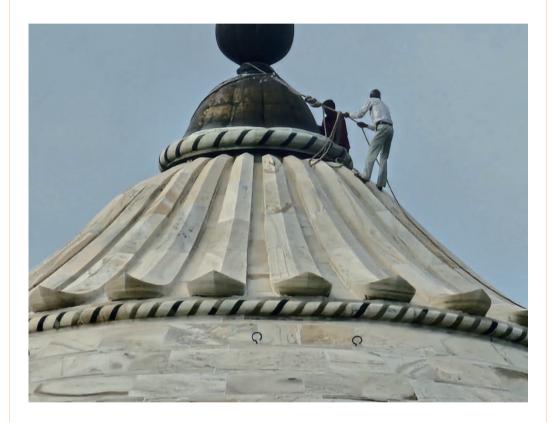
Počitelj is a unique part of Bosnia's heritage, and it deserves protection as the climate changes. By combining technology, limiting visitors, and involving the local community, we can make sure Počitelj remains a beautiful and historic place for future generations to enjoy.



#### **Aliza Fatima**

10th Grade Delhi Public School R.K.Puram India

# The Marble Marvel and the Need of the Hour: Heritage in the era of crisis



Shah Jahan commissioned the Taj Mahal in memory of his beloved wife, Mumtaz. Situated in Agra, Uttar Pradesh, it was completed in 1648 after 16 years of construction. 376 years later it is still one of the most important sites of tangible cultural heritage in India. It was proclaimed 'A Jewel of Islamic Art in India' and became a UNESCO World Heritage Site in 1983.

'The Taj Mahal at Twilight' (IMAGE-1): They say that the Taj Mahal depicts the mood of women,

it is pinkish white and cherry in the morning (IMAGE-2) and a shining-silver sight to behold at night. I saw that in the twilight, however, the Taj seemed to radiate a completely different and underappreciated aura. I have seen poets associate twilight with a period of obscurity or gradual decline, but it wasn't until I saw the Taj at Twilight that I realized what they meant. The mood depicted in IMAGE-1 is exactly what I imagine Mumtaz to be like if she sees the Taj Mahal in its current state; having a tranquil smile



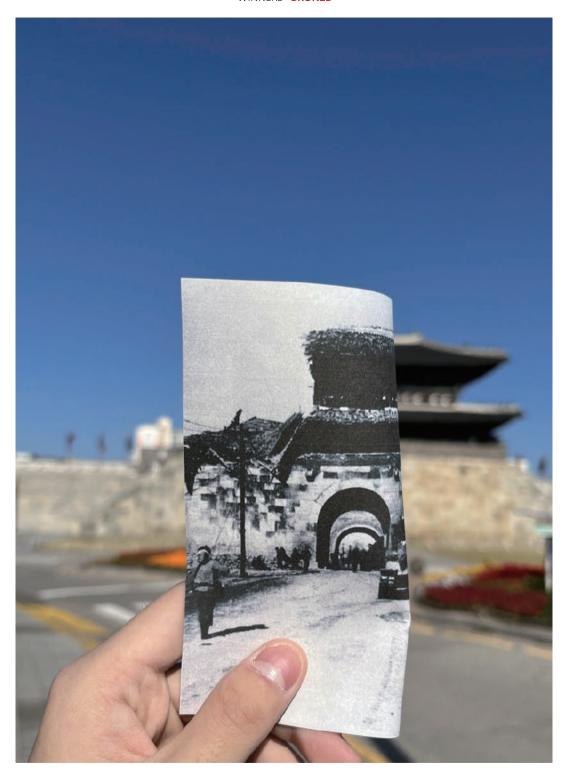
that conceals a vanquished spirit. Heartbroken to see the monument made as a tribute to love, now being damaged because of mankind's lack of compassion, and that's why I chose to write about it.

World Heritage, tangible or intangible, is greatly threatened in this era of climate crisis. The Greek Acropolis has suffered more damage in the past 40 years than in the past 2400. The components of the climate crisis like acid rain and pollution have severely damaged the Taj (as per a study by the NEERI). The most prominent damage was the yellowing of the marble caused by depositions of dust and SPM, natural weathering, and alteration of the polymethyl methacrylate (initially applied as a preservative). In response to the yellowing, the ASI began using 'Mudpack-Therapy' (with 'Multani Mitti', a common skin treatment in India) for its cleaning.

However, this raised many concerns as, being a bleaching agent, it could make the surface of the Taj rough and open pores on it exposing it to environmental onslaughts. These mud packs also can't absorb SPM. The mudpack therapy, even though successful, is thus merely a short-term solution. In 1984, a petition in the Supreme Court (M. C. Mehta VS. Union of India) concerning this led to a ruling regarding the Taj Trapezium Zone created wherein no industries could operate. A 500m buffer zone was also created where only battery-operated vehicles are allowed.

In recent years the decreasing water levels in the Yamuna River pose a new threat due to which the Taj could even sink and collapse unless the river is refilled. Subsequently, the Yamuna Action Plan, a bilateral-project between India and Japan, was introduced in 1993.

However, the efforts by conservationists wouldn't be successful without the people. Therefore, it is now paramount for us to, "Be the change we want to see in the World." Thus, everyone must realize their shared objective and divine duty to protect the Earth and the identity of its people; Our Heritage.



#### **Jaewon Lee**

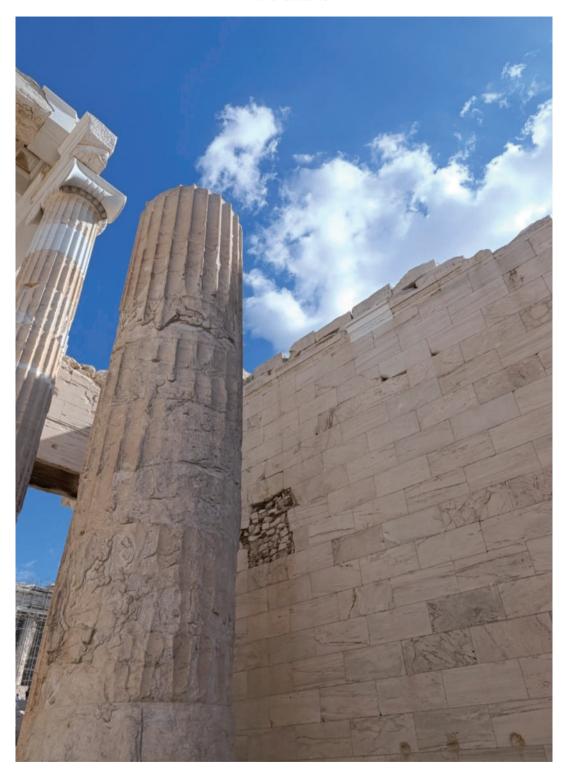
11th Grade Hankuk Academy of Foreign Studies South Korea Hwaseong is a traditional Korean fortress located in Suwon. Built in the 18th century, it showcases the development of Korean traditional architecture and was thus appointed a UNESCO heritage site in 1997. However, throughout its long history, the fortress has endured multiple challenges. The Janganmun serves as the main entrance to the fortress. In 1950, the pavilion atop the gate was destroyed after an intense battle during the Korean War, along with significant damage to the fort itself. Fortunately, Hwaseong was fully restored after the war, earning its UNESCO status. Between the fortress's destruction and today, South Korea, which the fortress itself, along with millions of Koreans that appreciate its value call home, has gone through remarkable progressive changes. The dilapidated pavilion now stands triumphant boasting its presence against the blue canvas, and the muddy road has been paved, welcoming millions of tourists from all across the globe every year. The poorest nation in the world now ranks 14th in the world, having its position as a global economic powerhouse and a cultural pioneer secured. With the fortress's past and today aligned bridging the aperture of 70 years, the picture captures human willpower and devotion, what we, homo sapiens, are truly capable of. The clear sky captures what such human characters can achieve: a confident future. Yet, the stark focus on the lapsed past serves as a constant reminder to not pretermit the past, for there is no guarantee that history won't repeat itself.

Today, tensions between the two Koreas are ever-high, perhaps the highest since the signing of the truce in 1953. As North Korea continues to engage in threatening actions disturbing the fragile peace, the possibility of war on the Korean peninsula is looming again. The fortress serving its original intended role would signify a final chapter of the millennia of human civilization.

Apart from the political situation, Hwaseong has to battle a different, more imminent adversary: climate change. As global warming drastically increases the Earth's temperature, Korea has become an ideal habitat for exotic termites feeding on wood, posing a severe threat to wooden structures. Almost 90% of cultural heritage sites in South Korea have been reported to have seen damage due to termite infestations, and Hwaseong is no exception. Wooden pavilions, a vital part of the Hwaseong architecture, are under grave danger.

What can be done to save Hwaseong and the precious cultural value it upholds? Renewing negotiations for de-escalation is more than necessary. Global support to achieve peace and stability in the region is requisite. Since the early 2010s, Gyeonggi-do has implemented measures such as applying insect repellents to put the termite rampage under control. More interests and budgets allocated to such projects are now needed more than ever.

This picture displays how Koreans overcame a manmade disaster: the Korean War. Climate change is no different: a global crisis instigated by human activities. It can be overcome and conquered through global cooperation and dedication to saving precious cultural heritage sites, the property of all mankind.



#### **Melina Ntouma**

9th Grade VARVAKEIO Model Junior High School Greece

# Climate Crisis Hurting History: A call to save the Acropolis



The monument in the photos is Acropolis, a symbol not only of Greek history but of the whole world. It is extremely famous, for representing the greatness of the ancient world and for still standing, after 2,500 years. Its flaws are minimal considering that it has been bombed, survived two world wars and suffered extensive damage. Large sections were removed by Thomas Bruce 7th Earl of Elgin and chunks of marble were even used as weapons during the Greek Revolution of 1821.

The perspectives presented in these photos reveal the monument's vulnerable side. Some

additions made later can be recognized, standing out because of their age difference, while marble erosions, caused mostly by acid rain, draw the attention upon them.

Through these photographs we can see the significant damage Acropolis has already suffered. But the biggest danger Acropolis has to face is the climate crisis. Acid rain, air pollution and extremely high temperatures threaten the vulnerable monument [the results of which can be seen especially in image (1)]. Acropolis' total destruction would be a huge blow to society. We are obliged to protect the monument because of

its significance for the modern world.

Such an undertaking would face enormous obstacles. First of all, the monument's age- around 2.500 years old- makes its protection particularly challenging, as we lack the appropriate materials and expertise to carry out inconspicuous renovations which will not stand out. In addition, the large area of the Acropolis is definitely not helpful since we cannot protect the temples from natural disasters such as acid rain, floods, fires and so on. Another huge holdback is the lack of money and of course the fact that that threat is not taken into consideration.

To overcome these obstacles, immediate action is needed. The best first step is to inform the public of the risks facing the monument, so that they realize what is in state. What is more, expert's suggestions and instructions must be followed to prevent any further damage. Another idea is to "close" the monument in a huge "globe" but, this cannot be considered as a feasible solution as it would reduce tourism to the Acropolis, and negatively impact the image of the country, making it an impractical choice for the Greek government. All in all, the best solution is to give the marbles, the treatments needed and draw the attention of the public upon the monument.

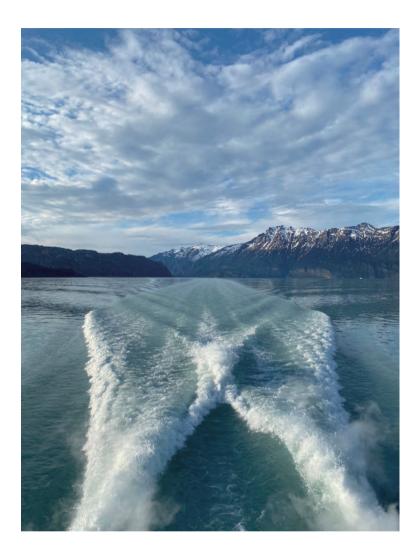
The Acropolis is located at the highest point of the city, as its Greek name suggests ('Acros' meaning 'edge' and 'polis' meaning 'city'). It started as a refuge of a nation and ended up as a refuge of the history of the Greek people and beyond. The monument of the Acropolis, which is engraved with the identity of human civilization, tends to lose its integrity due to the climate crisis. Bearing in mind all the above, it is our obligation to protect it.



#### **Morena Paz**

4th Grade (High School) Colegio de Educación Secundaria n°9 Argentina

#### **Glaciers and Their Conservation**



The photographs of the glaciers and these incredible landscapes allow us to appreciate the immensity and majesty of these natural environments.

Through the analysis of these images, not only is the authentic beauty of the territory, but also the alarming evidence of progressive melting. This essay will examine a series of photographs of the glacier panorama, exploring both its aesthetic value and its documentary importance in the context of the current climate crisis.

Regarding the choice of photos I took into account to capture the immense Spegazzini Glacier, and also parts of Lake Argentino and its characteristic Turquoise color due to glacial milk. Likewise, the harmony between the natural elements: the majesty of the glacier and the serenity of the lake. Together, they convey the

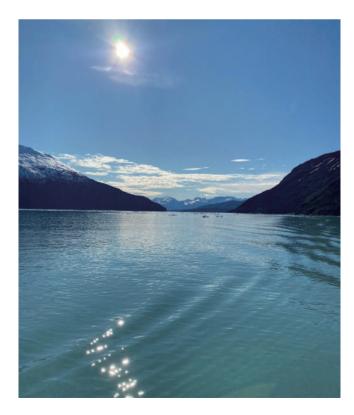
grandeur and tranquility of natural landscapes.

The values of sustainability are captured in the images, symbolizing the value of conservation and respect for natural environments, in turn the importance of protecting unique natural landscapes. National identity and pride, since the preservation of National Parks is a symbol of the natural wealth of the nation. Environmental education and awareness, since raises awareness of issues such as global warming and the need for concrete action to mitigate it.

Protecting this heritage can present certain challenges such as climate change, uncontrolled tourism, lack of financial resources, conflicts of interest. I consider that some measures that could be taken to care for and sustain this natural heritage over time, it would be the Proper compliance with laws and regulations within the National Park, as well as education and awareness of the subject, the protection

of the biodiversity, control of invasive species, among other combined strategies With a longterm approach, they are essential for effective protection.

In conclusion, the glacier natural heritage, composed of majestic glaciers such as those of the National Parks, not only dazzle with their imposing beauty, but also represent a treasure trove of cultural values, environmental and scientific. These glaciers serve as tangible reminders of the magnitude of natural processes and of the interconnection between man and the environment. The conservation of these imposing resources is not only a It is not a matter of preserving extraordinary landscapes, but also of maintaining the ecological balance, promoting education and fostering a sense of global responsibility for the future. Protecting and valuing this heritage is crucial to ensure that its majesty and the values it embodies follow inspiring and benefiting generations to come.





### Sethmuthu Liyanapathirana

9th Grade Mahinda Rajapaksha College, Matara Sri Lanka

## Sinharaja Rainforest: A Treasure of Nature and Culture



The Sinharaja Rainforest in Sri Lanka is a protected UNESCO World Heritage Site, of great importance for plants and animals alike, holding great cultural value. This tropical rainforest spreads over more than 11,000 hectares and hosts many unique species, which makes the location even more crucial in terms of world conservation. It is beneficial to the environmental health of the entire island, though it too is threatened by human activities.

#### Importance in Myths and Culture

The name "Sinharaja" means "Kingdom of the Lion," which is linked to old stories. It is said that lions used to live here, guarding the forest from intruders, and this eventually led to stories

about legendary protectors. This strong linkage to history has made Sinharaja a symbol of power and nature in Sri Lankan culture; it is also a source of respect for spirituality among the local people.

#### **Land Features**

Sinharaja is situated within Sri Lanka's wet zone, receiving immense rains throughout the year. With its rugged terrain of streams, waterfalls, and dense trees, it presents almost a peculiar climatic zone. The dense vegetation conditions in this forest prevent soil erosion and help regulate the water supply to the surrounding agricultural zones. However, illegal logging, invasion into lands, and tree removal for agriculture have



destroyed portions of the Sinharaja Forest.

The World Bank-funded ESCAMP (Ecosystem Conservation and Management Project) seeks to combat these issues by promoting sustainable conservation practices in Sinharaja and surrounding areas. Agriculturists and environmentalists are working to protect the forest's biodiversity, ensuring it remains a living ecosystem for future generations.

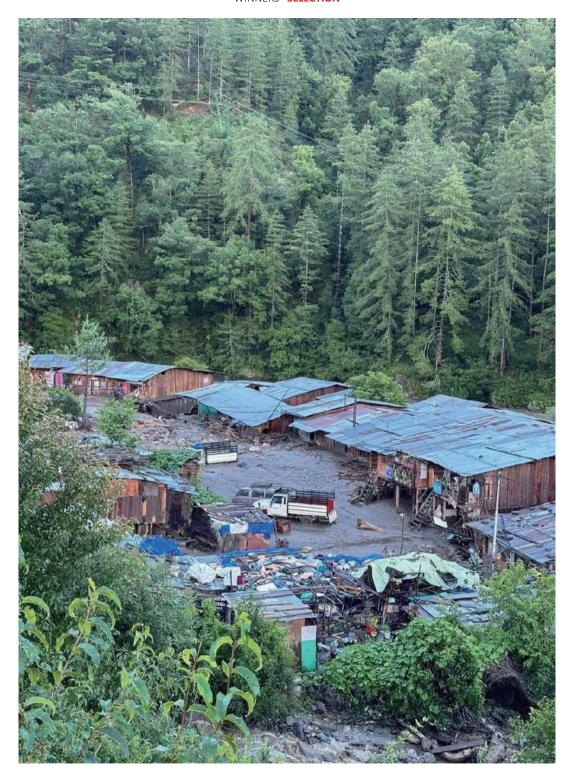
#### **Animal and Sustainable**

Sinharaja has a host of plants and animals that are only found nowhere else in the world;



an estimated 50% of the total. Some special animals, such as the purple-faced langur, Sri Lankan blue magpie, and many other rare reptiles and amphibians, have been thriving well in this forest. Thus, the rainforest is one of their most important habitats, whereas illegal activities, such as biopiracy, pose a serious threat through the commercial exploitation of valuable natural resources.

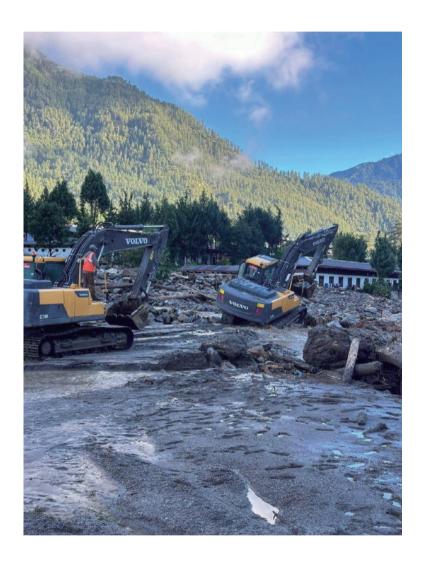
The conservationists have, on the other hand, propagated the awareness of Sinharaja's ecological significance. They support nondamaging tourism to nature and support scientific research. Protection of this rich resource would be a help in keeping the health of the forest itself and also open possibilities for new discoveries in medicine, agriculture, and science. Folklore and Preservation Local stories say that the forest has always taken care of its people, and in return, the people must take care of it. People have started to invade these areas, but there is a bigger effort to bring back balance. Conservation programs, like ESCAMP, stress that protecting Sinharaja is not only a duty for the country, but for the world too, so this ancient forest can keep growing well for future generations.



