

# [International Centre on Space Technologies for Natural and Cultural Heritage]

## Report for the 46th session of the World Heritage Committee

Reporting period: July 2023 to June 2024

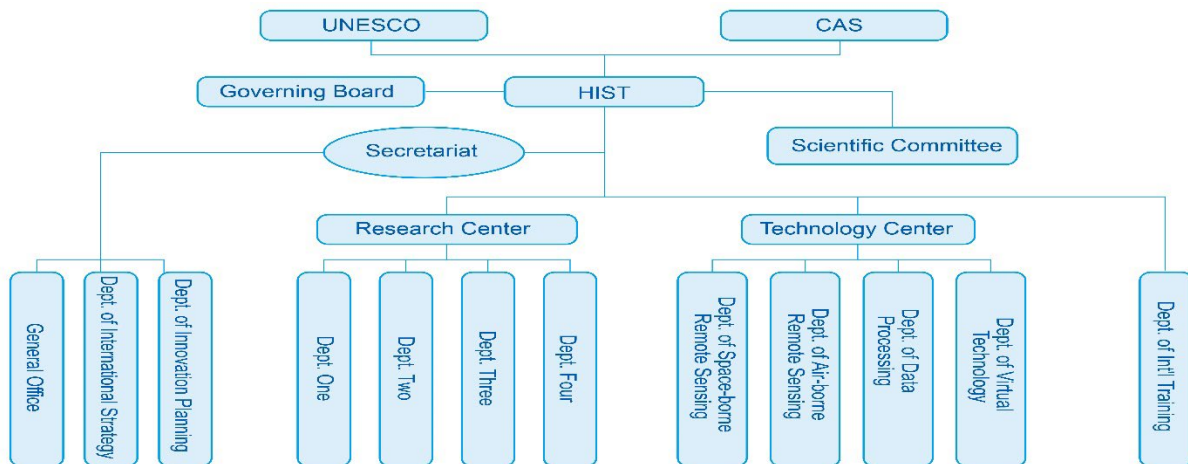
### 1. General Information

<b>Name of the Centre</b>	International Centre on Space Technologies for Natural and Cultural Heritage (HIST) under the Auspices of UNESCO
<b>Name and contact information of the Director/Head</b>	Guo Huadong, hduo@radi.ac.cn
<b>Designated Focal Point(s)</b> (name, title and contact information)	Liu Shaobo, Secretary General; E-mail <a href="mailto:liushaob@aircas.ac.cn">liushaob@aircas.ac.cn</a> ; Tel: +86 10 8217 8901; Fax: +86 10 8217 8915
<b>Website</b> (if available)	<a href="http://www.unesco-hist.org">www.unesco-hist.org</a>

### 2. Institutional and Operational Structure of the Centre

(e.g. Governing Board, staffing, operational funding and premises)

The operation and management of HIST is carried out under the direction of a Governing Board. The Governing Board is the decision-making body in charge of examining and approving the mid-term strategic plan, biennial work plans, annual work report and budget, supervising HIST in its implementation of the Board's decisions, and promoting cooperation and exchange with UNESCO, its Member States and relevant international organizations. The Scientific Committee of HIST comprises of some 30 experts and scholars from China in the fields of space technologies and natural and cultural heritage to provide professional consultation for HIST's strategy and biennial work plan. HIST's Executive Team is composed of a secretariat and nine departments: four Research Departments and Departments of Space-borne Remote Sensing, Airborne Remote Sensing, Data Processing, Virtual Technology and International Training.



HIST's annual operational funding and its premises have been provided by its host institute Aerospace Information Research Institute(AIR) of the Chinese Academy of Sciences(CAS). Chinese Academy of Sciences, representing the Government of China, provide annual operational budget to HIST in addition to the operational funding provided annually by AIR.

### 3. Updates on the Management of the Centre

(e.g. meetings of the Governing Board and key decisions adopted)

HIST convened the 10th session of its Governing Board which briefed on UNESCO's evaluation on HIST's performance since 2018, discussed and adopted HIST's Annual Work Report for 2021, 2022, 2023, Biennial Work Plan for 2022-2023, Biennial Work Report for 2024-2025. The meeting pointed out that 2024 will be a transition year due to HIST's status renewal process with UNESCO. The Governing Board commended HIST's excellent achievements in the past three years, expressed its support to HIST's renewal evaluation and HIST's future development, and proposed that HIST's collaboration within UNESCO, other relevant international organizations, UNESCO Member States will be strengthened.

