



THE COSMOLOGICAL AXIS OF YOGYAKARTA
MANAGEMENT UNIT

THE COSMOLOGICAL AXIS OF YOGYAKARTA AND ITS HISTORIC LANDMARKS

MANAGEMENT PLAN



Prepared by
The Cosmological Axis of Yogyakarta Management Unit
2022 (revised February 2023)

Front cover: View from Southern Square (*Alun-Alun Kidul*) to Merapi Mountain (northview)
Photos: Iswanto Rizki Rhamadan (IG @meltoy.photo)



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CHAPTER 1. INTRODUCTION

1. INTRODUCTION

1.1. Background and purpose of the Management Plan (MP)

- › A Management Plan (MP) is the principal guiding document for the management of a heritage place. It is a tool that allows owners, managers and approval authorities to make sound decisions about heritage places.
- › A MP identifies the heritage values – or significance – of a place including the Outstanding Universal Value (OUV), the conservation policies to be applied to protect that significance in the face of change, and a strategy through which the policies will be put into action
- › This MP has been developed for *The Cosmological Axis of Yogyakarta and Its Historic Landmarks* in accordance with Article 108 of the UNESCO Operational Guidelines (OG) of the World Heritage Convention (2019).
- › It is important to note that this MP does not aim to replace the traditional management system used by the Kraton of Yogyakarta (the concept of *Tata Rakiting Wewangunan*). Rather, this MP has been developed in harmony with these traditional management systems.
- › The MP is the authoritative document to guide all stakeholders in planning and carrying out policies and programs in order to ensure the protection and preservation of OUV, integrity, and authenticity of nominated cultural heritage property. The Cosmological Axis of Yogyakarta Management Unit is the authority responsible for the implementation of the MP and monitoring its implementation in close coordination with all stakeholders.
- › This MP will be reviewed every five (5) years. If circumstances change, this MP may need earlier review and revision, for example if there is deterioration in the condition of the property or impacts from a catastrophic event (such as an earthquake), or when there is a decree from the Sultan regarding the conservation of the attributes.

1.2. Guidelines and approaches adopted in the Management Plan

- › This MP adopts the Hoi An Protocols for Best Conservation Practice in Asia: Professional Guidelines for Assuring and Preserving the Authenticity of Heritage Sites in the Context of the Cultures of Asia (UNESCO, 2009¹), and the Nara Declaration on Authenticity (ICOMOS, 1994)² as key guidelines for preserving authenticity.

1 https://unesdoc.unesco.org/ark:/48223/pf0000182617_eng

2 <https://www.icomos.org/charters/nara-e.pdf>

- › In addition, the MP adopts the approaches defined in the Indonesian Charter for Heritage Conservation (2003³), particularly the concept of *saujana*: the weaving of cultural, natural and intangible cultural heritage values.
- › Heritage Impact Assessments (HIA) are a key vital tool to sustainably manage change at the property, and in this regard the Government of the Special Region of Yogyakarta (Daerah Istimewa Yogyakarta, or DIY) has adopted Guidelines for the HIA based on the approach outlined in the ICOMOS (2011⁴) Guidance on Heritage Impact Assessments for Cultural World Heritage Properties. This MP is a crucial part of the HIA process and is expected to be used in conjunction with the HIA Guidelines.
- › Since the nominated cultural heritage property is part of a thriving and dynamic urban heritage landscape, the overall approach of the MP is framed by the UNESCO (2011)⁵ Recommendation on the Historic Urban Landscape (HUL). By adopting the HUL approach, the DIY Government wishes to avoid the creation of small sections of preserved areas disconnected from their context, and instead aims for a holistic city-wide approach for heritage conservation involving multiple government agencies, the private sector and local communities.
- › Over 2021, the DIY Government has begun implementing the HUL approach at the nominated property to develop a HUL strategy. The results of this work have been used in developing this MP. The final report of the HUL activity will be translated into English and will be available by July 2022.

1.3. The Principles Adopted in the Management Plan

- › The UNESCO (2011) Recommendation on the Historic Urban Landscape provides the following definition:
 - The historic urban landscape is the urban area understood as the result of a historic layering of cultural and natural values and attributes, extending beyond the notion of “historic centre” or “ensemble” to include the broader urban context and its geographical setting.
 - This wider context includes notably the site’s topography, geomorphology, hydrology and natural features, its built environment, both historic and contemporary, its infrastructures above and below ground, its open spaces and gardens, its land use patterns and spatial organization, perceptions and visual relationships, as well as all other elements of the urban structure. It also includes social and cultural practices and values, economic processes and the intangible dimensions of heritage as related to diversity and identity.

3 <https://www.icomos.org/images/DOCUMENTS/Charters/indonesia-charter.pdf>

4 https://www.icomos.org/world_heritage/HIA_20110201.pdf. Note: The DIY Government understands that the ICOMOS HIA Guidelines may be updated in 2022, and in this regard, the HIA processes will be reviewed against the new guidelines when they are published.

5 <https://whc.unesco.org/uploads/activities/documents/activity-638-98.pdf>

- › With the above understanding, this MP was prepared based on the following understanding:
 - Change in the city is inevitable because it is part of the city's tradition alone. However, these changes need to be controlled in order to continue to respect the important values, authenticity and integrity of the historic urban landscape.
 - In order to monitor the changes, it is necessary to collaborate with many parties in an integrated manner, through all the process of decision making, planning, implementation, monitoring, as well as evaluation of various existing policies and programs
 - Control of development and growth is not intended as a process stop the development in the nominated property. Instead, the control is directed to improve the quality of human life and more efficient means of production for strengthening community identity and social inclusiveness.

- › Based on the above, the overarching principles outlined in the MP are as follow:
 - The planning process in Yogyakarta is done by involving the stakeholders and carried out carefully, after considering the advantages and disadvantages of any development policies and programmes. HIA will be used at the tool for assessing proposed development projects.
 - The construction of new buildings must consider the local, national and outstanding universal values (OUV) values of the nominated property and the wider setting.
 - Economic development is important, especially for livelihoods of the local community, but should be directed to support the long-term preservation of the property and its cultural heritage values.

1.4. Methodology used for developing the MP

- › This MP has been prepared with extensive consultation with key stakeholders from government, the private sector and local communities. It therefore contains mutual agreement among stakeholders and should be respected and carried out in accordance with the roles and responsibilities of the respective authorities. In 2021, 44 meetings were held with key stakeholders (local community, government agencies, the private sector) and feedback was collected. This has been used to inform the development of the plan.

- › Conservation Management Plans (CMP) have been created for ten (10) key attributes of the property. This is because each attribute has its own unique conservation challenges and stakeholder groups. These CMP are integrated into this overall World Heritage MP under the overall authority of The Cosmological Axis of Yogyakarta Management Unit. CMPs have been created for the following:
 - Panggung Krapyak Monument (**A.1**)
 - Southern Cosmological Axis (**A.2**)
 - Kraton Walls, Gates and Fortifications (**B.1**)
 - Kraton Inner Complex of the Palace and Its Squares (**B.2**)
 - Tamansari Royal Garden Complex (**B.3**)

- Great Mosque Complex (**B.4**)
- Northern Cosmological Axis (**C.1**)
- Beringharjo Market (**C.2**)
- Kepatihan Complex (**C.3**)
- Tugu Monument (**C.4**)

The CMPs have been translated into English and can be accessed via the following link: <http://bit.ly/3K66f31>

CHAPTER 2. LOCATION

2. LOCATION

2.1. Location

- › State, Province or Region: The Special Region of Yogyakarta (Daerah Istimewa Yogyakarta): (i) The City of Yogyakarta; and (ii) Bantul Regency
- › Geographical Coordinates:
Latitude : 7°48'05.0"S
Longitude : 110°21'53.2"E
- › Maps

Six (6) maps showing the World Heritage property, buffer zones and wider area are shown in the following. All data is from the City of Yogyakarta and Regency of Bantul Planning Departments (2021) and the maps use the official format of these planning agencies.

Map 1: Map of the Nominated Property

Cadastral map (scale 1:6,000) of the nominated property. This map shows the overall nominated area, buffer zone and wider setting of *The Cosmological Axis of Yogyakarta and Its Historic Landmarks*. The map also shows rivers, streets and other features of the urban landscape.

Map 2: Southern Map Section of the Nominated Property

Detailed cadastral map (scale 1:2,000) of the southern section the nominated property. This plan also shows the administrative boundary between the City of Yogyakarta and the Regency of Bantul.

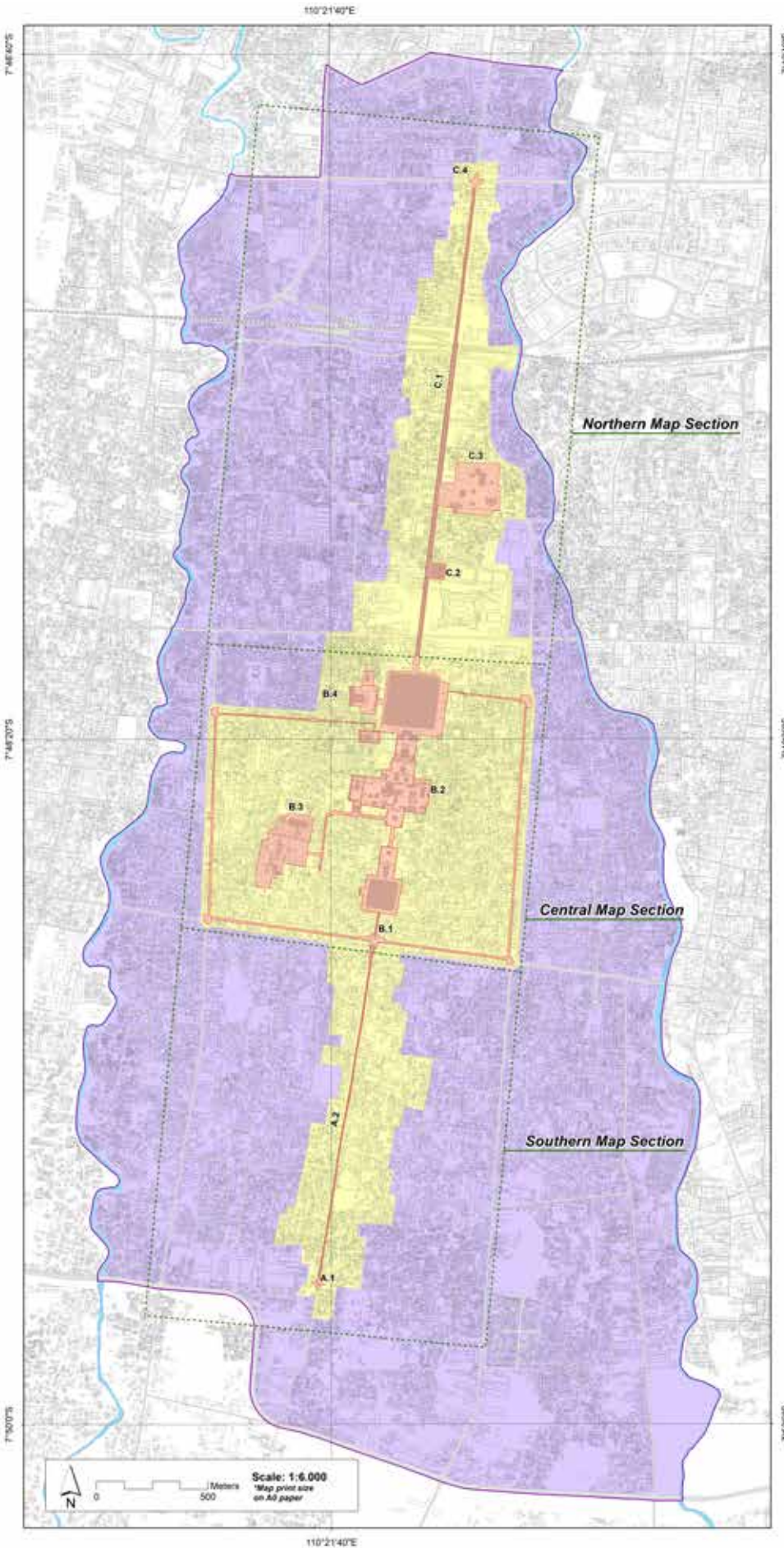
Map 3: Central Map Section of the Nominated Property

Detailed cadastral map (scale 1:2,000) of the central section of the nominated property.

Map 4: Northern Map Section of the Nominated Property

Detailed cadastral map (scale 1:2,000) of the northern section of the nominated property.

The maps are reproduced here in A4 size:



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Map 1: Map of the Nominated Property

Legend:

	Street		Map Section
	Railroad		
	River / Water body		
	Building		
	Attributes		
	Wider Setting		
	Buffer zone		
	Nominated property		

Southern Map Section:

- A.1 Panggung Krapyak Monument
- A.2 Southern Cosmological Axis

Central Map Section:

- B.1 Outer Walls, Gates and Fortifications
- B.2 Inner Complex of the Palace and Its Squares
- B.3 Tamansari Royal Garden Complex
- B.4 Great Mosque Complex

Nothern Map Section:

- C.1 Northern Cosmological Axis
- C.2 Beringharjo Market
- C.3 Kepatihan Complex
- C.4 Tugu Monument



Data Sources:

1. Government of the Special Region of Yogyakarta (Daerah Istimewa Yogyakarta) Base Map
2. The Detailed Spatial Plan for the City of Yogyakarta (RDTR Kota Yogyakarta)
3. The Detailed Spatial Plan for the Bantul Regency (RDTR Kabupaten Bantul)
4. Ministerial Decree Number 117/2018 on the Establishment of the Nation National Cultural Area (SK Menteri Nomor 117 Tahun 2018)
5. Governor Decree Number TS/2017 on the Establishment of the Regional Cultural Heritage Areas (SK Gubernur TS 2017)

Geographic Coordinate System:

Coordinate System: WGS 1984 UTM Zone 49S
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500 000
False Northing: 10 000 000 000
Central Meridian: 111 000
Scale Factor: 0.9996
Latitude Of Origin: 0 0000
Units: Meter

FIGURE iii.1 MAP 1: MAP OF THE NOMINATED PROPERTY

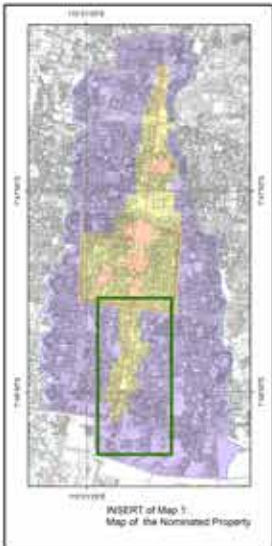
**THE COSMOLOGICAL AXIS
 OF YOGYAKARTA
 AND ITS HISTORIC LANDMARKS**
 Map 2: Southern Map Section
 of the Nominated Property

Legend:

-  Administrative boundary
the City of Yogyakarta
-  Street
-  Building
-  Attributes
-  Wider Setting
-  Buffer zone
-  Nominated property

Nominated Property of Southern Section:

- A.1 Panggung Krapyak
- A.2 Southern Cosmological Axis



Data Sources:

1. Government of the Special Region of Yogyakarta (Cekang Informasi Yogyakarta) Base Map
2. The Detailed Spatial Plan for the City of Yogyakarta (RDTR Kota Yogyakarta)
3. The Detailed Spatial Plan for the Banjul Regency (RDTR Perencanaan Banjul)
4. Ministerial Decree Number 17/2018 on the Establishment of the Kraton National Cultural Area (SK Menteri Nomor 117 Tahun 2018)
5. Governor Decree Number 75/2017 on the Establishment of the Regional Cultural Heritage Area (SK Gubernur 75/2017)

Geographic Coordinate System

Coordinate System: WGS 1984 UTM Zone 49S
 Projection: Transverse Mercator
 Datum: WGS 1984
 False Easting: 500,000.0000
 False Northing: 10,000,000.0000
 Central Meridian: 111.0000
 Scale Factor: 0.9996
 Latitude Of Origin: 8.0000
 Units: Meter

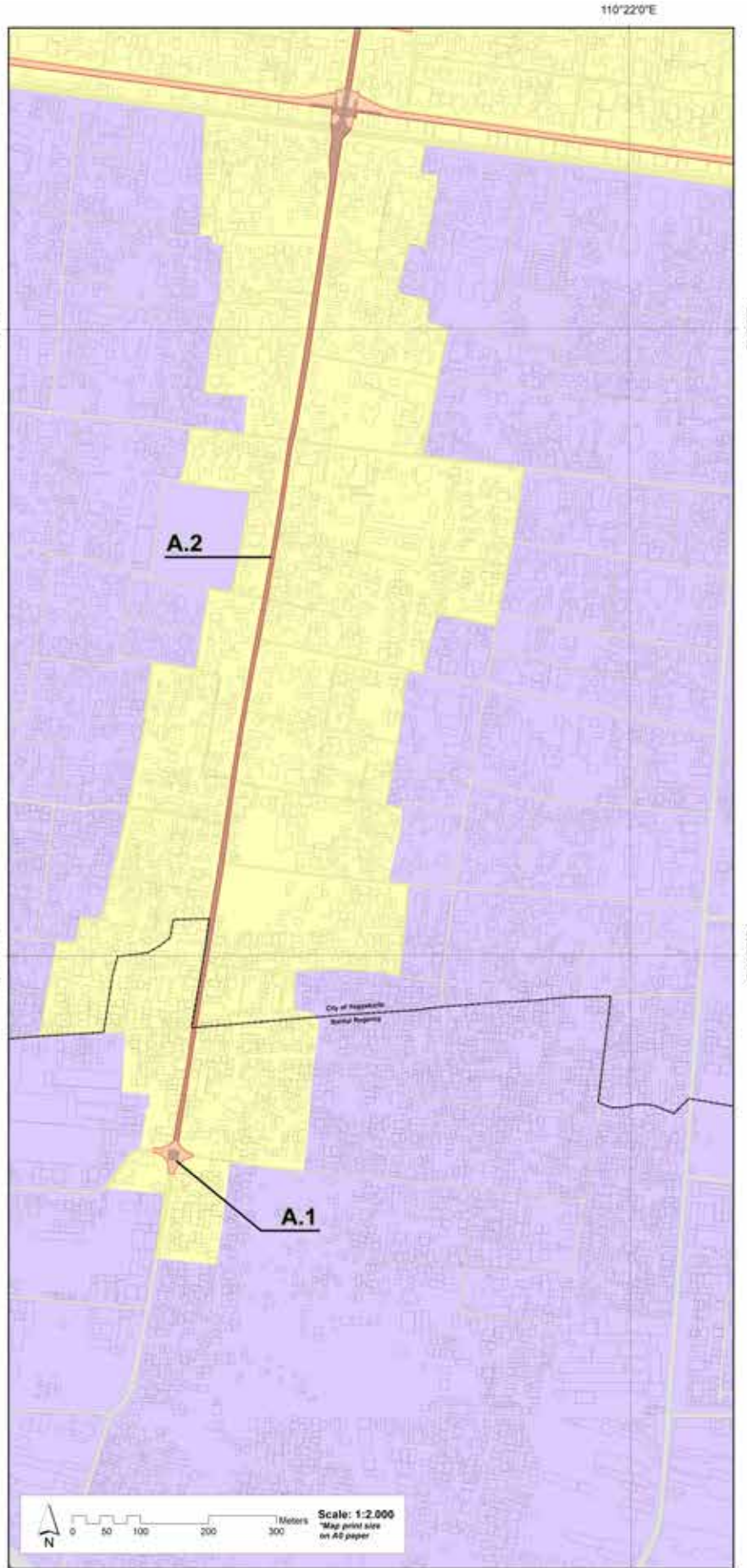


FIGURE iii.2 MAP 2: SOUTHERN MAP SECTION OF THE NOMINATED PROPERTY

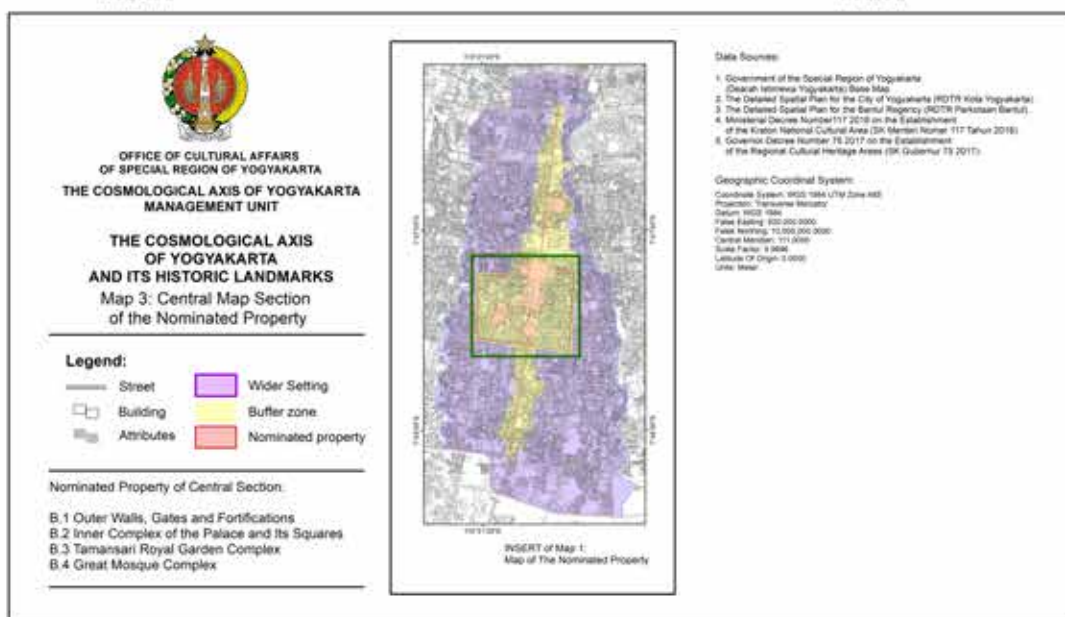
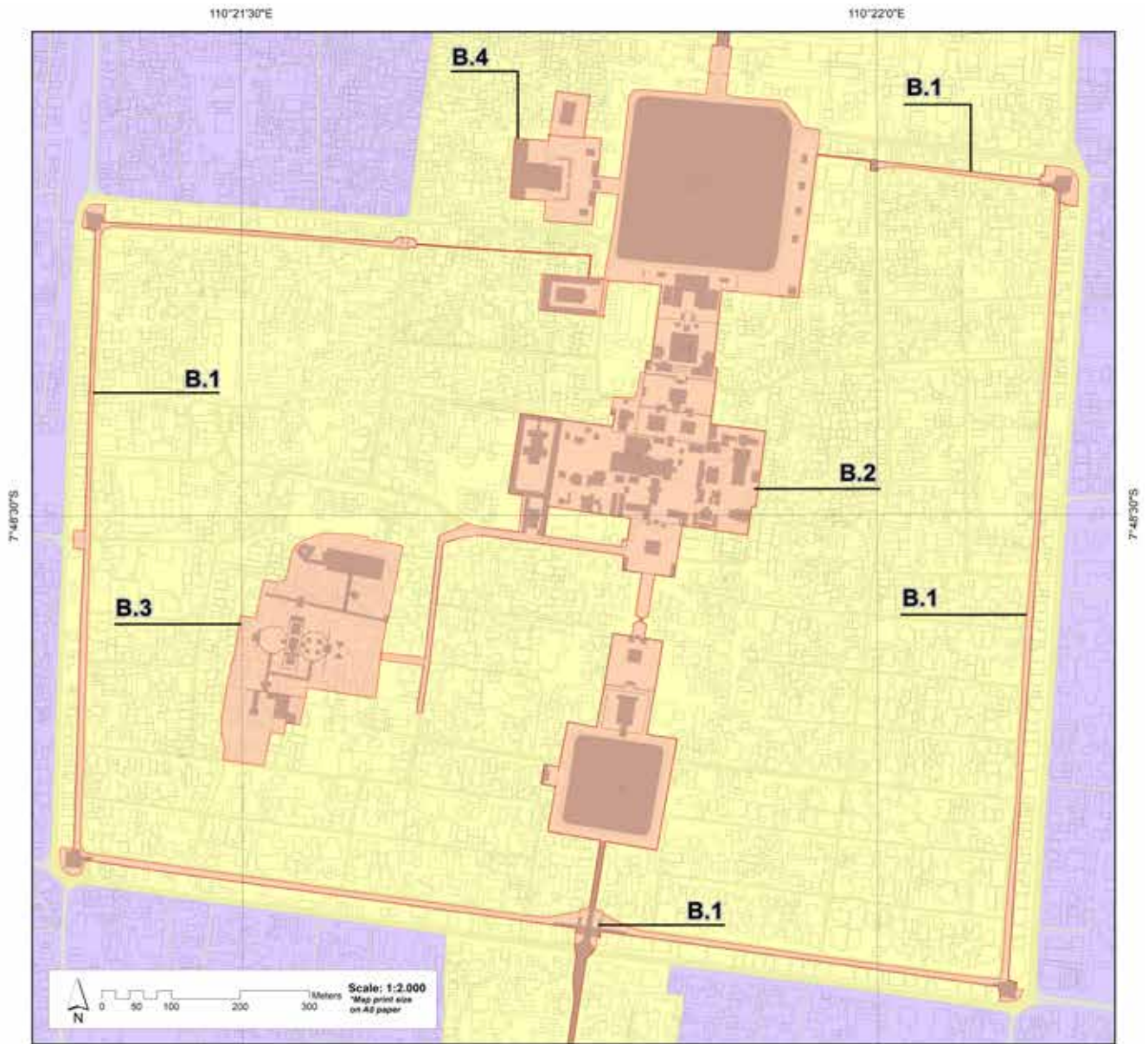