### **Tshenden Tashi**

11th Grade Yangchenphug Higher Secondary School Bhutan

## Safeguarding Bhutan's Heritage Amid Climate Change



As climate change increasingly threatens the world's cultural and natural landmarks, preserving Bhutan's heritage has become more urgent than ever. The photos I submitted highlight some of Bhutan's most treasured places: its lush valleys, sacred monasteries, and historic monasteries. These are more than beautiful scenes; they're snapshots of our history

and identity. By sharing these images, I hope to emphasize the critical need to protect these sites not just as relics, but as living, breathing parts of our national story. This isn't just about preservation; it's about passing down our heritage to future generations in a form they too can connect with.



Each of these images holds unique significance. Bhutan's landscapes and cultural landmarks are deeply woven into the lives and beliefs of our people. Our monasteries, for instance, stand as symbols of spiritual endurance, while our valleys are reminders of our ancestors' harmony with nature. Together, they represent the values that define us as a nation. When you look at these photos, I hope they convey more than just scenery. They reflect a way of life where people and nature are one an understanding that's at the heart of Bhutanese culture. These places are not just landmarks; they are embodiments of values that shape who we are.

However, preserving these sites in the face of climate change is far from easy. The impact of rising temperatures, unpredictable weather, and natural disasters, like landslides and floods, has made conservation increasingly challenging. Our heritage sites, especially those in remote, ecologically sensitive areas, are at risk. The terrain and weather complicate even the simplest preservation efforts, and the wear and tear caused by the elements threaten to erode our history. We're not just fighting to save buildings or landscapes; we're fighting to preserve the stories, beliefs, and values these sites embody.

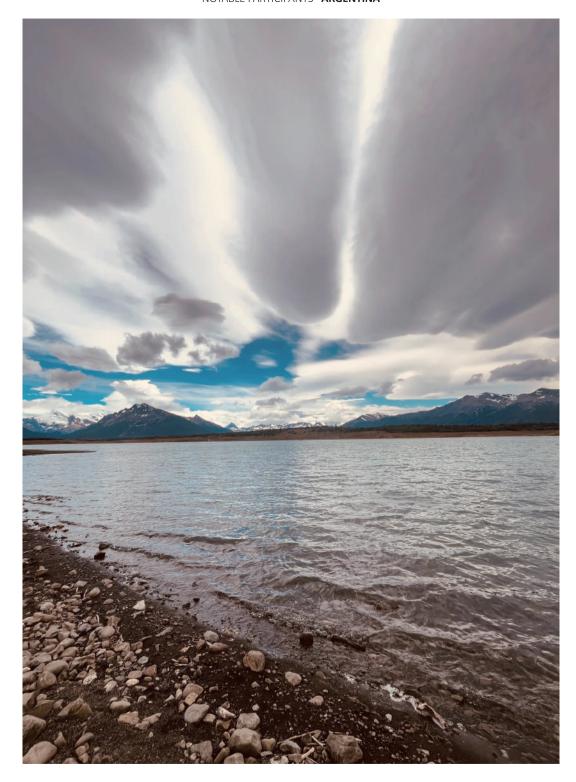
To address these challenges, we need a community-centered approach. Local

communities are invaluable to heritage conservation; they know these sites intimately and can act as first responders to any threats. By empowering locals to monitor and care for these sites, we ensure a constant watchful presence. Creating natural barriers around vulnerable sites and using climate resilient materials in restoration work are practical steps that can make a real difference. Collaborating with experts from around the world would bring fresh ideas and advanced techniques to strengthen our preservation efforts. With these combined approaches, we can protect our heritage more effectively while respecting the natural beauty that surrounds it.

In a nutshell, the key to sustaining these efforts lies in education. By instilling a sense of respect and responsibility for our heritage in younger generations, we're securing its future. Teaching our youth about the importance of heritage not only builds awareness but creates a cultural bond with these places. Promoting eco-friendly practices and sustainable tourism can also help lessen the environmental impact on these areas. Ultimately, preserving Bhutan's heritage isn't a task for a few; it's a mission for us all. Protecting these sites ensures that future generations can experience and appreciate the cultural treasures that define Bhutan, keeping our nation's spirit alive for centuries to come.

### NOTABLE PARTICIPANTS NOTABLE PARTICIPANTS NOTABLE PARTICIPANTS

International Photo Essay Contest for UNESCO World Heritage
UNESCO World Heritage through the Lens



### Florencia Argañaraz

4th Grade (High School) Colegio de Educación Secundaria n°9

### Lake Roca

I selected this photo for the reason that I was surprised by how striking and aesthetic the clouds are.

Another reason why I chose this photo is that it reminds me of a family moment where we get together to start the year in a quiet place, since previously with my family we were going through certain health problems that prevented us from being together and enjoying moments like these.

The value that this photo represents is practically originality, since not all the time you can see how the clouds are arranged in such a way and also because being the author of this photo generates nostalgia in me.

This heritage is preserved by the park rangers, as it is a nature reserve protected by them.

Lake Roca is located in Santa Cruz province, near the town of El Calafate, in the Patagonia Argentina.

The measures taken to protect this nature reserve are:

- Do not throw waste
- Extinguish the fire well and carefully
- The prohibition of cigarettes
- Do not allow pets to enter
- Do not feed the animals that are part of the forest.



### **Facundo Baltar**

3rd Grade Escuela de Comercio N° 5083 Dr. Victorino de la Plaza

### Strong Past Uncertain Future

I chose this photograph because in it, the tower of the Cathedral of Salta is a portrait of our history, of the lives that built it and of those who still find comfort in its shadow. When you see it, you feel as if time stopped for a moment, as if the echo of entire generations was impregnated in every stone, every ornament. The tower not only rises to the sky but carries with it the prayers, hopes and pain of a people who generation after generation look to it for refuge, peace and connection to something greater than themselves.

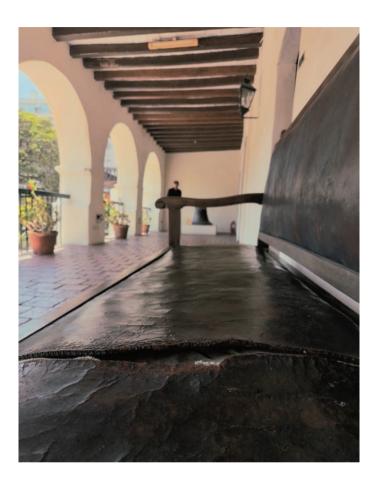
This image is valuable because it reminds us how fragile and yet how resilient our heritage can be, the detail of the tower is full of symbolism and beauty. It is an example of the architectural mastery of those who built with the hope of transcending time. The photograph shows us a work of art that belongs to all of us, a legacy that goes beyond the limits of a city and represents our culture and our roots.

However, this image also exposes the challenges we face today. Time and climate have not been kind to this tower, the cracks and wear remind us that although it is a symbol of strength, it is not immune to the passing of time or the threats of climate change. This deterioration represents the neglect to which we often subject our heritage and confronts us with the urgent need to act to protect that which is priceless.

In order to preserve this tower, we must assume a commitment to protection and care. It is essential to carry out restorations that respect its authenticity, protecting it from erosion and

environmental damage. Beyond the technical aspects, it is also necessary that as a society we value and respect this heritage, educating new generations about its importance and fostering a sense of responsibility. The tower cannot defend itself alone, it needs us, its heirs, to take care of it and love it as those who came before us have done

### Bank in Past and Present



This photograph was chosen because it represents a significant fragment of history and because I believe that my generation needs to connect with its historical past and understand that we have not always lived in a world full of technology and modernity. This old bench represents a time when life was simpler and people had a different relationship with their environment at a time when climate change threatens to erase both natural landscapes and cultural structures. Photographing this object is a way of saying 'This is ours, it is part of who we are, and we must protect it.

Through this photograph I want to show that the past is not dead, on the contrary, it reminds us of where we come from and gives us reasons to protect it in the present.

For me, this photograph has a profound value because it is a way to better understand these objects are not just for previous generations and to see how they lived and moved. This bench is not only an antique piece; they are testimonies of past visas and of an era that no longer exists, but still has a lot to teach us. My generation has the challenge of balancing technology with

history, and this image shows us that the past has a value that goes beyond modernity. It is a piece of identity and a reminder of what makes us unique as a community and as individuals. We can simply look to the future without remembering the road we have already traveled.

How do we protect our heritage on a planet that is changing so rapidly? Climate change is affecting not only ecosystems, but also all historical objects that are slowly deteriorating. For us young people, this represents a call to action. What are we going to do about it? It is not enough to observe and take pictures, we have to act. Every day we see news of floods, fires, and other events that destroy historic sites around the world. Protect the environment because, in the end, the two are connected.

I think we need more opportunities for young people to get involved in conservation. It's not just about learning in the classroom; we need to be actively involved in restoration and protection projects. Something as simple as social media campaigns could help raise awareness. In addition, we need the government and organizations to allocate resources to protect these sites, and we need specific plans to take care of them from climate change, temperature control systems in very dry and sensitive areas. We could also develop apps and digital tools that allow for virtual learning and building in heritage conservation, from anywhere. I want future generations to be able to touch this bank and feel what I felt when I took this photo.



### **Tatiana Torrez**

10th Grade Escuela Provincial de Comercio

# Climate Change and its Effects on Historic Buildings

In the city of La Toma, San Luis Province, there is what was once a bastion of modern construction in the 19th century. An enigmatic building whose construction dates back to 1857 and is about one hundred meters long by fifty meters wide; it has Spanish remnants, a symbol of the influence that Spanish architecture had at that time. Its design has a tower and several defensive battlements, it was also known as "El Mirador" which was never missing at the time, presenting shapes similar to a medieval fortress that makes it a valuable historical symbol of the Toma people and a prestigious tourist attraction in the area.

Entering the building, it is clear how the foliage and lack of care have made the trees become the owners of the place, invading everything everywhere. Of the floral plants, many of them brought from Spain and the large garden, only memories and the imagination of those who lived there remain. Today the building is in one of its worst moments of construction. The humidity, the rot of its once luxurious wooden stairs and floors, the passage of time added to climate change have deteriorated its entire structure.

The increase in temperatures and extreme weather phenomena caused by climate change have affected the building to the point of gnawing at the structure that was once not only a symbol of opulence but also an emblem of the town. The accelerated increase due to human actions in climate change produced a variation in temperatures in the last century and the threat looms that they will continue to do

so during the 21st century. These consequences are catastrophic at all levels, including that referring to the heritage of humanity. Many studies support these claims, including a study by UNESCO, UNEP (United Nations Environment Programme) and the Union of Concerned Scientists (USC), who assert that climate change is one of the most significant risks to World Heritage sites and monuments. This shows that these climatic variations not only affect nature and human beings, but also their creations, which are threatened with deterioration and, in some cases, even disappearance.

The cause of the deterioration of the monument can be attributed largely to forest fires, droughts, and acid rain, the result of the advance of agroindustrial exploitation in the area. The list of circumstances that attack the cultural assets of humanity is as long as it is complicated to manage, since nothing can be done to avoid the most extreme climatic phenomena. In fact, the only remedy that can be put in place is the one that is already being adopted: reducing gas emissions and taking care of the environment.



### Pema Lhachi Zangmo

9th Grade Dungtse Central School

# Preserving the Mindula Sites in Merak, Bhutan: To protect our history is to protect our identity



This photo captures a sacred and historical place in Merak, Bhutan, where prayer flags flutter against a mountainous backdrop on the historic Mindula Hill of Merak. I captured this image not only for its natural beauty but also for the deep cultural and historical significance it holds. This hill has been revered since the 7th century, with legends that continue to shape our understanding of Merak heritage today.

This picture depicts fairy tale stories. In the

7th century, Prince Kuentu Lakpa and his team crossed Mindula Hill and encountered a demon, Duem Harshang, at a place just below the hill called Damnyojung. Legend has it that the prince shot an arrow at the demon, subduing her and her followers. Their bodies were buried and temples were built atop them, marking the area as sacred. I capture this scene to honor the heritage and want to share this historical narrative with others.

The photo captures both cultural and spiritual values as well as a connection to nature that is naturally to Bhutanese heritage. The prayer flags, spread across the hill, symbolize peace, compassion, and unity with the elements qualities that are central to Bhutan's cultural identity. Each flutter of the flag in the wind carries prayers and blessings, a practice that is as much about spreading positively as it is about paying respect to Bhutan's spiritual lineage. The presence of these flags on Mindula Hill serves as a reminder of the significance of these places, but as a site that witnesses Bhutanese history and spiritual victory over negative forces.

It is believed that the treasures/religion were based under the shape for well being and peace in and around the world. One major challenge facing this heritage site is the high risk of losing the ancient relics associated with prince Kuentu Lakpa and his encounter with the demon Duem Harshang. These relics, some buried below the temples and others in the surrounding area, hold significant historical and spiritual value. Additionally, in the current era of modernization, fewer people are involved in the preservation, cleaning, and maintenance of these sacred sites. The temples, paths, and prayer flags require constant care to protect them from erosion and degradation, yet resources and volunteers are limited. As society modernizes, there is a risk that younger generations may become disconnected from the legends and traditions tied to Mindula Hill. If not preserved, the facts and culture about Mindula Hill may become 'Myth.' For conservation, it's important to include local history in educational programs to instill pride and awareness among the youth. Recording and preserving such stories also adds value, helping ensure that cultural significance is not lost. It's essential to implement community – led conversion efforts and raise awareness about the

cultural significance of Mindula Hill.

Encouraging local communities to participate in periodic cleaning and maintenance drives can help keep the site in good condition. Additionally, seeking government Support for funding regular renovations and establishing heritage protection policies could help ensure the preservation of these relics. By combining community involvement with official support, we can safeguard this important piece of Bhutanese heritage. By taking proactive measures for it's conservation, we honor the cultural values inserted in this land and ensure that future generations can continue to learn from and appreciate Bhutan's rich culture.



### **Karma Tshering Nyendra**

10th Grade Mongar Higher Secondary School

## Adversities of Climate Change on Bhutan's Artistic Landscapes and Sanctified Monasteries



How can a nation that views its lands and rivers as sacred and mountains as guides and protectors, defend its cultural and natural heritages against the relentless threat of climate change? Climate change is posing a growing risk to Bhutan's sacred landscapes and monasteries which are integral to the country's cultural and religious identity. Taktshang Monastery (Tiger's Nest), perched on a cliff, faces risks from increased rainfall and potential landslides caused by erratic weather patterns, posing a danger

to the sacred site and its historical significance. Cultural and natural heritages in Bhutan are facing dual threat from climate change through endangering the ecological balance of the pristine landscapes, challenging the preservation of the sacred sites and threatening the spiritual and ecological foundations.

Above all, the changes in the climatic conditions lead to the ecological instability of the pristine landscape. Bhutan, renowned for its pristine

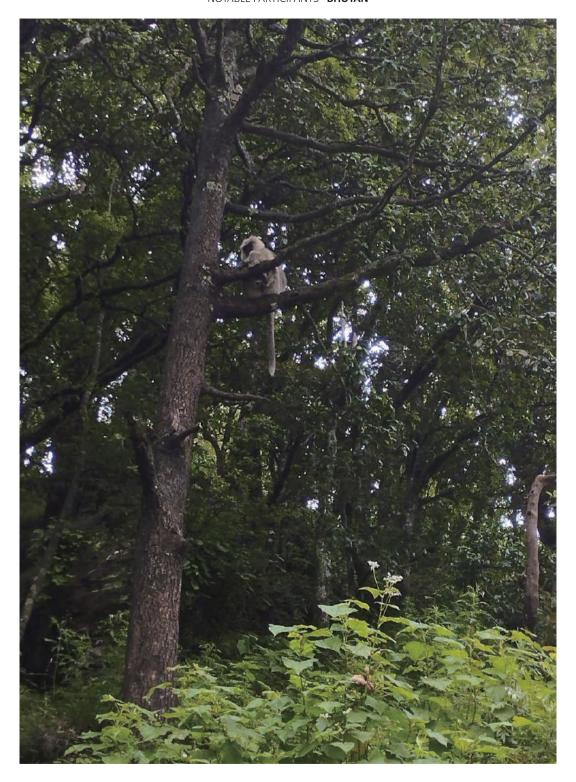
landscapes and deep commitment to conservation, faces significant ecological instability due to climate change. Due to the rising global temperatures. Himalayan glaciers in the northern regions of Bhutan pose serious negative implications to the nation's natural ecosystems and biodiversity. The snow caps and the glaciers are retreating and the rivers they feed into are gradually shrinking, posing a critical threat to trigger Glacial Lake Outburst Flood (GLOF) and agriculture. Moreover, it jeopardizes the freshwater ecosystems and wildlife mainly along the river banks. Furthermore, unforeseeable monsoon rainfalls and fluctuating weather patterns have been accompanied with frequent landslides, soil erosions and flash floods further causing lopsidedness in the stability of the landscape of the country. With over 70% of the country's land under forest coverage that plays a crucial role in both the country's cultural traditions and ecological balance, the increase in temperature, frequent forest fires and the weather declinations has extended its impacts on the forest health impacting wildlife, ecosystems and biodiversity. Thus, climate change poses a threat to the ecological stability of the landforms.

Furthermore, climatic changes directly impact the preservation of the sacred sites. In Bhutanese society, sacred sites like monasteries, temples, and stupas are not only cultural treasures but also vital components of the country's spiritual identity. Many of the monasteries and the temples are located near the remote mountainous areas making them easily vulnerable to the effects of the climatic change and weather fluctuations like high rainfall and increasing the risks of landslides that can easily damage the sacred sites, temples and monasteries. In addition, it also threatens the integrity of these sites. The degradation of the forest ecosystems and biodiversity due to

distortion of the weather phenomena further depletes the cultural and natural significance of that particular sacred site. Therefore, conserving and protecting the sacred sites is far complex due to climatic implications.

Typically, climatic crises endanger the spiritual and ecological foundations. Bhutan's unique harmony and coexistence between spiritual beliefs and ecological foundations are intangible but it is at risk due to the climate crisis. Nature is considered as intangible as it is not only an ecological foundation, but also a mirror of the spiritual world, reflecting the rivers, ecosystems, forests and mountains that are considered sacred. Bhutanese consider and believe that mountains, forests and rivers are deities and worship them, but with the increasing forest fire cases, the forests, mountains and rivers and the lives in it get distorted and disturbed undermining both the spiritual beliefs and ecological foundations of the nation. Ultimately the interference of climate change disrupts the beliefs that have been passed down through generations in line, and it weakens the spiritual and ecological foundations that are intertwined.

In a nutshell, the implications of climate change and its crisis on Bhutan's natural and cultural heritage requires serious attention and comprehensive preservation of both. It is also important for Bhutan to adopt traditional methods using modern day technologies and sustain the age old traditions that were passed from generations in line. The ecological instability of the pristine landscapes, challenges in preserving the sacred sites and threatening of the spiritual and ecological foundations are the major adversities of climate change.



### **Karma Tshewang**

12th Grade (Science) Peljorling Higher Secondary School

# Importance of Cultural and Natural Heritage



Natural and cultural heritage refers to natural features, geological and physiographical formations, artifacts, monuments, and sites that have value including historic and social significance. In the era of climate crisis, preserving natural and cultural heritage is at a tipping point. The climate crisis exhibits existing vulnerabilities and poses new difficulties to heritage preservation. Increased flooding, wildfires, and rising temperatures have the potential to destroy heritage sites, reduce biodiversity, and change cultural traditions. Heritages can be conserved by preventing activities causing climatic changes and with extra

human efforts.