#### 4. Main Programmes and Activities

*(implemented since July 2023 and planned for the current year)*

No.	Title of the Activity	Reference to WHCBS
1	Co-host 4 <sup>th</sup> Huangshan Dialogue on UNESCO-designated Sites and Sustainable Development with UNESCO(World Heritage Centre and Division of Ecological and Earth Sciences), ICOMOS and ICCROM from June 29 to July 1 2023	4.8
2	Participated in the Dialogue on Partnership for UNESCO Priority Africa which was hosted by Chinese National Commission for UNESCO and Beijing Normal University on August 1, 2023 in Beijing	4.8
3	partnered with China News Service to record two online programmes to introduce HIST's space archaeology and typical case study on the application of space technology in the monitoring of Jiuzhaigou World Heritage site in August	4.8
4	Participated in 3rd International Forum on Big Data for Sustainable Development Goals in Beijing and co-hosted with ICCROM a session on "Space Technologies Facilitating the Sustainable Development of World Heritages" during the forum on 7 September 2024	4.8
5	Participated in extended 45th session of World Heritage Committee in Riyadh, Saudi Arabia and co-hosted with UNESCO(World Heritage Centre), Copernicus Programme(European Earth observation programme)the side event "Space-based Technologies for the Preservation of World Heritage sites" during this session on 12 September 2023, participated in other side events such as "Exploring Cultural Heritage of the Arab Region" hosted by ICOMOS and Arab Regional Centre for World Heritage (ARC-WH) and "Culture and Climate Change-related Emergencies: New Realities, New Perspectives" hosted by the UNESCO Culture and Emergencies Entity and International Alliance for the Protection of Heritage in Conflict Areas(ALIPH)	4.8
6	Signed a MoU with ICOMOS Ethiopia on 13 October 2024 for the conservation of World Cultural Heritage in Ethiopia	3.6
7	Collaborated with UNESCO World Heritage Centre to monitor deforestation and gold mining activities in the	3.6

	Okapi Wildlife Reserve in the Democratic Republic of the Congo in 2023	
8	Conducted archaeological survey and discovery on the Great Wall of the Han Dynasty	3.6
9	Conducted research project on "Space-to-Ground" Integrated Monitoring and Assessment of Jiuzhaigou World Heritage Site in 2023	3.6
10	Conducted the monitoring and assessment of World Cultural Heritage sites in Xi'an of Silk Roads: the Routes Network of Chang'an-Tian Shan Corridor	3.6
11	Completed the reconstitution of HIST Governing Board and convened 10 <sup>th</sup> session of its Governing Board on January 18, 2024	4.8
12	Published with Springer the monograph- <i>Introduction to Space Archaeology</i> on February 17, 2024.	
13	Participated in We Are Site Managers International Symposium from 1 to 5 March, 2024	4.8
14	HIST's second-phase operation will be evaluated by UNESCO experts from 6 to 12 May, 2024	
15	Attend the international Symposium of the Category 2 institutes and Centres under the auspices of UNESCO in the field of Natural Sciences from 15 to 17 May 2024 in Kuala Lumpur, Malaysia	4.8
16	Participate in 46 <sup>th</sup> session of the World Heritage Committee in India, July 21 to 31, 2024	4.8
17	Conduct project on the use of space technologies for archaeological discovery along Surkhandarya River in 2024	3.6
18	Draft the next Mid-Term Strategic Plan (2024-2030) throughout 2024	

#### Brief Introduction to Programmes and Activities implemented:

1. HIST co-hosted 4th Huangshan Dialogue on UNESCO-designated Sites and Sustainable Development with UNESCO, ICOMOS and ICCROM from June 29 to July 1 2023. Themed "Digital Technologies Enabling Sustainable Development of UNESCO-designated Sites", the Dialogue organized eight sessions featuring following topics: digital conservation, space technologies and methodologies for the monitoring and evaluation, harmonized management, disaster risk reduction, climate change, space archaeology and spatial intelligence in cultural heritage, integration of heritage and culture and high-quality development, heritage education. The two-day event attracted over 200 participants from more than 20 countries and over ten international organizations. It adopted the Huangshan Vision, which was drafted by HIST, UNESCO World Heritage Centre, ICOMOS and ICCROM and published on UNESCO and ICOMOS website. This document emphasizes the potential role of space, air, and ground-based remote sensing technologies, along with other digital applications, in the monitoring and conservation of UNESCO-designated sites and calls on World Heritage stakeholders to fully utilize digital technologies to strengthen the collaborative conservation and management of UNESCO-designated sites, and to

promote collaborative efforts toward the UN Sustainable Development Goals.

2. HIST has collaborated with UNESCO World Heritage Centre to monitor deforestation and gold mining activities in the Okapi Wildlife Reserve in Democratic Republic of the Congo by analyzing its land use and land changes in this reserve, and providing UNESCO with basic data for the purpose of protecting wildlife and virgin forests in the area.
3. HIST and the Jiuzhaigou World Heritage Administration have jointly carried out a demonstration study of the "Space-to-Ground" integrated monitoring and assessment of Jiuzhaigou World Heritage Site. Through implementation of the project, a "Space-to-Ground" integrated information system has been established for the dynamic monitoring and assessment of the post-disaster recovery of vegetation and ecological environment, water quality improvement, digital modeling and virtual display of geological disaster recovery, and infrastructure reconstruction processes. The results from this project have provided key technical support for post-seismic disaster risk assessment and disaster prevention in the Jiuzhaigou heritage site.
4. On 12 September 2023, HIST, UNESCO and Copernicus Programme(European Earth observation programme) co-hosted the side event "Space-based Technologies for the Preservation of World Heritage sites" during extended 45th session of World Heritage Committee to discuss how the use of space-based technologies can help World Heritage practitioners (in particular site managers) better identify and prevent potential threats to sites, respond and recover from natural and anthropogenic hazards and raise further awareness of existing collaborative opportunities with relevant partners for the use of space-based technologies and analysis tools for the monitoring of the state of conservation of World Heritage sites. It attracted about 100 representatives from more than 10 international organizations and more than 20 countries.
5. HIST and ICCROM co-hosted a session on "Space Technologies Facilitating the Sustainable Development of World Heritages" during 3rd International Forum on Big Data for Sustainable Development Goals in September. Six experts from China, Italy, Egypt, and Cyprus introduced the current technological progress and achievements in the protection of cultural heritage, and discussed with participants strategies for digital transformation and sustainable development of cultural heritage in the near future.