FIGURE iii.3 MAP 3: CENTRAL MAP SECTION OF THE NOMINATED PROPERTY



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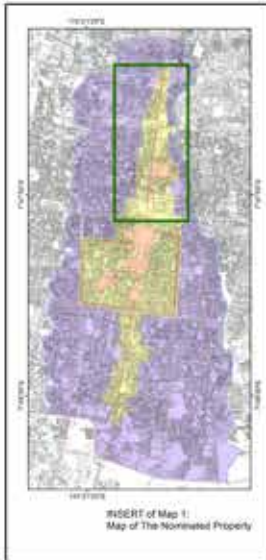
**THE COSMOLOGICAL AXIS
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AND ITS HISTORIC LANDMARKS**
Map 4: Northern Map Section
of the Nominated Property

Legend:

- Street
- Railroad
- River / Water body
- Building
- Attributes
- Wider Setting
- Buffer zone
- Nominated property

Nominated Property of Northern Section:

- C.1 Northern Cosmological Axis
- C.2 Beringharjo Market
- C.3 Kepatihan Complex
- C.4 Tugu Monument



INSERT of Map 1:
Map of The Nominated Property

Data Sources:

1. Government of the Special Region of Yogyakarta (Dewan Perwakilan Yogyakarta): Base Map
2. The Detailed Spatial Plan for the City of Yogyakarta (RDTT Kota Yogyakarta)
3. The Detailed Spatial Plan for the Special Region (RDRP Persebaran Baru)
4. Ministerial Decree Number 117/2016 on the Establishment of the Kotaton National Cultural Area (SK Menteri Nomor 117 Tahun 2016)
5. Governor Decree Number 75/2017 on the Establishment of the Regional Cultural Heritage Areas (SA Gubernur 75/2017)

Geographic Coordinate System:

Coordinate System: WGS 1984 UTM Zone 48E
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000,000.0
False Northing: 10,000,000,000.0
Central Meridian: 111,000,000
Scale Factor: 0.9996
Latitude Of Origin: 0,000,000
Units: Meter

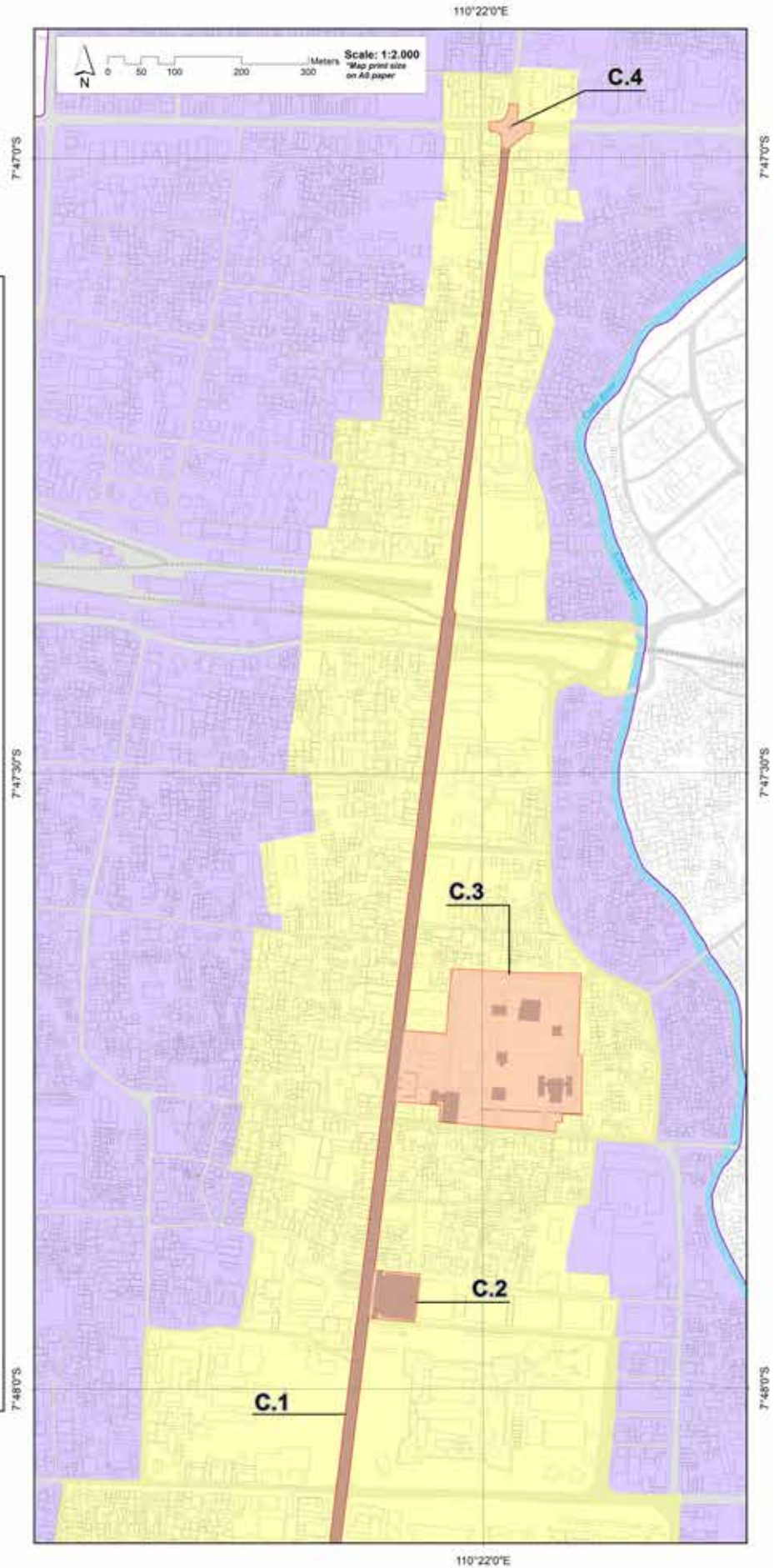


FIGURE iii.4 MAP 4: NORTHERN MAP SECTION OF THE NOMINATED PROPERTY

CHAPTER 3. HERITAGE VALUES, AUTHENTICITY, AND INTEGRITY

3. HERITAGE VALUES, AUTHENTICITY, AND INTEGRITY

3.1. Introduction

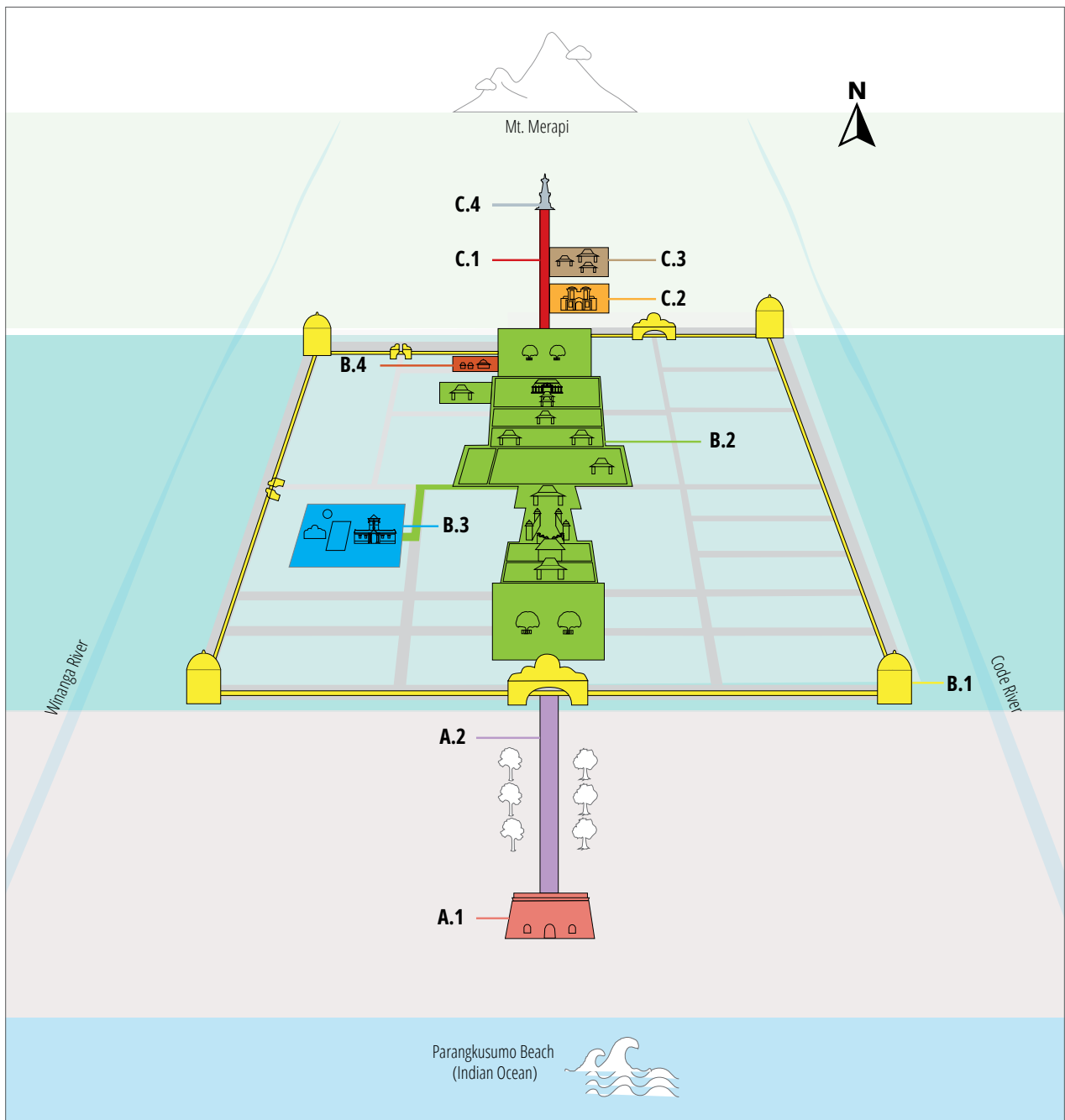
- › *The Cosmological Axis of Yogyakarta and Its Historic Landmarks*, including the wider setting, has local, regional, national and international significance.
- › The whole property can be understood as the result of a historic layering of cultural values and attributes and includes social and cultural practices and values, and the intangible dimensions of heritage as related to diversity and identity. In this regard, the property has a range of values for different individuals or groups.
- › The property has local, regional, national and international significance. There are over 200 buildings on the national regional and local heritage register in the buffer zone and wider setting of the property. In addition to the listed sites, there are a number of significant heritage structures that are yet to be listed, including vernacular architecture, shophouses, and 'modern' heritage. While this cultural heritage are not direct attributes for the OUV of the property, the heritage is still historic urban landscape of the city and the wider setting of the property.
- › In this regard, while this MP has been developed for *The Cosmological Axis of Yogyakarta and Its Historic Landmarks* World Heritage property, the objective is not to focus on the 'historic centre' or World Heritage attributes in isolation, but rather support the preservation of the full range of heritage values in a holistic way.

3.2. Overview of the property

- › *The Cosmological Axis of Yogyakarta and Its Historic Landmarks* property is an exceptional testimony to Javanese civilization and culture, exhibits an important interchange between belief systems and values, and is directly associated with outstanding living traditions, and artistic and literary works.
- › The placement of the landmarks along the Cosmological Axis was designed to manifest in physical form the Javanese philosophical thoughts on human life, especially the cycle of life (*Sangkan Paraning Dumadi*), ideal harmonious life (*Hamemayu Hayuning Bawana*), the connection between human beings and the Creator (*Manunggaling Kawula Gusti*), and the microcosmic and macrocosmic worlds.
- › The nominated property includes the Kraton (Palace) Complex and landmarks (monuments,

structures and spaces) located along a tangible 6 km long south-north axis. The landmarks are connected spatially, in their design, through rituals, and by the traditional management system of the Sultanate of *Ngayogyakarta Hadiningrat*.

- › All the landmarks of the property respond to the natural environment and are located on the fertile plains of Java between the active volcano Mount Merapi, considered the abode of Guardian Spirits, and the Indian Ocean, regarded as the home of the Queen of the Southern Sea. This response is reflected in the design of the property itself, with the axis between the Panggung Krapyak Monument (shaped as yoni) and the Tugu Monument (shaped as a lingga), replicating the sacred Mount Merapi-Indian Ocean connection on a smaller scale.
- › The location of the Kraton and the city were deliberately chosen by the Sultan Mangkubumi in 1755 to conform to Javanese cosmological beliefs, where the capital of the Kingdom is considered to be a miniature of the universe (macrocosmos), following the Hindu-Buddhist concept of the Divine Mount Meru (the centre of physical, metaphysical and spiritual universes). This concept is reflected in the design, architecture and layout of the Kraton Complex.
- › The fundamental concepts, tangibly manifested in the physical form of the attributes of the property, including the Cosmological Axis, Panggung Krapyak Monument, Kraton Complex, Tamansari Royal Garden Complex, Great Mosque Complex, and Tugu Monument, long pre-date the property and have been shaped over the course of the history of Java since before the 1st century CE, through the long-term interaction and interchange of human values, beliefs and ideas, including Animism, Hinduism, Buddhism and Sufi Islamic teachings.
- › The significance of the tangible cultural heritage attributes of the nominated property are closely intertwined with intangible cultural heritage practices relating to the cycle of life (birth, marriage and death), venerating ancestors, coronations, funerals, Islamic days, the connection of the natural and macrocosmic microcosmic worlds, and day to day offerings (*sesajen*). These practices are maintained by the Sultanate of *Ngayogyakarta Hadiningrat* through the *Tata Rakiting Wewangunan* traditional management system, which has been passed down from generation to generation for centuries.
- › The Sultanate has, and continues to play, a key role in the practice of many living Javanese culture and art forms, including dance, music, weaponry and cuisine associated with the property. Intangible cultural heritage elements found at the property, such as the creation of Batik cloth and Keris daggers, as well as Gamelan musical performances and Wayang puppet theatre are practiced by the Sultanate and the wider community in Yogyakarta..



Attributes of The Cosmological Axis of Yogyakarta and Its Historic Landmarks

- | | | | |
|--|---|--|----------------------------|
| ■ A.1 | Pangung Krapyak Monument | ■ C.1 | Northern Cosmological Axis |
| ■ A.2 | Southern Cosmological Axis | ■ C.2 | Beringharjo Market |
| ■ B.1 | Outer Walls, Gates and Fortifications | ■ C.3 | Kepatihan Complex |
| ■ B.2 | Inner Complex of the Palace and Its Squares | ■ C.4 | Tugu Monument |
| ■ B.3 | Tamansari Royal Garden Complex | | |
| ■ B.4 | Great Mosque Complex | | |

Figure 3.1 Illustration of the position of the selected attributes/ group of attributes in the nominated property.

3.3. International significance (Outstanding Universal Values)

The property has high international significance, and fulfils Criteria (ii), (iii) and (vi) of the UNESCO World Heritage Convention. Below is the description of the OUV of the property:

Criterion (ii): “to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, townplanning or landscape design”.

The Cosmological Axis of Yogyakarta and Its Historic Landmarks exhibits an important interchange of human values and ideas between different and overlapping belief systems related to Javanese animism and ancestor worship, Hinduism and Buddhism from India, Sufi Islam from either India or the Middle East, and Western influences, which were adapted and integrated into the beliefs and culture of the Mataram Kingdoms over hundreds of years. This important and complex interchange of values has created a remarkable cultural ensemble evident in the property’s spatial planning, architecture and monuments, as well as ceremonies, festivals, and other intangible heritage elements that are practiced to this day.

Criterion (iii): “to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared”.

The Cosmological Axis of Yogyakarta and Its Historic Landmarks bears an exceptional testimony to Javanese civilization and living cultural traditions after the 16th century CE. The Sultanate of *Ngayogyakarta Hadiningrat* remains the centre for Javanese civilization and its maintenance and development through the practice of various traditions of thought, governance, customary law (*paugeran*), arts, literature, festivals, ceremonies, and rituals at the property. A key element of the system is the *Tata Rakiting Wewangunan* concept, which has been developed and passed down through the Mataram Royal courts since the 16th century. *Tata Rakiting Wewangunan* refers to the holistic management of the tangible and intangible aspects of the Sultanate of *Ngayogyakarta Hadiningrat*, including buildings, decoration, plants, offerings, ceremonies, arts and uses of space in the Kraton Complex, and along the axis of the property.

Criterion (vi): “be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance”.

The Cosmological Axis of Yogyakarta and Its Historic Landmarks is directly associated with living traditions, and artistic and literary works of outstanding universal significance, which have been developed and refined since the 16th century CE, and which are still practiced to this day across the whole property. This includes rituals relating to the cycle of life (birth, marriage and death), venerating ancestors, coronations and royal occasions, Islamic days, connection with the forces of nature and the natural and the macrocosmic-microcosmic worlds, and offerings (*sesajen*) are conducted along the axis and historic landmarks of the nominated property. The Sultanate of *Ngayogyakarta Hadiningrat*, based in the property, continues to play key role in the practice of many living Javanese culture and art forms, including Batik cloth, Keris daggers, Gamelan musical, and Wayang puppet theatre. The living traditions form a central part of the identity of the people of Yogyakarta.

3.4. Attributes of the Property

Overall, there are one hundred and forty-four (144) attributes that convey the potential Outstanding Universal Values (OUV) of the nominated property. The majority of the attributes are grouped in five (5) complexes.

For ease of identification and description, both the individual attributes and groups of attributes found in the complexes have been assigned inventory numbers.

A full list of attributes/groups of attributes and, inventory numbers showing each attribute is provided in Appendix 1. Detailed maps showing the attributes within the complexes is attached in Appendix 2. This includes:

- › Detailed Map (A): Showing the Attributes within Outer Walls, Gates and Fortifications (**B.1**), the Inner Palace Complex and squares (**B.2**), Taman Sari Royal Garden Complex (**B.3**), and the Great Mosque Complex (**B.4**).
- › Detailed Map (B): Showing the Attributes within the Kepatihan Administrative Complex (**C.2**).

The significance of the tangible cultural heritage attributes of the nominated property are closely intertwined with intangible cultural heritage practices. There are forty (40) significant ICH elements practiced at the property that have been registered for their cultural significance (see Appendix 3. Indicative list of ICH at the property).

3.5. Integrity

- › Overall the property is in good condition and there are only limited impacts arising from historical events and more recent development pressures. One of the largest challenges for the integrity of the property relates to its location in a dynamic and developing urban environment.
- › Some development along the northern axis has been above the maximum high limit and is too close to the axis. This was done in the early 2010s before adequate heritage and planning controls were in place. From 2012 onwards, the Government of the Special Region of Yogyakarta has also developed a robust safeguards program protect the integrity of the axis against any future inappropriate development.
- › A number of the attributes in the outer Kraton complex and fortifications, and Tamansari, have experienced damage due to colonial wars, natural disasters in the 19th century CE, and encroachment. There has been damage to the fortifications and walls of the Kraton Complex, with the loss of one bastion and significant portions of the eastern wall in the British attack of 1812. Parts of the Kraton outer walls have been impacted by informal settlements that developed in the 1970s, with later sections of the walls now covered by informal structures.
- › Appendix 4 provides a table summarises the integrity for each attribute of the property.

3.6. Authenticity

- › The authenticity of the property has been maintained through the combination of traditional-style construction, modern conservation guidelines for cultural heritage, and continued practice of traditional rituals and ceremonies.
- › While reconstructions of several attributes were required in response to the damage caused by natural disasters, such as the 1867 and 2006 earthquakes, the repairs, modifications, and additions to the structural form and design are meant to preserve the form and design of each attribute. Aside from the Beringharjo Market, which was changed from a wooden structure to art deco concrete structure in the 1920s, the key landmarks have continuously used particular styles that have been developed by subsequent royal courts in Java over the centuries. While the form of the Beringharjo market was changed in the 1920s, its location in the planning scheme remained unchanged and continues to operate as a market to this day.
- › A number of repairs, modifications, additions, and new buildings have been added within the Kraton Complex over the last 265 years, including the adoption of some new building materials such as concrete and steel at the beginning of the 20th century. However, the authenticity has been retained through the use of traditional design, other materials which are traditional, associated ceremonies, and the work of master craftsmen. Every renovation or conservation work is preceded by a traditional sugengan ceremony, while the inauguration of conserved buildings is often celebrated by a traditional Bedhaya dance performance.
- › Appendix 5 provides a table summarises for the authenticity for each attribute of the property.

CHAPTER 4. OWNERSHIP AND LEGAL PROTECTION

4. OWNERSHIP AND LEGAL PROTECTION

4.1. Ownership

The attributes of the nominated property are owned by two parties: (i) Sultanate of *Ngayogyakarta Hadiningrat*; and (ii) The Government of DIY.

Table 5.1 shows the ownership of the attributes in the nominate property.

ID	Attributes/ groups of attributes	Owned by
A.1	Panggung Krapyak Monument	The Sultanate
A.2	Southern Cosmological Axis	Provincial Government
B.1	Outer Walls, Gates and Fortifications	The Sultanate
B.2	Inner Complex of the Palace and Its Squares	The Sultanate
B.3	Tamansari Royal Garden Complex (Water castle complex)	The Sultanate
B.4	Great Mosque Complex	The Sultanate
C.1	Northern Cosmological Axis	Provincial Government
C.2	Beringharjo Market	The Sultanate
C.3	Kepatihan Administrative Building	The Sultanate
C.4	Tugu Monument	The Sultanate

Table 4.1 Table showing ownership of attributes nominated

4.2. Protective Designation

A full list of the protective designations and function is provided in Appendix 6.

A. National level protection

The nominated property enjoys legal protection at the highest national level according Law of the Republic of Indonesia Number 11 of 2010 concerning Cultural Property. Based on this law, the Ministry of Education and Culture has designated the Axis of Yogyakarta as a National Cultural Property Area (through the **Decree of the Minister of Education and Culture No. 117 of 2018**).

B. Regional level protection

- › At the regional level, the nominated property, buffer zone and wider setting are protected through the **Special Provincial Regulation No. 6 of 2012 concerning the Preservation of the Cultural Property and Heritage Sites**. Under this regulation, the Governor of DIY has designated the nominated area, buffer zone and wider setting of the property as protected Provincial Cultural Heritage Areas. This done through two (2) Decrees: (i) **Decree of the Governor of DIY No. 75 of 2017 concerning the Establishment of the Kraton Conservation Area**; (ii) **Decree of the Governor of DIY No. 108 of 2017 concerning the Establishment of the Cosmological Axis as the Cultural Heritage Structure**.
- › These regional designations provide effective protection for the nominated property, buffer zone and wider setting and are tied to the planning/building approval process. Development in these **Provincial Cultural Heritage Areas is subject to review by the Advisory Board for Preservation of Cultural Heritage (DP2WB)**, which was established by the Governor of DIY in 2012 (**Provincial Regulation No. 6 of 2012 concerning the Preservation of the Cultural Property and Heritage Sites**). This assessment process has been further strengthened through the regional law and guidelines on Heritage Impact Assessments which was legally adopted in 2022.¹

C. Spatial planning protection

The nominated property, buffer zone and wider setting have also been included in the regional and municipal spatial plans of DIY. This includes the **DIY Spatial Land-use Plan for 2019 – 2039 (Regulation No. 5 of 2019)** and the **Spatial Management and Land Use of the Sultanate Land (Regulation No. 1 and 2 of 2017)**. The nominated area, buffer zone and wider setting is also included in the **Spatial Plan of the City of Yogyakarta in 2021-2041 (Regulation Number 2 of 2021)**. These spatial plans provide protection to the property by regulating building height limits, density, and define location of allowed development. These spatial plans provide protection to the property by regulating building height limits, density, and define location of allowed development.

1 https://www.jogjaworldheritage.com/_files/ugd/4d2058_6338095f89df4b77b114e35f81188b04.pdf

D. Intangible cultural heritage

Forty (40) intangible cultural heritage (ICH) elements practiced at the nominated property are protected under regional and national law. At the national level these elements are registered and safeguarded through the **Law of the Republic of Indonesia Number 5 of 2017 on Advancement of Culture and the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 106 of 2013 concerning Intangible Culture Heritage**. At the regional level, these elements are registered and safeguarded through the **Special Provincial Regulation No. 3 of 2017 concerning Preservation and Development of Culture**.

CHAPTER 5.
STATE OF
CONSERVATION AND
FACTORS AFFECTING
THE PROPERTY

5. STATE OF CONSERVATION AND FACTORS AFFECTING THE PROPERTY

5.1. Present State of Conservation

All of the tangible and intangible attributes of necessary to express the Outstanding Universal Value of *The Cosmological Axis of Yogyakarta and Its Historic Landmarks* nominated property are in a good state of conservation. However, there are some challenges relating to conservation along Outer Walls, Gates and Fortifications, Tamansari, Beringharjo Market, and Northern Axis. The text in the following section provides an explanation for each attribute. The information is summarised in the table below.

THE COSMOLOGICAL AXIS OF YOGYAKARTA AND ITS HISTORIC LANDMARKS				
No	Attribute	Condition		
		Good	Fair	Poor
A.1	Panggung Krapyak Monument	✓		
A.2	Southern Cosmological Axis	✓		
B.1	Palace Outer Walls, Gates, and Fortifications		✓	
B.2	Inner Complex of the Palace and Its Squares	✓		
B.3	Taman Sari Royal Garden Complex		✓	
B.4	Great Mosque Complex	✓		
C.1	Northern Cosmological Axis	✓		
C.2	Beringharjo Market	✓		
C.3	Kepatihan Complex	✓		
C.4	Tugu Monument	✓		

Table 5.1 Table showing condition of the nominated property

Panggung Krapyak Monument (A.1): The state of conservation of Panggung Krapyak Monument is good. Regular maintenance is completed by the Office of Cultural Affairs Yogyakarta and the Sultanate of the *Ngayogyakarta Hadiningrat*. Interpretive panels were added in 2018 to share the value of the object with the wider community. As Panggung Krapyak Monument is located in the middle of a road section, traffic management is an ongoing issue for the preservation of the site. In 2014 metal poles were added to the road at the four corners of the monument to protect against threats from traffic. A plan for public access to view inside the monument still needs to be developed (while also considering potential risks from vandalism etc.). A Conservation Management Plan for the Tugu Monument was developed in 2021 which addresses these issues and provides the bases for ongoing conservation of the site moving forward.