Nature is something that makes us happy just by looking at it. A rich and well-preserved nature is depicted in the photo. The very essence of this photo makes everyone looking at it recall the very actions that could lead to its destruction of it Global warming and changes in the climate lead to the loss of such beautiful scenery and animals but this can be prevented if humans make the effort of producing fewer GHGs and pollutants that cause such changes. For instance, coral reefs have nearly halved in the past 150 years due to climatic crises. A study published in Nature

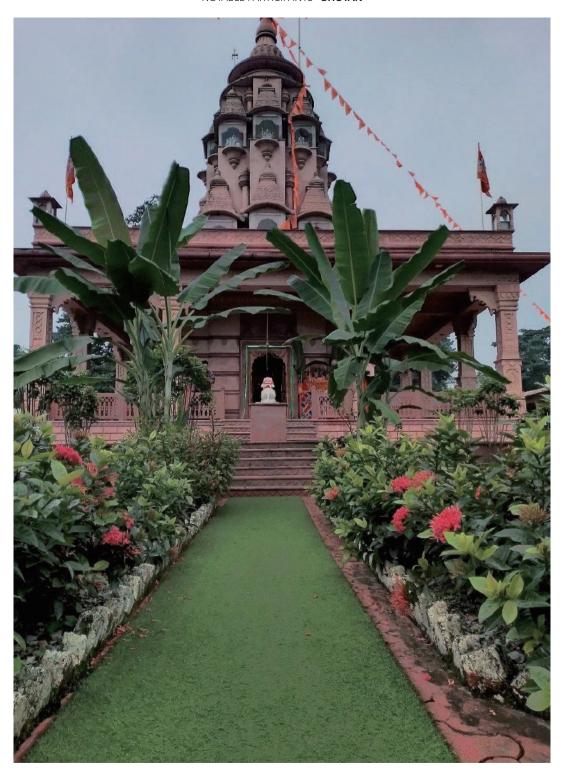


Communications found that climate change and food demand could cause a loss of up to 23% of natural habitats by 2050. Due to Climate change, animals and plants are moving to higher elevations or higher latitudes to escape higher temperatures. Such things can be prevented by reducing urbanization and pollution.

Cultural heritage is more than just artifacts and rituals; it is a living identity that connects us to our history. Changes in climatic conditions not only cause the natural heritage to be damaged but also lead to the loss of long-existing cultural heritage such as monuments, sites, and human cultures. This picture in particular shows the rich preserved culture and history that are a crucial part of the country's identity. Such pictures remind people to be cautious and preserve their culture. For instance, Sea level rise is causing the loss of burial sites and culturally valuable resources in places like Kosrae, Micronesia, and the Orinoco Delta in Venezuela. The U.S. is

losing forests due to rising temperatures, less rainfall, and more fires. All of the causes can be prevented if we humans put in extra effort and be mindful of climatic crises.

Lastly, the ongoing climatic crisis, which accelerates the loss of biodiversity and erodes historical and cultural identities, poses a serious threat to both natural and cultural heritage. If all humans take initiatives to minimize pollution and greenhouse gas emissions it can help mitigate major difficulties such as disturbance of cultural practices, damage to heritage sites, and loss of biodiversity. If such efforts are made our long-lasting cultures will remain with us and our nature will be preserved for our future generations.



### **Yeshey Dema**

5th Grade Pelrithang Higher Secondary School

### **Cultural Heritage**



World heritage sites, both cultural and natural, represent the rich spiritual and cultural fabric of communities worldwide. In the face of the escalating climate crisis, these sites are increasingly vulnerable to environmental changes that threaten their physical integrity and the practices associated with them. In Bhutan, religious landmarks such as the prayer wheel below Pelrithang Higher Secondary School, the Hindu temple in Gelephu, and the traditional lhakhang are at risk due to unpredictable weather patterns, floods, and rising temperatures. These sacred sites, deeply embedded in the lives of local communities. highlight the delicate intersection of culture, faith, and the environment, making their

preservation crucial in the era of climate change.

The prayer wheel, or Mani khorlo in Sanskrit, is another significant feature of Bhutan's religious landscape. Despite the high costs ranging from Nu. 50,000 to Nu. 100,000 people still invest in building such structures for spiritual devotion and merit, it reflects the blend of faith, culture, and economics. The traditional prayer wheel is located about 20 meters below Pelrithang Higher Secondary School under Gelephu gewog and this prayer wheel is likely a part of a small shrine where locals and students can visit to spin the wheel, releasing prayers and blessings into the environment. Moreover these structures are often found in natural settings where it is built

by the people who believe in dharma or dharma practitioners. This particular fixed wheel stands as a symbol of Bhutanese spiritual life, embodying the connection between humans, nature, and the divine. Yet, as the climate crisis accelerates, the environmental balance that supports such practices is being disrupted. Changes in the ecosystem, including unpredictable rainfall and extreme weather, make it more difficult to maintain these sacred sites as it causes color fading, making maintenance challenging, along with struggles in human resources and fund arrangements, thus threatening the continuation of important cultural practices.

The Hindu temple in Gelephu is not just a place

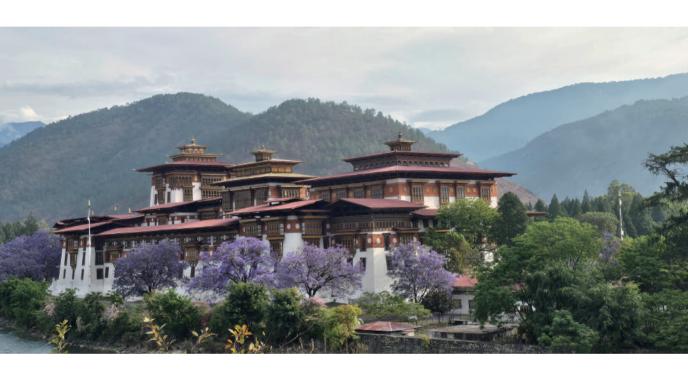
of prayer but a symbol of the cultural and spiritual diversity that thrives in southern Bhutan. Surrounded by lush greenery, this temple is a gathering place for the local Hindu community, where festivals such as Dashain and Diwali are celebrated. However, the environmental challenges like increasing frequency of floods and erratic weather patterns poses a threat to the temple's structure and surrounding landscape. As the rivers nearby swell due to changing monsoon patterns, the community faces the risk of losing this spiritual haven, which has been a cornerstone of their identity for generations. The temple's potential loss would not only disrupt the spiritual practices of the community but also undermine the broader



cultural heritage of Bhutan. Protecting such heritage sites requires urgent climate adaptation strategies, emphasizing the importance of safeguarding both cultural landmarks and the natural environments that support them in the face of climate change.

The lhakhang which is located about 20 meters below Pelrithang Higher Secondary School is a traditional Buddhist temple, likely serving as a center for religious practices and community gatherings. It is an important cultural and spiritual landmark for the local community, often associated with rituals, festivals, and teachings. However, this Ihakhang faces increasing threats from the climate crisis. Rising temperatures, heavy rainfall, and flooding could weaken its structure, erode its foundation, and damage delicate wooden carvings and murals. Additionally, shifts in local ecosystems could impact the environment surrounding the lhakhang, potentially disrupting the community's spiritual connection to the site and its role in local culture

The effects of the climate crisis are undeniable, and cultural heritage sites, particularly those integral to spiritual practices, are facing an uncertain future. The prayer wheel, the Hindu temple, and the lhakhang in Bhutan are not only symbols of the nation's rich cultural history but also key spaces where communities practice their faith. However, the intensifying environmental threats such as erratic weather patterns, flooding, and temperature changes pose significant challenges to maintaining these sites. As climate change accelerates, it is imperative to adopt strategies that protect both the physical structures and the cultural significance of such heritage sites, ensuring they continue to serve as spiritual anchors for future generations.



### Sithar Dorji

12th Grade (Science) Tashidingkha Central School

# Punakha Dzong: A Bhutanese heritage countering the world climate crisis



Hidden between towering mountains, Bhutan is a small landlocked country having a handful of population. Despite its size and minimal popularity, it has a pristine environment and sacred sites left untouched by the outside world. Punakha dzong, a renowned fortress resting on the foothills of the mountain resembling an elephant, is a popular site for tourism. In the local dialect 'Pungthang Dewa Chenpoi Phodrang' translated to 'The Palace of Great Happiness' was built by the founder of Bhutan; Zhabdrung Ngawang Namgyel. It has unwavering cultural heritage, natural heritage and a mixed site adorned with modern technologies.

Bhutan was isolated from the rest of the world until the mid twentieth century. As we observe in picture 1, the fortress is adorned with unique traditional hand craftsmanship and paints. The structure, doorways and windows are crafted by professionals of the thirteen handicrafts. During its construction, Bhutanese extracted stones, timbers and earth with the help of local deities and he unity of devotees, the fortress completed its construction in 1637 AD. The picture shows the masterpiece preserved for thousands of years. Religious occasions like Tshechu and Dromchoe are celebrated even to this day.

The picture 2 depicts the palace majestically standing tall between the confluence of pho chhu and mo chhu river. The gentle flow of Punatshangchhu holds abundant varieties of aquatic species. Sadly, with rapid change in climate, the glaciers are melting at a faster rate leading to decrease in river volume which impacts marine life and affects the activities that people depend on water. There is a high risk of

flash floods which will destroy the mountains. Governments indulgence in safety precaution and self awareness can reduce such impacts.

The figure 3 shows the palace during the night hours ignited by modern lights. The picture clearly shows how modernization can take place without altering culture and nature. However with the rise in temperature, the humidity and water level is dropping at a rapid pace. This impacts the natural vegetation surrounding the fortress and the agricultural work of paddy cultivation alongside the valley is slowed down. It also causes a high rise in temperature during summer resulting in unbearable heat. The decline in vegetation and dropping of water level impacts the overall view of the palace, robbing away its beautiful sight. The unbearable heat can also create an unfavorable outcome for tourists visiting the palace.

Climate change has posed a great impact to the heritage around the world. The palace of Punakha ruled over the valley countering climate through various means and measures. The sturdy fortress depicting great harmony over the valley tackles the daily struggles of climate crisis and mountains rich culture and preserve the surrounding ecosystem. Although flash floods, rise in temperature can affect its heritage, Bhutanese are able to face these problems with measures and perseverance.



### Yangchen Dorji

12th Grade Yangchenphug Higher Secondary School

# Preserving Bhutan's Rice Farming Heritage in the Age of Climate Challenges



Nestled in the Eastern Himalayas, Bhutan is a small, landlocked kingdom often referred to as the Last Shangri-La attributable to its magnificent landscapes and rich cultural heritage. With approximately 700,000 people calling Bhutan home, the one thing we have in common is our deep-rooted love for rice. Rice has been a staple food in Bhutanese households for decades. It serves as a base for myriad beloved dishes and is typically paired with spicy foods such as ema datsi (chilli and cheese). Consequently, it is not surprising that rice cultivation is an integral part of Bhutan's cultural practices. Paddy fields are

carved into steep slopes at high altitudes due to the country's rugged topography and are found mainly in warm temperate zones of the country. The cultural importance of rice extends beyond daily meals to religious ceremonies, festivals and communal gatherings. During celebrations such as Lomba (new year of Paro and Haa) and Chunyipai losar (Bhutanese new year) rice is part of the celebration. Furthermore, rice farming traditions are passed down through generations with the custom of neighbors' helping during cultivation.

However, climate change has been threatening rice production and the overall food security of the country. Rising temperatures and erratic rainfall patterns cause droughts, flooding and landslides all of which hinders rice production. According to the Department of Agriculture (DoA) Bhutan's rice production saw an average annual decline of 11% - 26,680 metric tons of rice in 2022 compared to 41,520MT in 2018. Although this decline in rice production can be due to multiple factors it is not to deny the role of climate change. Unpredictable weather patterns and water shortage during cultivation season causes the land to remain barren, causing delay in rice cultivation. Moreover, farmers in Bhutan depend on a steady supply of glacial melt water for irrigation which is under risk due to climate change accelerating glacial melting. This is especially problematic in the drier planting seasons as insufficient water can stunt crop growth and reduce the quality and quantity of rice produced. Introduction of new pests and diseases to previously unaffected high-altitude regions pose a new predicament for farmers who are unaware about them. These cumulative effects of climate changes risk not only Bhutan's food security but also eroding a vital part of our cultural heritage.

The first photo depicts terraced paddy fields in Thimphu with Tashichhoe Dzong as the backdrop, signifying its importance in Bhutan's heritage. Followed by the next photo, it illustrates rice yet to be harvested which will end up in festivities and in hearty meals. To tackle the brunt of global warming, farmers should be made aware of the problems that may arise and ways to combat the rising temperatures. As climate change intensifies, the need to protect and preserve our rice farming methods has never been more urgent. By investing in better irrigation systems we can safeguard this essential part to Bhutanese

life and carry forward the legacy of resilience that defines Bhutan.



# **Sangay Choden Yoedbar**

8th Grade Zilukha Middle Secondary School

# When the Seasons Change: Climate change and its impact on World Heritage



Climate change is one of the greatest issues of our time, influencing ecosystems, communities and economies around the world. One of the zones where we see its effect is on world heritage, which incorporates important natural and cultural places. The impacts of climate change are wide, extending from biodiversity loss and common calamities to the disturbance of traditional celebrations and harm to sacred sites. Numerous individuals accept that the balance of the four natural elements has been disturbed.

The primary consequence of climate change is the rise in severe weather occurrences. Prolonged heat waves are causing more intense and frequent outbreaks of forest fires, and these fires not only destroy the forests but also kill wildlife, including endangered species, which disrupts the biodiversity of the areas. At the same time, heavy rainfall and storms are

causing landslides, particularly in mountain regions. Unfortunately, many of the religious and culturally significant places within Bhutan are in such zones, making them vulnerable to destruction. Take for instance, Buddhist monasteries and shrines that are elevated at the top of mountains—these regions are at risk of being damaged or even destroyed by landslides, endangering important religious structures and communities.

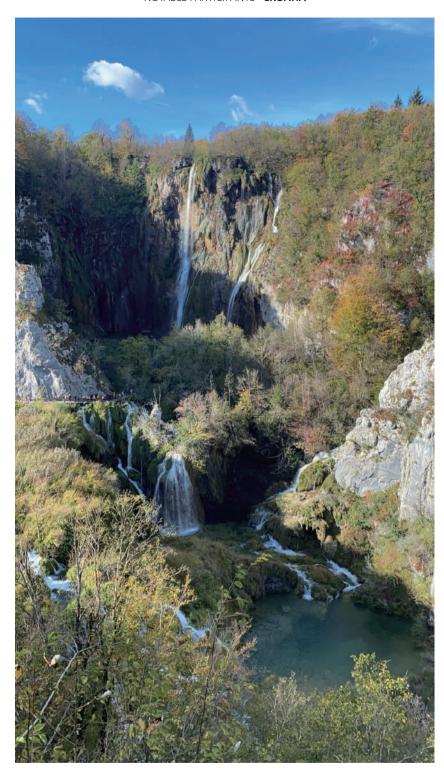
Cultural celebrations in Bhutan have also been facing interruptions due to climate change. In Bhutan, festivals and celebrations are connected to shifts in seasons and farming schedules. As climate change alters the weather patterns, the timing of these celebrations is impacted. For example, the festivals tied to certain periods for planting and harvesting are either postponed or held at varying times due to changes in seasons,



affecting the cultural cycle of the nation. Furthermore, traditional rural architecture in Bhutan is predominantly constructed using locally sourced materials like mud, stone, clay, and wood. These materials are highly susceptible to changes in weather, particularly to rising humidity and rain. This could lead to a risk to Bhutan's distinct architectural heritage if infrastructures become weak or fail.

Even places of worship, such as temples, and sacred monastic centers are in a situation where development activities impact them as well; such as the monastic communities in Bhutan, which are at the heart of the country's spiritual life. Many sacred places and monasteries are places where monks reside and perform prayers and rituals which are essential in the life of Bhutan's society. Climate change results in these locations becoming prone to natural calamities like GLOF. This is due to elevated temperatures that result in the quick melting of glaciers which forms lakes that may burst and flood the nearby lands. Cooler climates that enhanced a more permanent glacier presence in these regions are now rapidly changing. The cultural history and the people who heavily depend on these sites are at a loss because sacred places and monasteries close to these glaciers are most likely to be destroyed.

In conclusion, climate change has far-reaching impacts on the natural environment and cultural heritage through a loss in biodiversity, more serious forest fires, and dangerous landslides; shifting dates of festivals and threatening traditional buildings due to changes in weather conditions. More importantly, according to many, the natural balance is disrupted and the future of Bhutan's cultural and spiritual heritage is hanging in the balance. In the face of such rich resources, something needs to be done as far as management and mitigation of the effects of climate change are concerned.



#### **Anamarija Trutina**

2nd Grade Gimnazija Metković I have chosen the photograph of the Plitvice Lakes because it is one of the most beautiful examples of natural heritage, not only in Croatia but worldwide. The Plitvice Lakes National Park was inscribed on the UNESCO World Heritage List in 1979, recognizing its outstanding universal value. This designation highlights the lakes' extraordinary beauty, their complex ecosystems, and their significance for the preservation of natural resources. The image captures the majestic waterfalls, the turquoise-colored crystal-clear waters, and the lush vegetation that envelops the area. This scenery makes the Plitvice Lakes a symbol of preserved nature while also serving as a sensitive site vulnerable to the impacts of climate change.

The photo conveys the stunning aesthetic appeal and ecological value of the Plitvice Lakes, which are renowned for their unique geological and biological characteristics. The lakes are distinguished by a complex process of calcium carbonate deposition, which leads to the formation of dynamic travertine barriers. These natural formations create a unique landscape that changes over time, showcasing the ongoing geological processes at work. This phenomenon makes Plitvice Lakes one of the few sites globally where such geological processes are prominently visible, underscoring its global significance as a natural wonder.

However, the image also represents the challenges facing this remarkable heritage site. Climate change manifests in several critical ways at the Plitvice Lakes, including severe drought, rising temperatures, and shifting precipitation patterns. These factors can significantly impact the water levels in the lakes, disrupting the delicate balance of the ecosystem that relies on a specific hydrological regime. Additionally, mass tourism poses a considerable threat to the

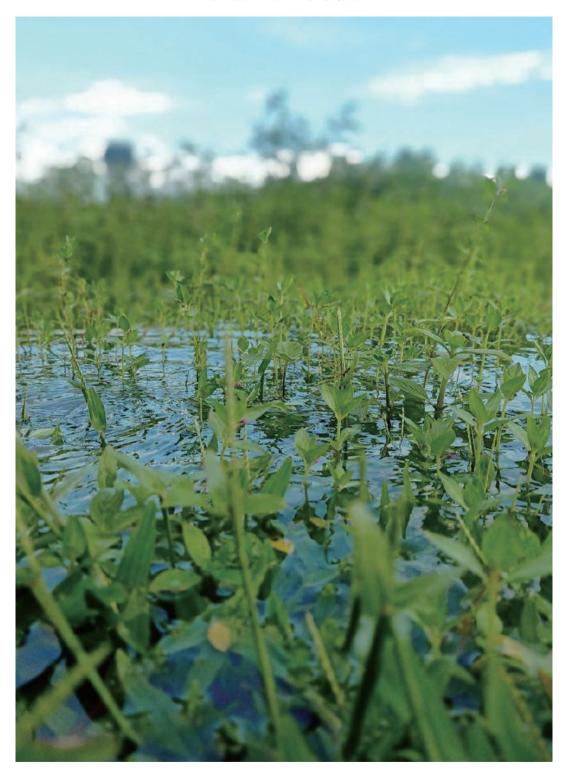
natural environment. The influx of visitors can lead to the degradation of natural trails and the destruction of habitats, further exacerbating the vulnerabilities of this delicate ecosystem.

The challenges posed by climate change and tourism mean that stronger protective measures must be implemented to ensure the sustainability of the Plitvice Lakes. Effective management strategies are needed to control the number of visitors, which will help mitigate the impact on the natural environment. This could include the development of special monitoring systems to assess the health of the ecosystems and the establishment of long-term sustainable management plans. By prioritizing these initiatives, we can help preserve the integrity of this UNESCO World Heritage Site for future generations.

Urgent actions are necessary to address the threats posed by climate change. These actions should include improved management of water resources, the implementation of technology to monitor and protect the ecosystems, and stricter regulations concerning tourism. The introduction of such measures is essential for safeguarding the Plitvice Lakes and ensuring their ecological health. Furthermore, public education regarding climate change and its devastating impacts on this natural wonder is crucial. Raising awareness among visitors can lead to a change in behavior, fostering a sense of responsibility toward protecting such invaluable natural treasures.

In conclusion, the photograph of the Plitvice Lakes serves as a powerful reminder of the beauty and fragility of our natural heritage. It encapsulates not only the splendor of the landscape but also the urgent need for action to protect it. By addressing the threats posed by climate change and mass tourism through

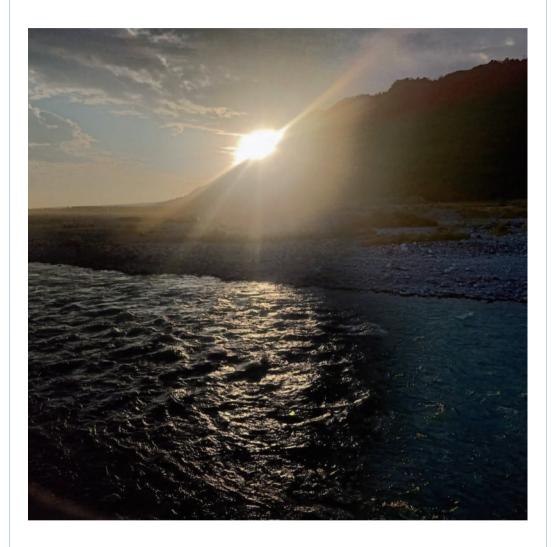
effective management and public education, we can help preserve the Plitvice Lakes for generations to come. This extraordinary site, with its breathtaking beauty and ecological significance, deserves our utmost attention and care, ensuring that it remains a symbol of nature's wonder in the years ahead.



# **Jurmey Yosel**

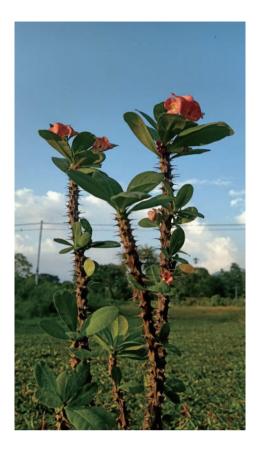
12 Commerce Gimnazija Metković

# Natural for Us



Nature's ecosystems—including flowers, ponds, and rivers—are critical to sustaining life on Earth. Unfortunately, these systems are under significant threat due to human activities, making it vital for us to take responsibility for their preservation. Through efforts in habitat restoration, pollution reduction, and sustainable management, we can help protect these valuable natural resources.

Flowers, beyond their aesthetic appeal, are essential for the survival of many species by attracting pollinators like bees, butterflies, and birds. This interaction allows plants to reproduce, which supports the entire food chain. However, urban expansion and agricultural practices have led to habitat loss, reducing biodiversity and weakening ecosystems. Safeguarding these areas by planting native flower species and restoring damaged habitats helps strengthen ecosystems



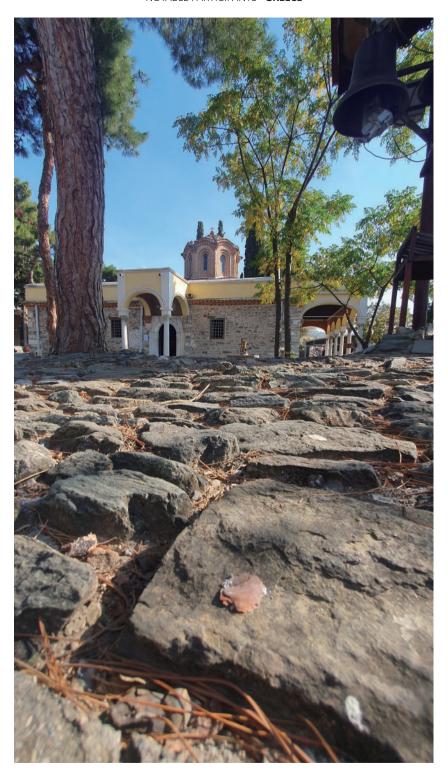
and ensures resources for both wildlife and people.

Ponds, often underappreciated, are small but vibrant ecosystems supporting a diversity of plants, insects, and birds. They naturally purify water and provide habitats, playing a crucial role in environmental health. Sadly, pollution from agricultural runoff and urban areas introduces harmful chemicals that disrupt these environments and threaten aquatic life. Creating vegetated buffer zones around ponds to capture pollutants and reducing chemical use nearby can improve water quality. This leads to healthier ponds that support more biodiversity and maintain a balanced environment.

Rivers are vital to landscapes, connecting forests, fields, and towns, and sustaining a wide range of life. However, pollution and climate change have

disrupted river systems, leading to irregular flows, loss of biodiversity, and greater susceptibility to flooding. Restoring wetlands and floodplains can help reduce these issues. These natural areas absorb floodwaters and filter pollutants, making river ecosystems more resilient and able to support diverse species. Protecting rivers not only benefits nature but also safeguards human communities from climate-related threats.

Preserving natural ecosystems is essential not just for environmental stability but also for the well-being of the planet as a whole. Each ecosystem—whether flowers, ponds, or rivers—has a unique role in maintaining biodiversity, ecological balance, and human health. By taking practical steps such as restoring habitats and controlling pollution, we can address the challenges facing these ecosystems. Protecting our natural resources is a responsibility we share, ensuring that future generations can benefit from a healthy, balanced environment.



# Evangelia Pavlaki

5th Grade De La Salle College



As a fifth-grade student, I chose to participate in the "International Photo Essay Contest for UNESCO World Heritage: UNESCO World Heritage through the Lens" because I believe that preserving our cultural heritage is very important for our future. The Vlatadon Monastery, an impressive Byzantine monastery from the 14th century in Thessaloniki, is a monument that represents our cultural history and our spiritual heritage. Through this competition, I want to showcase the significance of the Vlatadon Monastery not only as a historical monument, but also as a living testament to our traditions.

The Vlatadon Monastery is unique for its architectural beauty, surrounded by a picturesque landscape. This monastery has withstood the test of time, retaining its character. It is not only a place of worship; it is a reminder of our shared cultural identity, attracting visitors

from all over the world seeking solace in its tranguil environment.

One of the 17 Sustainable Development Goals set by UNESCO is "Sustainable Cities and Communities." This goal emphasizes the importance of making cities safe, resilient, and sustainable. The Vlatadon Monastery embodies this connection, encouraging visitors and locals to appreciate our rich heritage and the need for its preservation within a vibrant urban setting.

The photographs I have chosen to present the Vlatadon Monastery capture various aspects of its cultural significance. In the first photograph, we see a view of the monastery building, which harmonizes with the natural environment.

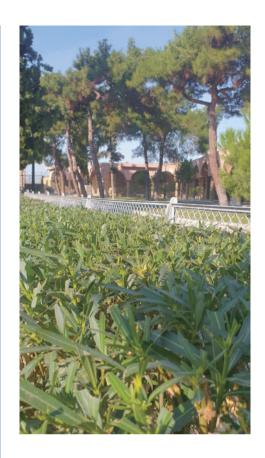
The second photograph depicts the exquisite frescoes that adorn the interior walls of the monastery, while the third photograph showcases the monastery's iconostasis, highlighting the culture nurtured through religious elements. However, the challenges of preserving these works of art are evident, as humidity and pollution threaten their integrity.

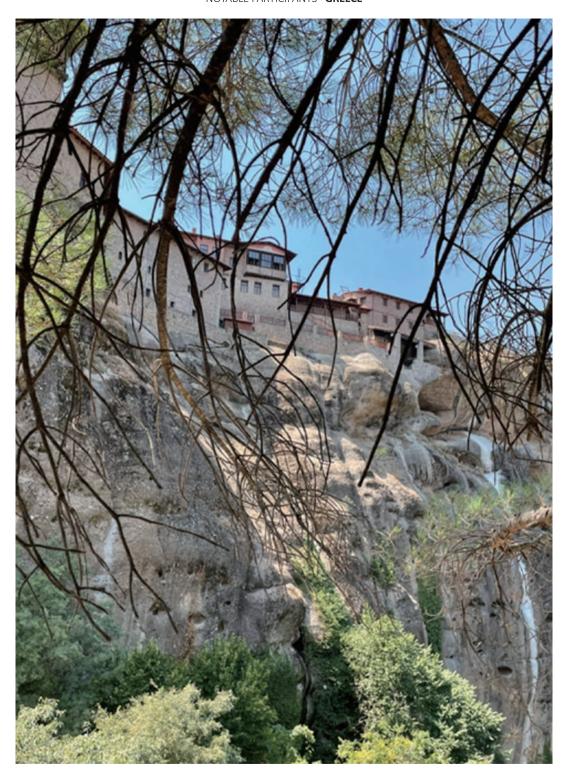
The fourth photograph highlights the beautiful gardens surrounding the monastery, which also host lovely animals, as depicted in the fifth photograph. This scene symbolizes the connection between nature and spirituality. However, urban expansion threatens this serene landscape, emphasizing the challenge of preserving green spaces in an increasingly urbanized world. Communities must find a balance between development and preservation to protect such valuable cultural sites.

To meet the need for sustainable cities, we must implement several actions. First, educational programs should be established to inform

students about the importance of cultural heritage. Workshops and guided tours can foster appreciation in younger generations. Second, collaborations with local environmental organizations can help preserve the surrounding areas, ensuring that urban development does not compromise the sanctity of cultural monuments. Finally, promoting local tourism can encourage community involvement and economic growth, ensuring that these sites are preserved over time.

The Vlatadon Monastery is more than just a monument; it is a symbol of our cultural identity and a reminder of the importance of preserving our heritage. Through my participation in this competition, I hope to inspire others to recognize and protect the treasures of our past while simultaneously building a sustainable future for our communities. For a better life for our cities, for nature, for the culture.

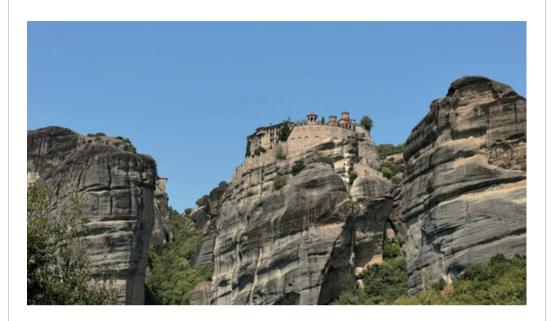




#### **Maximos Georgiou**

Secondary Doukas School

# Meteora Greece



A summer trip to Meteora was the reason for choosing this UNESCO cultural and natural heritage monument for my presentation. The landscape of Meteora is of imposing beauty and the Monasteries of Meteora are of great historical value. When someone sees the landscape of Meteora for the first time, he wants to capture with his camera the natural beauty but also the valuable monasteries.

Meteora is in the Thessalian plain, in Central Greece. Many centuries ago, these huge rocks were formed and their height exceeded 400 meters and in which some monks established one of the most important monastic communities in Greece. It is a cluster of huge Paleolithic rocks and Byzantine monasteries on their steep peaks. Today, eight Holy Monasteries are preserved, of which six are in operation. In 1988, Meteora was declared a UNESCO World Heritage Site and the wider area belongs to the European ecological

network NATURA 2000, as it has rare fauna and flora.

The 6 monasteries of Meteora that are in operation are the following: Holy Monastery of Megalo Meteoro, Holy Monastery of Varlaam, Holy Monastery of Rousanos, Holy Monastery of Agios Nikolaos Anapausas, Holy Monastery of Agios Stefanos and Holy Monastery of Agia Triada.

The area of Meteora combines great geological and historical value. These dark sandstone rocks were included by the International Union of Geological Sciences (IUGS), in the list of the 100 most important Geological Monuments in the world, according to the evaluation results announced in the framework of the 37th World Geological Congress. At the same time, the historical value of the monasteries of Meteora is very great and apart from the architectural

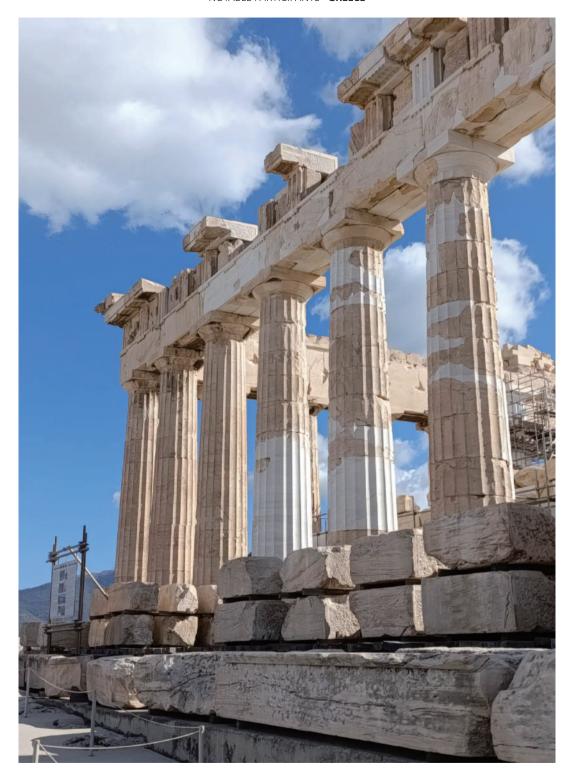


of building materials such as stone and timber. The increase in extreme weather events, such as heavy rain and storms, increases the risk of floods and landslides, which can affect the monasteries and the access to them.

As we understand, it is important to take measures for the preservation of Meteor $\alpha$  such as: enhancing building maintenance, monitoring rock erosion, building drainage infrastructure and informing the public and visitors about the effects of climate change. Local communities must collaborate with environmental and archaeological agencies to take appropriate measures to protect this cultural and natural heritage monument.

importance of the monasteries, it also includes Byzantine relics of incalculable value. With my photos, I tried to capture this double meaning of the UNESCO mixed monument: the impressive rock formations but also the monasteries, which are almost a natural continuation of the rocks, fully in harmony with the wild and impressive landscape.

However, this important UNESCO monument also creates great challenges in terms of its preservation. Climate change is a serious threat. Rising temperatures and more frequent heavy rains can cause erosion in Meteora's rocks. The limestone formations that make up the rocks are vulnerable to changes in temperature and humidity. The monasteries in Meteora, due to their age and stone construction, are vulnerable to changes in humidity. Wetter climatic conditions can accelerate the corrosion



# Maria Liarokapi

9th Grade VARVAKEIO Model Junior High School

# Climate Crisis Marking the Acropolis



When I hear the words "cultural heritage" and "UNESCO," the first image that comes to my mind is the Parthenon. Since childhood, I have often heard the word UNESCO, associated with freedom, sustainable development, and the protection of cultural heritage. This word always sparked my curiosity, and when I encountered it again later, I seized the opportunity and asked. That's how I learned about the 17 Sustainable Development Goals that the UNESCO organization aims to achieve, about its remarkable achievements so far, and its many

promising plans for the future. Since then, I have been motivated to learn and gather as much information as possible about it. This, in fact, is the main reason which motivated me to participate in this competition.

In the five images I have chosen to submit for the competition, one of the greatest monuments of global renown from the 5th century BC Athenian state, the Parthenon, is depicted in all its grandeur. Rising above the city for over 2,500 years, it is no coincidence that UNESCO chose

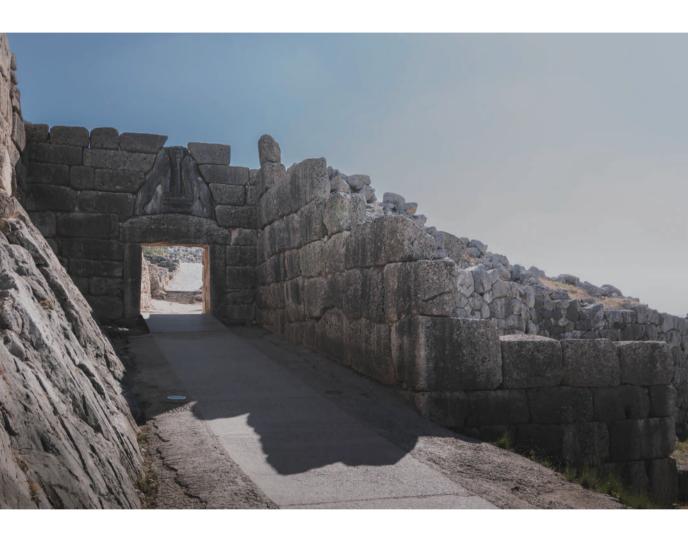


the façade of the Parthenon as its emblem and included it, along with the entire archaeological site of the Acropolis, on its list of World Heritage Sites. More than a temple, it represents the foundation of Athenian society, intertwined with the city's major myths, festivals, and historical events, embodying their cultural identity and daily life.

Unfortunately, in the modern era we are living through, the Parthenon has lost its grandeur, as it faces serious challenges. As is clearly visible in Picture No4, although the exterior of the Parthenon has largely retained its flawless form, the interior of the temple has been dangerously eroded due to acidic rains caused by the increasing pollution of the atmosphere. The result of these phenomena is evident, as the original appearance of the temple is being destroyed, tarnishing its original look and causing the loss of details in its architecture. Finally, the rise in emissions from exhaust gasses accelerates the breakdown of the materials of the monument, forming black stains on the once white marbles of the Parthenon and providing

clear proof of the impact of climate change on this magnificent structure, making the need for more effective protection and restoration measures even more urgent.

In order to protect the Parthenon from the effects of climate change and to restore the harmful alterations already made to the interior of the temple, significant measures should be taken. Initially, UNESCO should partner with environmental organizations to raise awareness about the critical state of our cultural heritage, using public campaigns in institutions like schools to engage citizens. Additionally, restoration techniques, such as strengthening the structural integrity of the monument, will help preserve its appearance and safeguard it from future damage. Finally, implementing advanced monitoring systems to detect early signs of material degradation will allow for timely interventions, preventing further harm. These efforts will help ensure the Parthenon's conservation, allowing it to continue representing the values and virtues of ancient Greek culture for future generations.



# **Nikos Aleiferopoulos**

3rd grade (Lyceum) 1o GEL Argous

# The Lions Gate Crisis

The archaeological site of Mycenae attracts thousands of visitors every year. This archaeological site can be described as one of the most important historical monuments of Greek civilization. The Lion Gate is the main entrance to the acropolis of Mycenae, the main center of the Mycenaean Civilization. The gate was built in the mid-13th century BC, during the second expansion of the fortifications in Mycenae when Atreus was king. The structure is an imposing megalithic monument, which can be compared to the gates of the Hittite city of Hattusha in Asia Minor. Just above the gate, in the relief triangle, there is a representation of two lions facing each other, resting their front paws on an amphi-concave altar and surrounding a Minoan-style column. The imposing gate was the emblem of the Mycenaean rulers and the symbol of their power. Its global cultural reach is demonstrated by the fact that the archaeological site of Mycenae has been a UNESCO World Heritage Site since 1999. Its cultural value and architectural uniqueness were the impetus for the photographic capture of this particular monument.