The Southern Cosmological Axis (A.2): The axis along the Gebayan street from Panggung Krapyak Monument to the Kraton is well preserved. There are some issues with informal structures being built close to the axis, and also inappropriate advertising signage, especially in the southern section of the road controlled by the Bantul Regency. While not attributes of the property, efforts have been made to protect the tamarind (*Tamarindus Indica*) and tanjung (*Mimusops Elengi*) trees along the axis as well as to plant new trees. Historically the tamarind and tanjung trees were planted along the axis as symbols of youth.

Palace Outer Walls, Gates and Fortifications (Benteng Baluwarti) (B.1): The Kraton fortification includes three bastions, four gates, and sections of wall. Regular maintenance of the gates and bastions is completed by the Office of Cultural Affairs Yogyakarta and the Sultanate of the *Ngayogyakarta Hadiningrat*. While the main gates and the bastions are in fair condition, one challenge regarding the walls of the property is informal settlements around the sites, with many small buildings having been constructed against the heritage structures. This is a complex issue related to the low socio-economic status of some elements of the community at the site. The Office of Cultural of the Special Region of Yogyakarta and the Sultanate of the *Ngayogyakarta Hadiningrat* (owners of the land) are working with the communities to find solutions to address these challenges and ensure the preservation of the fortress elements. A Conservation Management Plan has been developed for the Benteng Baluwarti Kraton in 2021, and it is expected to support overall management of the site moving forward.

Inner Complex of the Palace and Its Squares (B.2): All structures within the Inner Complex of the Kraton are well maintained and regular maintenance is completed by a dedicated unit within the Sultanate of the *Ngayogyakarta Hadiningrat* administrative structure. In addition, preservation work at the site is done in cooperation with experts from the Office of Cultural of the Special Region of Yogyakarta. Although on the whole the state of conservation of the Kraton is good, the outer walls of the Kamandungan Kidul Courtyard (Southern Kamandungan Courtyard) (B.2.92), Pangongan Passage (B.2.80) and Kamagangan Courtyard (B.2.91) have been impacted by informal settlements, with structures built against the outside walls. A Conservation Management Plan has been developed for the Kraton in 2021 (which compliments the traditional management system) and is expected to support the management of the area.

Tamansari Royal Garden Complex (B.3): Currently, there are eleven (11) attributes in this complex. The

Great Gate (**B.3.1**), Umbul Binangun Bathing Complex (**B.3.2**), Sumur Gumuling Underground Mosque (**B.3.3**), and the Pulo Kenanga (**B.3.4**) are the most prominent structures in the complex. A number of structures were impacted by the 2006 earthquake that struck the complex. Since then, a number of conservation campaigns have been completed by the Ministry of Education, Culture, Research and Technology and the Office of Cultural Affairs for the Special Region of Yogyakarta. In this regard, the most state of conservation of the attributes in the Tamansari including the main gates, bathing pools, and underground mosque are fair. The main conservation challenge relates to informal settlements in and around the complex, with the walls of some of the historic structures being used for informal housing. However, there are other settlements inside the complex that date back to 1867 and relate to the decision of the then Sultan to allow the *Abdi Dalem* to occupy the site following the large scale destruction of housing after the earthquake. Many descendants of the *Abdi Dalem* still live in area to this day, and contribute to the spirit and feeling of the place. There are a number of arts, crafts, and intangible cultural traditions practiced by the local communities at the site. In this regard, careful study and analysis is needed to addresses these issues in close consultation with the local communities. A Conservation Management Plan has been developed for the site in 2021, and it is expected to support overall management of the site moving forward.

Great Mosque Complex (B.4): The mosque and historic buildings in the complex, are all in good condition. Regular maintenance at the site is completed by the Office of Cultural Affairs Yogyakarta and the Sultanate of the *Ngayogyakarta Hadiningrat*.

The Northern Cosmological Axis (C.1): The Northern Cosmological Axis is divided into four (4) sections: (a) Pangurakan; (b) Margomulyo; (c) Malioboro; and (d) Margoutomo The state of preservation of the vista from the Pangurakan, Margomulyo, Malioboro is fair, with no high-rise hotels or buildings impacting the axis. However, the Margoutomo vista has been impacted by two high-rise hotels, constructed above the permitted high limits and too close to the axis (road).

Along these streets, which form the buffer zone of the property, there are many shop houses (two story buildings) in Chinese and Dutch style, a number of which are registered on national and regional heritage registers. While the registered buildings have been well preserved, other historic buildings (in private ownership) have been inappropriately renovated. In addition, the original form of the majority of the buildings is covered in advertisement boards. A number of the heritage buildings have not yet be protected under local, regional or national heritage registers. While these buildings are not attributes of the property, they still have significance for the wider context of the property and should be conserved. A Conservation Management Plan has been developed for the axis 2021, and it is expected to support the overall management of the axis moving forward.

Beringharjo Market (C.2): This traditional market has now developed into the city's economic centre. Overall, the market is in fair condition, however, balancing the needs of the functioning market (and sellers) with heritage preservation is challenging. Some elements of the internal part of the market are in need of repair. The main entrance and façade of the market is in good condition. A Conservation Management Plan for the market was developed in 2021, and it is expected to support the overall management of the site moving forward.

Kepatihan Administrative Complex (C.3): The Kepatihan main building was the former office and residence of the Prime Minister of the Kraton since 1756 CE and is now the Office of the Governor of Yogyakarta and centre of the provincial administration. All attributes within the complex are in good condition and regular maintenance is completed by a dedicated unit within the Provincial Government with technical support from the Office of Cultural Affairs Yogyakarta. A Conservation Management Plan for the Kepatihan Complex was developed in 2021, and it is expected to support the overall management of the site moving forward.

Tugu Monument (C.4): The Tugu Monument is in excellent condition, having undergone conservation projects in 2016 and 2020. A garden and stone fence were placed around the monument to protect it from traffic and also from people damaging the monument. Interpretive panels were also added around the monument. The intersection where the monument is located is one of the busiest in Yogyakarta and it is an ongoing challenge to ensure that the monument is preserved and visitors can still safely view it. A Conservation Management Plan for the Tugu Monument was developed in 2021, and it is expected to support the overall management of the site moving forward.

Intangible Cultural Heritage: Forty (40) intangible cultural heritage elements associated with the property have been identified. These elements are registered on the national and regional intangible cultural heritage registers. The safeguarding and transmission of these ICH elements is robust. This work is supported by dedicated unit within the Office of Cultural Affairs DIY and the Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta under the Ministry of Education, Culture, Research and Technology of the Republic of Indonesia focusing on the intangible heritage, the Kraton of Yogyakarta, and civil society and arts groups who practice the ICH in Yogyakarta.

5.2. Factors Affecting the Property

A number of the attributes of the property are located in a multi-layered and dynamic urban landscape where change is inevitable and continuous, and where pressure for development and competition for land is high. Therefore, it is crucial that all factors currently affecting the property, or with the potential to affect the property in the future, are clearly identified. This chapter provides an overview of each identified factor, while Chapter 6 provides an update on the progress to addressing the issues and the next steps that need to be taken.

Six factors have been identified, namely:

1. Development Pressures;
2. Environmental Pressures;
3. Natural Disaster and Risk Preparedness;
4. Sustainable Tourism; and
5. Local communities.

Factor 1: Development Pressures

1.1. Loss of significant heritage structures and businesses and replacement with new buildings

- › *The Cosmological Axis of Yogyakarta and Its Historic Landmarks* comprises structures, buildings, and compounds of the original spatial planning dating from the establishment of the Kraton in 1755. Since then, the city has evolved and a number of structures and urban development has occurred along the axis. This includes shophouses, colonial period vernacular architecture and modern buildings from the post-Independence period. There are a number of historic business and trades which have operated in the area continuously for hundreds of years. For example, one traditional Chinese medicine shop has been trading in same location on the axis for 150 years. While these structures are not attributes of the nominated property, they provide an important context for the property and should be conserved.
- › One factor affecting the property, particularly along the buffer zone of the Northern Cosmological Axis, and in the wider setting of the property, is the loss of significant heritage structures and their replacement with new buildings. The factor has a number of different aspects. **Firstly**, the majority of the buildings are in private ownership and many are yet to be listed on local, region, or national heritage registers. **Secondly**, there are pressures to develop hotels and commercial purposes, which puts pressure on the historic structures. **Thirdly**, on a related point, the value of real-estate in the areas has increased (especially for retail aimed at tourists), leading to the loss of many historic businesses and replacement with shops selling tourism related merchandise. **Fourthly**, intersectoral coordination and engagement with the private sector/business owners is challenging, and requires a concerted effort. **Fifthly**, enforcing the existing cultural heritage regulations is challenging due to limited resources and requires a clear system of monitoring.

1.2. Development of high-rise hotels along the cosmological axis

- › A further significant factor affecting the property is the development of high rise-hotels that impact the visual integrity of the property, particularly along the Northern Section of the Cosmological Axis. This corridor is an important attribute that contributes to the OUV of the property, as it links the Kraton and the Tugu Monument along the axis. The axis is central to one of the key rituals practiced at the Kraton, where the Sultan sits in meditation on the throne of Bangsal Manguntur Tangkil and focuses his attention along the axis, symbolising the unity of the ruler with the people (*Manunggaling Kawula Gusti*). There have been two (2) cases of hotels built along the Northern Section of the Cosmological Axis that have impacted the visual integrity of the axis. These were completed in the early 2010s before the stronger impact assessment processes were in place.
- › The factor has a number of different aspects. **Firstly**, the City of Yogyakarta is a developing area and is one of the key national tourism destinations in the domestic market, and (pre-covid) a growing international tourism market. This has led to demand for hotel accommodation and the construction of a number of new hotels in the city. The second challenge is that the planning approvals process is complex and involves stakeholders from the municipal and regional level and

needs strong coordination mechanisms. The City of Yogyakarta has the key role in the planning approvals process, while the Government of DI are the leading efforts and strategies to control development. This has resulted in a lack of synergy and coordination between the municipal government's planning agency's approval of the high rise-hotel projects along the axis, and the aims and objectives of the DI Yogyakarta provincial government to protect the visual integrity of the axis. The third challenge is that while there has been a heritage impact assessment process in place since 2012, it was not as robust/comprehensive as the process outlined in the ICOMOS Guidelines for HIA.

1.3. Public infrastructure projects

- › A further factor affecting the property is public infrastructure projects in and around the nominated property as part of the ongoing Integrated Infrastructure Development for National Tourism Strategic Areas Tourism Development Project (2020-2024), which is partially funded by a loan from the World Bank Group. The stated objective of the project is to improve the quality of, and access to, tourism-relevant basic infrastructure and services, strengthen local economy linkages to tourism, and attract private investment in selected tourism destinations in Indonesia, including Yogyakarta.
- › An Integrated Tourism Master Plan (ITMP) has been created along with a five-year investment plan (2020-2025) and twenty-five-year investment plan. The ITMP is the final stages of being legalised as a Presidential Decree. The ITMP includes important work to improve the accessibility to the area through increased pedestrian walkways and interpretation. It also includes improvement of basic services for the local community, including sewerage, drainage. Other aspects include the removal of overhead powerlines and placing them underground which can improve the visual integrity of the property. Parking areas and toilets are also planned under the project.
- › While there are a number of positive elements of the project, as the project areas are in and around the nominated property, mechanisms are needed to ensure the heritage values are not impacted. Over 2021, tourism infrastructure projects at the Borobudur World Heritage site proceeded without the full HIA assessment and consultation with the UNESCO World Heritage Centre. It will be important to avoid a similar situation and ensure that procedure outlined in Paragraph 172 of the World Heritage Operational Guidelines is correctly followed.

1.4. Visual integrity

- › The visual integrity of the property faces pressure from two main factors: (i) the construction of public utilities such as electrical/telecommunication cables/power lines along the property instead of underground (ii); and the use of modern signage on historic buildings, particularly along the Northern Section of the Cosmological Axis. Electrical cables/power lines are prevalent across the property, particularly at the intersection of the Tugu Monument and Panggung Krapyak. These cables obscure views of the monument from each direction. A number of the heritage buildings in the setting of the property and along the Northern Cosmological Axis are covered by inappropriate signage that obscures the buildings. This detracts from the authenticity of the property and the overall historic urban landscape. Existing regulations on signage need to be enforced to protect

the visual integrity of the wider area around the property. Incentives for business and home owners to adapt their signage in accordance with the heritage values of the area need to be developed. It is important to note that that responsibility for managing advertising billboards is at the municipal/regency level.

1.5. Encroachment

- › A further factor affecting the property are informal settlements around the Outer Walls, Gates and Fortifications of the Kraton and the Tamansari Complex. This issue is complex and involves communities, many from low social-economic backgrounds, building next to heritage buildings without permits. In addressing the issue of encroachment, it is important to differentiate between historic settlements and newer settlements at the property.
- › Some of these communities, especially at Tamansari Royal Garden Complex and in and around the Kraton compound, have been living at the property since 1867, after a large earthquake struck Yogyakarta and left many people homeless. Rather than rebuilding the Tamansari, the Sultan allowed local communities to settle and use the space. This was also accorded again during the Second World War and Indonesia's war for Independence, when the Sultan opened up space for people affected by the conflict to live in the Kraton area. It should be noted that many of these communities do not have legal landowner titles, although they have a strong historic connection to the place. These communities contribute to the authenticity of the attribute, especially in its spirit and feeling and in the intangible cultural heritage practices.
- › However, some encroachment, especially in some areas of the Outer Walls, Gates and Fortifications, has occurred in the last 20-30 years due to the development of the city. Yogyakarta is the capital city of the Special Region of Yogyakarta, with many functions of government located in the city, while business investment in Yogyakarta has rapidly expanded in the last 20 years, with the education, IT, and tourism industries driving the local economy. This has led to the steady urbanisation of Yogyakarta, with people moving from the surrounding districts to the city for work as well as the growth of informal settlements. This is an ongoing issue that must be proactively managed as development pressures and the urban centre continue to grow.
- › In dealing with the issue of encroachment, the managers of the property are committed to the protection of human rights of the local communities and use of inclusive and participatory planning and stakeholder consultation processes in accordance with the UNESCO Operational Guidelines (Paragraph 111) and Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention (UNESCO 2015). This is the property's Management Plan, with community consultations in place on balancing the needs of the local communities with the preservation of the remaining wall structures.

1.6. Conservation and maintenance

- › While all of the tangible and intangible attributes of *The Cosmological Axis of Yogyakarta and Its Historic Landmarks* nominated property are in a good state of conservation, conservation projects

and maintenance are still required. Decay of structural fabrics due to tropical climatic conditions is an ongoing issues. This is most evident at the Tamansari Royal Garden Complex where moss and lichen are commonly seen on the walls and even on the roof of the remaining buildings. Traditional painting materials used to coat the walls can also easily peel off. Cracking is also observed on the wall of certain buildings. In the buffer Northern Section of the Cosmological Axis and the wider setting of the property, there are structural fabric due to lack of maintenance, often as a result of shortages of funding, and lack of incentives/enforcement for owner/occupiers to maintain their heritage buildings.

Factor 2: Environmental Pressures

2.1. Traffic and pollution

- › The main environmental pressures relates to traffic and pollution. The traffic, caused by increased tourism and the development of the city, has caused increased air pollution. Statistic data of 2015 noted that number of motor vehicles in Yogyakarta reached 2,196,620. In addition, a large number of tourists' vehicles (especially buses) come to the area every day. A second issue is that many of the traditional becak (cycle rickshaw) have been replaced with motorized petrol powered engines, which are dangerous and cause pollution.

Factor 3. Natural Disaster and Risk Preparedness

3.1. Natural and human-induced hazards: earthquake, volcanic eruptions (lava flows and mudflows), floods, landslides, strong wind, and fires.

- › The property is at high risk from natural disasters, including earthquakes, volcanic eruptions (lava floods), floods, landslides, and strong wind. Earthquakes of large magnitude often occur in the Special Region of Yogyakarta, as the area is located close to the subduction zone of the Indian–Australian plate (south) and the very active Opak fault (east). Over 13 large-scale earthquakes have struck the Special Region of Yogyakarta since 1840, two of them followed by tsunami. Earthquakes above 5 magnitude on the Richter Scale occurred in 1867, 1937, 1943, 1976, 1981, 2001 and 2006. The earthquake of 1876 caused large damage to many structures in the Kraton, Tamansari and severely damaged the Tugu Monument. The earthquake in 2006 (5.9 magnitude) caused 6234 deaths. The earthquake damaged a number of heritage buildings in Tamansari, destroyed the Bangsal Trajumas structure inside the Kraton complex.
- › Mount Merapi is located about 28 km north of Yogyakarta City and is well known as the most active mountain in Indonesia. Based on the available data, since 1582 CE the volcano has erupted 86 times. Clouds of hot ash and acidic rain usually follow the eruption of Mount Merapi as well as lahar (volcanic mudflow or debris flow) along the rivers. The last big volcanic eruption was in 2010 and affected Yogyakarta, with ash rain for several days and lahar along the Code and Winongo rivers. As a result, the river embankments and some of the houses on the bank of the rivers were damaged. Beside the volcanic effect of Mount Merapi, Yogyakarta has also ever experienced the volcanic effect (ash rain) from Mount Kelud in 2014. The weight of the ash can potentially damage

the structure of the building or cultural heritage site, while the acidic properties of the ash and rain can also potentially cause damage.

- › Changes in the climate and increased urban developed has also increased the frequency and severity of floods. The change in climate has led to occurrences of large amounts of rain short durations. A reduction of the water absorption area and green open space in Yogyakarta due to development (as outlined previously in this section) has also contributed to the severity of these events. The last large flood that occurred in Yogyakarta was in March 2016. The flood washed 7 houses away and 1700 people who live in Winongo River had to be evacuated. A number of houses were submerged along the Code River. As the property lies between the Code and Winongo rivers, flooding is a threat that is considered in the mitigation plans for the city and the property.
- › Whirlwinds are an additional risk to the property. In 2011, a whirlwind uprooted the twin banyan trees in the centre of Northern Square (known as Kiai Dewandaru and Kiai Janandaru tree). Kyai Sepuh tree in the southern side of Alun-Alun Lor was also uprooted. In 2015, five big trees inside the Kraton complex were damaged by a whirlwind and the Museum Kristal (that holds the crystal collection of the Kraton) was also damaged. In 2017 a number of trees were also again damaged. The frequency and severity of these events shows the threat to the buildings and trees of the property, as well as to people living at, or visiting, the site.
- › Located in an urban setting, the property is prone to fires which may occur due to natural factors such as dry weather, lightning, an aftermath of an earthquake, or human-induced factors, either intentionally or unintentionally. The fire disasters in Yogyakarta City generally occur in densely populated areas. There were 52 fire incidents in Yogyakarta City in 2017, while in 2016 there were 63 recorded incidents. The causes of fire are mostly due to human negligence, while other causes are due to technical/ electrical accidents.

Factor 4: Sustainable tourism

4.1. Sustainable tourism

- › The total number of visitors to the Special Region of Yogyakarta increased from 2.84 million in 2013 to 5.68 million in 2018. International arrivals were only a small proportion of this – in 2013 only 8.3% of total arrivals and in 2018 slightly less, i.e. 7.6%. The average annual growth rate for international arrivals was 10.5% between 2013 and 2018 and for domestic arrivals 12.4% during the same time period. Based on the DI Yogyakarta accommodation statistics, the most popular months for international visitors were July, August and September, followed by December. Among domestic visitors the most popular months were May, July, and December (the pattern of domestic visitor arrivals is affected on an annual basis when the week-long holiday at the end of Ramadhan takes place). In 2017, 1,564,639 people visited the main (ticketed) areas of the nominated property, namely the Kraton, Tamansari, and the Royal Stables (Carriage Museum). According to the Integrated Tourism Master Plan the total visitors to the center of Yogyakarta (including the nominated property, buffer zone and wider setting) is expected to grow to 6,242,472 visitors by 2045.

- › Overall, the listing of the property is not expected to change these projections significantly. International tourists already come to stay in Yogyakarta to visit the Borobudur and Prambanan World Heritage sites (listed in 1991) and generally visit the Kraton and Tamansari as part of their itinerary. For domestic tourists, the Kraton and Tamansari are well known national heritage sites, and generally included in their itinerary.
- › It will be important to manage tourism sustainably over the short, medium and long term to ensure there are no impacts on the property and that tourism can benefit local communities and the local economy.

Factor 5: Local communities

5.1. Community engagement and sustainable development

- › The nominated property, buffer zone and wider area are home to a vibrant and dynamic community, who play a key role in safeguarding the Cosmological Axis Yogyakarta and its Historic Landmarks. The local community also plays a crucial role in ensuring that all the processes, relationships and dynamic functions essential to the distinctive character of the nominated property are maintained and transmitted to future generations, and participate in many rituals and ceremonies at the property.
- › Dance, gamelan, and wayang kulit are commonly performed in the community. Batik cloth is produced in the area of the property using ancient techniques, with sacred designs to be worn for ceremonies, and regular batik adopted as common dress across the community.
- › Creative industries are an important aspect of the local economy, with many traditional makers of batik cloth, crafts, traditional food, arts performers
- › Informal settlements are an issue at the property with many people living in poor conditions with limited access to clean water and basic services.

CHAPTER 6. MANAGEMENT OBJECTIVES AND MEASURES

6. MANAGEMENT OBJECTIVES AND MEASURES

In order to safeguard the heritage values of the property, addresses the identified factors and achieved the overall objectives, the following management framework will be used (see the diagram below). **Firstly**, the values of the property (local, regional, national and OUV) are taken as the starting point to be safeguarded over the long term. **Secondly**, the identified factors affecting the property (outlined in Chapter 5) have been identified and considered. **Thirdly**, management objectives have developed to address each factor. **Fourthly**, priority actions have been identified and assigned to the identified agency/actor. **Fifthly**, a monitoring framework has been developed which will be implemented by Cosmological Axis of Yogyakarta Management Unit.

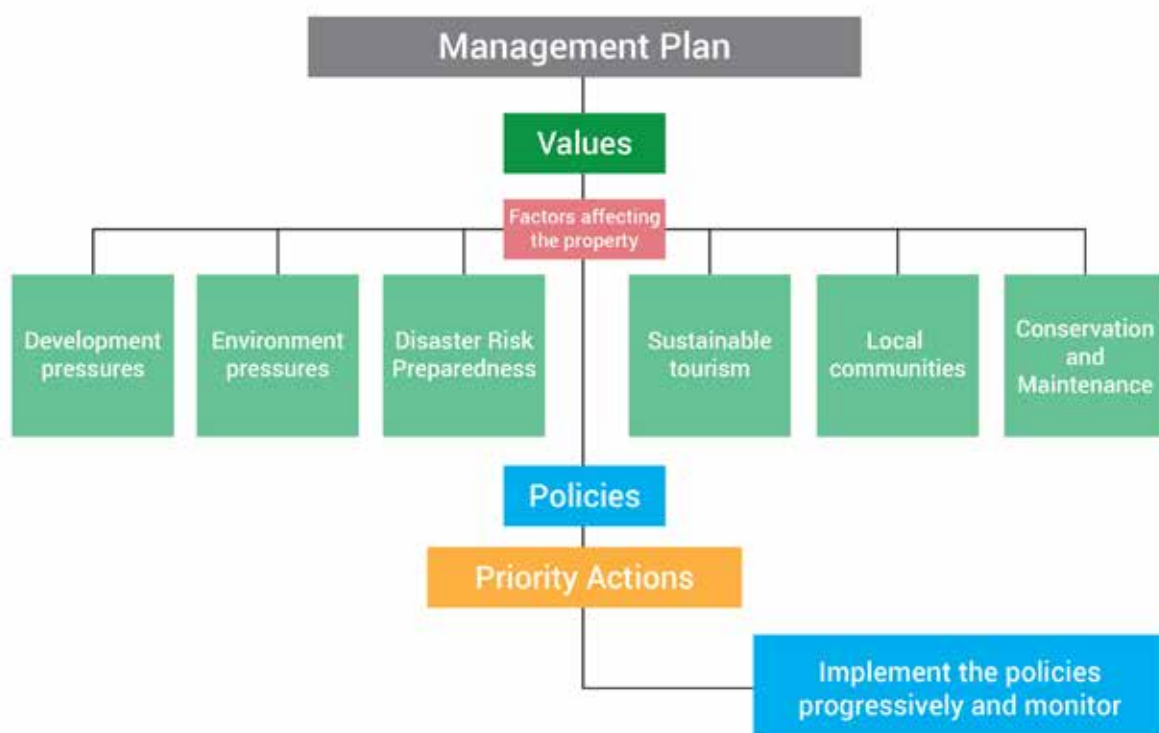


Figure 6.1 Management Plan chart of the Cosmological Axis of Yogyakarta Management Unit

Factor I. Development Pressures

1.1. Loss of significant heritage structures and businesses and replacement with new buildings

Management Objectives

To prevent/ limit the loss of heritage structures and businesses in the buffer zone and wider setting.

Management Policy

To manage development and conservation in the buffer zone and wider setting of the property including all stakeholders, especially the private sector/building owners.

Progress to date

In order to address these challenges, the DI Yogyakarta Government has taken a number of actions. **Firstly**, in 2011, the Governor of Yogyakarta initiated the creation of six (6) protected Cultural Heritage Areas across the province, including the area of the nominated property. **Secondly**, in 2017, the Kraton Cultural Heritage Area covering the city of Yogyakarta was expanded to address the conservation issues more holistically across the wider historic urban landscape of the city, rather than in isolated heritage zones. **Thirdly**, official guidelines for the preservation and development of these protected areas have been developed. **Fourthly**, the Office of Cultural Affairs DIY developed a heritage awards program in 2014 which is aimed at engaging the private sector and business owners to provide recognition for good practice conservation and also provide technical support, private financial awards and tax incentives.