According to studies, climate change and mainly the chronic drought, which lasted for about 300 years, after the 13th century BC, caused the gradual collapse of the Mycenaean Civilization. It seems that today we are facing a similar climate crisis.

Weather and natural phenomena are today more intense than ever and appear much more frequently. Both fires that are more frequent and of greater intensity, as well as other phenomena, such as coastal erosion, more frequent floods, rainfall that is different today than in the past, increased heat, especially in combination with humidity, can dramatically affect the image of cultural monuments.

A study by Greek scientists from the "Center for Atmospheric Physics and Climatology Research" of the Academy of Athens reports that 244 UNESCO cultural and natural monuments across the Mediterranean are currently facing significant risk due to climate change, including the archaeological sites of Mycenae and Tiryns, in the municipalities of Argos - Mycenae and Nafplio respectively.

After comparing the current state of the surrounding area around the Lions Gate, in relation to a lithograph from the early 1800s, we observe that the micro-ecosystem of the area shows characteristics of desertification, as lower productivity and biomass are observed in the area. Given that in August 2020 a forest fire invaded the wider archaeological site of Mycenae, near the Treasury of Atreus, in combination with the scientific assessments mentioned above, we conclude that the area has been environmentally degraded due to climate change.

The Greek Ministry of Culture, at a recent conference on the impact of climate change on the country's monuments, pointed out that although "no direct, widespread and systematic risk from the effects of climate change is recorded," "there are climate risks that affect the wider areas in which the monuments/

archaeological sites are located," referring to fires, floods, and even rising water levels and coastal erosion. For these reasons, a series of actions were announced, such as the installation of fire-fighting systems in some archaeological sites, as well as the intention to strengthen a number of others in this direction.	



# **Rigas Panagiotis**

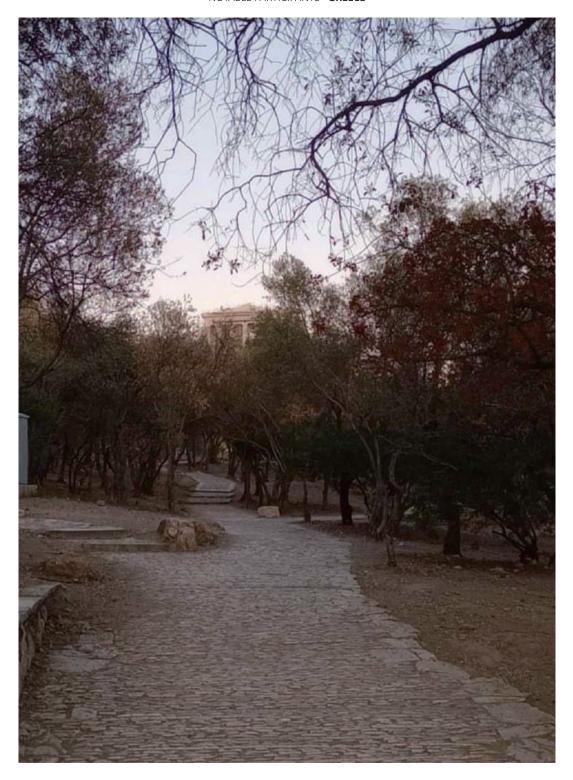
A 2nd Gerakas Senior High School

# **Natural Heritages**



From the hundreds of photographs that our team took on this visit to the island of Delos. I chose this one because even though it depicts a unique archeological site, it also shows its three biggest threats: the rise of the sea level, the human intervention and the pollution they cause. In this photograph we can see how nature has invaded the archeological sites by flooding the lowest points of the island. The main problem that is faced is how these archeological treasures can be saved from sea rise. Another challenge depicted in this picture is the water pollution caused by all the ships that slowly "eat" these sculptures and the fact that a limitless number of tourists are visiting daily in the warmer seasons. As for the sea rise problem, the Greek government with the support of UNESCO should raise funds in order to build a wall around the endangered areas when the sea level reaches a dangerous level in order to prevent the seawater from further flooding the area. Furthermore, they could also remove the majority of the sculptures and move them higher to a safer position. Also, for the further protection of the island, a limited

number of allowed daily entries should be decided in order to prevent the erosion of the sites. All in all, it's our duty to protect our natural and cultural heritage and to pass it on to the next generations.



# Antonia Makryalea

Upper High School 4th Lyceum of Galatsi Konstantinos Karatheodori

# Thoughts on a Changing Landscape

The Parthenon stands as one of the world's most well-known ancient sites, marking both great architectural design and cultural past. This picture has the Parthenon in the background, yet highlights the surrounding land, which appears to be in trouble. The withered trees and scattered leaves starkly contrast with the monument's beauty, highlighting serious environmental problems threatening this historic site. I chose this image because it reminds us of the critical role the environment plays in preserving cultural landmarks and urges us to consider conservation on a larger scale.

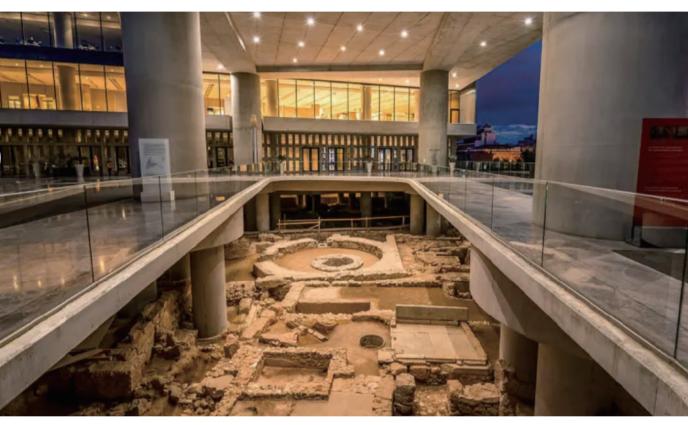
The worth of this picture reaches beyond just the Parthenon itself. It includes the nearby area, which is a big part of the site's story. The trees, paths, and plants around the Parthenon create an atmosphere that makes it special for guests. When the plants are withered or dead, it could ruin the visit. It can also be risky for the site, causing fires and soil loss, which could harm the monument even more.

The Parthenon and Its area face many environmental problems. Climate change puts great stress on local plants. With more heat and less rain, droughts happen, making it tougher for trees to live. Plus, Athens's polluted air is wearing down the monument and land faster. Also, don't overlook visitors and their constant walking packs down the soil. This makes it tough for plants to grow, harming the land even more.

What can we do about it? First, we should focus on real steps to bring life back to the land. We can plant strong, native plants that can handle dry times. Using systems to collect rainwater would keep plants alive without taking too much from the local water sources. Adding sprinklers around the area helps ensure plants get water regularly, even in dry times, while reducing waste. Together with ways to shield the soil, these efforts can greatly help in growing better and healthy plants.

Another key move is to fight pollution. Tougher rules on air in Athens, like encouraging more ways of public transport and cutting car use near the Parthenon, can really help cut down on site pollution. Tourism has an important role too. By setting paths and managing how people walk around that area, we can save the ground and help plants grow again.

This picture isn't just about the Parthenon, it's a wake-up call about the big environmental issues we face in keeping it safe. The bare trees and dry land point to bigger problems like climate change, dirt in the air, and lots of tourists. To keep the Parthenon safe for those who come after us, we need to make smart choices, guard nature, and cut down on waste. This photo shows how culture and nature are tied together, and it's up to all of us to step up and defend both.





# Eirini Chrysovalanti Gerolymou

2nd Grade 5th Public Junior High School of Agia Paraskevi

# The Parthenon



The Parthenon, the Acropolis monument in Athens, was built in the 5th century B.C. It was designed by Iktinos and Kallikrates. It is considered a symbol of Ancient Greek civilization and is dedicated to Athena. Unfortunately, due to time and climate change, it has suffered significant damage.

In modern times, air pollution has played a major role in the destruction of the monument. More specifically, acid rain damages the marble and causes cracks and alterations. Even the various pollutants cause a change of color due to corrosion of the marble.

However, climate change is also making its presence felt in the greenhouse effect. The temperature is constantly rising to dangerous levels and solar radiation is very intense. The monument is completely exposed to weather phenomena. Therefore, adverse conditions

can cause wear and cracks to more serious alterations and detachments of parts.

The impact of heavy rains and winds is also significant. Rainfall, especially in combination with strong winds, can cause water to enter the cracks, accelerating erosion. The extra wear and tear make the structure of the Parthenon even more unstable. This is the reason why a new museum has been created to house the biggest part of the Acropolis' artifacts.

In conclusion, the Parthenon, this world heritage site, has suffered many disasters over the years. Especially in modern times it wears out strongly and climate change plays a very important role. It definitely is our World's fountain of History.



# **Kavin Choudhary**

10th Grade Delhi Public School R.K.Puram

# The War on Our Heritage



Imagine living in a world where the legacy of our ancestors is repeatedly tainted and dulled by our actions. We don't need to imagine this as we are living in it. It is as if we are using a battering ram on the doors to the castle of nature. Laying siege to the ozone layer and poisoning our soil, water and air. Our heritage is stored in monuments. Monuments are extremely important, not just to preserve ancient culture but to learn from the past. We can learn from history's achievements and from history's mistakes. Monuments help fossilize the actions of our predecessors. But will we have that for long?

Our nights are starless and our days are filled with clouds. The earth is heating up and we are

charring every beauty there is to see. India is home to one of the world's oldest civilisations which provides countless spectacles. Wherever you go there is a monument nearby. Taj Mahal, Ajanta Caves and Sanchi Stupa are a few of the thousands of structures you can find. Even after millions of dollars of conservation effort, the wounds of climate change are visible and they are still bleeding.

The Taj Mahal has started to become yellow. Repeated acid rains, factory pollution and excessive smoke has caused the beautiful white marble to decay and yellow. This effect is especially noticeable in the domed roof as it is very discolored. Other monuments like the



Sunder Burj and Safdarjung Tomb are showing signs of damage. As displayed in my submitted images, the Sunder Burj is blackening even after so much preservation, the Taj Mahal is corroding, Safdarjung Tomb is worsening and the Sunder Burj is being destroyed. This decomposition is not due to weathering or natural wear and tear but because of climate change.

We seem to discuss a lot about the problem of climate change, which is necessary but we need to focus on the solutions as well. Although prestigious organizations like UNESCO are working towards preserving these heritage sites and saving cultures, it will never be permanent if climate change is not resolved. An international initiative and an urge to reverse climate change is key to helping our planet live again. To conclude, monuments preserve our heritage, our culture and our history and climate change is waging a war against them. We must do all we can to help our legacy live on.



# Lakshay Kashyap

10th Grade Delhi Public School R.K.Puram

# World Heritage in the Era of Climate Change



In the accompanying photographs, I have explored how climate change and global warming are affecting Qutub Minar, a UNESCO World Heritage site. These images have been specifically captured to highlight concerns not only about the monument's aesthetic appeal but also about preserving its historical significance. Qutub Minar, despite being the world's highest brick minaret, seems to be completely neglected by the people of Delhi in this era of climate change.

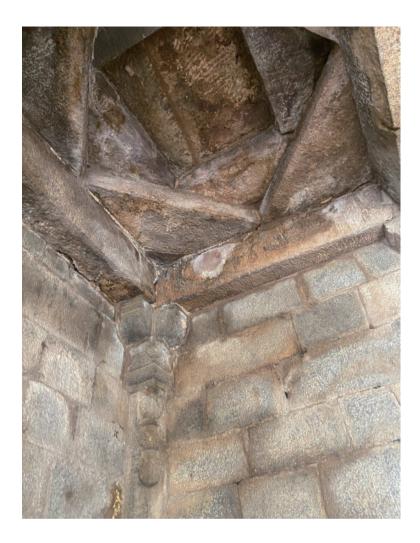
In the first photograph, soot, sulfur dioxide, and nitrogen dioxide have accumulated on the interior ceiling. The effects of soot, smoke, and weathering have caused irregularities and

discoloration. This has led to corrosion of the dome ceiling present in the extension area of Qutub Minar. The ceilings present in the interior of the dome often get overlooked by the people visiting these monuments.

Climate change has also led to the erosion of Qutub Minar's structure. The third photograph shows that the increased extreme weather events, like heavy rainfall and severe storms, have deteriorated the monument's foundation and walls. This photograph depicts a dismantled wall in the extension area, which is constantly exposed to the searing sun, causing UV damage. Additionally, the rising high winds and torrential rain make this structure increasingly vulnerable. These walls which were crafted and constructed handwrought by craftsmen, today stand as a testament to the destruction of these crafts by none other than men.

Air pollution is at its peak driven by vehicular emissions and industrial activities. As a result, significantly deteriorating the facades and structural integrity of these historical monuments. The second photograph depicts this phenomenon of particulate matter settling over these buildings. This particulate matter settles on the stone surfaces, leading to chemical weathering and blackening over time.

Additionally, the fourth and the fifth photographs show iron pillars with a yellowish-brown coating, caused by the oxidation of iron-containing minerals in the stone due to exposure to



oxygen and moisture. The intricate and highly detailed inscriptions present on these pillars are gradually fading away with time. The purpose of these monuments is somewhat or less being defeated. Once what was thought of as a validation of ancient culture is degrading due to unprecedented moisture content.

It is crucial to mitigate these effects of climate change on our historical and cultural heritage. One practice that can be attributed to restricting these pollutants in air could be the installation of air purifiers but its effect seems to be limited. In India where the majority of its pollutants could be attributed to the exponential increase in commercial activities. India can adopt a carbon

credit system which is also endorsed by the United Nations Environmental Programme. This system could significantly reduce commercial carbon waste. Qutub Minar not only represents the unique architecture of the medieval period but also the ideas and intellect of its creators. We must act responsibly to prevent further deterioration of such invaluable heritage.



#### **Nursultan Asanaliev**

9th Grade Educational Complex Ilim

# World Heritage: Sary-Chelek in the era of climate change

It's generally accepted that climate change poses a serious threat to World Heritage sites, including Sary-Chelek, a unique natural reserve in Kyrgyzstan known for its biodiversity and landscapes.

Sary-Chelek, recognized by UNESCO for its natural significance, is facing increasing challenges due to climate change. Rising temperatures and shifting environmental conditions threaten the ecosystem and the natural beauty that draws visitors worldwide.

I strongly support the idea that urgent measures must be taken to protect Sary-Chelek from the detrimental impacts of climate change. In this essay, I will present reasons to support my point of view.

First, climate change disrupts the ecological balance of Sary-Chelek.

The reserve is already experiencing environmental shifts, such as rising temperatures and unpredictable weather patterns, which could affect the plants and animals. For example, the lake water levels are vital to the ecosystem's health. The image shows Sary-Chelek's serene lake, reflecting the mountains and sky, highlighting the pristine beauty of the region. However, changes in precipitation could lead to drier conditions, threatening these lakes and the species that depend on them.

Protecting Sary-Chelek is not just about nature

but also the well-being of local communities. If the environment is altered, tourism, a key economic activity in the region, could suffer. Fewer visitors would harm both the economy and local livelihoods.

Another reason to safeguard Sary-Chelek is its global significance. The reserve is home to rare and endangered species of plants and animals. If extreme weather continues, many of these species could be lost forever, significantly reducing biodiversity.

The best thing about early action is that preventive measures can be taken before irreversible damage occurs. Better water management and adaptation strategies could help mitigate the negative effects of climate change. Additionally, if the site suffers environmental degradation, tourism may decline, leading to reduced awareness of Sary-Chelek's importance. It's clear that natural and human heritage are closely connected—harm to one impacts the other.

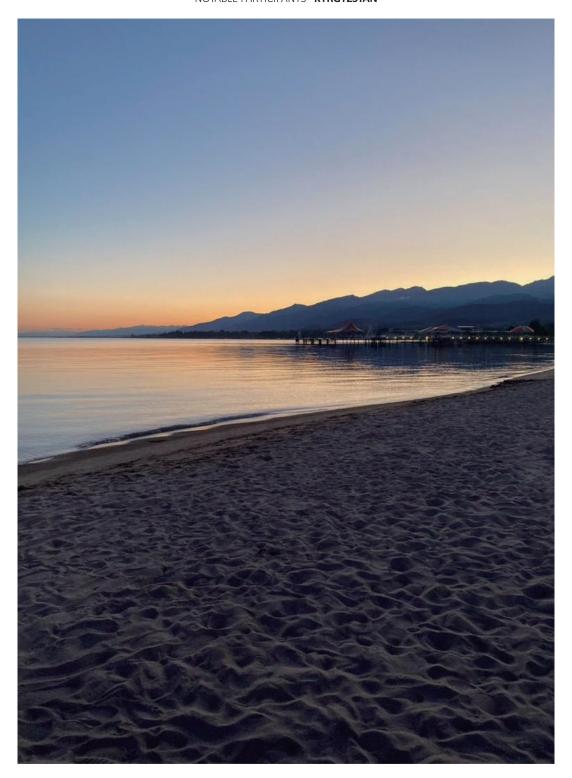
Sary-Chelek holds immense importance not only to Kyrgyzstan but to the world as a unique ecosystem. The potential loss of biodiversity and environmental degradation could also mean losing valuable knowledge about how ecosystems function, which could have wider conservation implications.

Lastly, we have a responsibility to future generations. Sary-Chelek must be protected

from climate change to remain a place of natural beauty and ecological importance for years to come.

In conclusion, I strongly believe that proactive steps must be taken to protect Sary-Chelek from the consequences of climate change. It's crucial that the site's importance is recognized globally, and efforts are made to preserve it.

We should continue advocating for climate action, implementing conservation strategies, and ensuring that this invaluable natural reserve remains intact for future generations. Hopefully, society will soon understand the value of Sary-Chelek and make greater efforts to protect it.



# **Riza Khalel**

9th Grade Educational Complex Ilim

# World Heritage: The Issyk-Kul lake in the era of climate change

It is well known that our planet's natural and cultural heritage is facing many challenges today, and Issyk-Kul is no exception. Issyk-Kul, one of the largest lakes in the world, was added to the UNESCO World Heritage Tentative List in 2001. This essay will take a closer look at how climate change is affecting important world heritage sites like Issyk-Kul.

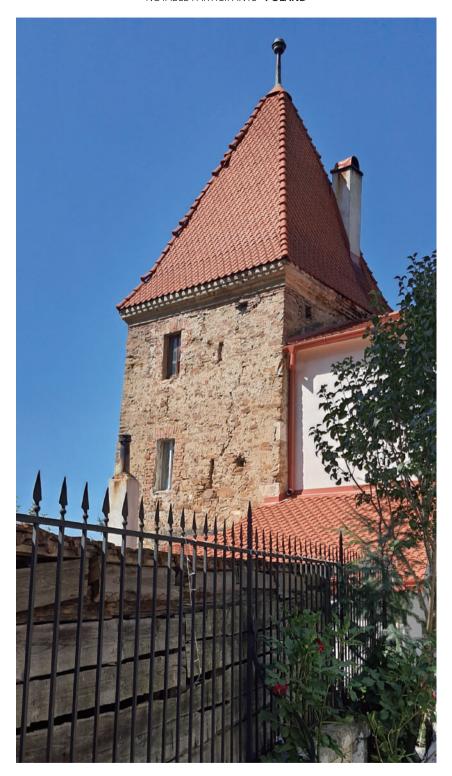
To begin with, the photo I chose shows how beautiful this lake is. The mountains and sky surrounding the lake make it look stunning. But it's not just about the beauty. The lake is also home to many animals and plants that live only in this region. The area around Issyk-Kul includes rare ecosystems that are very sensitive to changes in the environment. Issyk-Kul itself is an ancient lake, with a history that goes back thousands of years. Its waters come mainly from glaciers in the nearby mountains, and its survival depends on the balance of nature.

However, climate change is putting this balance in danger. For instance, the glaciers that supply water to the lake are shrinking as global temperatures rise. This means that the lake is losing one of its main sources of water. If the glaciers continue to melt at the current rate, Issyk-Kul could lose much of its water, which would have a terrible impact on the local ecosystems. The loss of water would also affect the lake's biodiversity, which includes fish, birds, and other animals that depend on the lake to survive.

Moreover, climate change does not only affect the natural environment. It also impacts the people who live near Issyk-Kul and depend on it. The local communities rely on the lake for fishing, farming, and tourism. As the lake's water levels drop and the environment changes, it becomes harder for people to make a living. For example, fewer tourists may visit the lake if it becomes less attractive or if the weather becomes too unpredictable. Local farmers may also struggle to grow crops if water becomes scarcer.

Next, one of the biggest challenges is finding solutions to these problems. There are several ways we could help protect Issyk-Kul. First, promoting sustainable tourism could reduce human pressure on the lake and its surroundings. This could involve encouraging tourists to be more environmentally friendly and limiting activities that harm the natural environment. Second, we should work on restoring the ecosystems around the lake. This could include planting more trees to protect the soil and help regulate the flow of water to the lake.

In conclusion, after considering all these points, I believe that protecting Issyk-Kul is very important, not only for Kyrgyzstan but for the whole world. We need to keep raising awareness about climate change and its impact on world heritage sites like Issyk-Kul. Hopefully, people will begin to take stronger action to protect these beautiful and important places for the future.



# Emilia Wymysłowska

2nd Grade Liceum Sztuk Plastycznych im. Jacka Mydlarskiego



Sighisoara is a historic city which has left me in awe after visiting it this year. There are few places in Romania able to transport you so seamlessly to a time long gone as much as Sighisoara, the city truly feels "lived in". However, unlike medieval craftsmen who used to populate the city hundreds of years ago, the conservationists of our lifetime are facing a much different struggle.

I have chosen photographs that I believe capture both the damage caused to the area by exposure to the ever-changing environment as well as displaying the variety of its medieval architecture.

These photographs are a showcase of the cities' one of a kind architectural style among other Transylvanian settlements. The images focus primarily on Sighisoara's clock tower, which is

considered its most important and most valued monument. A great deal of the structure's uniqueness is attributed to the figurines, which decorate the clock mechanism.

Analyzing the historic city center, you can notice signs of the buildings' degradation. It can be observed mostly as issues with the construction materials as well as the buildings' elevations. Some elements are chipped off, while others are slowly cracking from the inside. Climate research has shown that the average yearly temperature in Sighisoara, and central Romania as a whole- has been on a steady incline, with the city experiencing its hottest years on record since 1994. How does such a change affect this famous Romanian heritage site? It can be assumed that keeping historic buildings in good condition will be marginally more difficult if the climate has changed dramatically since the site's



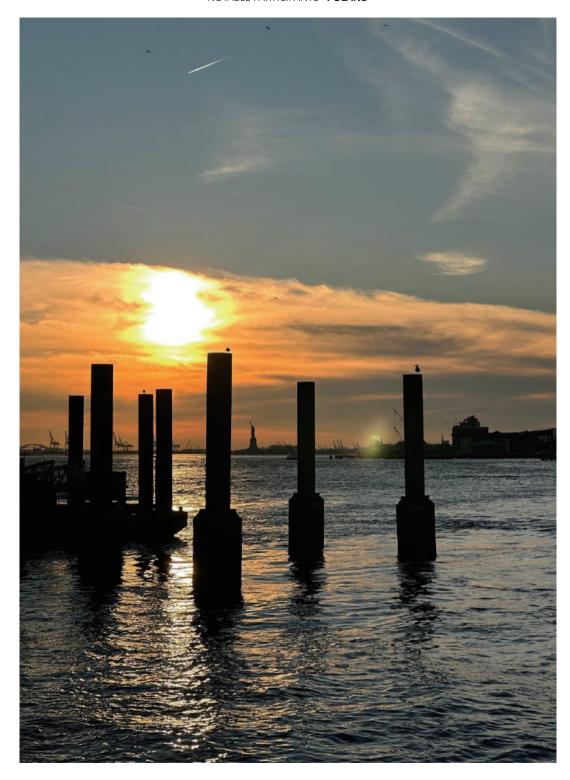


construction. Rising temperatures are causing a decrease of humidity in the buildings' bricks. This side effect of our warming climate causes cracks to appear not only in the city walls, but also in the hearts of locals and tourists alike.

What practical measures could be taken for the conservation of this site? An effective way of fighting rising temperatures on the local scale is to care for the city greenery and the river, which flows through it. The maintenance of even a little shade and humidity would be enough to impact the city climate. Places in this historic site that possess a larger amount of foliage, for example the area surrounding the former school and the iconic roofed staircase that leads to it, provide temperatures that are noticeably lower than in the rest of the city. Any conservation attempt, however, is futile without the conscious restoration of individual buildings by property managers. In performing such restorations international cultural heritage conservation funds received by Romania have been proven to be a valuable resource.

For a largely untouched urban complex of its

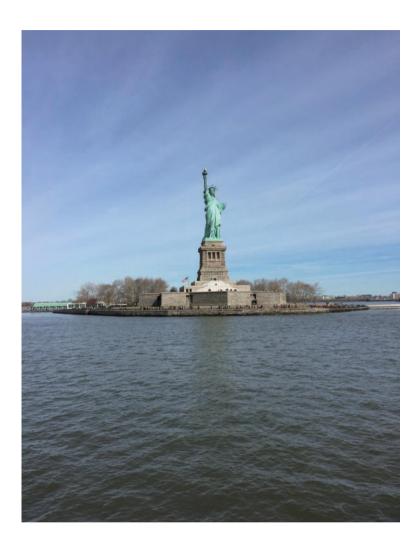
age and size, it would be a tragedy to see it slowly deteriorate partially due to our inability to properly care for the Earth.



### **Anna Pietruszka**

2nd Grade (High School) VIII Prywatne Akademickie Liceum Ogólnokształcące w Krakowie

# Statue of Liberty



The Statue of Liberty is an iconic symbol of New York and the United States, representing freedom, hope, and democracy. Gifted by France in 1886, it is a symbol of American independence. a woman holding a torch in one hand, a symbol of enlightenment and knowledge. The tablet in the other hand inscribed with the date July 4, 1776, referencing the signing of the Declaration of Independence, and broken chains symbolize the triumph over oppression.

The Statue of Liberty, has been a sign of welcome, promising opportunity and freedom from oppression for immigrants entering New York Harbor. It became one of the first sights seen by millions of immigrants arriving by ship. For those fleeing poverty, persecution, or lack of opportunity, the statue represents the promise of equality and liberty in the United States, where people can pursue a better life for themselves and their families.

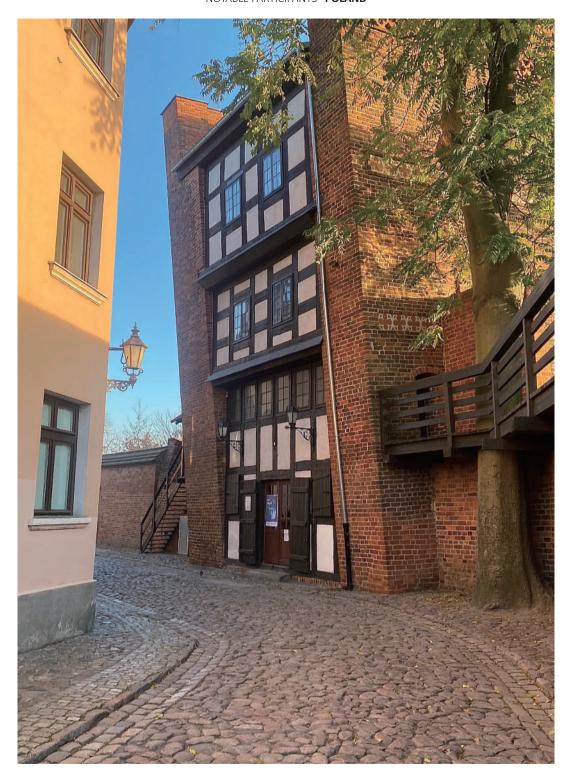
The Statue of Liberty has long been a symbol of solidarity, representing the ideals of freedom, and equality for all people, regardless of their background or nationality. As a beacon of hope for immigrants arriving in the U.S. it stands as a reminder of the importance of welcoming diverse populations and reducing barriers based on race, ethnicity. The statue motivates fighting for social and economic equality, advocating for the rights of ethnic minorities.

The Statue of Liberty plays a huge role in education by being a powerful symbol of freedom, democracy, and human rights. It is often used as a tool in schools and museums to teach about the history of the United States, the values of liberty and justice. It promotes learning about the struggles for civil rights and how these values continue to shape movements around the world.

The Statue of Liberty faces risks of rising sea levels, extreme weather, and erosion caused by climate change. Increased storms and hurricanes are a threat to its structure particularly due to its location on Liberty Island, which is vulnerable to flooding and saltwater corrosion. Air pollution and acid rain also contribute to gradually destroying the metal surfaces of the statue.

As a teenager from Europe, seeing the Statue of Liberty for the first time was exciting. I had seen pictures of it before, but seeing it in person was much more impressive. The statue was much bigger than I expected. I didn't realize how much history was connected to it until I was there. The area around it was busy with tourists, which made it feel like a very popular place. But still being there, next to such a famous symbol, was a cool experience. I'm sure it's something I'll remember for a long time.

In conclusion, I feel like the Statue of Liberty is much more than a famous monument, it represents freedom, hope, and the promise of a better life. It has become a powerful symbol of democracy, equality, and welcome, inspiring people worldwide and reminding us of the importance of these values in shaping our society.



# Amelia Szczepańska

2nd Grade

X Liceum Ogólnokształcące im. prof. Stefana Banacha w Toruniu

# World Heritage in the Era of Climate Crisis



I'm Amelia and I live in Toruń, a town in Poland. The only place included on the UNESCO World Heritage List in my area is a medieval town complex. It consists of three urban units, the New Town, the Old Town and the Teutonic castle.

One of the monuments belonging to the medieval urban complex that I would like to

present is the Old Town Hall. It was built in 1399 in the Gothic style. The town hall was the main judicial center and the seat of the city council. Many great masters of the Teutonic Order and Polish lords were elected there.

Another building important for the history of Toruń is the St. Hohn's Cathedral, which was built



in 1351 in the Gothic style. In the Middle Ages, the church served as the old town parish. On the top of the cathedral there's the Tuba Dei, a large medieval bell still in use.

The last monument that I will present is the Leaning Tower. It's a Gothic building built in the 14th century. Initially it had a military function, but over time it became a prison for women and then a forge. The tower is inclined from the vertical by about 140cm, that's why the tower was named a Leaning Tower.

The challenges in times of climate crisis for monuments included on the UNESCO World Heritage List will be completely new and often extreme forces acting on the structural elements of buildings. Extreme weather phenomena such as storms, floods or heat waves can cause damage to structures. Old buildings are more exposed to pollution and external allergens.

These buildings are also tourist attractions. That's why conservation specialists and people who take care of these places the and people who visit them are so needed. To prevent any accidents when visiting certain places.

Therefore, another challenge is the lack of a sufficient number of people willing to take up the work of a conservator or guardian of monuments.

Solutions for the problems faced by buildings included on the UNESCO World Heritage List may be increasing education among the community about climate

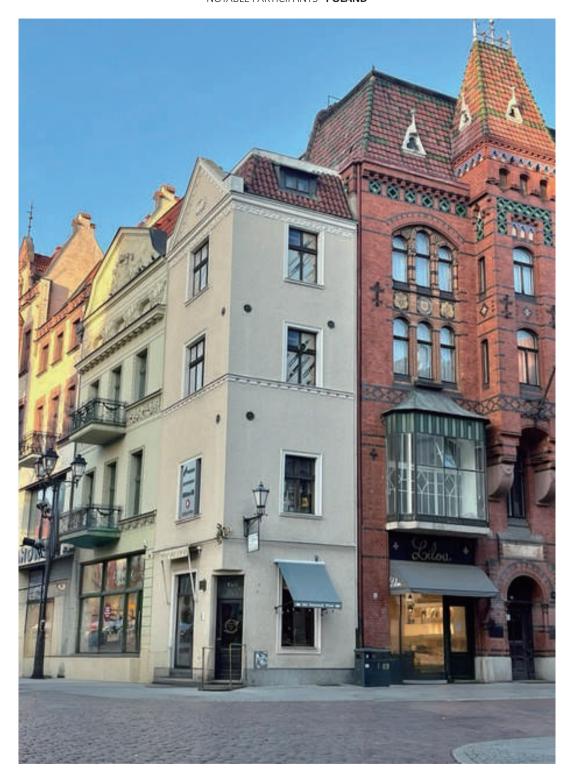
threats and the protection of cultural property. Shaping pro-ecological attitudes among people may mitigate the effects of climate change.

In the conservation process, it's important to use materials that don't pose a threat to the environment. Greenery is a crucial, often underestimated element that

increases resistance to negative climatic phenomena. Plants can protect buildings from overheating, dampness or flooding. Plants moisturize and cleanse the air of pollutants.

In cities, a system of solutions that loosen surfaces is important. Increasing surface permeability and retaining rainfall areas are the best and cheapest ways to protect buildings against the growing risk of flooding.

We already live in times where we feel the effects of climate change ourselves. Therefore, we should strive to reduce the chances of this problem increasing on our planet. We should also take care of cultural assets and places of significant value for the history of our cities.



# **Blanka Witczak**

2nd Grade

X Liceum Ogólnokształcące im. prof. Stefana Banacha w Toruniu

# World Heritage in the Era of Climate Crisis



Climate change and environmental degradation are the biggest challenges that threaten the world. Negative phenomena resulting from climate change that have been observed in recent years and caring for the environment, force all citizens to act. People are looking for solutions that will minimize the negative impact of climate change on cultural heritage.

In terms of climate change, the effects of this process must be considered. People contribute to environmental pollution. We are a consumer society, and as such, intensive development of the economy, heavy industry, burning of fossil fuels and unsustainable consumption are responsible for current climate change. It damages the historic fabric of architecture.

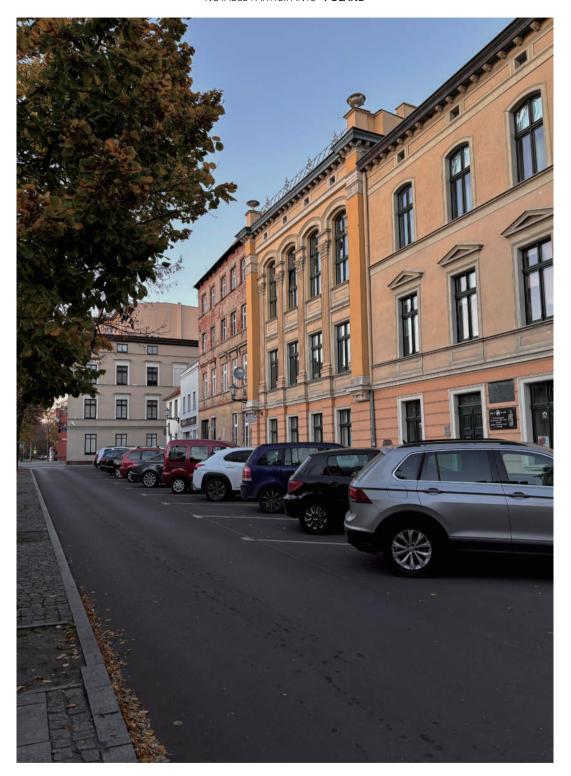
Pollutants contained in smog settle on the surface of buildings, causing facades to gradually darken. Combined with humidity and other chemical substances, this may result in facades losing their original color. Numerous floods can affect the stability of structures. Acid rain dissolves cement and lime, which causes extensive mutilation to buildings and monuments. We must take care of our cultural heritage because it shows the beginnings of society, history, and allows us to understand it better.

Value captured in the photo is the Medieval Town of Toruń in northern Poland. I chose this photo because it beautifully shows the panorama of Toruń. This city presents a complete picture of medieval culture. It is a valuable source of

information for research on the history of urban development in medieval Europe. Toruń has a medieval street layout, Gothic churches and medieval townhouses, the largest number of them among Polish cities are located here. There are about three hundred with a clearly preserved medieval layout and more or less visible elements of Gothic architecture, you can see the original Gothic facades, painted decoration and stucco-decorated ceilings. A great example of such a townhouse is the Nicolaus Copernicus house, which is currently a museum dedicated to his achievements and life. The Town Hall is one of the largest brick buildings in Europe, it is also the most important monument in Toruń's old town. For centuries, it was the city's administrative and commercial center. Fairs, knightly tournaments and even public executions took place nearby.

One of the challenges of heritage include the very expensive maintenance of monuments, to keep them in good condition. This requires appropriate materials, knowledge and specialists. To keep heritage in a fair condition, it should be systematically renovated. Protecting monuments against vandalism is equally important. Funds from the European Union help to keep monuments in the best possible condition. I think that practical measures that should be taken for the conservation of our heritage is that we should take action to reduce our personal emissions. Stopping consumer impulses, using renewable energy sources, all of this is within the reach of most of us. Individual action is necessary but not sufficient. The most important thing is systemic changes. We need changes in legislation, resource management and approaches to development.

To conclude, cultural heritage should be our common goal to preserve our national identity.



# Łucja Koczorowska

2nd Grade

X Liceum Ogólnokształcące im. prof. Stefana Banacha w Toruniu

# Toruń



Toruń and its surroundings can show how people treat the environment that is under a real danger of climate crisis. The reason for those changes are people and human produced things that have influence on climate. Everyday the climate changes to worse because of how humanity is used to things that actually really affects the world's health.

In the first picture is Poland Toruń's old town. I chose it because it shows how people use cars in their everyday lives. Amount of cars in cities has a really big influence on climate change. All cars powered by fossil fuels produce a huge quantity of CO2 that goes to the atmosphere and is a part of global warming. Every summer and winter is warmer than the other, because of carbon dioxide levels. In big cities air pollution is also a

big problem because sometimes the air outside is unbreathable so it also leads to humans toxification with pollution that they produce themselves. Like in Krakow in Poland.

In the second picture is a forest nearby Toruń. Climate crisis is also caused by fires in woods because of global warming. But the fires don't light up by themselves, mostly people leave something in the forests, like glass bottles or trash in general. There is a big chance that rays of sun will light up the glass which on the dry litter will easily catch on fire and the forest will start to be eaten by flames. A ton of carbon dioxide is produced at that moment and all of it goes to the atmosphere. The temperature increases because of that and it is a big problem of everyday living especially in the summer.

Climate crisis is really hard to get over, because people are accustomed to using things that lead us to it everyday and it would be hard to actually influence people to use cars less or make less amount of rubbish. But if people just a little decreased using those things it could actually help planet earth with its environment.