Further steps needed

There are a number of steps that need to be taken to address to the Loss of significant heritage structures and businesses and replacement with new buildings.

Firstly, an inventory of all heritage structures along the axis is needed to identify those that are not yet protected on local, region or national registers. The identified heritage buildings should then be registered on the relevant mechanism. **Secondly**, guidelines on adaptive reuse are needed. If done with conservation of the heritage structures, adaptive reuse can offer solutions for the use of buildings for new purposes. **Thirdly**, models for incentives for the private sector and business to conserve their buildings is needed. Most of the buildings along the axis are privately owned, so this is a key area that needs conservation. Public private partnerships for heritage conservation can also be explored. **Fourthly**, the authenticity of the buildings along the axis should be retained. The Hoi An protocols are also an important tool for considering authenticity in the urban context in Asian contexts. However, there is limited awareness about the protocols. The document should be translated and training in the approach held, also covering adaptive reuse. **Fifthly**, the Historic Urban Landscape Approach can be an important tool to manage the northern axis and the whole property. The HUL approach can bring

conservation agencies, urban planners, academics, civil society and the private sector together to identify solutions for managing the historic urban landscape. A pilot project on HUL was implemented in 2021, however, this needs to be expanded in 2022 to involve more stakeholders. **Sixthly**, the existing heritage awards program is low, and has not been effective. This program has potential and can be reinvigorated through media campaign, awards night, and increased compensation for the private sector (including mechanisms for tax incentives). The criteria and awards can be modelled on the UNESCO Asia-Pacific awards program (including considering new design in heritage contexts), to create synergies with the best practice and the nominated property. **Seventhly**, the Advisory Board for Preservation of Cultural Heritage (DP2WB) will apply the Heritage Impact Assessment process to the assessment of proposals in the buffer zone and wider setting. This can be done through the strengthened through the adoption of a regional law and guidelines on Heritage Impact Assessments (expected to be finalised by July 2022) whilst also considering the Hoi An Protocols for Authenticity.

1.2. Development of high-rise hotels along the cosmological axis

Management Objectives

To prevent the construction of any new high-rise buildings that will compromise the OUV, authenticity and integrity of the property, buffer zone and wider setting.

Management policy

To provide direction and guidance for development in the property, buffer-zone, and wider settings to ensure balance between conservation and sustainable use and economic and social development of the area.

Progress to date

In order to protect the visual integrity of the axis, and ensure that such cases of high-rise development do not occur again, the DI Yogyakarta Provincial government, in cooperation with the Yogyakarta municipal government, has taken a number of steps. **Firstly**, in 2013 Governor of Yogyakarta issued a moratorium on the construction of new hotels along the central axis of the city. **Secondly**, the Regional Spatial Law was amended to protect the axis, with the height of new buildings limited to 18 (eighteen) metres within 60 (sixty) meters to the left and right of the axis. **Thirdly**, the process of building permits has been reformed at the municipal level in 2016, through the creation of the One Stop Integrated Licensing Service Office (KP2TSP), which has increased oversight over the issuance of building permits. **Fourthly**, the Advisory Board for Preservation of Cultural Heritage (DP2WB) appointed by the Governor, has been given a mandate to assess all new building proposals in the Cultural Heritage Areas as part of the building permit approval process. **Fifthly**, the coordination between the Yogyakarta Special Region Government and Yogyakarta municipal government has been enhanced for the protection of the axis of the property, and through the inclusion of both the Governor of DIY and the Mayor of Yogyakarta as members of the Joint Secretariat, an intersectoral Steering Committee responsible for the management of the Sultanate and Duchy Strategic Space Units, was established in 2019 (Governor Decree No. SK Gubernur 6/KRP/2019).

Further steps needed

There are a number of steps that need to be taken to address the factor, which are summarised here and outlined in more detail in the Management Plan. **Firstly**, the Advisory Board for Preservation of Cultural Heritage (DP2WB) assessment process is being upgraded to include the Heritage Impact Assessment in line with the ICOMOS Guidelines. This can be done through the strengthened through the adoption of a regional law and guidelines on Heritage Impact Assessments (expected to be finalised by July 2022) whilst also considering the Hoi An Protocols for Authenticity. **Secondly**, training is needed on the HIA process for the municipal government, regional government and DP2WB, to ensure all the key stakeholders understand the mechanism involved in the planning process. **Thirdly**, the Historic Urban Landscape Approach can be important tool to manage hotel development on the city. This can involve identifying areas in the city away from the nominated property that are less sensitive and which could be suitable for hotel development. In this regard, the 2021 HUL pilot project can be expanded in 2022 and beyond. **Fourthly**, training in the HUL approach is needed for all key stakeholders including agencies, urban planners, academics, civil society and the private sector together to identify solutions for managing the historic urban landscape.

1.3. Public infrastructure projects

Management Objectives

To improve the quality of basic infrastructure for local communities whilst also improving access and facilities for visitors.

To ensure that the construction of any public infrastructure and will not detriment the OUV, authenticity and integrity of the property, buffer zone and wider setting.

Management Policies

All public infrastructure projects will be subject to Heritage Impact Assessments.

Comprehensive and integrated historic urban landscape approach must be taken into consideration in planning and developing public infrastructure.

Public infrastructure and facilities must be designed and developed according to contemporary requirement whilst respecting the original spatial planning of the Kraton and Yogyakarta historic city.

Heavy infrastructure development should be directed into new development areas outside the historical areas.

Progress to date

A number of initiatives have been taken to mitigate any potential risks to the OUV of the property from public infrastructure projects. **Firstly**, the Government of DIY has provided detailed input on the Integrated Tourism Master Plan, including providing information on the protected areas and buffer zones of the nominated property. This data has been incorporated into the ITMP, including a map of the key attributes, protected areas and buffer zone. **Secondly**, as part of the project, the Government of Indonesia has adopted Environmental and Social Management Framework (ESMF) that includes

Indonesian environmental, social and heritage laws and regulations and the World Bank safeguards policies, including those relating to cultural heritage. The ESMF provides guidance for all activities that are proposed under the project and includes provisions for the protection of cultural heritage. **Thirdly**, in addition to the ESMF, the Government of the DIY requires that all plans and proposals for public infrastructure projects in the Cultural Heritage Area of Yogyakarta (which covers the nominated property, buffer zone and wider setting) are reviewed by the Advisory Board for Preservation of Cultural Heritage (DP2WB). It should be noted that HIA is intended not just to be used just for measuring impact, rather it will be an important tool for decision-making and the outcome of development proposals. **Fourthly**, Office of Cultural Affairs, and Management Unit of the Cosmological Axis is fully aware of the obligations of a nominated property under the World Heritage Convention regards to the Heritage Impact Assessments (paragraph 172 of the World Heritage Operational Guidelines) and collaborated with the UNESCO Office in Jakarta to hold a joint training on HIA from 22 – 26 November 2021 for 30 key officials from DIY.

Further steps needed

There are a number of steps that need to be taken to address to the factor, which are summarised here and outlined in more detail in the Management Plan. **Firstly**, the Advisory Board for Preservation of Cultural Heritage (DP2WB) assessment process is being upgraded to include the Heritage Impact Assessment in line with the ICOMOS Guidelines. This can be done through the strengthened through the adoption of a regional law and guidelines on Heritage Impact Assessments (expected to be finalised by July 2022) whilst also considering the Hoi An Protocols for Authenticity. **Secondly**, training is needed on the HIA process for the municipal government, regional government and DP2WB, to ensure all the key stakeholders understand the mechanism involved in the planning process. **Thirdly**, coordination with the Public Works department who is leading the implementation of the Integrated Infrastructure Development for National Tourism Strategic Areas Tourism Development Project (2020-2024) is needed. This will be done through the Joint Secretariat for the Management of the Sultanate and Strategic Space Units, in which the Public Works is a member. In addition, the Management Unit of the Cosmological Axis will follow up on the technical level to ensure the detailed designs are reviewed according to the HIA process, and that information is shared with the World Heritage Centre (via the Ministry of Education, Culture, Research and Technology) including the plans for the projects, the detailed designs and the HIA reports.

1.4. Visual integrity

Management Objectives

- › To ensure that vistas/views along the axis and attributes are not impacted by inappropriate advertising/signage.
- › To ensure the vistas/views along the axis and attributes are not impacted by overhead powerline and utilities.
- › To improve the quality of current public utilities and modern signage to reflect the character and

historical context of the area.

Management Policies

- › Existing regulations on signage need to be properly enforced to protect the visual integrity of the wider area around property.
- › Projects to place overhead powerlines and utilities along the axis underground will be subject to Heritage Impact Assessments.

Firstly, the overhead powerlines and utilities were removed around the Tugu Monument in 2020. **Secondly**, the Integrated Tourism Management Plan (ITMP) includes plans to remove overhead powerlines along the axis and place them underground. **Thirdly**, the City of Yogyakarta has developed two regulations that aim to control signage in the Cultural Heritage Areas (covering the nominated property buffer zone and wider setting of the nominated property), namely the City of Yogyakarta Regulation No. 2 2015 on Billboard Advertising and City of Yogyakarta Regulation Regulation No. 24 of 2016 Concerning the Construction of Signage. These regulate signage in protected areas, and stipulate that heritage sites should be free from advertising expect for the billboard business / profession nameplate attached to the building with certain provisions.

Further steps needed

There are a number of steps that need to be taken to address to the factor. **Firstly**, existing regulations on signage need to be enforced to protect the visual integrity of the wider area around property. The Cosmological Axis Management unit can support the City of Yogyakarta for this work. This issue should be raised on the agenda of the Joint Secretariate meeting to find an intersectoral approach for the issue. **Secondly**, incentives for business owners and homeowners to adapt their signage in accordance with the heritage values of the area need to be developed. **Thirdly**, the Development of Detail Engineering Design for the removal of overhead powerlines should be developed, reviewed (HIA) and then implemented.

1.5. Encroachment

Management Objectives

- › To ensure that the conservation of the property is ensured while also balancing with the needs of the local communities, especially vulnerable groups with low socio-economic status.
- › To ensure that the specific characteristics of the palace complex and the surrounding historic city centre are safeguarded through appropriate land-use control and regulations.

Management Policies

In dealing with the issue of encroachment, the managers of the property are committed to the protection of human rights of the local communities and use of inclusive and participatory planning

and stakeholder consultation processes in accordance with the UNESCO Operational Guidelines (Paragraph 111) and Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention (UNESCO 2015).

Progress so far

To address the issue of informal settlements, the Government of the Special Region of Yogyakarta and the Sultanate of *Ngayogyakarta Hadiningrat* (the owners of the land) have established a program to recover and safeguard the remaining sections of the Outer Walls, Gates and Fortifications of the Kraton while balancing the social and economic needs of local communities. This included consultations with groups living in the heritage areas to ascertain their needs and find solutions to balance conservation with the needs of the communities.

Further steps needed

There are a number of steps that need to be taken to address encroachment. **Firstly**, clarification of land ownership under former Sultan ground status for the land within the nominated property and the buffer zone which are currently under private ownership – in respect to legal, historical and cultural ownership. This should also cover informal settlements. **Secondly**, continue community consultations with groups living in informal settlements in the nominated property and buffer zone to ascertain their needs and find solutions to balance conservation with the needs of the communities. **Thirdly**, where appropriate, undertake measures to remove informal structures which have been built very too close/ attached to attributes of the property.

1.6. Conservation and Maintenance

Management Objectives

- › To promote traditional cultural practice and techniques in building conservation and maintenance.
- › To ensure the authenticity of the attributes and cultural heritage in the buffer zone and wider setting is retained.
- › To minimise the deterioration of construction materials and fabrics of the historic buildings

Management Policies

- › Maintenance and repair of historic buildings and structures within the property must be conducted following high conservation standards which include the traditional cultural practice and traditional for conservation methods.
- › Replacement of authentic design and fabrics with new design and materials should be carefully considered and should follow established guidelines (including the Hoi An Protocols for Authenticity and UNESCO Operational Guidelines).

- › Reconstruction of historical buildings/structures within the vicinity of their original locations should be in accordance with the Hoi An Protocols for Authenticity UNESCO Operational Guidelines).
- › The individual Conservation Management Plans (CMP) for the key attributes will be implemented with the involvement of all stakeholders.

Further steps needed

There are a number of steps that need to be taken. **Firstly**, Improving the documentation and inventory of past interventions and present condition of historic buildings/structures within the property and buffer zone is needed. **Secondly**, the development of guidelines for modification/restoration and adaptive re-use of historic buildings within the property and its buffer zone. **Thirdly**, a review of the 2017 regional regulation on architectures styles is needed to ensure compatibility with guidelines such as the Hoi An Protocols for Authenticity. **Fourthly**, the Hoi An Protocols for Authenticity should be translated into Indonesian and shared through workshops and trainings. **Fifthly**, baseline assessment of the present condition of the historic buildings and structures within the property and development of action plan for the conservation of these buildings and structures. **Sixthly**, continuation of the routine monitoring on the condition of, cleaning and maintenance of the attributes of the property as well as heritage structures in the buffer zone and wider setting. **Seventhly**, conduct detailed study on the present state of conservation of Tamansari Royal Garden Complex and development of conservation and rehabilitation plan of this site. **Eighthly**, development of conservation manual/buildings owner's guidebook for heritage buildings and structures within the property as well as guidelines for adaptive re-use. **Ninthly**, developing incentives (tax reduction, grants etc) for building owners and the private sector to conserve their buildings. **Tenthly**, enhancing the profile of the heritage awards program to raise visibility about the important of preserving cultural heritage and valorising the business and private sector that undertake good conservation work/adaptive reuse. **Eleventhly**, the Conservation Management Plans (CMP) for the key attributes have been developed with the involvement of all stakeholders.

Factor 2. Environmental Pressures

2.1. Traffic and pollution

Management Objectives

To reduce water, air and land pollution to the lowest level at the property.

Policy

An intersectoral approach to will be taken to reduce water, air and land pollution across the property involving city planning and development, transportation, environment, public works and housing, and local community.

Progress so far

The Department of Transportation of Special Region of Yogyakarta has started to test the new system of traffic lane along the cosmological axis (applied only to public transportation/ Trans Jogja buses, fire cars, ambulances and police cars). The one-way traffic system in the buffer zone is applied to the Kraton-Tugu section. In addition, access for pedestrian (vehicle-free) are made, as well as restrictions on motorized vehicles along the axis area, especially tourist buses and heavy vehicles.

Further steps needed

Firstly, control of motor vehicle emission through increased use of public transportation, better traffic flow to minimise congestion, and mandatory vehicle inspection and maintenance. Car free days and pedestrianisation is needed. **Secondly**, there is a need to develop environmentally friendly traditional transportation, such as electric becak (pedicab) to reduce the growth of motorized becak that cause air pollution. **Thirdly**, improvement of coordination at the national, provincial, and municipality/regency level in promoting health-oriented pollution control, including issues such as traffic control, road design, mass transportation, and land-use planning . **Fourthly**, a study on pollution and water quality along the Winongo River and Code River as part of the wider settings of the property and engagement with the local community. HUL methods will be applied for this work. This can be integrated into the Public Works department Kotaku (City's without Slums) program.

Factor 3. Natural Disaster and Risk Preparedness

3.1. Natural and human-induced hazards: earthquake, volcanic eruptions (lava flows and mudflows), floods, landslides, strong wind, and fires.

Management Objectives

- › To identify, assess, and reduce the risks associated with disasters at the property and across the buffer zone and wider setting.
- › To strengthen disaster mitigation, preparedness, response and recovery before, during and after disaster situations.
- › To ensure the participation of local communities in disaster risk prevention initiatives.

Management Policies

The Disaster Risk Management Planning for the nominated property should be integrated in the local government disaster plan and must be developed in close coordination with local and national level of disaster management agencies.

Progress so far

- › A number of natural disaster mitigation efforts have been undertaken by the Government of DIY,

the City of Yogyakarta, the Regency of Bantul, and groups within society. **Firstly**, the Regional Disaster Management Agency (Badan Penanggulangan Bencana Daerah (BPBD)) was established in 2008. This agency is responsible for the overall coordination of disaster risk mitigation and response. **Secondly**, large scale awareness campaigns have taken place in Yogyakarta relating to mitigation, preparedness, emergency action, rehabilitation and reconstruction. This has been led by government as well as civil society groups.

- › Relating to disaster risks to cultural heritage and mitigation measures, a number of steps have been taken by the Office of Cultural Affairs DIY, in close consultation with the Regional Disaster Management Agency (Badan Penanggulangan Bencana Daerah (BPBD) and other agencies. **Firstly**, in 2016 the Office of Cultural Affairs DIY Technical Guidelines for Emergency Management of Culture Heritage following Natural Disaster. These guidelines include standard operating procedures and processes for responding to disasters including rapid damage assessments. **Secondly**, over 2021 the Office of Cultural Affairs of Yogyakarta and the Regional Disaster Management Agency cooperated to complete a Preliminary Assessment for Disaster Mitigation for Cultural Heritage. The study areas were based on the area of the nominated property, buffer zones and wider setting, whilst also including local, regional and national cultural heritage. The object of the study was to:
 - Obtain data on disaster-prone areas in the Special Region of Yogyakarta.
 - Obtain data on heritage sites in the Special Region of Yogyakarta by location and description.
 - Conducting strength testing of cultural heritage buildings and conducting laboratory tests.
 - Integrating data on cultural heritage buildings and data on disaster-prone areas in the Special Region of Yogyakarta.
 - Preparing recommendations for structural mitigation efforts.
 - Completing an inventory of disaster-affected areas in the Special Region of Yogyakarta for the last 10 years.
 - Completing an inventory of areas potentially affected by natural disasters in the Special Region of Yogyakarta for the last 10 years and seeing the trend of development.
 - Conducting Focus Group Discussions with the Regional Planning Board, Culture Service, Disaster Management Agency in Special Region of Yogyakarta, Regency/Municipal Agencies and other technical agencies to get optimal results.
 - Designing structural mitigation efforts in disaster management in cultural heritage buildings in the Special Region of Yogyakarta.

Further steps needed

There are a number of steps that need to be taken to address the factor. **Firstly**, the Preliminary Assessment for Disaster Mitigation for Cultural Heritage (2021) should be translated into English. **Secondly**, based on the Preliminary Assessment for Disaster Mitigation for Cultural Heritage, a full Disaster Risk Management Plan for the nominated property should be developed, in close coordination with all relevant stakeholders including local government and communities. Appropriate land-use, transportation and evacuation routes, installation of emergency infrastructure and development of emergency facilities at urban level must be taken into consideration in developing the Disaster

Risk Management Plan of the property. UNESCO, ICOMOS or ICCROM may also be involved in the development of the plan or reviewing/providing input on the content developed. **Thirdly**, training for all stakeholders involved in the management of the property is needed to raise awareness on disaster risk reduction. Disaster risk reduction training for cultural heritage is needed. They should include mitigation and response. The Technical Guidelines for Emergency Management of Culture Heritage following Natural Disaster developed by the Office of Cultural Affairs DIY can be a basis for the disaster response aspects of the training.

Factor 4. Sustainable Tourism

4.1. Sustainable tourism

Management Objectives

- › To support opportunities for economic livelihood development for local communities through sustainable tourism.
- › To ensure that carrying capacity of the attributes is not exceeded and ensure circulation through the whole property.
- › To increase public and visitors' understanding of the values of the property including its Outstanding universal Values through educational, cultural tourism activities, museums and site interpretation.

Management policies

Managing tourism sustainably, that is: "tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities". (UNWTO).

Progress so far

- › Carrying capacity assessments have been completed for the all the attributes in 2020, however, the methodology used needs to be revised. The studies considered the area of the attributes but did not sufficiently consider the limiting factors at the attributes including the protection needs of the attributes (particularly the Tamansari site which is the most at risk from over-tourism) as socio-cultural factors (the Kraton is still traditionally managed and include a number of sacred spaces and protocols that must be followed when visiting the site). These studies will be revised over 2022 using a revised methodology.
- › At the nominated property there is already a well-established community based tourism program called Kampung Wisata (Tourism Village). This program receives support from the local DIY Government and provides a structure for communities to organise and offer local products to international and national tourists, including homestay accommodation, local transport services, village tours, short courses such as cooking, pottery, batik-making, learning to play the gamelan and Javanese dancing. The programme has been running for over 20 years and is recognised

as a useful programme for disseminating the benefits of tourism to the local communities, while offering tourists an opportunity to experience the day to day culture of Yogyakarta.

- › Aside from the Kampung Wisata, local participation in the tourism economy around the property, especially the Kraton, Tamansari and Northern Axis, is very apparent. Local people provide various services such as guiding, andong (horse-cart), becak trips, shuttle-bus services from coach-parking areas, food-stalls, homestays and guest houses. Street-vendors in Malioboro are a key part of the attraction of the area for browsing and purchasing souvenirs. Most of the street vendors in Malioboro are members of cooperatives (*koperasi*). The local groups are well organized, with the majority of tour guides in the Kraton and Water Palace members of the Himpunan Pramuwisata Indonesia (HPI, Indonesian Tour Guide Association), while there is even an andong drivers' association with a membership of 500 people. This Kampung Wisata program – established locally and based on tourism management structures - will help ensure that tourism can be managed sustainably at the property, while providing benefits to local communities.
- › On-site interpretation and education programs have been developed by the Office of Cultural Affairs of DIY and also the Sultanate of *Ngayogyakarta Hadiningrat*. The Office of Cultural Affairs of DIY has developed interpretation signage at all attributes of the property, focusing on their meaning in the nominated property. The Sultanate of Ngayogyakarta Hadiningra has a dedicated unit called Tepas Tandha Yekti that promotes the values and meaning of the nominated property. It maintains a website (<https://www.kratonjogja.id>) and regular updates are made on social media (the account has 280k followers as of January 2022).

Further steps needed

There are a number of steps that need to be taken to facilitate sustainable tourism at the nominated property. **Firstly**, carrying capacity assessments for the key attributes of the property need to be revised, considering limiting factors such as the protection needs of the attributes and socio-cultural factors. **Secondly**, strategies are needed to circulate visitors throughout the nominated property. From ticketing data, the Kraton and Tamansari are the most visited sites.. **Thirdly**, the promotion of the values and meanings of the nominated property can be integrated into the Kampung Wisata (Tourism Village) programme, including training for local guides. **Fourthly**, the overall interpretation strategy was developed in 2017 and may need a refresh in 2022/2023. This includes the revitalisation of museums at the property to include information about the OUV of the property.

Factor 5. Local Communities

5.1. Community engagement and sustainable development

Management Objectives

- › To ensure public participation in safeguarding and promoting the tangible and intangible cultural heritage associated with the Historical Landmarks along the Cosmological Axis of Yogyakarta City.

- › Generate economic and job opportunities for local communities and support creative industries and culture related small business at the nominated property, buffer zone and wider setting.
- › Control of development and growth is not intended as a process stop the development in the nominated property. Instead, the control is directed to improve the quality of human life and more efficient means of production for strengthening community identity and social inclusiveness.

Management Policies

- › Public participation must be an integral part in safeguarding, presenting, and promoting the tangible and intangible cultural heritage associated with the Historical Landmarks along the Cosmological Axis of Yogyakarta City
- › Management policies at the property are not intended to stop the development and economic activity in the nominated property. Instead, management is directed to improve the quality of human life and more efficient means of production for strengthening community identity and social inclusiveness.

Progress to so far

In order to ensure that the local communities are fully engaged and empowered in the management of the nominated property, a number of actions have been take. **Firstly**, in preparing the dossier and Management Plan, extensive community consultation has taken place since 2016. As one example, in 2019 eight (8) consultation meetings were held in each respective village area, involving all key stakeholders. In 2021, forty (45) consultation meetings were held to discuss the nomination and management Plan. **Secondly**, to the ensure the local community are part of the decision making a management process, community-based management working group structure has been put in place at the property since 2020. The structure includes 45 community representatives from the 7 village areas (kampung) that are part of the protected area and buffer zones of the property (this mechanism is described in detail in 5.e). In managing the property, the Government is committed to the Strategic Objectives of the World Heritage Convention (Budapest Declaration (2002), the "fifth C" (2007)) and in particular to enhancing the role of communities in the implementation of the World Heritage Convention.

Further steps needed

Firstly, development of culture-based programmes that are educational, creative, and innovative with involvement of the local community. **Secondly**, continue organizing cultural performances (both traditional and contemporary culture) as an integral part of the routine art and culture calendar of events. **Thirdly**, strengthening cultural heritage education for school children programme. **Fourthly**, supporting the transmission of traditional skills and knowledge through the provision of trainings or apprenticeship on traditional craftsmanship and skills. **Fifthly**, providing support/business training to small medium enterprises/creative industries in the nominated property and buffer zone. **Sixthly**, keep engaging with the local community, especially utilising the community working group structure. This will include the monitoring of the nominated property, developing synergies with local tourism initiatives (Kampung Wisata), developing festivals and performances of intangible cultural heritage, and more.