# Milo Daniecka

2nd Grade

X Liceum Ogólnokształcące im. prof. Stefana Banacha w Toruniu

# Medieval Town of Toruń

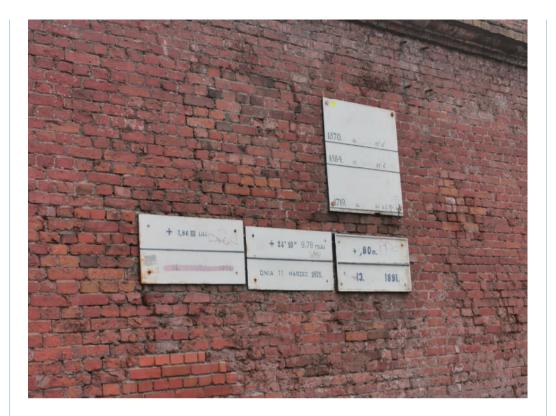


Toruń, nestled along the banks of the Vistula River in northern Poland is a well-preserved (and picturesque) medieval settlement. Thanks to the untouched state of the buildings, streets and even the boundary walls, the Medieval Town of Toruń got added on the World Heritage List in December of 1977 after a plenary session of the UNESCO World Heritage Committee in Naples.

The submitted photos depict the authenticity of Medieval Town of Toruń – the well-preserved buildings portraying the gothic architecture of medieval times and ruins that still make a reliable source for research covering a wide range of topics, like the architecture of early castles raised on the frameworks of wood fortifications. The

foggy weather, bare trees (photos no. 1 and 4) or even the crimson red leaves (photo no. 3) create an atmosphere highlighting the massiveness of the medieval buildings – brick presented on the gray sky and dark tree branches covering parts of monuments result in intimidating sceneries.

The preservation of this heritage comes with its challenges. These monuments could not have kept their original look while being exposed to all the extreme weather conditions. The buildings have undergone renovations that had to be performed meticulously not to lose the important architectural details or modernize the overall appearance. Other than that, it is crucial to make sure next generations take on the



responsibility of maintaining the heritage, hence the need for educating youth about cultural significance sealed in the Medieval Town of Toruń.

Archaeologists have found out that Toruń had had issues with floods back in the 13th century, which caused the founders to move it higher above the water level to a location we all know today. And yet, after all these years, the beneficial settlement on the Vistula River comes with its own risks. Climate change leads to unpredictable weather conditions, varying from draughts to heavy — causing floods — rain. The documented appearance of floods (photo no. 5) poses a question: How severe could they become in times of climate crisis?

To keep the cultural heritage safe, Toruń city should implement ways to collect and utilize the rainwater to minimize damage from heavy downpours, reconstruct the riverbed of the

Vistula River or its inflows, and raise awareness among its citizens not only on the climate change, but also on the cultural importance of the monuments.



# Klara Radomska

2nd Grade

X Liceum Ogólnokształcące im. prof. Stefana Banacha w Toruniu

# My Hometown's Heritage



The underestimation of the climate crisis manifests itself in many ways, such as lack of involvement in taking care of the environment, or not pursuing further education regarding the topic. As a person who is sensitive to art, and highly appreciates the wonders of human's immaculate works, I feel beyond saddened that my hometown's heritage is very much endangered.

In recent years, due to the rapid development of climate change, many places around the world have been facing ever-intense natural disasters. Just a little while back, my very own country faced the biggest flood we have ever encountered. Hence the damage was enormous,

it sparked a conversation regarding the destruction it caused. People started to worry that the astonishing historical buildings that are embedded in our culture, can one day be damaged beyond repair- all because of climate change.

Although the floods did not reach my city, it is remotely close to our country's biggest river, which can be a great danger. I also started to worry about the heritage that I have always been surrounded by, and that I appreciate.

In the heart of the Old Town Square, there is The Holy Spirit Church. I chose this photo, because it perfectly embodies the essence of why this

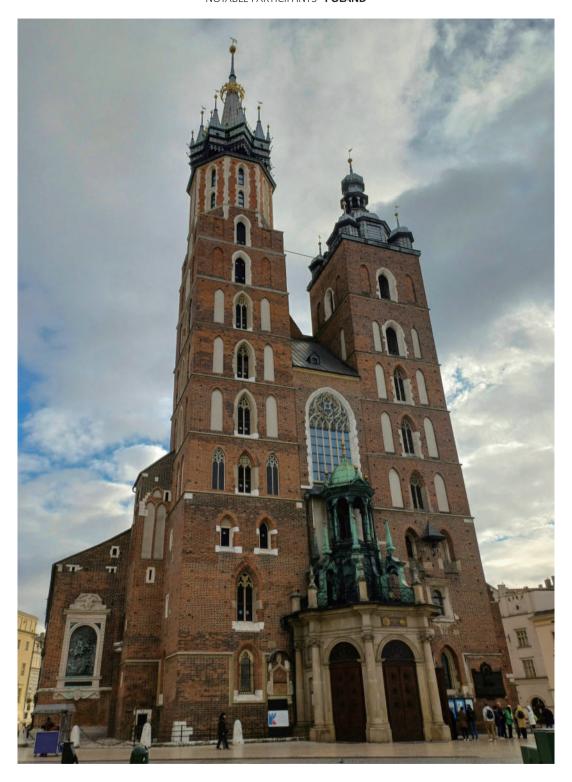


particular part of Toruń, my city, is on the World Heritage list, the essence being the combinations of multiple architecture styles. The building above presents the baroque, and rococo style. The picture below, however, shows The Cathedral Basilica of St. John the Baptist and St. John the Evangelist, which is one of the prominent gothic buildings that have not been destroyed through the centuries.

The true value of the buildings, but also of the Old Time Square as a whole is frankly incomprehensible. It holds such a historical worth, tells so many different stories, and constitutes the city's identity. The simple thought that the heritages can be destroyed by the climate change caused by humanity, such as discussed previously floods, or other natural disasters are absolutely horrific.

Can it be helped? Is there anything that can be done? To my understanding, yes. I think a

great start would be raising awareness on the topic of climate change. Talks about how it directly affects us, are in my opinion crucial to understanding how tremendous of a danger they can be to our world's heritage- no matter if people understand "the world" as a planet, or their closest surroundings. It is also important to point out that patriotism can be manifested in many ways, and taking care of one's country's valuable heritage, by protecting the environment is without a doubt one of them. Only that way can we be sure that the issue will not be underestimated, and achieve the goal, which is protection and preservation of the heritage.



### **Joanna Wicherek**

5th Grade (Technikum) Zespół Szkół im. Wincentego Witosa

# The Impact of Climate Change on UNESCO World Heritage Sites in My Country



Cracow is one of the most important centers of culture and history in Poland. This city is home to numerous UNESCO World Heritage sites, such as the Old Town, Wawel Castle, and the Kazimierz district. Climate change, driven by global warming, has a significant impact on these monuments, posing a serious threat to their preservation.

One of the key factors, through which climate change affects Cracow, is the degradation of the historical infrastructure. Rising temperatures or increased rainfall can weaken the structural integrity of buildings, making them more susceptible to erosion or irreversible damage. Many at risk sites, such as St. Mary's Basilica and Wawel Castle undergo costly repairs aimed at ensuring their longevity. Often, there is a need for reinforcement of the towers of St. Mary's Basilica, which are particularly vulnerable to high temperatures, heavy rainfall, and storms due to their location. Recently, another multimonth renovation was completed, and since the beginning of November, St. Mary's Basilica can



be seen in its fully restored splendor, as shown in photograph number 1. The Wawel Cathedral is still undergoing repairs, which nevertheless do not detract from the charm of Wawel Hill. Photographs 3 and 4 highlight the beauty that this place still holds, despite the ongoing work.

Cracow is not resilient to severe weather conditions, such as floods. In recent years, the city has faced multiple flooding threats due to intense rainfall. The photograph titled "In the Flow of Water" depicts the Vistula River flowing through Cracow, which poses the greatest threat due to both its size and current. The flood barriers surrounding the river in much of the city may not be effective enough to protect these important monuments. The Old Town, located near the riverbank, is at very high risk of flooding.

The city council is actively working to improve the aforementioned UNESCO World Heritage sites through various renovations that often last for months. Sometimes, parts of these sites are closed to protect tourists from potential hazards during construction.

Climate change has a profound impact on the UNESCO World Heritage sites in Cracow. Its effects on infrastructure and severe weather phenomena require immediate action to ensure that each monument remains in circulation for as long as possible. The protection of these valuable relics of the past largely rests in the hands of local authorities, but the global community can also play a role in addressing the current climate issues that significantly affect Cracow. May this city be preserved in its historic state for as long as possible.



# **Martim Inácio**

8th Grade Agrupamento de Escolas de Bobadela, LRS

# The City of Porto



Capital and gateway to the northern region, Porto is an ancient city that gave its name to Portugal and to a famous wine.

It is located near the mouth of the Douro, and its historical center has been a World Heritage Site since 1996. It is the 2nd city in the country and has always fought against impositions and invaders, which is why Porto is also known as the "Invicta" (Invincible) city.

We love this city and its natural surroundings, and we've chosen 5 landmarks:

"Torre dos Clérigos" (Clérigos Tower) – photo 1 - is the strongest landmark of Porto. Clérigos

Tower is the highest bell tower of Portugal, built and in 1753 by the Italian architect Nicolau Nasoni.

Ponte Luis I (Luis I Bridge) – photo 2.

"Mercado do Bolhão" (Bolhão Open-Air Market) – photo 3. Traditional market which opened in 1837 and remains a historical icon and heart of the city of Porto. It was recently restored and houses 80 stalls and family-run businesses over three floors, selling fresh products.

River Douro – photo 4.

"Livraria Lello" (Lello Bookstore) - photo 5.



Inaugurated in 1906, it is one of Portugal's oldest bookstores and one of the most beautiful in the world. It's famous for its central wooden staircase. This bookstore is also said to have inspired the creation of Hogwarts in the Harry Potter series.

Like other coastal cities, Porto is facing significant challenges due to climate changes. Being close to the sea and along the River Douro, Porto faces an increasing risk of coastal flooding due to the rise of sea levels. This is worsened by frequent and intense storms, affecting especially the lower areas.

The increase in storms and the greater frequency of strong waves causes coastal erosion, thus putting structures both coastal and in the historical area of Porto at risk of deterioration.

Another problem caused by climate changes is the rise of the average temperature, leading to frequent heatwaves and causing micro-cracks in the historic buildings. Climate change, such as periods of drought and excessive heat, directly affects the vineyards, impacting on the quality and quantity of the Porto wine production, which, in turn, affects the local economy.

The ecosystems by Douro River and its surrounding green areas are facing changes due to higher temperatures and reduced rainfall. Biodiversity is in danger, affecting the environmental balance of the region.

Higher temperatures, combined with increased traffic and tourism, are worsening air quality.

Even though the local authorities are implementing measures to face these challenges we think they should care about coastal structures so that they'd be able to face storms and flooding, as well as about green areas to lessen the effect of heatwayes and lack of water.

Another important issue is public transport. Measures to reduce pollution and gas emissions should be considered as well as protecting the historical heritage with suitable materials able to help facing the effects of erosion or humidity.

### NOTABLE PARTICIPANTS · REPUBLIC OF MOLDOVA



# **Sofia Sochirca**

8th Grade IPLT "Mihail Kogălniceanu"

# World Heritage in the Era of Climate Crisis



Climate change is the slow, inevitable turning of the Earth's breath. It is the shifting of seasons like a once-steady rhythm now faltering. The sun's warmth melts away or radiates unbearably close, so close that it affects even things that are considered way too small for everyone to even take care of. The glaciers, once eternal, softening into the deep blue oceans while storms rarely dance with ferocity, as if the wind has been set free or have been taken by a powerful force. It is the mourning of the ancient nature whose plants are now struggling to even keep themselves steady in the soil who no longer remember their names. It is the mountains who once whispered to Earth so beautifully that now are forgotten. In its wake, the world trembles, aching with the monstrosity of what it is and what was before all this internal, deep suffering that doesn't ever stop but it keeps crumbling more and more from the touch of humans.

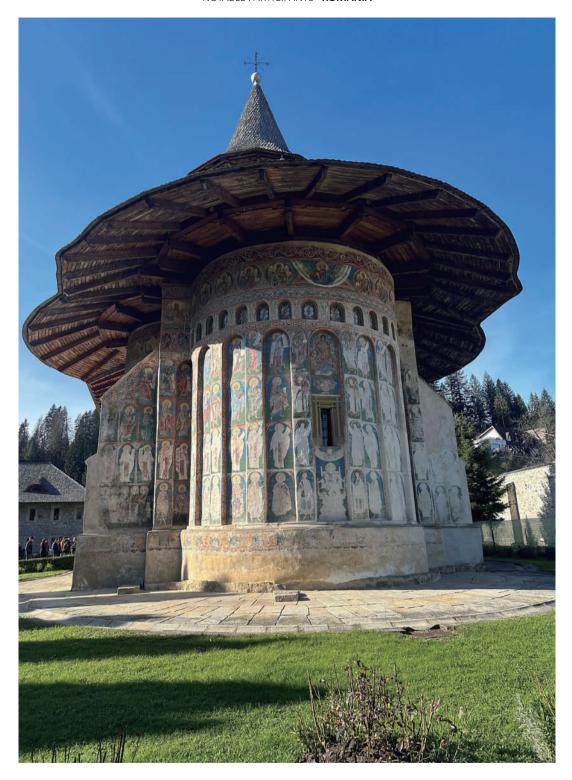
The breath of climate change whispers amongst the corridors of time caressing those ancient stones of our cultural heritage, these buildings we once all used to cherish with everything we had, now barely standing like a lost battle soldier. All those endless summer nights of the warm hands of the vacation when everyone was going to view every astonishing building created by no one but our ancestors. Their facades tell stories of empires and civilizations long past. Now the increased frequency of storms batters their once strong walls filled with undeniable rage. The high temperatures coaxing away every trace of natural pigment slowly fading into deep shadows of blue like the tone of the poetry written once by Sylvia Plath. Losing all those man-made marvels is like losing all our souls and getting the blues



all over again. It's a quiet battle between every dead empire that had its culture and beauty all the way till now. The scars they bear aren't just proof of how much they endured, it's a beautiful symbol of survival and change. Some incredible examples of survival, resilience and change are those amazing black beauties that will never be forgotten and that we can't lose from our trembling hands are presented in the photos photographed by me and my mother during our small trips. Yet, salt from invading seas begins to crystallize in the cracks of ancient ports and coastal fortresses made a very long time ago. The very air, tinged with pollution keeps destroying the golden hues of every kingdom and its structures ever made with a relentless clock of our time.

Though, in the end, the beauty of our cultural heritage lies not just in its preservation but in impermanence. Climate change is unpredictable with its scorching sun rays, threatening to destroy everything in its way and erase the iconic marks the society left over the centuries. Yet, it's also an important call from the planet Earth reminding us that it bears everything we caused

it to go through and that even us humans are the attendants of something much bigger and greater than ourselves.



### **Alexandra Poenaru**

8th Grade National College Petru Rares Suceava

# Saint George Monastery in Voronet: A UNESCO heritage



### St. George Monastery

The St. George Monastery in Voronet, Suceava, Romania, renowned for its striking blue frescoes and rich history, is a treasure of medieval Eastern Orthodox architecture and a UNESCO World Heritage site. Built in 1488 during the reign of Stephen the Great, it is an enduring symbol of Romania's cultural and religious heritage.

However, in recent years, the monastery has faced numerous environmental threats that put its frescoes and structure at risk.

### **Environmental Challenges**

The frescoes of the Voronet Monastery, especially the unique "Voronet Blue," have

been subjected to gradual degradation due to several environmental elements. The main threats include weather conditions, air pollution, biological factors, and the effects of climate change.

### 1. Weathering and Climate Exposure

The monastery's location in a mountainous region exposes it to severe weather fluctuations. Rain, snow, and wind wear down the monastery's external walls, leading to erosion and structural weakening. The mineral pigments in the frescoes are sensitive to moisture, causing fading and discoloration. Furthermore, sudden temperature changes from day to night accelerate the deterioration of the paint by causing expansion of the walls.

### 2. Air Pollution

Emissions from nearby roads and towns, along with increased tourism, have contributed to air pollution around the site. Pollutants such as sulfur dioxide and nitrogen oxides react with moisture to form acidic compounds, which in turn deteriorate the frescoes. The acidification process eats away at the paint layers, causing irreparable damage over time.

### 3. Biological Growth

Due to Romania's humid climate, microorganisms such as algae, fungi, and lichens find the walls of the monastery a favorable environment. These organisms can penetrate the frescoes and plaster, causing further discoloration and structural breakdown. Biological growth not only detracts from the aesthetic value of the monastery but also weakens the frescoes' integrity.

### **Preventive solution**

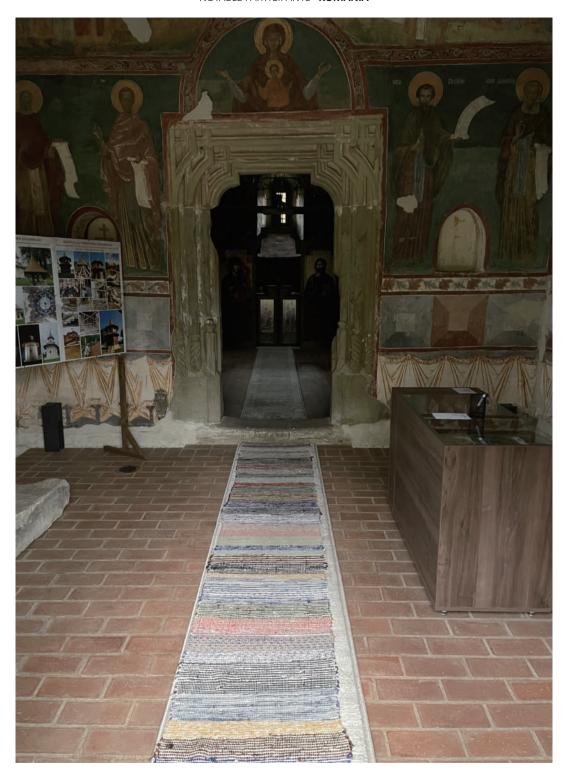
Advanced Protective Coating for Frescoes

Applying a protective, breathable coating to the

monastery's exterior walls could help preserve the frescoes from pollutants and moisture without trapping humidity. These coatings are typically made from nano-materials that are invisible to the eye but create a barrier against water and pollutants. A high-quality protective coating would:

- Repel Water: Preventing water from seeping into the frescoes can significantly reduce moisture-related damage and biological growth.
- Protect Against Pollutants: Advanced coatings can shield the surface from airborne pollutants that lead to acidification, slowing down the degradation of colors and surface layers.
- Maintain Breathability: Unlike traditional varnishes, modern protective coatings can be engineered to allow the wall to "breathe," so moisture from inside the walls can still evaporate, reducing the risk of mold and internal water damage.

This method would require periodic re-application but could be an effective way to protect the frescoes without altering the monastery's appearance.



# Ciprian Bîdiu

8th Grade National College Petru Rares Suceava

# The "Holy Cross" Church Pătrăuţi: UNESCO monument



Not far from the municipality of Suceava, the former capital of Moldavia, one can find the oldest UNESCO Monument Orthodox church in Romania, the "Holy Cross" Church in Pătrăuţi. The proximity and story of this monument are sufficient reasons for a brief presentation of some aspects related to its history, as well as the risks to which it is exposed as a result of the consequences of climate change.