CHAPTER 7.
PROGRAMS AND
ACTIONS FOR
IMPLEMENTATION OF
THE MANAGEMENT
PLAN

7. PROGRAMS AND IMPLEMENTATION OF THE MANAGEMENT PLAN

7.1. Factor I (Development Pressures)

1.1. Loss of significant heritage structures and businesses and replacement with new buildings

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Inventory of all heritage structures along the axis</p> <p>i. Project to identify heritage structures that are not yet protected on local, region or national registers.</p> <p>ii. Program to list on the relevant heritage register (local, regional, national).</p>	Along the whole property with a focus on the buffer zone and wider setting along the Northern Axis.	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups; • Private sector/homeowners. 	2022/2023
<p>Heritage impact assessments</p> <p>i. Dissemination of the regional law and guidelines on Heritage Impact Assessments (expected to be finalised by July 2022) to all stakeholders.</p> <p>ii. Training and awareness raising on the new HIA guidelines and how they should be applied.</p>	Relevant to the whole property, buffer zone and wider setting.	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (MOERCT); • DP2WBOffice of Land and Spatial Planning (DIY, City of Yogyakarta, and Regency of Bantul); • Office of Licensing and Investment Service DIY, City of Yogyakarta, and Regency of Bantul); • Public Works Department (DIY, City of Yogyakarta, and Regency of Bantul). 	2022

Table 7.1 Table showing programs and implementation relating to the loss of significant heritage structures and businesses and replacement with new buildings (Factor 1.1)

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Adaptive re-use of heritage</p> <p>i. Preparation of adaptive-reuse guidelines for cultural heritage.</p> <p>ii. Training on adaptive reuse of cultural heritage.</p> <p>iii. Develop a pilot site to illustrate the best practice adaptive reuse of cultural heritage.</p>	<p>Relevant to the whole property</p>	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency , City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Community Working Groups; • Private sector/homeowners. 	<p>2022/2023</p>
<p>Authenticity</p> <p>i. Translation (English-Indonesia) and disseminating of the Hoi An Protocols for Best Conservation Practice in Asia: Professional Guidelines for Assuring and Preserving the Authenticity of Heritage Sites in the Context of the Cultures of Asia.</p> <p>ii. Training/seminar on authenticity and cultural heritage</p> <p>iii. Review of the regional guidelines 2017 on architectural style to check consistency with the Hoi An protocols and other standards.</p>	<p>Relevant to the whole property</p>	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups; • Private sector/homeowners. <p>In consultation with UNESCO</p>	<p>2022/2023</p>
<p>Private sector engagement/public private partnerships</p> <p>i. Study and consultation on model/systems for incentives for the private sector building conservation and public private partnerships for heritage conservation. This should include tax incentives, grants etc.</p> <p>ii. Review of the current cultural heritage awards system and how it may be revived, also considering the UNESCO Asia-Pacific awards program (including considering new design in heritage contexts).</p>	<p>Along the whole property with a focus on the buffer zone and wider setting along the northern axis.</p>	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups; • Private sector/homeowners. 	<p>2022/2023</p>

Table 7.1 Table showing programs and implementation relating to the loss of significant heritage structures and businesses and replacement with new buildings (Factor 1.1) (cont.)

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Implementation of the Historic Urban Landscape Approach</p> <p>i. Expansion of the 2021 HUL pilot project across the whole property. The focus should be on incorporating HUL into the city and regional planning tools/frameworks.</p> <p>ii. Training in the HUL approach ensuring the involvement of civil society ,academics/university conservation agencies urban planners, private sectorSultanate</p> <p>iii. Develop a partnership with a city that has already used HUL (for example Ballarat in Australia, or Shanghai China)</p>	Relevant to the whole property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups; • Office of Land and Spatial Planning (DIY, City of Yogyakarta, and Regency of Bantul); • Public Works Department (DIY, City of Yogyakarta, and Regency of Bantul); • Private sector/homeowners; • Civil society; • Academics/university; • WHITRAP-Shangai; • UNESCO. 	2022-2025
<p>Disseminate and share the Conservation Management Plan (CMP) for the Northern Axis</p> <p>i. Disseminate the Conservation Management Plan for the Northern Axis of the property in close consultation with all stakeholders.</p>	Relevant to the whole property	<ul style="list-style-type: none"> • Office of Land and Spatial Planning (DIY, City of Yogyakarta, and Regency of Bantul); • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Community Working Groups. 	2022-2023
<p>Updating the Building and Developmental Plan (RTBL) areas of the nominated property.¹</p> <p>i. The RTBL can be updated to include the nominated property, buffer zone and wider setting. This will enhance the protection of cultural heritage and appropriate use of space.</p>	Relevant to the whole property	<ul style="list-style-type: none"> • Office of Land and Spatial Planning (DIY, City of Yogyakarta, and Regency of Bantul); • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Community Working Groups. 	2022-2023

Table 7.1 Table showing programs and implementation relating to the loss of significant heritage structures and businesses and replacement with new buildings (Factor 1.1) (cont.)

¹ The Building and Environmental Management Plan (RTBL) is a document developed by the regency/municipality for design of an environment/area intended to control space utilization, building arrangement and the environment, and contains the main materials for building and environmental program provisions, general plans and design guidelines, investment plans, provisions for

1.2. Development of high-rise hotels along the cosmological axis

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Heritage impact assessments guidelines and training²</p> <p>i. Dissemination of the regional law and guidelines on Heritage Impact Assessments (expected to be finalised by July 2022) to all stakeholders.</p> <p>ii. A focus should be on engaging the planning and permits office so they are aware of the approach/steps needed.</p> <p>iii. Training and awareness raising on the new HIA guidelines and how they should be applied.</p>	Relevant to the whole property, buffer zone and wider setting.	<ul style="list-style-type: none"> • Cosmological Axis Management Unit.; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (MOERCT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Office of Land and Spatial Planning (DIY, City of Yogyakarta, and Regency of Bantul); • Office of Licensing and Investment Service DIY, City of Yogyakarta, and Regency of Bantul). 	2022
<p>Application of HIA</p> <p>i. The guidelines on Heritage Impact Assessments should be applied for all hotel developments in the buffer zone and wider setting</p>	Relevant to the whole property, buffer zone and wider setting.	<ul style="list-style-type: none"> • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Cosmological Axis Management Unit; • Office of Licensing and Investment Service DIY, City of Yogyakarta, and Regency of Bantul); • Private sector/project proponents. 	Ongoing
<p>Extension on the moratorium of on new hotels</p> <p>i. A study on the extension on the extension of the moratorium of on new hotels to be completed.</p>		<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Office of Tourism (DIY, Bantul Regency, City of Yogyakarta); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Office of Land and Spatial Planning (DIY, City of Yogyakarta, and Regency of Bantul); • Office of Licensing and Investment Service DIY, City of Yogyakarta, and Regency of Bantul; • Private sector/hotel association. 	2022

Table 7.2 Table showing programs and implementation relating to the development of high-rise hotels along the cosmological axis (Factor 1.2)

controlling plans, and guidelines for controlling the implementation of environmental/regional development.

2 This can be combined with the activity under 1.1 of this plan

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Implementation of the Historic Urban Landscape Approach to identify³</p> <p>i. The expansion of the HUL approach can consider areas that may appropriate for development outside the buffer zone and wider setting.</p>		<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups; • Office of Land and Spatial Planning (DIY, City of Yogyakarta, and Regency of Bantul); • Public Works Department (DIY, City of Yogyakarta, and Regency of Bantul); • Private sector/homeowners; • Civil society; • Academics/university; • WHITRAP-Shangai; • UNESCO. 	2022-2025

Table 7.2 Table showing programs and implementation relating to the development of high-rise hotels along the cosmological axis (Factor 1.2) (cont.)

³ This can be combined with the activity under 1.1 of this plan

1.3. Public infrastructure projects

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Southern Axis Project (Integrated Tourism Master Plan).</p> <p>Development of Detailed Engineering Design (DED) and Master Plan for Southern Section of the Cosmological Axis.</p> <p>Maintenance of drainage and upgrading of pedestrians along the Southern Section of the Cosmological Axis.</p> <p>Provision of parking areas in the field on the north and south sides of Panggung Krapyak Monument.</p> <p>Relocation of electric and telecom cables to underground.</p>	Southern Axis	<ul style="list-style-type: none"> • The Regional Infrastructure Development Agency (RIDA) of the Ministry of Public Works and. Housing (MPWH); • Works Department (DIY, City of Yogyakarta, and Regency of Bantul); • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Office of Land and Spatial Planning (DIY, City of Yogyakarta, and Regency of Bantul); • Community Working Groups; • Private sector/homeowners; • Civil society. 	2022 – 2024
<p>Northern Axis Project (Integrated Tourism Master Plan).</p> <p>Upgrading of pedestrians along the Northern Section of the Cosmological Axis (ITMP project).</p> <p>Study for the provision of parking lots at Tugu Station, Ngabean, and Ramai Store (ITMP project).</p> <p>Upgrading of pedestrians along the Northern Section of the Cosmological Axis (ITMP project).</p> <p>Relocation of electric and telecom cables to underground.</p>	Northern Axis	<ul style="list-style-type: none"> • The Regional Infrastructure Development Agency (RIDA) of the Ministry of Public Works and. Housing (MPWH); • Indonesian Railways Service (PT KAI), POTR; • Works Department (DIY, City of Yogyakarta); • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Office of Land and Spatial Planning (DIY, City of Yogyakarta); • Community Working Groups; • Private sector/homeowners; • Civil society. 	2022-2024

Table 7.3 Table showing programs and implementation relating to the public infrastructure projects (Factor 1.3)

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Heritage impact assessments guidelines and training</p> <p>i. Dissemination of the regional law and guidelines on Heritage Impact Assessments (expected to be finalised by July 2022) to all stakeholders including the Public Works department (the lead agency for the Integrated Tourism Master Plan project).</p> <p>ii. Training and awareness raising on the new HIA guidelines and how they should be applied for the Public Works department.</p>	<p>Relevant to the whole property, buffer zone and wider setting</p> <p>Especially relevant to the planned tourism infrastructure project locations under the Integrated Tourism Master Plan.</p>	<ul style="list-style-type: none"> • The Regional Infrastructure Development Agency (RIDA) of the Ministry of Public Works and. Housing (MPWH); • Public Works Department (DIY, City of Yogyakarta, and Regency of Bantul); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Office of Land and Spatial Planning (DIY, City of Yogyakarta, and Regency of Bantul). 	2022
<p>Application of HIA</p> <p>i. The guidelines on Heritage Impact Assessments should be applied to all public infrastructure projects.</p> <p>ii. The HIA can be a mechanism to not only avoid impact but also improve the designs of the interventions.</p>	<p>Relevant to the whole property, buffer zone and wider setting.</p> <p>Especially relevant to the planned tourism infrastructure project locations under the Integrated Tourism Master Plan.</p>	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Advisory Board for Preservation of Cultural Heritage (DP2WB); • The Regional Infrastructure Development Agency (RIDA) of the Ministry of Public Works and. Housing (MPWH); • Works Department (DIY, City of Yogyakarta, and Regency of Bantul); • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Office of Land and Spatial Planning (DIY, City of Yogyakarta, and Regency of Bantul). 	Ongoing

Table 7.3 Table showing programs and implementation relating to the public infrastructure projects (Factor 1.3) (cont.)

1.4. Visual integrity

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Enforcement of existing signage regulations</p> <p>i. Control and Restrict the billboards and signages installation along the axis and heritage sites.</p> <p>ii. Study/assessment on the reasons the existing regulations are not working.</p> <p>iii. Incentives for business owners and homeowners to adapt their signage in accordance with the heritage values of the area need to be considered.</p> <p>iv. Revision the regulations/enforcement mechanisms as needed based on the result of the assessment.</p>	Across the whole property but especially relevant to the Northern Axis.	<ul style="list-style-type: none"> Office of Licensing and Investment Service (DIY, Bantul Regency and City of Yogyakarta); Provincial Civil Service Enforcement Unit ((DIY, Bantul Regency and City of Yogyakarta); Cosmological Axis Management Unit; Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); Advisory Board for Preservation of Cultural Heritage (DP2WB); Sultanate of <i>Ngayogyakarta Hadiningrat</i>; Community Working Groups; Private sector/homeowners. 	2022-2023
<p>Façade and signage improvement along the Northern Axis</p> <p>i. Development of Detailed Engineering Design for building façade (including historic buildings) along the Northern Section of the Cosmological Axis.</p> <p>ii. HIA assessment of the Development of Detailed Engineering Design for building façade (including historic buildings) along the Northern Section of the Cosmological Axis.</p> <p>iii. Revitalisation of the facades/signage of buildings along Malioboro, Margomulyo and Margoutomo streets in line with the DED.</p>	Northern Axis	<ul style="list-style-type: none"> Cosmological Axis Management Unit; Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); Advisory Board for Preservation of Cultural Heritage (DP2WB); Sultanate of <i>Ngayogyakarta Hadiningrat</i>; Community Working Groups; Private sector/homeowners. 	2022 -2023
Relocation of electric and telecom cables to underground	Northern Axis and Southern Axis	<i>See 1.3 Public Infrastructure Projects.</i>	2022-2024
Control and restrict Installation of high-rise communication equipment (e.g. BTS, antennas, parabolos) in open spaces and above the roof	Across the whole property	<ul style="list-style-type: none"> Office of Communication and Information Technology (DIT, City of Yogyakarta and Bantul). 	2022

Table 7.4 Table showing programs and implementation relating to the visual integrity (Factor 1.4)

1.5. Encroachment

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Strategy to address informal settlements at the property</p> <p>i. Translate the Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention (UNESCO 2015) Into Indonesian.</p> <p>ii. Workshop and seminar on the issue of informal settlements at World Heritage sites.</p>	Kraton and Tamansari	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Works and Housing Department (DIY, City of Yogyakarta, and Regency of Bantul); • Office of Law and Human Rights (DIY, Bantul Regency and City of Yogyakarta); • Community Working Groups; • Private sector/homeowners. 	2022
<p>Community consultations</p> <p>i. This should be done with groups living in informal settlements in the nominated property and buffer zone to ascertain their needs and find solutions to balance conservation with the needs of the communities.</p>	Kraton, Tamansari, Panggung Krapyak Monument	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>. 	Ongoing
<p>Strategy to address informal settlements at the property</p> <p>i. Study the possibility of relocation of buildings situated just outside the outer wall of the Kraton and revitalization of moat around the wall.</p>	Kraton, Tamansari, Panggung Krapyak Monument	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Works and Housing Department (DIY, City of Yogyakarta, and Regency of Bantul); • Office of Law and Human Rights (DIY, Bantul Regency and City of Yogyakarta); • Community Working Group; • Private sector/homeowners. 	2023-2025

Table 7.5 Table showing programs and implementation relating to encroachment (Factor 1.5)

1.6. Conservation and Maintenance

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Archives, documents and database</p> <p>i. Improving the documentation and inventory of past interventions and present condition of historic buildings/structures within the property and buffer zone is needed</p> <p>ii. Develop an online database/archives.</p>	Across the property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>. 	2022/2024
<p>Publish and disseminate existing conservation guidelines and conservation management plans</p> <p>i. The Office of Cultural Affairs DIY has developed four (4) technical guidelines however they have not been published/ widely disseminated :</p> <p>a. Technical Guidelines for Conservation of cultural Heritage in the DIY Province (2017)</p> <p>b. Technical Guidelines for the Maintenance of Cultural Heritage (2017)</p> <p>c. Technical Guidelines for the Documentation of cultural Heritage (2017)</p> <p>d. Technical Guidelines for Emergency Management of Culture Heritage following Natural Disaster (2016).</p> <p>ii. Guidelines for the Kraton and Imogiri Conservation Areas (2018). Office of Cultural Affairs Yogyakarta developed detailed guidelines for the conservation of the Kraton Conservation Area. These guidelines cover the area of the nominated property, buffer zone and wider setting.</p>	Across the property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>. 	2022/2023

Table 7.6 Table showing programs and implementation relating to conservation and maintenance (Factor 1.6)

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
Publish and disseminate the nine (9) Conservation Management Plans In addition to the overall MP, Conservation Management Plans (CMP) have been created for nine (9) key attributes of the property. ⁴	Across the property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>. 	2022
Adaptive re-use of heritage	Relevant to the whole property	<i>See activity three under 1.1</i>	2022/2023
Authenticity	Relevant to the whole property	<i>See activity four under 1.1</i>	2022/2023
Conservation and Maintenance i. Baseline assessment of the present condition of the historic buildings and structures within the property and development of action plan for the conservation of these buildings and structures. ii. Continue of the routine monitoring on the condition of, cleaning and maintenance of the attributes of the property as well as heritage structures in the buffer zone and wider setting. This should be based on the Technical Guidelines for the Maintenance of Cultural Heritage (2017).	Relevant to the whole property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>. 	Ongoing
Planned conservation work i. Preparation of Detailed Engineering Design and for planned conservation work at the Plengkung Nirbaya gate, Jokteng Wetan (bastion), Pagelaran and Northern Square (Alun-alun Lor), revitalisation of in the southeast corner of the Kraton outer walls. ii. Complete Heritage Impacts assessments for the DED and revise the plans accordingly.	Relevant to the whole property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>. 	2022 – 2023

Table 7.6 Table showing programs and implementation relating to conservation and maintenance (Factor 1.6) (cont.)

⁴ (i) Panggung Krpyak Monument (A.1); (ii) Outer Walls, Gates and Fortifications (B.1); (iii) Inner Complex of the Palace and Its Squares (B.2); (iv) Great Mosque Complex (B.4); (v) Tamansari Royal Garden Complex (B.3); (vi) Beringharjo Market (C.2); (vii) Kepatihan Administrative Complex (C.3); (viii) Tugu Monument (C.4); and (ix) and the Cosmological Axis (A.2 & C.1).

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Reconstruction of the Pangurakan gates</p> <p>i. Preparation of feasibility study on the reconstruction of the entrance gates to the Kraton (to the north of Pangurakan gates).</p> <p>ii. The study will consider the Hoi An protocols of Authenticity as a base.</p> <p>iii. Complete Heritage Impacts assessments for the DED and revise the plans accordingly.</p>	Kraton	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>. 	2022-2024
<p>Beringharjo Market conservation</p> <p>i. Workshop on heritage conservation of Beringharjo Market for stakeholders (traders, market officials, security officials, and staffs of Provincial Office for Trade and Industry)</p> <p>ii. Drafting a detailed technical conservation guidelines for Beringharjo Market</p> <p>iii. DED for redesigning of stalls in front of the Beringharjo Market (main door side) and along the axis.</p> <p>iv. Complete Heritage Impacts assessments for the DED and revise the plans accordingly.</p>	Beringharjo Market	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY); • Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • The Office of Industry and Trade of Yogyakarta Municipality, as the responsible agency for the Beringharjo Market; • Technical Management Unit of Malioboro Area under the Office of Cultural Affairs of Yogyakarta Municipality (responsible for the Northern Axis). 	2022 – 2023
<p>Northern Axis</p> <p>i. Continue the negotiation with the owner of the neglected Hotel Tugu (registered as National Cultural Property) to take over and carry out immediate conservation to save the property from severe damage.</p>		<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY); • Private sector. 	2020 – 2025

Table 7.6 Table showing programs and implementation relating to conservation and maintenance (Factor 1.6) (cont.)

7.2. Factor 2 (Environmental Pressures)

2.1. Traffic and pollution

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Traffic management</p> <p>i. Development and implementation of a strategy for the control of motor vehicle emission through increased use of public transportation, better traffic flow to minimise congestion, and mandatory vehicle inspection and maintenance.</p> <p>ii. Development and implementation for increasing the use of environmentally transportation, such as electric becak (pedicab) to reduce the growth of motorized becak that cause air pollution.</p> <p>iii. Implementation of car free days along the Northern Axis of the property</p> <p>iv. Review of the traffic flow around Kraton, Tamansari, Tugu and Panggung Krapyak monuments and feasibility study to re-route traffic</p>	Across the whole property with a focus on Northern Axis as the most congested area	<ul style="list-style-type: none"> Office of Transportation; Cosmological Axis Management Unit; Office of Cultural Affairs (DIY and Bantul); Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); Advisory Board for Preservation of Cultural Heritage (DP2WB); Sultanate of <i>Ngayogyakarta Hadiningrat</i>. 	2022 – 2025
<p>Revegetation</p> <p>i. Inventory and protection of existing significant trees in property</p> <p>ii. Replanting of trees which support the philosophical meaning of the property, especially Tamarind and Tanjung trees</p>	Across the whole property with a focus on Northern Axis as the most congested area	<ul style="list-style-type: none"> Office of Environment and Forestry (DIY, City of Yogyakarta, and Bantul Regency); Cosmological Axis Management Unit; Office of Cultural Affairs DIY, City of Yogyakarta, and Bantul Regency). 	2022
<p>Water pollution study</p> <p>i. Study on pollution and water quality along the Winongo River and Code River as part of the wider settings of the property and engagement with the local community. HUL methods will be applied for this work. This can be integrated into the Public Works department Kotaku (City's without Slums) program.</p>	Winongo River and Code Rivers	<ul style="list-style-type: none"> Office of Environment and Forestry (DIY, City of Yogyakarta, and Bantul Regency). 	
Pedestrian infrastructure	Southern and Northern Cosmological Axis	See 1.3 Public infrastructure projects	2021-2024

Table 7.7 Table showing programs and implementation relating to traffic and pollution (Factor 2.1)

7.3. Factor 3 (Natural Disaster and Risk Preparedness)

3.1. Natural and human-induced hazards: earthquake, volcanic eruptions (lava flows and mudflows), floods, landslides, strong wind, and fires.

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Develop the overall DRR plan for the property</p> <p>i. Translate the Preliminary Assessment for Disaster Mitigation for Cultural Heritage (2021) should be translated into English.</p> <p>ii. Based on the Preliminary Assessment for Disaster Mitigation for Cultural Heritage, a full Disaster Risk Management Plan for the nominated property.</p> <p>iii. Training for all stakeholders on the DRR plan involved in the management of the property.</p>	Across the property	<ul style="list-style-type: none"> Regional Disaster Management Agency; Cosmological Axis Management Unit; Office of Cultural Affairs (DIY, Bantul Regency and City of Yogyakarta); Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Ministry of Education, Culture, Research and Technology, MOECRT); Advisory Board for Preservation of Cultural Heritage (DP2WB); Sultanate of Ngayogyakarta Hadiningrat; Community Working Groups; Private sector/homeowners; Civil society. 	2023
<p>Technical Guidelines for Emergency Management of Culture Heritage following Natural Disaster</p> <p>i. Publish and disseminate the Technical Guidelines for Emergency Management of Culture Heritage following Natural Disaster.</p> <p>ii. Conduct training using these guidelines for managers.</p> <p>iii. Conducting periodically disaster simulation for the managers of attributes of the property and local community.</p>			2022
<p>Disaster equipment and signage</p> <p>i. Provision of Disaster Response Facilities all attributes (e.g. hydrant, fire extinguisher, personal protective supply, etc).</p> <p>ii. Installation of warning signage/evacuation routes in places prone for building material collapse</p>			2022-2023

Table 7.8 Table showing programs and implementation relating to Natural and human-induced hazards: earthquake, volcanic eruptions (lava flows, and mudflows), floods, landslides, strong wind, and fires (Factor 3.1)

7.4. Factor 4 (Sustainable Tourism)

4.1. Sustainable tourism

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Carrying capacity</p> <p>i. Capacity assessments for the key attributes of the property need to be revised, considering limiting factors such as the protection needs of the attributes and socio-cultural factors</p>	Across the property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Office of Tourism (DIY, Bantul Regency, City of Yogyakarta); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups. 	
<p>Visitor circulation strategy</p> <p>i. Develop a strategy for circulation of visitors at the attributes of the property, especially Panggung Krapyak, Tamansari, Kraton, Great Mosque. This will also consider the results of the carrying capacity assessments.</p> <p>ii. Develop a strategy for circulation of visitors in the the property (for example free shuttle busses.</p>	Across the property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Office of Tourism (DIY, Bantul Regency, City of Yogyakarta); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups. 	

Table 7.9 Table showing programs and implementation relating to sustainable tourism (Factor 4.1)

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Interpretation and communication</p> <p>i. The overall interpretation strategy was developed in 2017 and may need a refresh in 2022/2023. This includes the revitalisation of museums at the property to include information about the OUV of the property. The interpretation strategy will consider each attributes, whilst also considering the overall messages.</p> <p>ii. Based on the revised interpretation strategy, installation of signage, information boards, and at the attributes of the property</p> <p>iii. Preparation of publications on the significance of the nominated property, including the meaning of each attributes and significant objects for wider public through books, leaflets, videos, and travel guidebooks.</p> <p>iv. Improvement of visitor management and creation of several “stopovers” as a place to present information about the cosmological axis and to cater visitors’ needs (seating areas, souvenir shops, cafes, etc.)</p> <p>v. Assessment of all museums in the property and development of a strategy for improvement of the museums.</p> <p>vi. Involvement of museums and museum societies in Yogyakarta Special Region to participate in the promotion and appreciation of the OUV of the Cosmological Axis</p> <p>vii. Inventory and management of information sources (libraries, archives, documents) of the Kraton and development of an interpretation strategy for the collection.</p> <p>viii. Strengthening cultural heritage education for school children programme. Incorporate the significant values of nominated property into the local school curriculum, through traditional games, storytelling, excursion, museum visits.</p>	<p>Across the property</p>	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Office of Tourism (DIY, Bantul Regency, City of Yogyakarta); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups. 	

Table 7.9 Table showing programs and implementation relating to sustainable tourism (Factor 4.1) (cont.)

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Sustainable tourism training and planning</p> <p>i. Integrated the World Heritage property management into the into the Kampung Wisata (Tourism Village) programme, including training for local guides.</p> <p>ii. Empowering the local community to take part on the sustainable tourism activities through capacity building programs (workshop, training, counselling, etc).</p> <p>iii. Workshop on the management of sustainable tourism within the property involving all stakeholders.</p> <p>iv. Organizing capacity building programs to provide better visitor guidance, including explaining the significance and meanings of the property and local community.</p>	Across the property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Office of Tourism (DIY, Bantul Regency, City of Yogyakarta); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups. 	
<p>Panggung Krapyak Monument Visitor Centre</p> <p>i. Establishment of a visitor centre in Panggung Krapyak area which will serve as (a) information centre for the philosophical axis, (b) starting point for site interpretation of the philosophical axis, and (c) common space for community socio-cultural activities.</p> <p>ii. HIA of the plan/design and improvement.</p>	Panggung Krapyak Monument	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups. 	
<p>Street vendors</p> <p>Arrangement of street vendors and movable kiosks including organizational infrastructure (cooperative system).</p>	Northern Axis	<ul style="list-style-type: none"> • POIT, RMOLSP Kota 	2022 -2025
<p>Construction of public toilets along the property</p>	Northern and Southern Axis	<i>See 1.3 Public infrastructure projects</i>	2024

Table 7.9 Table showing programs and implementation relating to sustainable tourism (Factor 4.1) (cont.)

7.5. Factor 5 (Local Communities)

5.1. Community engagement and sustainable development

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Community engagement programs</p> <p>i. Continue engaging with the local community, especially utilising the Community Working group structure. This will include the monitoring of the nominated property, developing synergies with local tourism initiatives (Kampung Wisata), developing festivals and performances of intangible cultural heritage, and more.</p> <p>ii. Support the local community to continue organizing cultural performances (both traditional and contemporary culture) as an integral part of the routine art and culture calendar of events.</p> <p>iii. Support the development of culture-based programmes that are educational, creative, and innovative with involvement of the local community.</p> <p>iv. Development of revitalization planning for kampungs along the Code and Winongo rivers to accommodate visitors and enhance tourist experience based on the sustainable tourism principle.</p>	Across the property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Office of Tourism (DIY, Bantul Regency, City of Yogyakarta); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups. 	2022-2024
<p>Support for creative industries</p> <p>i. Study on approaches to supporting the transmission of traditional skills and knowledge through the provision of trainings or apprenticeship on traditional craftsmanship and skills</p> <p>ii. Based on the study, providing support/business training to small medium enterprises/creative industries in the nominated property and buffer zone.</p>	Across the property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Office of Tourism (DIY, Bantul Regency, City of Yogyakarta); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups; • Office of Industry and Trade. 	2022-2024

Table 7.10 Table showing programs and implementation relating to community engagement and sustainable development (Factor 5.1)

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Community-based conservation</p> <p>i. Development of capacity building programs for all the stakeholders for the conservation and maintenance of World Heritage Properties, involving national and international experts.</p> <p>ii. Increasing the participation of heritage communities in planning and implementing conservation management plan in all nominated property, through consultation, focused group discussions, workshops, and direct involvement.</p> <p>iii. Provide facilitation for participatory heritage mapping conducted mainly by local communities (include in the HUL activity).</p>	Across the property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups; • Office of Industry and Trade. 	2022-2024
<p>Intangible cultural heritage practice</p> <p>i. Continue to facilitate the performance of ceremonies and traditions that take place in and are related to the nominated property.</p> <p>ii. Study traditions, performance, and ceremonies associated with the nominated property that are no longer exist for documentation, publication, and revitalization (if feasible).</p> <p>iii. Carry out inventory and documentation of the traditions, performances, ceremonies related to the nominated property (including behind the scene aspects) with new technology to be passed on to future generations.</p> <p>iv. Prepare the publication of the significance and meanings of traditions, performances, and ceremonies related to the nominated property to public at large.</p> <p>v. Provide facilities for creative artists to express their interpretation and appreciation of the significance and meaning of the nominated property through exhibitions, performances, Installation arts, mural creations, etc.</p>	Across the property	<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY, Bantul Regency, City of Yogyakarta); • Cultural Value Preservation Center DIY (Ministry of Education, Culture, Research and Technology). Balai Pelestarian Nilai Budaya D.I. Yogyakarta; • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups; • Office of Industry and Trade. 	2022-2024

Table 7.10 Table showing programs and implementation relating to community engagement and sustainable development (Factor 5.1) (cont.)

Management and skill development

Name/description of activity	Location at the property	Responsible agency(ies)	Timeframe
<p>Training</p> <ul style="list-style-type: none"> i. Organize capacity building workshops and trainings on World Heritage Management for staffs of the Cosmological Axis Management Unit. ii. Training on the establishment of Integrated Conservation Data System of the nominated property as a baseline to support the implementation of conservation management plan as well as decision making process enhance their knowledge and skill. iii. Feasibility study for expanding the Management Body for the Nominated Property and models that can be adopted. iv. Engagement with other World Heritage management offices in the region (for example the George Town Management Unit in Malaysia) for learning/training. 		<ul style="list-style-type: none"> • Cosmological Axis Management Unit; • Office of Cultural Affairs (DIY); • Advisory Board for Preservation of Cultural Heritage (DP2WB); • Sultanate of <i>Ngayogyakarta Hadiningrat</i>; • Community Working Groups. 	2022 – 2024
<p>Monitoring</p> <ul style="list-style-type: none"> i. Drafting of Memorandum of Agreement among involved stakeholders for better monitoring and evaluation mechanism. ii. Conducting half-yearly stakeholder coordination meetings for Monitoring and Evaluation scheme. 			

CHAPTER 8. MONITORING

8. MONITORING

Monitoring of the conservation of the nominated Property is important process to ensure that the Outstanding Universal Values are maintained and enhanced. This process is always carried out with the consultation and agreement among stakeholders at all levels. The Management Unit for the Cosmological Axis of Yogyakarta is responsible for the monitoring of the property in close coordinate with the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia (through the Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Balai Pelestarian Kebudayaan Wilayah 10, Jawa Tengah dan DIY)), and the Management Office of the Sultanate of *Ngayogyakarta Hadiningrat* (Kawedanan Hageng Panitra Pura Karaton *Ngayogyakarta Hadiningrat*).

The following table gives the key indicators for measuring the state of conservation of the nominated property. The data source, rational of the indicator, data collection frequency and responsible agency is given.

Factors Affecting Properties	Expected outcome	Indicator	Target	Period	Data source	Main agencies involved	Context of the indicator
Overall conservation of the attributes	Conservation of the Panggalung Krapiak Monument (A.1) completed at a high standard with involvement of key stakeholder and the local community.	Number of reports on the progress of the implementation of the Conservation Management Plan at the Panggalung Krapiak Monument (A.1).	1 report	Annually	Report	Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (ICPR); Office of Cultural Affairs (OCA), DIY; OCA, Bantul; Management Office of the Sultanate of Yogyakarta (MOSN)	<i>In addition to the overall Site Management Plan, individual Conservation Management Plans (CMP) have been created for ten (10) key attributes of the property. This is because each attribute has its own unique conservation challenges and stakeholder groups. These CMP are integrated into this overall World Heritage MP under the overall authority of the Cosmological Axis of Yogyakarta Management Unit.</i>
	Conservation of the Southern section (A.2) of the Cosmological Axis completed at a high standard with involvement of key stakeholder and the local community.	Number of reports on the progress of the implementation of the Conservation Management Plan at the Southern section (A.2) of the Cosmological Axis.	1 report	Annually	Report	ICPR; OCA, DIY; OCA, Yogyakarta; OCA, Bantul; MOSN.	
	Conservation of the Palace Outer Walls, Gates and Fortifications (B.1) completed at a high standard with involvement of key stakeholder and the local community.	Number of reports on the progress of the implementation of the Conservation Management Plan at the Palace Outer Walls, Gates and Fortifications (B.1).	1 report	Annually	Report	ICPR; OCA, DIY; OCA, Yogyakarta; MOSN.	
	Conservation of the Inner Complex of the Palace and Its Squares (B.2) completed at a high standard with involvement of key stakeholder and the local community.	Number of reports on the progress of the implementation of the Conservation Management Plan at the Inner Complex of the Palace and Its Squares (B.2).	1 report	Annually	Report	ICPR; OCA, DIY; OCA, Yogyakarta; MOSN.	
	Conservation of the Tamansari Royal Garden Complex (B.3) completed at a high standard with involvement of key stakeholder and the local community.	Number of reports on the progress of the implementation of the Conservation Management Plan at the Tamansari Royal Garden Complex (B.3).	1 report	Annually	Report	ICPR; OCA, DIY; OCA, Yogyakarta; MOSN.	
	Conservation of the Great Mosque Complex (B.4) completed at a high standard with involvement of key stakeholder and the local community.	Number of reports on the progress of the implementation of the Conservation Management Plan at the Great Mosque Complex (B.4).	1 report	Annually	Report	ICPR; OCA, DIY; OCA, Yogyakarta; MOSN.	

Table 8.1 Key indicator for monitoring the conservation of the nominated property

Factors Affecting Properties	Expected outcome	Indicator	Target	Period	Data source	Main agencies involved	Context of the indicator
	Conservation of the Northern section (C.1) of the Cosmological Axis completed at a high standard with involvement of key stakeholder and the local community.	Number of reports on the progress of the implementation of the Conservation Management Plan of the Northern section (C.1) of the Cosmological Axis.	1 report	Annually	Report	ICPR; OCA, DIY; OCA, Yogyakarta; OCA, Bantul; MOSN.	
	Conservation of the Beringharjo Market (C.2) completed at a high standard with involvement of key stakeholder and the local community.	Number of reports on the progress of the implementation of the Conservation Management Plan at the Beringharjo Market (C.2).	1 report	Annually	Report	ICPR; OCA, DIY; OCA, Yogyakarta; MOSN.	
	Conservation of the Kepatihan Complex (C.3) completed at a high standard with involvement of key stakeholder and the local community.	Number of reports on the progress of the implementation of the Conservation Management Plan at the Kepatihan Complex (C.3)	1 report	Annually	Report	ICPR; OCA, DIY; OCA, Yogyakarta; MOSN.	
	Conservation of the Tugu Monument (C.4) completed at a high standard with involvement of key stakeholder and the local community .	Number of reports on the progress of the implementation of the Conservation Management Plan at the Tugu Monument (C.4)	1 report	Annually	Report	ICPR; OCA, DIY; OCA, Yogyakarta; MOSN.	
Development Pressures	Public/private infrastructure projects, and adaptive reuse of heritage structures in and around the nominated property is carefully managed to maintain the visual integrity and safeguard the OUV.	Number of HIA assessments completed for development projects.	HIA reports completed for all projects in the buffer zone and wider setting that potentially may impact the property.	Annually	Reports by the Advisory Board for Preservation of Cultural Heritage (DP2WB)	Advisory Board for Preservation of Cultural Heritage (DP2WB); Provincial Office of Licensing and Investment Service; ICPR; OCA, DIY; OCA, Yogyakarta; OCA, Bantul; MOSN.	<i>This indicator is designed to measure the number of projects assessed, and also the use of the HIA tool. It will be important to guide how often the HIA approach is being used and how it is embedded into the overall planning and permission approach</i>
	Urban development in and around the property is carefully managed to safeguard the values of the nominated property.	Percentage of encroachment around the Outer Walls, Gates and Fortifications.	0% encroachment.	Annually		OCA, DIY.	<i>This indicator is set to monitor the encroachment as a result of urban development and urbanization. A baseline survey will be completed in 2023.</i>

Table 8.1 Key indicator for monitoring the conservation of the nominated property (cont.)

Factors Affecting Properties	Expected outcome	Indicator	Target	Period	Data source	Main agencies involved	Context of the indicator
	The protection of cultural heritage in the buffer zone and wider setting is enhanced.	Number of heritage buildings in the buffer zone and wider setting listed on the local, regional and national heritage register.	2 cultural heritage buildings listed per year.	Annually		ICPR; OCA, DIY; OCA, Yogyakarta; OCA, Bantul; MOSN.	<i>A number of the shophouses, vernacular architecture and modern heritage in the buffer zone and wide setting is yet to be protected. This indicator will measure progress for this important work.</i> <i>Currently there are 86 cultural heritage places registered on the local, regional and national registers.</i>
	The private sector and local community have a high level of ownership of conservation in the city/the process of conservation is valorized and promoted.	Number of heritage awards given to private sector/home owners for conservation.	5 awards given per year for conservation.	Annually		ICPR; OCA, DIY; OCA, Yogyakarta; OCA, Bantul; MOSN.	<i>One challenge is the need to engage the private sector in the conservation process. An awards program was established in 2014, however, the profile is low and has not been active. So far, 32 awards have been given.</i>
	Tourism related development in and around the nominated property is carefully managed to safeguard the OUV.	Number of new hotels in the buffer zone	0 new hotels in the buffer zone of the nominated property.	Annually	Office of Cultural Affairs Awards register	Office of Tourism, Special Region of Yogyakarta; Hotel Association.	<i>One large pressure on the property has been from new hotel development to meet demand from tourism. This will be a way of measuring potential pressure on the buffer zone and wider setting from development.</i>
	Application of the Historic Urban Landscape approach in the urban planning to protect the property, its buffer zones, and wider setting.	Number of decision makers/ planning officers trained in the HUL approach.	5 planning officials are trained in the HUL approach.	Annually	Office of Tourism Data (registered hotels)	Regional government.	<i>Various research, trainings, and workshops on HUL have been conducted in the previous years, however there is a need to ensure all planning officials, including new staff, have a good understanding of how the HUL approach can be applied.</i>
Environmental Pressures	The water quality of the rivers to the east and west of the property is enhanced.	The degree of water pollution of the two rivers.	increase in water quality.	Annually	Water sampling	Office of Environment and Forestry, Special Region of Yogyakarta.	<i>Two rivers flow through the wider setting and are important for the context of the river. A baseline sampling of water quality will be completed in 2023.</i>

Table 8.1 Key indicator for monitoring the conservation of the nominated property (cont.)

Factors Affecting Properties	Expected outcome	Indicator	Target	Period	Data source	Main agencies involved	Context of the indicator
	Increase use of traditional transportation in and around the property.	The number of users of traditional transport (non-motorized Becak and Andong) in the nominated property and buffer zones.	At least 2% increase in use of traditional transport.	Annually	Survey of users Association of Andong and Becak data	Office of Transportation, Special Region of Yogyakarta; OCA, DIY; OCA, Bantul; OCA, Yogyakarta; Association of Andong and Becak.	<i>Andong is registered as local and national intangible cultural heritage, and its transmission and use is important.</i> <i>Becak (non motorised) is an environmentally friendly mode of transport and gives benefits to the local community.</i> <i>A baseline survey for the usage of these modes of transportation will be done in 2023.</i>
	Reduced air pollution in the area.	Air pollution index within the nominated property, buffer zones, and wider setting.	Air quality index is on 0 – 50 (based on ISPU).	Annually	Report	Office of Environment and Forestry, Special Region of Yogyakarta.	<i>This indicator is based on the Indeks Standar Pencemar Udara (ISPU) or Standard Index for Air Pollutant determined by the Ministry of Environment and Forestry.</i>
Natural Disaster and Risk Preparedness	The attributes of the property are safeguarded from natural disasters.	Number of attributes assessed for vulnerability to natural disasters.	5 assessments per year.	Annually	Reports by the Regional Disaster Management Agency and Office of Cultural Affairs, Special Region of Yogyakarta.	Regional Disaster Management Agency; OCA, DIY; MOSN.	<i>The area of the nominated property is at risk from natural disasters, including earthquakes, landslides, flooding and fire.</i>
	Stakeholders are ready to respond in the case of a disaster.	Number of disaster risk preparedness trainings conducted.	2 trainings per year.	Training reports	Annual	Regional Disaster Management Agency; OCA, DIY; OCA, Yogyakarta; MOSN; Office of Tourism, Special Region of Yogyakarta.	<i>Regular training in DRR is important at the attribute management level and also the macro strategic level.</i>
Responsible Visitation at World Heritage Sites	Increased capacity and knowledge of guides to share Information about the values of the property.	The number of participants of tour guide trainings.	20 guides per year are trained.	Annually	Training reports	OCA, DIY.	<i>Tour guides are an important aspect of sharing the OUV of the property with local community members and visitors. However, there is a need to have ongoing training, especially on the World Heritage concept and OUV.</i>

Table 8.1 Key indicator for monitoring the conservation of the nominated property (cont.)

Factors Affecting Properties	Expected outcome	Indicator	Target	Period	Data source	Main agencies involved	Context of the indicator
	Visitation is within the carrying capacity of the attributes of the property.	The number of tourists and visitors to: (i) the attributes of the property; (ii) the overall property.	Number of visitors is within the carrying capacity.	Annually	Ticket sales from the attributes	OCA, DIY; Office of Tourism, DIY; Office of Cultural Affairs and Tourism, Bantul; Office of Cultural Affairs and Tourism, City of Yogyakarta; MOSN.	<i>This data is important to ensure that the carrying capacity of the attributes is not exceeded.</i>
Community	The local community is fully engaged in the management of the World Heritage property.	The number of local people involved in the community heritage management system.	At least 6 local community meetings per sub-districts along the Cosmological Axis is held per year.	Annually	Meeting reports/ attendance lists	OCA, DIY; Local community.	<i>This will measure participation in the community-based management system that has already been established.</i>
	Locally made and sustainable goods are developed by local small business generating economic/jobs for the local community.	Awareness of culture based/ creative industries businesses located in the buffer zone and wider setting enhanced.	At least 2 promotional events of creative industries held each year.	Annually	Business survey	Office of Licensing and Investment Service; Office of Industry and Trade.	<i>There are a number of creative industries in the nominated property, buffer zone and wider setting. This includes batik creation/shops, traditional food production etc. It is important that this business can be maintained and grown at the property. This indicator will help measure this. A baseline survey will be conducted in 2023.</i>
	The Kampung Wisata program provides local people with employment opportunities through sustainable tourism.	Number of local communities participating in the Kampung Wisata program at the nominated property and buffer zone.	At least 5 % increase per year.	Annually	Survey & Data from the Office of Tourism	ICPR; OCA, DIY; OCA, Bantul; OCA, Yogyakarta.	<i>The Kampung Wisata (Village Tourism) has been established to provide authentic and interesting experiences for visitors, whilst generating economic opportunities for local people. This program was impacted by Covid-19 and is slowly recovering. A baseline survey will be conducted in 2023.</i>
	The intangible cultural heritage in and around the nominated property are safeguarded and transmitted to future generations.	Number of intangible cultural heritage inscriptions on the local, regional and national registers.	2 elements per year.	Annually	Local, regional and national heritage registers	OCA, DIY.	<i>The OUV of the property is closely bound to the rich intangible heritage which is practiced in and around the property. The intangible heritage contributes to the authenticity of the property. So far, 40 intangible cultural heritage has been inscribed in the local, regional and national register.</i>

Table 8.1 Key indicator for monitoring the conservation of the nominated property (cont.)

CHAPTER 9. IMPLEMENTATION

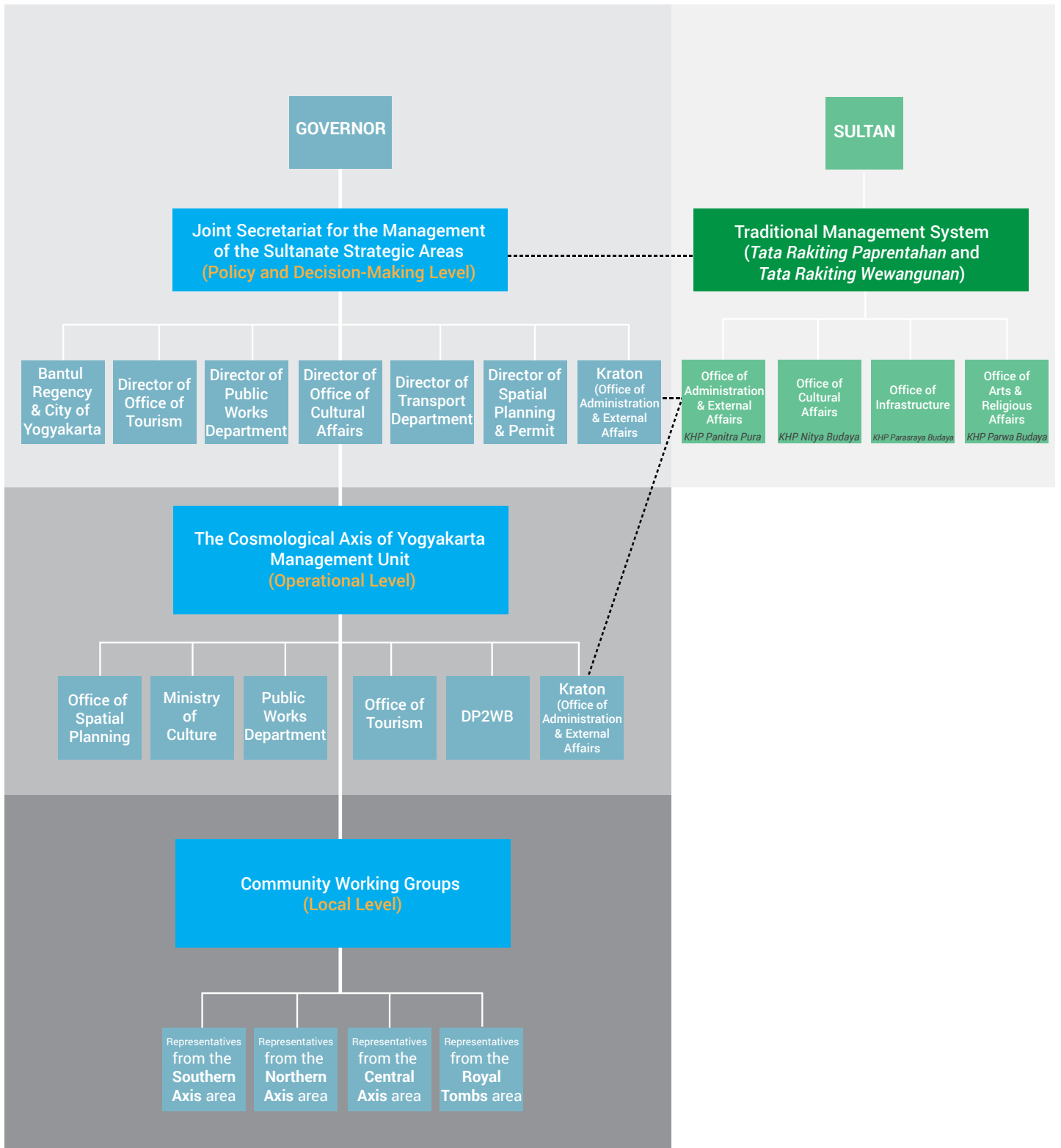
9. IMPLEMENTATION

9.1. Management and Coordination Structure

The management system and coordination structure for the nominated property consists of a blend of traditional and modern systems, under the overall coordination of the Management Unit for the Cosmological Axis of Yogyakarta. There are four (4) intersectoral management structures, namely:

1. Joint Secretariat for the Management of the Sultanate Strategic Areas (Policy and Decision-Making Level)
2. The Cosmological Axis of Yogyakarta Management Unit (Operational Level)
3. Community Working Groups (Local level)
4. Traditional Management System (*Tata Rakiting Paprentahan* and *Tata Rakiting Wewangunan*)

Yogyakarta World Heritage Management Chart



Note: Not all agencies are shown in this chart. For the complete list members of the structure, see Section 5.e) of the dossier.

Figure 9.1 Yogyakarta World Heritage Management Chart

1. Joint Secretariat for the Management of the Sultanate Strategic Areas

At the decision making and policy level, the Joint Secretariat for the Management of the Sultanate is responsible for the overall strategic management of the property including addressing strategic planning, intersectoral coordination, and addressing any high level issues that may arise. The legal basis for the forum is the Decree of the Governor of DIY No. 43/TIM/2021). The Joint Secretariat is chaired by the Governor (who is also the Sultan of the *Ngayogyakarta Hadiningrat* Kingdom) with an operation team led by the Secretary of Yogyakarta Special Region.

The Joint Secretariat includes all the key government agencies responsible for the intersectoral management, including the Secretary of the Municipality of Yogyakarta, Secretary of the Bantul Regency and the heads of all key agencies including the Public Works Department, Planning and Permits Department, Office of Tourism and representatives of the Sultanate of *Ngayogyakarta Hadiningrat* (Kawedanan Hageng Panitra Pura unit). All policy directives from the Joint Secretariat are disseminated to all agencies in the operational level.

The Director of the Office of Cultural Affairs DIY is key member of the Secretariat and represents the Cosmological Axis of Yogyakarta Management Unit. The Director of the Office of Cultural Affairs raises any issues related to the management of the proposed World Heritage Property with the Joint Secretariat for the Management of the Sultanate Strategic Areas for discussion. Already, this mechanism has been critical for the management of the property and has played an important role in forming the management plan. All the identified factors affecting the property were discussed by the Joint Secretariat, and proposed activities and actions were then included in the Management Plan.

This Joint Secretariat is responsible to do these following tasks:

- › Carrying out the coordination for management planning and budgeting policy for the area.
- › Carrying out coordination for decision making process related to the management of the area and spatial planning.
- › Performing the coordination for the implementation policy of the management of the area.
- › Carrying out monitoring and evaluation for the implementation of the management of the area.

2. The Cosmological Axis of Yogyakarta Management Unit

At the operational level, The Cosmological Axis of Yogyakarta Management Unit was formed in 2021 under the Office of Cultural Affairs DIY as the focal point to coordinate the management of the nominated property. The legal basis for the Management Unit is Regulation of the Governor of DIY No. 35 Year 2019. The Management Unit has a dedicated staff and budget for this work and is responsible for the implementation of the nominated property's Management Plan. The Unit also coordinates all stakeholders and works closely with the Sultanate for the management of the property and coordinates the local Community Working Groups.