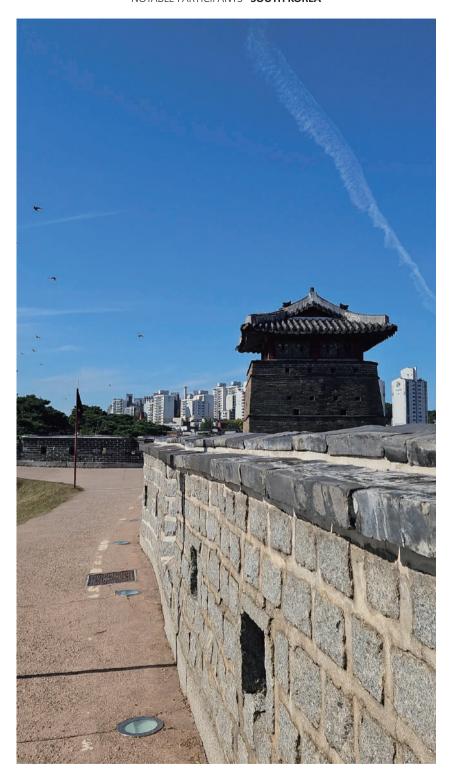
Built in 1487 by Stephan the Great, a ruler known for the churches and monasteries he founded, this monument was supposed to be the main piece of a future nuns monastery intended to take care for the sick and soldiers wounded in battle. Built of stone, the church represents a valuable model of medieval Moldavian architecture, the interior frescoes and the exterior painting representing the main point of attraction for visitors. The exterior painting, mostly preserved in the area of the entrance to the church, is the most exposed element to the phenomena generated by climate changes in recent years. Over time, the church survived numerous robberies, invasions by Turks, Tatars and Cossacks, as well as abandonment.

Located on the edge of the Pătrăuceanca stream,

at the foot of a hill near the forest, the church is exposed to extreme natural phenomena caused by global warming. In some locations, these phenomena are amplified by human intervention in the deterioration of the environment through uncontrolled deforestation, as well as the exploitation of stream beds. Global warming is causing changes in different regions of the world that include increasing the frequency and severity of storms, floods, landslides, heat waves or extreme cold, forest fires and other disasters.

As methods to avoid the appearance of events that could structurally affect this historical monument, one may mention, in addition to those that are taken on a local, regional or even international level to prevent/slow down the phenomenon of global warming, carrying out hill deforestation operations also, which would reduce the risk of landslides, as well as the construction of dykes to prevent possible floods. It is also necessary to perform periodic cleaning of the nearby forests, this reduces the risk of dry vegetation fires.

Another effect of climate change that directly affects cultural-historical monuments, churches with exterior paintings in particular, is represented by large variations in temperature and humidity, as well as extreme values (freezing or hot weather for long periods of time). These processes contribute negatively in the long term to the deterioration of the exterior painting of the church through infiltration or condensation and are visible by modifying the original appearance of the painting. Unfortunately, these phenomena cannot be combated with measures taken at the local level, but only with the involvement of the authorities at the national and international level, global warming being immune to terrestrial or aerial boundaries.



# **Sung-dong Choi**

1st Grade Daejeon Noeun High School Hwaseong Fortress in Suwon is a representative fortress from the Joseon Dynasty, and due to its historical value and architectural beauty, it has been designated as a World Heritage site. However, when discussing Hwaseong Fortress today, it is important to consider not just its role as a relic of the past but also how it can be connected to modern issues, such as the climate crisis. The climate crisis is advancing rapidly worldwide, and its impact extends to the spaces and heritage we inhabit. Hwaseong Fortress can serve as a significant example, offering wisdom and solutions for responding to the climate crisis.

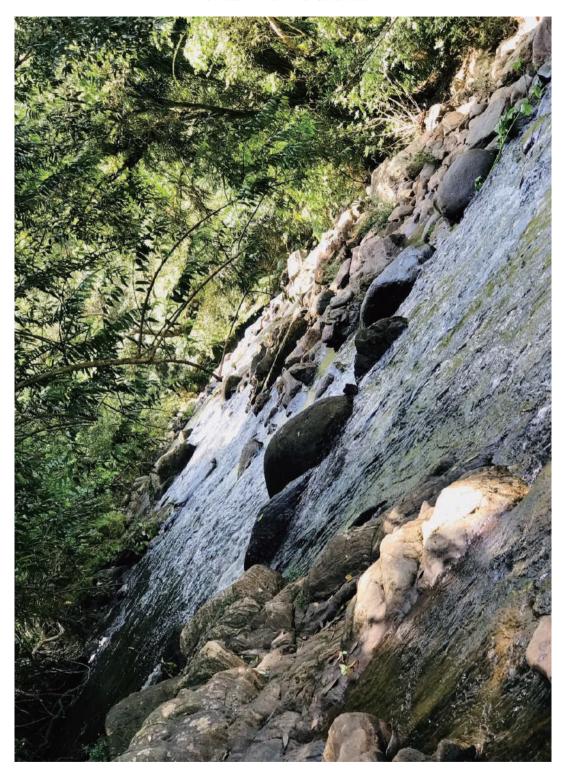
The architecture of Hwaseong Fortress is not merely for military purposes. Its design takes into account the natural terrain and aims for harmony with the environment. The flowing streams along the fortress walls, the surrounding mountains and trees, and the arrangement of the fortress walls all emphasize interaction with the natural surroundings. For example, the Haewoojeong, located on the southern side of the fortress, not only served as a defensive structure against wind and rain, but its materials and design were also suited to the local climate.

The climate crisis we face today reminds us of the importance of harmony with nature. In the face of rapid temperature fluctuations and extreme weather patterns, architectural approaches that balance with nature can become a key component in responding to climate change. The harmony between Hwaseong Fortress and its natural environment provides an important lesson that can be applied in modern architecture. In the midst of the climate crisis, climate-adaptive architecture and environmentally friendly design will be essential elements for a sustainable future.

The climate crisis is not only a modern issue;

extreme climate change also poses serious threats to historical heritage. Hwaseong Fortress is no exception. Extreme weather patterns such as heavy rain, drought, and rapid temperature fluctuations can threaten the structural integrity of the fortress. For instance, the stones and bricks that make up the fortress could be damaged by excessive moisture or temperature changes, and the growth of plants around the fortress could affect its structure.

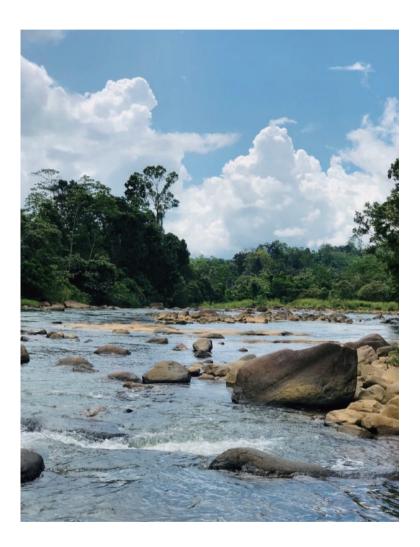
Therefore, it is crucial to address climate change in the preservation of cultural heritage sites like Hwaseong Fortress. Climate change predictions and preparations play a critical role in conservation efforts. For example, it is necessary to develop methods to reinforce the fortress and management strategies that minimize the impact of external environmental factors. Additionally, the preservation of Hwaseong Fortress should not be a short-term endeavor, but a long-term sustainable management strategy that reflects future climate changes. By combining the wisdom of the past with modern scientific technology, Hwaseong Fortress can continue to convey its value to future generations.



### Methuja Ruwaneka

10th Grade Mahinda Rajapaksha College, Matara

# Sinharaja Forest Reserve: A biodiversity hotspot in Sri Lanka



Sinharaja Forest Reserve, located in southwestern Sri Lanka, is a treasure trove of biodiversity and one of the last remaining areas of tropical rainforest on the island. Recognized as a UNESCO World Heritage Site in 1988, Sinharaja is celebrated not only for its unique flora and fauna but also for its vital role in maintaining ecological balance. Stretching across 88.64 square

kilometers, the forest is a hotspot of endemism, with over 60% of its trees and nearly half of its animal species found nowhere else on Earth.

The forest reserve is particularly renowned for its rich variety of plant species. Towering trees, lush greenery, and dense undergrowth characterize its landscape, with a canopy that reaches heights

of up to 45 meters. Among the notable flora are several endemic tree species, such as the Shorea trapezifolia and Mesua nagassarium, which contribute to the forest's unique ecological composition. This diverse plant life supports a complex web of interactions, forming a balanced ecosystem that sustains a multitude of animal species. Sinharaja Forest is also home to an impressive array of fauna. It serves as a habitat for many endemic species of birds, including the Sri Lankan blue magpie, the red-faced malkoha, and the green-billed coucal. Mammals like the purple-faced langur, a primate unique to Sri Lanka, can also be found here. The forest's lower layers are inhabited by reptiles, amphibians, and numerous insects, some of which are still being discovered by scientists.

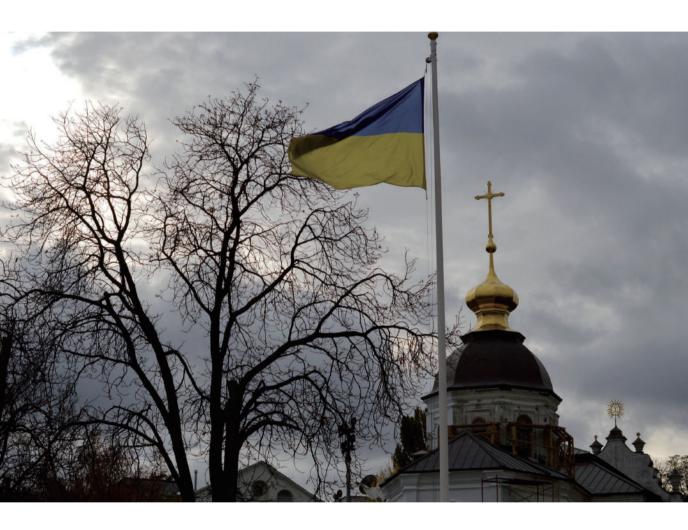
This high level of biodiversity and endemism makes Sinharaia a vital site for conservation efforts, scientific research, and eco-tourism. Beyond its role in biodiversity, Sinharaja plays a crucial ecological role. As a primary rainforest, it has an essential function in stabilizing the local climate and contributing to the island's water cycle. The forest acts as a natural watershed, regulating water flow to the rivers and streams that supply surrounding communities. Its dense vegetation also prevents soil erosion, thus preserving soil fertility in nearby agricultural areas. In this way, Sinharaja serves as a natural resource and ecosystem service provider, benefiting not only wildlife but also local human populations.

Despite its protected status, Sinharaja faces several threats that endanger its biodiversity and ecological health. Deforestation, though limited, poses a risk, as does illegal logging of certain valuable trees. Climate change also brings challenges, with increased rainfall variability and temperature changes impacting the delicate

balance of life within the forest. Additionally, tourism, while beneficial for awareness and conservation funding, requires careful management to prevent disruption of the natural environment.

Conservation efforts have been critical in safeguarding Sinharaja Forest. The government of Sri Lanka, along with international organizations like UNESCO, actively works to protect and maintain the reserve. Educating local communities about the importance of the forest and involving them in conservation activities has also proven effective in reducing human impact on the area. In conclusion, Sinharaja Forest Reserve stands as a living testament to Sri Lanka's rich natural heritage.

Its extraordinary biodiversity and ecological significance make it an invaluable asset to the country and the world. Protecting Sinharaja is crucial not only for preserving a unique ecosystem but also for ensuring that future generations can experience the wonders of this ancient rainforest. With continued conservation efforts, the legacy of Sinharaja can be safeguarded for years to come.



### Sophiia Patiuk

10th Grade Biotechnological Lyceum Radowell

# Saint-Sophia Cathedral



#### Reason for choice

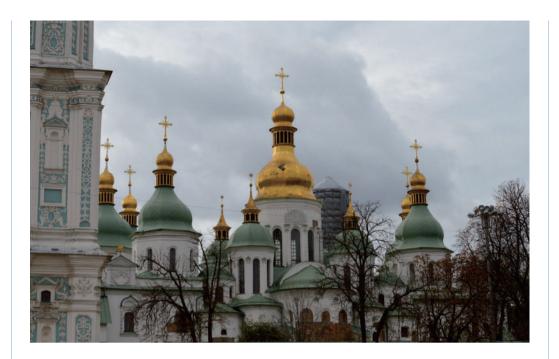
I chose this building because it is a symbol of the unity of the Ukrainian people. Its appearance is unique not only in Ukraine, but also for the whole world. Therefore, Saint-Sophia Cathedral is included in the world heritage of UNESCO. I also paid attention to the golden domes of the cathedral, which glow even in cloudy weather. There was magic and excitement. While taking pictures, it seemed to me that I was doing a good thing. My story and the photos will help Sofia of Kyiv for some percentage at least, more people will learn about her and this makes me happier.

#### Value

Saint-Sophia Cathedral is of great importance for Ukraine, it survived many wars, saw decline and the cathedral is not only a historical building, but also a symbol of the unity and stability of the nation. The monument reminds us that, despite the difficulties, Ukrainians have always preserved and continued to develop their culture and traditions. Saint-Sophia Cathedral is also a part of the world heritage listed by UNESCO, which emphasizes its significance for world culture and science.

#### Legacy problems and solutions

Sophia of Kyiv, like most ancient architectural objects, faces many preservation problems. The main ones are the destruction of time, damage from moisture and air pollution, which affects mosaics and frescoes. An additional threat is modern climate change, which provokes temperature changes and increased humidity, which in turn causes the destruction of materials.



Unfortunately, there is currently a war in our country. Therefore, we cannot be sure that it will not take human lives and monuments with it. But it is in our power to remember, spread and honor the objects of Ukraine. In order to preserve the building, modern technologies should be used, scanning should be carried out inside the cathedral. See problems and solve them. Cleanliness should also be taken seriously. Regularly clean the territory of the cathedral, prohibit entry with food and drinks, so that there will be no stains and other problems. And most importantly, treat such buildings with care and respect.

I hope you like my photos. It was a very wonderful experience that I will never forget.



### **Evelina Solohub**

9th Grade Kyiv Gymnasium of Oriental Languages №1



I chose the topic of primeval beech forests because these unique ecosystems are striking in their beauty and importance for biodiversity. They are not only a natural heritage, but also an important element of cultural heritage. This is a place where nature has retained its original power, and people have learned to live in harmony with it. In the conditions of modern ecological challenges, it is important to realize the value of such natural oases, because they serve as an example of how humanity can preserve a unique pristine nature for future generations.

Beech primeval forests are located in several countries of Central and Eastern Europe, in particular in Ukraine. They occupy an area of more than 100 thousand hectares and are ancient beech trees that grow to enormous sizes. These forests are not only home to many rare species of flora and fauna, but also important ecosystems that perform multiple ecological functions such as air purification, water retention and biodiversity support. In 2017, the primeval

beech forests were included in the UNESCO World Heritage List due to their unique natural value, which demonstrates the processes of evolution and ecological changes in forest ecosystems. This status emphasizes not only their uniqueness, but also the importance of international cooperation for the preservation of natural resources.

The climate crisis has a serious impact on primeval beech forests. A change in temperature and precipitation regime causes vegetation stress, which can lead to a decrease in the viability of trees, in particular beech. Increased temperature promotes the reproduction of pests and diseases that threaten the state of forests. In war-torn Ukraine, additional factors, such as infrastructure destruction and changes in natural resource management, further exacerbate these threats. As a result of these changes, the ecological balance is disturbed, which can lead to the loss of biodiversity.

One of the ways to solve this problem is the

implementation of programs for the preservation and restoration of primeval forests. It is necessary to focus efforts on monitoring the condition of forests, as well as on the implementation of measures that contribute to the adaptation of ecosystems to climate change. It is important to involve not only local communities in nature conservation, but also various, including international, nature conservation organizations, as their knowledge and experience can become invaluable in the fight against climate challenges.

Primeval beech forests are not only unique natural complexes, but also an important part of our cultural and ecological heritage. Their preservation is a priority task in the face of global environmental challenges. Let's save a piece of wild nature in the form of beech forests for our future generations!!!



# Maksym Krishtofovych

9th Grade Kyiv Gymnasium of Oriental Languages №1

# Saint George's Church, Drohobych

I chose St. George's Church in Drohobych not only for its stunning wooden architecture but also for its profound significance in Ukrainian culture and history. This church, a UNESCO World Heritage site, symbolizes the spirituality and identity of the Ukrainian people. Its unique design and rich history invite reflection on the preservation of our cultural heritage amid modern challenges like the climate crisis.

Constructed in the late 15th century, St. George's Church has served as a significant religious center and a testament to Ukraine's architectural prowess. Its construction reflects the artistry of the time, with intricate wooden elements that tell stories of devotion and craftsmanship. The church stands resilient against the backdrop of Drohobych, emphasizing its cultural importance over the centuries.

The architectural style of St. George's Church combines traditional wooden craftsmanship with local artistic influences. The elaborate carvings and the three-tiered roof contribute to its distinctive silhouette, making it a landmark of both beauty and cultural heritage. Throughout its history, the church has witnessed numerous events, including periods of war and political upheaval, yet it remains a symbol of continuity for the community.

#### **Impact of Climate Change**

However, the climate crisis poses significant threats to this historical monument. Rising temperatures can adversely affect the wooden structure, causing warping, cracking, and decay. Increased humidity and temperature fluctuations can lead to the expansion and contraction of the wood, compromising its integrity over time. Additionally, more frequent and intense rainfall can result in flooding, which threatens the foundation of the church.

Moreover, the increased occurrence of extreme weather events, such as heavy storms, can directly jeopardize the church's architectural features. The rise in air pollution and subsequent acid rain also present risks, as they can erode the wood and damage the intricate carvings that define its exterior.

#### Possible Solutions

To address these challenges, a multifaceted approach is essential. Firstly, implementing monitoring systems can help detect climate-related issues early. Installing sensors to track humidity and temperature both inside and outside the church will enable timely interventions.

Secondly, restoration efforts should incorporate modern materials and techniques designed to withstand climatic factors. Using more resilient materials can help preserve the architectural integrity of St. George's Church, ensuring its survival for future generations.

Furthermore, there is a pressing need to embrace ecological initiatives. Strategies such as creating rainwater collection systems, enhancing drainage around the church, and incorporating energy-efficient technologies can mitigate

the adverse effects of climate change while improving the surrounding environment.

#### Conclusion

In conclusion, St. George's Church in Drohobych is not only a remarkable architectural achievement but also a vital part of Ukraine's cultural identity. Protecting it in the face of the climate crisis underscores the importance of preserving our heritage. By adopting proactive measures, we can safeguard this historical monument and ensure that it continues to inspire future generations.

# International Photo Essay Contest for UNESCO World Heritage: UNESCO World Heritage through the Lens

Published in December 2024

Published by Korean National Commission for UNESCO

Address 26 Myeongdong-gil (UNESCO Road), Jung-gu, Seoul 04536,

Republic of Korea

Homepage www.unesco.or.kr

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#### ISBN 979-11-90615-55-6

This publication was funded by the Ministry of Education of the Republic of Korea. The Korean National Commission for UNESCO holds exclusive publishing rights for all photos and essays included in the production of the album for the International Photo Essay Contest for UNESCO World Heritage: UNESCO World Heritage through the Lens. No part of this publication may be reproduced or transmitted in any form or by any means without the explicit permission of the Korean National Commission for UNESCO.