This Management Unit is responsible for coordinating the implementation of the Management Plan of the property including the management of all aspects of the property at the policy, planning, and operational level in close coordination with the relevant stakeholders in-charge as well as the Sultanate of Yogyakarta. At the day-to-day operational level, the Management Unit for The Cosmological Axis of Yogyakarta shall work closely with:

1. The Ministry of Education, Culture, Research and Technology through the Institute for Cultural Preservation for Region 10 of Central Java and the Special Region of Yogyakarta (Balai Pelestarian Kebudayaan Wilayah 10, Jawa Tengah dan DIY) for tangible and intangible cultural heritage aspects.
2. The Secretariat of the Government of DIY (as the focal point for the Joint Secretariat for the Management of the Sultanate and Strategic Areas). The Management Unit is represented in the Joint Secretariat by the Director of the Office of Cultural Affairs for DIY.
3. The Advisory Board for Preservation of Cultural Heritage, DIY. This Board plays a key role in advising on conservation policies and management of heritage properties to the Governor, monitoring the implementation of the national and regional heritage law, and assessing applications and giving recommendation for building development and conservation permits in protected areas including the proposed World Heritage property.
4. The Management Office of the Sultanate of *Ngayogyakarta Hadiningrat* (*Kawedanan Hageng Panitra Pura*).
5. Office for Business Service under the Agency of Cooperation and Small and Medium Enterprises Yogyakarta Special Region who is responsible for managing merchants along the Cosmological Axis.
6. General Bureau, Public relations, and Protocol of the Secretary of Yogyakarta Special Region as the caretaker of the Kepatihan Complex.
7. The Office of Industry and Trade of Yogyakarta Municipality, as the responsible agency for the Beringharjo Market.
8. Technical Management Unit of Malioboro Area under the Office of Cultural Affairs of Yogyakarta Municipality (responsible for the Northern Axis).
9. Community working groups.

3. Community Working Groups

The Cosmological Axis of Yogyakarta and Its Historic Landmarks is situated in a dynamic and living historic urban landscape. Community involvement in the management of the property is therefore vital for the long-term sustainability of the OUV, and also to ensure sustainable development at the property.

To address this opportunity and challenge, in 2020 the Office of Cultural Affairs DIY began developing the Community Working Group in the sub-districts of the nominated property. The Technical Working Group were legalized in through the Governor Decree of DIY No. 52/TIM/2021. The Community Working Groups system is based on the model that has been successfully implemented at the Kotagede Cultural Heritage Area since 2012.

The Working Groups include community representatives from each of the sub-districts in the nominated area and buffer zones (over 45 community representatives). Representatives from the Sultanate of *Ngayogyakarta Hadiningrat* and Office of Cultural Properties Preservation (The Ministry of Education, Culture, Research and Technology) are part of the Steering Committee under overall coordination of the overall coordination of the Director for The Cosmological Axis of Yogyakarta Management Unit, who chairs the overall structure.

The Community Working Group members are tasked with supporting the management, protection, development and utilisation of cultural heritage in their respective areas. The roles of the group include:

- › Carrying out coordination and integration of program planning and management activities at the sub-district level in accordance with the management plan
- › Carrying out educational and promotional activities for the wider community in the form of documentation, presentations, outreach, advocacy, publication, and helping to increase community participation in area management.
- › Support in monitoring and evaluation as well as implementation reporting management programs and activities at the sub-district level.
- › Carrying out community empowerment programme, monitoring, utilization, and control of the heritage buildings along the Cosmological Axis.

The Community Working Group group have worked together with The Cosmological Axis of Yogyakarta Management Unit in organizing a dissemination and consultation events with regards to the World Heritage nomination plan and process for the community. In this event the participants discussed the significance of the nominated property, its attribute, possible future threats, and action plans. There were 44 meetings in total that took place in each sub-district along the Cosmological Axis. The outputs was used to inform the overall Management Plan for the property and also the ten (10) Conservation Management Plans being developed for attributes of the nominated property.

4. Traditional Management System

The Sultanate of the *Ngayogyakarta Hadiningrat* implements the *Tata Rakiting Wewangunan* traditional management system on a daily basis through an administrative structure called *Tata Rakiting Paprentahan*. The *Tata Rakiting Paprentahan* consists of 4 (four) main units run by the *Abdi Dalem* (Royal Courtiers). The Kraton is managed under this system. Representatives of the Sultanate of the *Ngayogyakarta Hadiningrat* work closely with counterparts in the Cosmological Axis of Yogyakarta Management Unit, and are also part of the Joint Secretariat for the Management of the Sultanate and Community Working Group structures.

The *Tata Rakiting Wewangunan* is a series of concepts related to spatial planning, buildings, decoration, vegetation, as well as the function and use of space or the buildings of the Kraton. . This traditional system arranges not only the tangible aspects such as the design, construction, and maintenance of

royal buildings and structures, but also the associated rituals, ceremonies and other living traditions performed at the royal buildings and structures.. Overall, the system ensures that the processes, relationships and dynamic functions essential to the distinctive character of the Kraton are maintained and passed to future generations.

Tata Rakiting Paprentahan is the administrative system of the Sultanate of the *Ngayogyakarta Hadiningrat* that implements the *Tata Rakiting Wewangunan* on a daily basis. The *Tata Rakiting Paprentahan* is led by the Sultan himself, and consists of four (4) units. Figure 5.3 provides an overview of the different units and their responsibilities in the structure. The units assigned by *Abdi Dalem* in the Kraton are traditional institutions that have been operating since the early days of the Sultanate. During the current reign of Sri Sultan Hamengku Buwono X, there are two additional units, namely *Tepas Purwo Aji Laksono* and *Tepas Tandha Yekti*. The first one is responsible for Sri Sultan's internal households at the Kraton Kilen, while the second one is responsible for managing documentation and IT so that traditions can adapt to the modern times.

TATA RAKITING PAPRENTAHAN

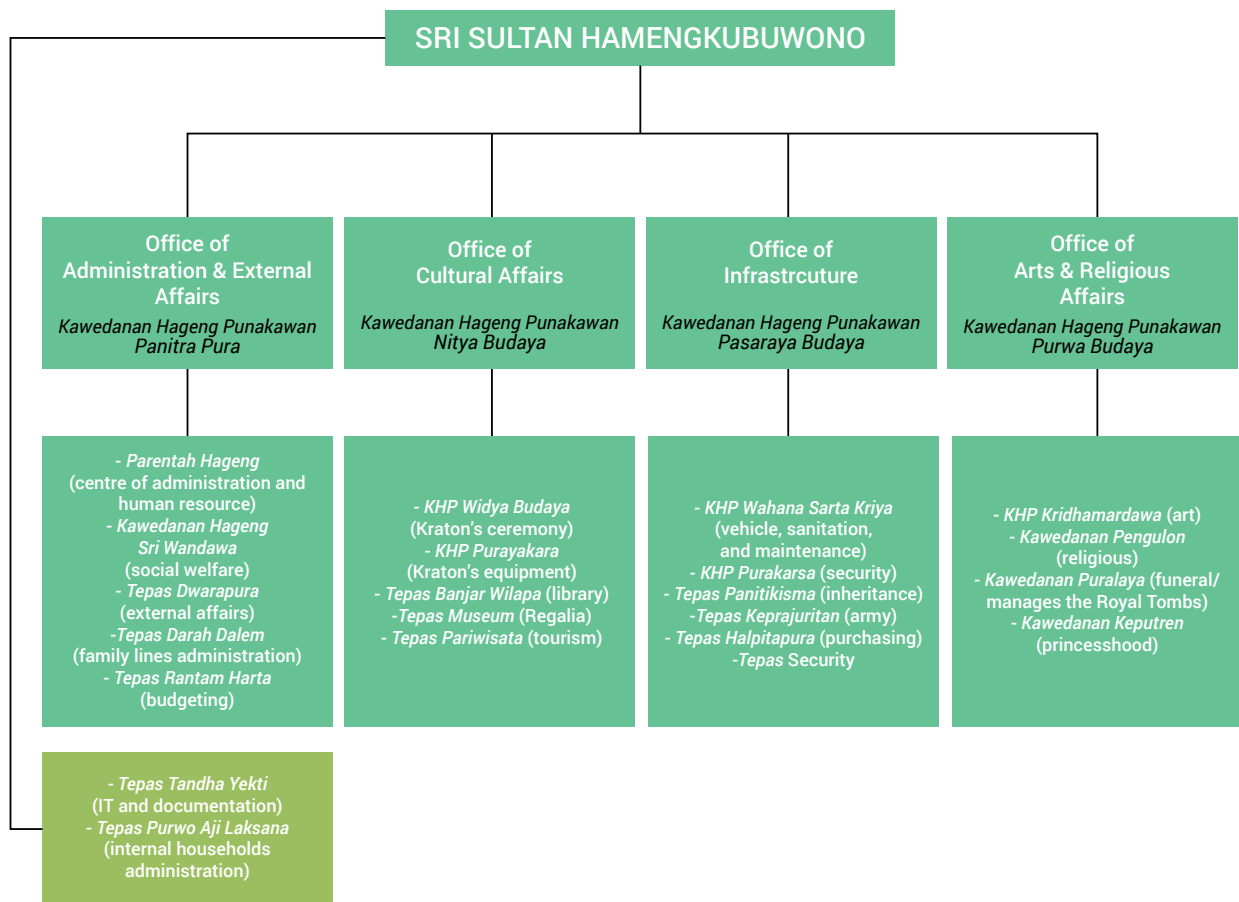


Figure 9.3 Chart showing of the different units and their responsibilities in the Kraton administrative structure

Within the structure of *Abdi Dalem* in the Kraton, the Sultan is assisted by four *Kawedanan Hageng* or a large ministry-level institution that manages smaller units called *Kawedanan* or *Tepas*. The four major institution are:

1. *Kawedanan Hageng Punakawan Parwa Budaya*: manages the core of the Kraton culture, arts and religious affairs. The units within this large institution include *Pengulon* who is responsible for Islamic religious affairs, and *Kridhamardawa* who is in charge of Javanese cultural arts activities;
2. *Kawedanan Hageng Punakawan Nitya Budaya*: supports the core culture activities. The units under this institution are, among others, responsible for the implementation of traditional ceremonies, libraries, literature, museums, and tourism;
3. *Kawedanan Hageng Punakawan Parasraya Budaya*: responsible for infrastructure affairs; and
4. *Kawedanan Hageng Panitra Pura*: responsible for administrative and external affairs.

At the Kraton Yogyakarta there is a sub-unit responsible for the maintenance of the Great Mosque. This sub-unit is called Puralaya Regency (Kabupaten Puralaya) which is managed under the unit of Kawedanan Pengulon. Kawedanan Pengulon is the unit in charge of Islamic religious symbols outside the Kraton walls. In addition, Pengulon is also responsible for managing the mosques of the Yogyakarta Sultanate (Kagungan Dalem), tombs located in the area of the Kagungan Dalem Mosque, and tombs associated with the Sultanate of Yogyakarta.

For the conservation work, both units will coordinate with Kawedanan Hageng Panitra Pura, specifically the *Parentah Ageng* or administrative centre who manages external affairs including communicating -among others- the state of conservation of the palace assets and any proposal for maintenance/conservation plans with the Office of Cultural Affairs DIY who holds the authority of disbursing the Special Funds (*Dana Keistimewaan*) for larger scale conservation work.

The Management Unit for *The Cosmological Axis of Yogyakarta and Its Historic Landmarks* works closely with the Management Office of the Sultanate of Yogyakarta (Kawedanan Hageng Panitra Pura) Karaton *Ngayogyakarta Hadiningrat* and, supports the Sultanate with the technical conservation of buildings and sites, ensuring balance between traditional and contemporary conservation management practices.

9.2. Heritage Impact Assessment (HIA)

Current system for managing change in the nominated area, buffer zone and wider setting

- › A system has been in place for the development control in the area of the nominated property, buffer zone and wider setting since 2012.
- › Under this system, the Provincial Government of Yogyakarta Special Region formed a Council of Heritage Experts (DP2WB) that is responsible to assess and give recommendation on the construction of new buildings in Cultural Heritage Areas (Kawasan Cagar Budaya) in the province (Conservation Area and under Decree of the Governor of Special Region of Yogyakarta).
- › The review of the DP2WB is a prerequisite for the building approval process.
- › The nominated area, buffer zone, and wider setting of the property is covered by this mechanism.
- › The DP2WB process is managed by a dedicated secretariate under the Office of Cultural Affairs of Yogyakarta, that coordinate closely with the Cosmological Access of Yogyakarta Management (also under the Office of Cultural Affairs of Yogyakarta).

Strengthening the system to include Heritage Impact Assessments

- › Recognizing the need to strengthen this system to meet the Heritage Impact Assessment (HIA) requirements as outlined in the ICOMOS Guidance on Heritage Impact Assessment for Cultural World Heritage Properties, the DIY Government has taken a number of steps.

- › **Firstly**, over 2021, the Office of Cultural Affairs Yogyakarta commissioned the development of the Heritage Impact Assessment Guidelines for the Special Region of Yogyakarta. These guidelines were developed by cultural heritage experts with extensive knowable and experience of the HIA process. ICOMOS Guidance on Heritage Impact Assessment for Cultural World Heritage Properties was the key reference document for developing the guidelines. Note: The guidelines are in Indonesian, however, they are being translated and will available in English by July 2022. A summary of the key aspects and approach of the HIA Guidelines is given in Appendix 7.
- › **Secondly**, the heritage impact assessment process has operated at the nominated property since 2012 and has been further strengthened through the regional law and guidelines on Heritage Impact Assessments which was legally adopted in 2022.¹
- › **Thirdly**, the Office for Cultural Affairs collaborated with the UNESCO Office in Jakarta to hold a joint training on HIA from 22 – 26 November 2021. The training targeted 30 key officials involved in the cultural heritage planning and permits process, including from the Public Works Department, Spatial Planning, Permits Office, Investment and Regional Planning, Sultanate of Yogyakarta planning section. The training covered these following topics:
 - Introduction to World Heritage Convention and its mechanism;
 - National and regional policy for assessing impacts on heritage properties;
 - Identifying OUV and attributes;
 - Introduction to Historic Urban Landscape and its integration and implementation to regional planning.
 - Introduction to HIA process and methodology

9.3. Staffing and finance

As a consequence of the National Law No. 12 of 2012 concerning Exclusive Rights for the Government of the Province of the Special Region of Yogyakarta, the Central Government provide extra budgetary fund to the Government of the Province of Special Region of Yogyakarta to implement the law. Under this mechanism, the Cosmological Axis of Yogyakarta has a dedicated staff and budget to facilitate the implementation of the Management Plan of the property including management all aspects of the property at the policy, planning, and operational level.

¹ https://www.jogjaworldheritage.com/files/ugd/4d2058_6338095f89df4b77b114e35f81188b04.pdf

APPENDICES

APPENDICES

- Appendix 1. A full list of attributes/groups of attributes and, inventory numbers showing each attribute*
- Appendix 2. Detailed maps showing attributes in each complex*
- Appendix 3. Indicative list of ICH at the property*
- Appendix 4. A table summarises the integrity for each attribute of the property*
- Appendix 5. A table summarises the authenticity for each attribute of the property*
- Appendix 6. A full list of the protective designations and function*
- Appendix 7. Summary of HIA Guidelines for the Special Region of Yogyakarta*
- Appendix 8. Traditional Management System: Tata Rakiting Wewangunan at the Kraton Yogyakarta*

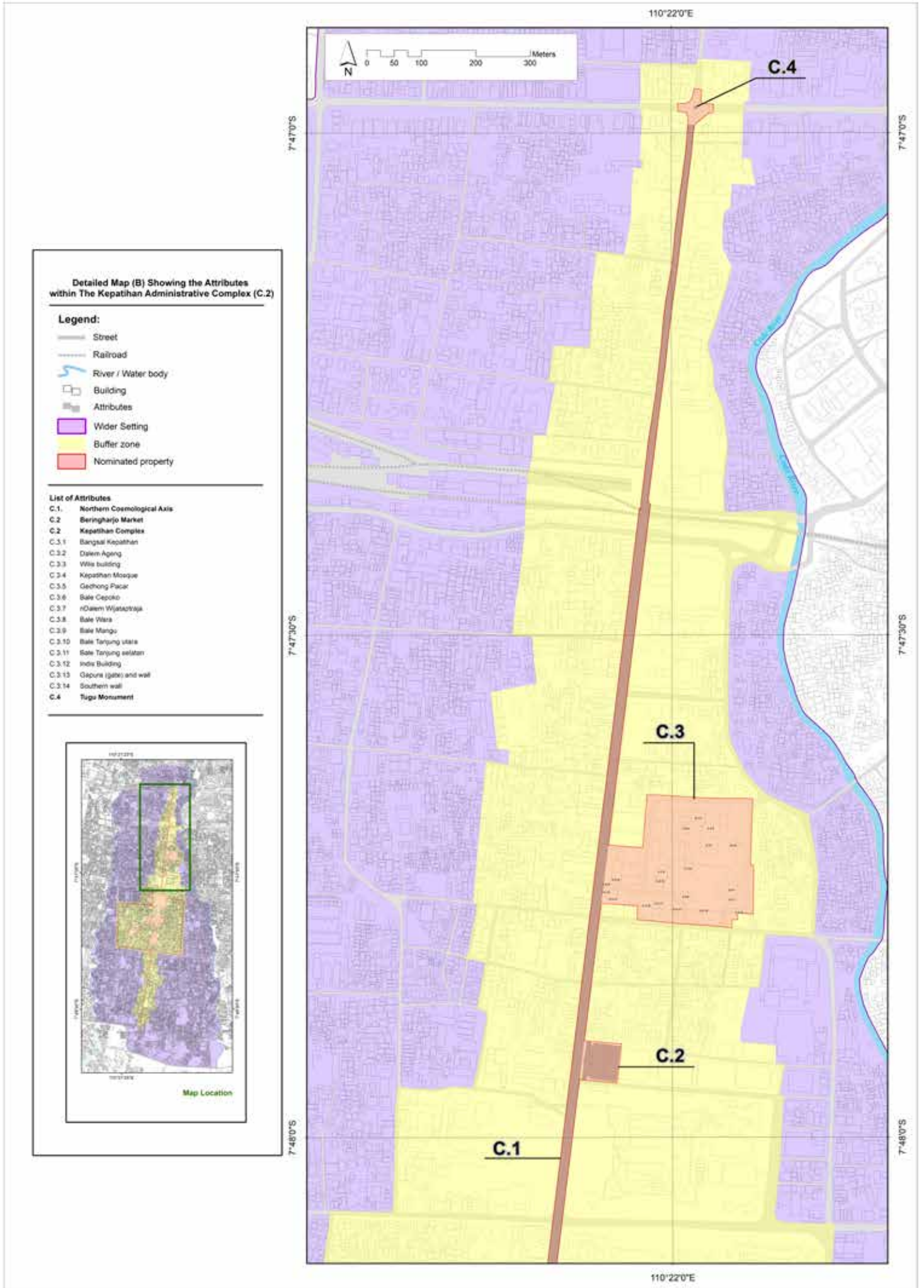
Appendix 1. A full list of attributes/groups of attributes and inventory numbers

Attribute #	Attribute ID	Attribute name	Type
1	A.1	Panggung Krapyak Monument	Attribute
2	A.2	Southern Cosmological Axis	Attribute
-	B.1	Outer Walls, Gates and Fortifications	Complex
3	B.1.1	Plengkung Nirbaya South Gate	Attribute
4	B.1.2	Plengkung Jagabaya West Gate	Attribute
5	B.1.3	Plengkung Jagasura Northwest Gate	Attribute
6	B.1.4	Plengkung Tarunasura Northeast Gate	Attribute
7	B.1.5	Bastions	Attribute
8	B.1.6	Outer Walls of the fort	Attribute
9	B.1.7	Gates between the Royal Stables and Carriage complex and the Kraton	Attribute
10	B.1.8	Northern gates	Complex
-	B.2	Inner Complex of the Palace and Its Squares	Attribute
11	B.2.1	Royal Stables and Carriage Complex	Attribute
12	B.2.2	Alun-Alun Lor (Northern Square) including two beringan trees	Attribute
13	B.2.3	Bangsai Pekapalan (3 buildings)	Attribute
14	B.2.4	Kandhang Sima	Attribute
15	B.2.5	Bangsai Pemandangan (2 buildings)	Attribute
16	B.2.6	Tratag Pagelaran	Attribute
17	B.2.7	Bangsai Pengapit	Attribute
18	B.2.8	Bangsai Pengrawit	Attribute
19	B.2.9	Bangsai Pacikeran	Attribute
20	B.2.10	Tarub Agung	Attribute
21	B.2.11	Bangsai Pecaosan Gandhek	Attribute
22	B.2.12	Tratag Sitinggil	Attribute
23	B.2.13	Bangsai Witana	Attribute
24	B.2.14	Bale Bang	Attribute
25	B.2.15	Bale Angun-Angun	Attribute
26	B.2.16	Gedhong UGM (2 buildings)	Attribute
27	B.2.17	Regol Brajanala	Attribute
28	B.2.18	Dragunder	Attribute
29	B.2.19	Bangsai Pancaniti	Attribute
30	B.2.20	Bale Antiwahana	Attribute
31	B.2.21	Pecaosan (1)	Attribute
32	B.2.22	Regol Srimanganti	Attribute
33	B.2.23	Pecaosan (2)	Attribute
34	B.2.24	Bangsai Srimanganti	Attribute
35	B.2.25	Bangsai Trajumas	Attribute
36	B.2.26	Kantor Parentah Ageng	Attribute
37	B.2.27	Regol Danapertapa (Danapertapa Gate)	Attribute
38	B.2.28	Bangsai Prabayeksa	Attribute
39	B.2.29	Tratag Prabayeksa	Attribute
40	B.2.30	Bangsai Kencana	Attribute
41	B.2.31	Tratag Bangsal Kencana	Attribute
42	B.2.32	Bangsai Manis	Attribute
43	B.2.33	Gedhong Jene	Attribute
44	B.2.34	Gedhong Trajutrisna	Attribute
45	B.2.35	Gedhong Purwarukma/ Pantisumbaga	Attribute
46	B.2.36	Bangsai Kothak	Attribute
47	B.2.37	Bangsai Mandhalasana	Attribute
48	B.2.38	Gedhong Parentah Luhur	Attribute
49	B.2.39	Gedhong Patehan	Attribute
50	B.2.40	Gedhong Danartapura	Attribute
51	B.2.41	Gedhong Sarengbaya	Attribute
52	B.2.42	Gedhong Gangsa Kidul (Southern Gedhong Gangsa)	Attribute
53	B.2.43	Regol Gapura (Gapura Gate)	Attribute
54	B.2.44	Gedhong Gangsa Lor (Northern Gedhong Gangsa)	Attribute
55	B.2.45	Regol Kemagangan (Apprenticeship workshop Gate)	Attribute
56	B.2.46	Gedhong Sedhahan	Attribute
57	B.2.47	Mbabrik	Attribute
58	B.2.48	Regol Manikantaya	Attribute
59	B.2.49	Bangsai Pengapit (2)	Attribute
60	B.2.50	Bangsai Sekarkedhaton	Attribute
61	B.2.51	Dalem Klangeran	Attribute
62	B.2.52	Langgar Keputren	Attribute

63	B.2.53	Dalem Garwa	Attribute
64	B.2.54	Dalem Putra	Attribute
65	B.2.55	Bangsai Abrit	Attribute
66	B.2.56	Gedhong Inggil	Attribute
67	B.2.57	Langgar Panepen	Attribute
68	B.2.58	Gedhogan	Attribute
69	B.2.59	Kedhaton Kilen (Western Kedhaton)	Attribute
70	B.2.60	Pawon Prabeya	Attribute
71	B.2.61	Indrancana	Attribute
72	B.2.62	Bangsai Tamanan	Attribute
73	B.2.63	Bangsai Madukara	Attribute
74	B.2.64	Pecaosan (3)	Attribute
75	B.2.65	Museum Hamengkubuwana IX	Attribute
76	B.2.66	Gudhang Purayakara	Attribute
77	B.2.67	Bekas Gedhogan	Attribute
78	B.2.68	Gedhong Kapa	Attribute
79	B.2.69	Kawedanan Kori	Attribute
80	B.2.70	Putra Dalem	Attribute
81	B.2.71	Sri Katong	Attribute
82	B.2.72	Purwarukma	Attribute
83	B.2.73	Dalem Kasatrian	Attribute
84	B.2.74	Bangsai Kasatrian	Attribute
85	B.2.75	Gedhong Pringgadani	Attribute
86	B.2.76	Kedhaton Wetan (Eastern Kedhaton)	Attribute
87	B.2.77	Bangsai Kemagangan (Apprenticeship workshop)	Attribute
88	B.2.78	Pecaosan (2 buildings)	Attribute
89	B.2.79	Omah Gunungan (Panti Pareden)	Attribute
90	B.2.80	Pangongan passage	Attribute
91	B.2.81	Regol Gadhungmlathi	Attribute
92	B.2.82	Pecaosan (2 buildings)	Attribute
93	B.2.83	Bangsai Kemandhungan (Bangsai Kemandhungan)	Attribute
94	B.2.84	Regol Kemandhungan (Kemandhungan Gate)	Attribute
95	B.2.85	Sithinggil Kidul (Southern Sithinggil)	Attribute
96	B.2.86	Kandhang Gadjah (Elephant Cage)	Attribute
97	B.2.87	Pagelaran and Sithinggil Lor Courtyard (Northern Pagelaran and Sithinggil Courtyards)	Attribute
98	B.2.88	Kamandungan Lor Courtyard (Northern Kamandungan Courtyard)	Attribute
99	B.2.89	Srimanganti Courtyard	Attribute
100	B.2.90	Kedhaton Courtyard	Attribute
101	B.2.91	Kemagangan Courtyard	Attribute
102	B.2.92	Kamandungan Kidul Courtyard (Southern Kamandungan Courtyard)	Attribute
103	B.2.93	Sithinggil Kidul Courtyard (Southern Sithinggil courtyard)	Attribute
104	B.2.94	Kraton Kilen Complex walls	Attribute
105	B.2.95	Alun-Alun Kidul (Southern Square) walls	Attribute
106	B.2.96	Alun-Alun Kidul (Southern Square) including two beringan trees	Attribute
107	B.2.97	Bangsai Manguntur Tangkil	Attribute
-	B.3	Tamansari Royal Garden Complex	Complex
108	1.B.3.1	Great Gate	Attribute
109	1.B.3.2	Umbul Binangun Bathing Complex	Attribute
110	1.B.3.3	Sumur Gumuling Underground Mosque	Attribute
111	1.B.3.4	Pulo Kenanga (Main Building)	Attribute
112	1.B.3.5	Lorong Bawah Tanah/Air (urung-urung)	Attribute
113	1.B.3.6	Pulo Panembung	Attribute
114	1.B.3.7	Gapura Panggung	Attribute
115	1.B.3.8	Wall to the Gedhong Lopak-Lopak	Attribute
116	1.B.3.9	Gedhong Sekawancomplex (Gedhong Keparak Patedak Lebet)	Attribute
117	1.B.3.10	Gedhong Temanten (Gedhong Piket Keparak Patedak Jawi)	Attribute
118	1.B.3.11	Ledoksari complex	Attribute
119	1.B.3.12	Walls connecting the Tamansari and Kraton complexes	Attribute
-	B.4	Great Mosque Complex	Complex
120	B.4.1	Great Mosque, porch (<i>serambi</i>) and moat.	Attribute
121	B.4.2	Pagongan Gamelan Buildings (two buildings)	Attribute
122	B.4.3	Pangulon Priest House (nDalem Pengulon)	Attribute
123	B.4.4	Mimbar and Maksurah	Attribute
124	B.4.5	Pajagan buidings (two buildings)	Attribute
125	B.4.6	Regol dan Pagar	Attribute

126	B.4.7	Cemetery	Attribute
127	B.4.8	Pawestren and Pabongan	Attribute
128	C.1	Northern Cosmological Axis	Attribute
129	C.2	Beringharjo Market	Attribute
-	C.3	Kepatihan Complex	Complex
130	C.3.1	Bangsai Kepatihan	Attribute
131	C.3.2	Dalem Ageng	Attribute
132	C.3.3	Wilis building	Attribute
133	C.3.4	Kepatihan Mosque	Attribute
134	C.3.5	Gedhong Pacar	Attribute
135	C.3.6	Bale Cepoko;	Attribute
136	C.3.7	nDalem Wijataprja	Attribute
137	C.3.8	Bale Wara	Attribute
138	C.3.9	Bale Mangu	Attribute
139	C.3.10	Bale Tanjung utara	Attribute
140	C.3.11	Bale Tanjung selatan	Attribute
141	C.3.12	Indis Building	Attribute
142	C.3.13	Gapura (gate) and wall	Attribute
143	C.3.14	Southern wall	Attribute
144	C.4	Tugu Monument	Attribute

3(b) Detailed Map (B) Showing the Attributes within the Kepatihan Administrative Complex (C.2)



Appendix 3. Indicative ICH at the property (i).

Name of the ICH element	Description	Location where the ICH takes place
Rituals and ceremonies		
<i>Labuhan</i>	The <i>Labuhan</i> ceremonies mark the commemoration of the ascension to the throne of the ruling Sultan (Tingalan Jumenengan Dalem). Offerings are prepared in the inner Kraton Complex and taken to significance places to the Sultanate, including Mount Merapi volcano and the Indian Ocean, the reference points for the Cosmological Axis. <i>Labuhan</i> offerings are also made in other significant events, for example for the eruption of Mount Merapi or before the performance of sacred dances. The ceremony is a symbolic way of preserving connection between the macro and micro worlds, and Human beings, God and Nature (the <i>Hamemayu Hayuning Bawono</i> concept).	<ul style="list-style-type: none"> • Along the cosmological axis; • Offerings are prepared in the inner Kraton Complex (B.2) and taken symbolically in a procession along the northern and southern axis of the nominated to the Indian Ocean (Parangkusumo Beach), Merapi Volcano, Lawu Volcano and Dlepih Forest in Wonogiri (located outside the nominated property).
<i>Tata Cara Palakrama</i>	The royal wedding ceremonies are an important occasion for the Sultanate. The preparation for the ceremony takes place in the Kraton while the ceremony itself is at the Kepatihan Complex. The journey from the Palace to Kepatihan is carried out in a carnival that passes through the Alun-Alun Utara, Pangurakan, and Maliboro Street along the Northern Cosmological Axis.	<ul style="list-style-type: none"> • Northern Cosmological Axis (C.1); • Inner Kraton complex (B.2) including: <ul style="list-style-type: none"> - Kedhaton Kilen (Western Kedhaton (B.2.59)); - Bangsal Kencana (B.2.30); - Bangsal Kasatriyan (B.2.74); - Alun-Alun Lor (Northern Square (B.2.2)); • Kepatihan Complex (C.3).
Funeral rituals	The Southern Axis still used as part of the funeral rituals of the Sultans, whose bodies are taken from Kraton through the Alun-Alun Kidul, through the Southern Gate, along the Southern Cosmological Axis to the <i>Ngayogyakarta Hadiningrat</i> Royal Tombs Complex, a journey symbolizing the return to the Creator.	<ul style="list-style-type: none"> • Southern Cosmological Axis; • Alun-Alun Kidul (Southern Square (B.2.96)); • Plengkung Nirbaya (South Gate (B.1.1)); • Southern Cosmological Axis (A.2).
<i>Garebeg</i>	<i>Garebeg</i> is a traditional ceremony that has been performed by the Sultanate of <i>Ngayogyakarta Hadiningrat</i> since 1755. The Sultanate organizes <i>Garebeg</i> ceremonies three times a year, in order to welcome Idul Fitri (<i>Garebeg Sawa</i>), Idhul Adha (<i>Gerebeg Besar</i>), and the Prophet's Birthday (<i>Garebeg Mulud</i>). The meaning of the ceremonies relate to the cycle of life (<i>Sangkan Paraning Dumadi</i>) and unity between man and God/King with his people (<i>Manunggaling Kawula Gusti</i>).	<ul style="list-style-type: none"> • Inner Kraton complex (B.2); • Bangsal Kemagangan (B.2.77); • Alun-Alun Lor (Northern Square (B.2.2)); • Alun-Alun Kidul (Southern Square (B.2.96)); • Great Mosque Complex (B.4); • Kepatihan Complex (C.3); • Puro Pakualaman (outside the nominated property).

Appendix 3. Indicative ICH at the property (ii).

Name of the ICH element	Description	Location where the ICH takes place
<i>Sesaji</i>	The activity of preparing offerings always takes place at the Yogyakarta Palace. Every Monday and Thursday there are offerings prepared for certain places, or on certain heirlooms. For example, offerings for the Kanjeng Kyai Ageng heirloom, the horse-drawn carriage Kanjeng Nyai Jimat, and also in certain places such as the doors/Regol. There are offerings that must be prepared before the ceremony, including in the process renovation of the building. There are also offerings for specific places such as the Banyan Tree in Northern Alun-Alun.	<ul style="list-style-type: none"> • Across the property and wider parts of Yogyakarta; • Panggung Krapyak Monument (A.1); • Southern Cosmological Axis (A.2); • Outer Walls, Gates and Fortifications (B.1); • Inner Complex of the Palace and Its Squares (B.2); • Tamansari Royal Garden Complex (B.3); • Northern Cosmological Axis (C.1); • Tugu Monument (C.4).
<i>Sekaten</i>	Sekaten dates back to the Demak Kingdom at the beginning of the 16th century and relates to coming of Islam to Java and adoption by the Mataram Kingdoms. The ceremony take place at the Kraton and the Great Mosque and involves series of ceremonies, prayer readings and gamelan performances. It is a mixture of Islamic, Hindu, and Javanese traditions. This ceremony can be understood as an interchange of values.	<ul style="list-style-type: none"> • Bangsal Srimanganti (B.2.24); • Kamandungan Lor Courtyard (B.2.88); • Pagelaran and Sitinggil Lor Courtyard (B.2.87); • Alun-Alun Lor (Northern Square) B.2.2; • Pagongan Gamelan Buildings (within the Great Mosque complex (B.4.2)).
<i>Mubeng Benteng</i>	The <i>Mubeng Benteng</i> is performed by <i>Abdi Dalem</i> and local community on Javanese New Year's Eve. The ceremony involves circling the 5km walls of the palace in silence. The ceremony is most likely influenced by Tawaf (Islam) and Pradaksina (Hindu-Buddhism). As part of the ceremony, people are encouraged to reflect and offer prayers for the year ahead.	<ul style="list-style-type: none"> • Kamandungan Lor Courtyard (B.2.88); • Outer Walls, Gates and Fortifications (B.1).
<i>Peksi Burak</i>	In commemoration of the events of <i>Isra</i> and <i>Mi'raj</i> (the spiritual journey that Mohammad is believed to have taken), the Sultanate of <i>Ngayogyakarta Hadiningrat</i> hold the <i>Hajad Dalem Yasa Peksi Burak</i> ceremony. <i>Yasa</i> means to make or hold, while <i>Peksi</i> means bird. <i>Burak</i> is a Buraq, a creature believed to be a prophet's vehicle when performing <i>Isra 'Mi'raj</i> . The ceremony combines Islamic, Javanese and Hindu traditions.	<ul style="list-style-type: none"> • Langgar Keputren (B.2.52); • Great Mosque Complex (B.4).

Appendix 3. Indicative ICH at the property (iii).

Name of the ICH element	Description	Location where the ICH takes place
<i>Malem Selikuran</i>	<p>Every month of fasting or Ramadan, the Sultanate of <i>Ngayogyakarta Hadiningrat</i> holds the <i>Malem Selikur</i> ceremony to welcome the night of <i>Laylat al-Qadr</i> (The Night of Power –is considered to be the Holiest night in the Islamic calendar). The ceremony includes prayer recitals in the Srimanganti building. After maghrib (sunset), <i>Abdi Dalem</i> Keparak will light candles at each of the Palace doors.</p> <p>This tradition is also carried out by many Javanese people with intention to make the entrance to the house clear. Many people believe that when the gates of heaven are opened during important nights during Ramadan, the ancestors will return to see their offspring who still live in their respective homes.</p>	<ul style="list-style-type: none"> • Bangsal Srimanganti (B.2.24); • Kedhaton (B.2.20); • Kedhaton Kilen (Western Kedhaton) (B.2.59); • Langgar Keputren (B.2.52).
<i>Kuthomoro</i>	<p>The Yogyakarta palace hold the <i>Hajad Dalem Kuthomoro</i> in every Ruwah month, based on Javanese Calendar. This ceremony aims to send prayers/offerings to the ancestors of the Sultanate of <i>Ngayogyakarta Hadiningrat</i> who are buried in the Royal Tombs. This practice has also been adopted by the wider Javanese society with flower petals taken to the graves of ancestors/loved ones.</p>	<ul style="list-style-type: none"> • Langgar Keputren (B.2.52); • Gedhong Prabayeksa (B.2.2); • Pangulon Priest House (nDalem Pengulon (B.4.3) within the Great Mosque complex.
<i>Ngabekten</i>	<p>In this ceremony Royal Courtiers and the wider Royal Family pay respect to the Sultan. The location of the activity was also carried out in the core buildings of the Kraton.</p>	<ul style="list-style-type: none"> • Kedhaton (B.2.20) • Kedhaton Kilen (Western Kedhaton) (B.2.59)
<i>Jamasan Pusaka</i>	<p><i>Jamasan Pusaka</i>, or also known as <i>Siraman Pusaka</i>, is a routine ceremony carried out by the Sultate of <i>Ngayogyakarta Hadiningrat</i>. The word “<i>siraman</i>” or “<i>jamasan</i>” comes from Javanese, which means to bathe or clean. This ceremony was held in order to clean the heirlooms belonging to the Sultanate. <i>Jamasan Pusaka</i>, or the procession of cleaning palace heirlooms, is held every Tuesday in first month of the Javanese calendar.</p>	<ul style="list-style-type: none"> • Kedhaton (B.2.20) • Royal Stables and Carriage Complex (B.2.1)
<i>Ladosan Dhahar and Pangujukan (Patehan) Dalem</i>	<p><i>Ladosan Dhahar Dalem</i> and <i>Pangujukan</i> refers to the ceremonial preparation of food and drinks for Sultan which is conducted every day.</p>	<ul style="list-style-type: none"> • Gedhong Patehan (B.2.39). Pawon Prabeya (B.2.60); • Bangsal Prabayeksa (B.2.2); • Kedhaton Kilen (Western Kedhaton) (B.2.59).

Appendix 3. Indicative ICH at the property (iv).

Name of the ICH element	Description	Location where the ICH takes place
Arts, crafts and traditional cloth		
<i>Lurik Yogyakarta</i>	<i>Lurik</i> (woven cloth) is the everyday attire of the <i>Abdi Dalem</i> . Since batik was originally worn by the elite, <i>Lurik</i> then worn by traditional Javanese society and can also be seen outside the Palace. The cloth is sold at the Beringharjo Market (C.2) which is one of the centres of trade of the cloth in Yogyakarta. There are still many places that practice the traditional weaving process of <i>Lurik</i> which is passed down from generation to generation.	<ul style="list-style-type: none"> The royal courtiers must wear this when they enter the Inner Kraton complex (B.2).
<i>Blangkon Yogyakarta</i>	<i>Blangkon</i> is a headdress worn by male <i>Abdi Dalem</i> . Male members of the royal family wear this for important events. The wider society wear this headdress on important occasions such as weddings.	<ul style="list-style-type: none"> The male royal courtiers must wear this headdress when they enter the Inner Kraton complex (B.2).
<i>Batik Nitik Yogyakarta</i>	<i>Nitik batik</i> motifs are derived from Patola woven fabric motifs. In Yogyakarta, <i>Nitik</i> motifs were adopted into batik designs. <i>Batik Nitik</i> is especially used in certain ceremonies such as <i>Siraman</i> or the seventh month of pregnancy (<i>Mitoni</i>). In addition, Beringharjo Market is the biggest batik trade center that also preserves the existence of batik, including <i>Nitik</i> motifs. There are several traditional batik making workshops in and around the property. Knowledge of batik production, and appropriate use of the motifs, is passed from generation to generation.	<ul style="list-style-type: none"> Inner Kraton complex (B.2); Beringharjo Market (C.2).
<i>Macapatan Gaya Yogyakarta</i>	<i>Macapatan</i> is a combination of (chanting <i>Macapat</i>), to read Hindu influenced books (<i>Mahabrata</i> and <i>Ramayana</i>) which are carried out during the fasting month and Islamic holidays. <i>Macapatan</i> is performed in the core area of the Palace (<i>Kedhaton</i>) in the <i>Sri Manganti</i> , and <i>Kamandungan Lor</i> buildings. <i>Macapatan</i> also takes place in the <i>Bangsalsri Manganti</i> every Friday due to tradition of not performing the Palace gamelan on same the day as Islamic Friday prayer service.	<ul style="list-style-type: none"> <i>Bangsalsri Manganti</i> (B.2.30); <i>Bangsalsri Manganti</i> (B.2.24).
<i>Tatah Sungging Yogyakarta</i>	<i>Tatah Sungging</i> is a traditional craft mainly in making wayang. The technique of making decorative shapes with leather media is called <i>tatah</i> , while the colouring technique is called <i>sungging</i> . In the the Sultanate of <i>Ngayogyakarta Hadiningrat</i> , this colouring art developed not only for puppets but also to decorate other ornaments, including in various decorative buildings.	<ul style="list-style-type: none"> Inner Kraton complex (B.2) and wider Yogyakarta/Central Java.

Appendix 3. Indicative ICH at the property (v).

Name of the ICH element	Description	Location where the ICH takes place
Performing arts		
<p><i>Wayang Wong</i> Gaya Yogyakarta</p>	<p><i>Wayang Wong</i> is considered the highest dance-drama in Javanese Culture. <i>Wayang Wong</i> is performed by dancers (as opposed to <i>Wayang</i> which uses puppets) and includes dialogue in the form of prose. In the past, <i>Wayang Wong</i> performances could only be done in the Palace. There are various versions of plays that originate from the Mahabarata and Ramayana stories. Performances in the Kraton take place in the inner complex of the Kraton at Bangsal Kencana as well as other locations in the palace such as the Bangsal Sri Manganti and Bangsal Pagelaran.</p>	<ul style="list-style-type: none"> • Bangsal Kencana (B.2.30); • Bangsal Srimanganti (B.2.24); • Trtag Pagelaran (B.2.6).
<p><i>Topeng Panji</i> Yogyakarta</p>	<p><i>Panji</i> is a mask art originating from literary works that developed in the Kediri era (13th century) in East Java. The <i>Panji</i> story is written in a script and embodied in the art form of <i>Wayang Gedhog</i>. The story of this dance performance uses masks in various characters and is performed in the Kraton and more widely in Yogyakarta.</p>	<ul style="list-style-type: none"> • Inner Kraton complex (B.2) and wider Yogyakarta/Central Java.
<p><i>Royal court dances</i></p>	<p>There are ten main dances that have developed in the Sultanate of <i>Ngayogyakarta Hadiningrat</i>. These dances are a form of composition for male and female dances. These dances are royal works of art that come from compositions and references to the reign of every Sultan. The names of dances are listed below:</p> <ol style="list-style-type: none"> 1. Golek Menak; 2. Srimpi Rangka Janur; 3. Bedhaya Kuwung-Kuwung; 4. Beksan Guntur Segara; 5. Beksan Bugis Gaya Yogyakarta; 6. Golek Lambangsari; 7. Beksan Etheng; 8. Beksan Jebeng; 9. Srimpi Renggawati; 10. Srimpi Teja. 	<ul style="list-style-type: none"> • Inner Kraton complex (B.2).

Appendix 3. Indicative ICH at the property (vi).

Name of the ICH element	Description	Location where the ICH takes place
<i>Bedhaya Semang</i>	<i>Bedhaya Semang</i> is the most sacred dance to the Sultanate of <i>Ngayogyakarta Hadiningrat</i> and is only performed on special occasions (two times in the last 100 years). It is believed to be the work of Sultan Agung in the Mataram era. Before holding a <i>Bedhaya</i> Dance performance, the nine dancers and representatives must give offerings (Caos Dhahar) at the Parangkusumo Beach (southern orientation point of the cosmological axis) and Mount Merapi (northern orientation point), which are believed to be the home of the mystical spirits. There are only nine dancers, as the tenth dancer is believed to be the mythical Queen of the Southern Sea (Nyai Roro Kidul) who will join the dance.	<ul style="list-style-type: none"> • Bangsal Kencana (B.2.30).
<i>Lawung Ageng</i>	<i>Lawung Ageng</i> is another important dance for the Sultanate of <i>Ngayogyakarta Hadiningrat</i> . This dance portrayed the bravery of palace warriors in practicing <i>Watangan</i> (an agility exercise in riding a horse and using a spear). <i>Watangan</i> is very popular during the reign of Sri Sultan Hamengku Buwono I.	<ul style="list-style-type: none"> • Bangsal Kencana (B.2.30); • Bangsal Kepatihan (C.3.1).
Traditional transportation		
<i>Andong Yogyakarta</i>	<i>Andong</i> , traditional transportation pulled by a horse, is a form of a horse-drawn carriage. While horse-drawn carriage is widely used by the nobles, <i>Andong</i> is used by the public. The <i>Andong</i> is still a traditional form of transport used along the Northern Axis of the property.	<ul style="list-style-type: none"> • Northern Cosmological Axis (C.1).

Appendix 4. A table summarises the integrity for each attribute of the property (i).

<i>The Cosmological Axis of Yogyakarta and Its Historic Landmarks</i>		
ID	ATTRIBUTE/ GROUP OF ATTRIBUTES	INTEGRITY
A.1	Panggung Krapyak Monument	The monument is well preserved and in good condition, although over time the natural setting has been replaced with urban settlements. The processes, relationships and dynamic functions essential to the monument's distinctive character are maintained and in a robust state. The practice of the Kraton to give offerings at the site has continued until this day, showing that the relationship with the Kraton and significance in the cosmological axis has been retained.
A.2	Southern Cosmological Axis	The attribute is in good condition and retains its original structure, although the dirt road has been replaced with bitumen. The symbolic flora is still planted along the road. The development in the surrounding area is controlled through spatial planning and height limits of buildings to protect the axis and there are no buildings that impact the integrity of the Southern Axis. The axis maintains its usage as a passageway as part of the funeral rites of the Sultans when carried along the southern axis of the property to the <i>Ngayogyakarta Hadiningrat</i> Royal Tombs Complex in Imogiri.
B.1	Palace Outer Walls, Gates, and Fortifications	Four (4) gates in the west, northwest, northeast, and south are well preserved and in good condition. The Northeast and South Gate still maintain the original design of an arched gateway, while the other two gates were modified in the early 1900s into a split gateway to adapt to the changing needs for the spatial planning of Yogyakarta. The practice of the Kraton to give offerings at the gates has continued until this day, showing the relationship with the Kraton and its significance has been retained. Three (3) bastions in the northwest, southwest and southeast remain in their original form and are well preserved and in good condition. The remaining walls are in poor condition due to the encroachment of urban settlements that have built directly into the walls. This issue is being addressed through the management plan, with community consultations in place on balancing the needs of the local communities with the preservation of the remaining wall structure.
B.2	Inner Complex of the Palace and Its Squares	The complex and its buildings are in good condition and regularly maintained. Several restoration projects were conducted in particular following damage created by the earthquakes in 1867 and 2006, however, the buildings remain in their original position and maintain their function and authenticity. No major addition has been made in the inner complex since the second half of the 18th century. The Kraton still functions as the most sacred complex of the Sultanate and is not at risk from any major development. The palace continues to be used as the centre of power where all important rituals are conducted.

Appendix 4. A table summarises the integrity for each attribute of the property (ii).

<i>The Cosmological Axis of Yogyakarta and Its Historic Landmarks</i>		
ID	ATTRIBUTE/ GROUP OF ATTRIBUTES	INTEGRITY
B.3	Tamansari Royal Garden Complex	The majority of the structures are in good condition although a number were destroyed in the 1867 earthquake and never rebuilt. Some structures were damaged after the 2006 earthquake, however, with support from UNESCO and other partners, they were restored using scientific conservation methods. The integrity of the attribute has been impacted by the development of the community surrounding the complex. Mass tourism is also an issue, with limited parking in the area, and potential over harm to the site from too many tourists. The control of development is managed by including the local community in the management of the attribute. Community-based Technical Task Force is newly set up with the task of supporting the management, protection, development, and utilization of the attribute. As part of the preparation of the management plan for this nominated property, carrying capacity assessments have been made. The number of tourists able to visit the site will be regulated, based on the carrying capacity.
B.4	Great Mosque Complex	The complex and its buildings are well preserved and in good condition through regular maintenance. The use of wooden construction and traditional craftsman remains a priority in preserving the architectural elements of the complex. Traffic presents a risk to the integrity of the attribute, while the development of high-rise building is also a possible factor affecting the wider setting of the complex. The mosque is regularly used for community prayer. The Great Mosque retains its close connection with the Kraton, with a number of festivals practiced each year, including the ceremony where the ancient gamelan is ceremoniously taken from the inner sanctum of the Kraton to the mosque for a performance.
C.1	Northern Cosmological Axis	The Northern Cosmological Axis has already been impacted by hotels built above the required high limit and within too close proximity to the axis. However, the OUV is still maintained as the overall corridor axis remains unimpacted and in good condition. Furthermore, the processes, relationships and dynamic functions that link the Kraton with the Tugu Monument along the axis remain to this day, as demonstrated through the annual rituals where the Sultan sits in meditation (<i>sinawaka</i>) on the throne of Bangsal Manguntur Tangkil and focuses his attention along the axis, symbolising the unity of the ruler with the people (<i>Manunggaling Kawula Gusti</i>).

Appendix 4. A table summarises the integrity for each attribute of the property (iii).

<i>The Cosmological Axis of Yogyakarta and Its Historic Landmarks</i>		
ID	ATTRIBUTE/ GROUP OF ATTRIBUTES	INTEGRITY
C.2	Beringharjo Market	The 1925 construction of the market is in good condition and well-preserved while being used continuously as the marketplace for both locals and tourist alike. The addition of a new section to the east of the market has impacted the integrity of the listed heritage building, although the visual integrity from the entrance to the market along the axis remains unimpacted.
C.3	Kepatihan Complex	All attributes in the complex are in condition and well preserved with regular maintenance work conducted. There has been development of new office space in the complex, however, this has been has used sensitive design and has not compromised the attributes that are part of the nominated area of the property.
C.4	Tugu Monument	The current monument is a reconstruction dating from 1889, due to damage to the original structure caused by the earthquake of 1867. However, despite the reconstruction, the current form is still considered to represent the <i>lingga</i> or the male aspect of the axis. Two (2) high-rise hotels have impacted the integrity of the site, especially the views from north to the south from behind the Tugu Monument to the Kraton. The urban landscape/wider setting has been impacted, with some private heritage buildings in poor condition.

Appendix 5. A table summarises the authenticity for each attribute of the property (i).

<i>The Cosmological Axis of Yogyakarta and Its Historic Landmarks</i>		
ID	ATTRIBUTE/ GROUP OF ATTRIBUTES	AUTHENTICITY
A.1	Panggung Krapyak Monument	The monument has high authenticity through its form and design, location and setting, and use and function, in particular as the southern landmark of the cosmological axis of Yogyakarta. All conservation work at the site has used high conservation standards. Offerings (<i>sesajen</i>) are made at the site of Panggung Krapyak Monument by the Kraton each year in preparation of the <i>Tingalan Dalem</i> (Sultan's birthday), as a prayer for goodness and virtue.
A.2	Southern Cosmological Axis	The southern axis has high authenticity through its use and function, location and setting and traditions. The axis is still used as part of the funeral rituals of the Sultans, whose bodies are taken from Kraton along the Southern Cosmological Axis to the <i>Ngayogyakarta Hadiningrat</i> Royal Tombs Complex, a journey symbolising the return to the Creator.
B.1	Palace Outer Walls, Gates, and Fortifications	The palace outer walls, gates, and fortifications have a high degree of authenticity through their form and style, location and setting and spirit and feeling. All conservation work at the site has used high conservation standards to preserve its authenticity. The spirit and feeling are retained with the usage of original names for each remaining gate. The intangible cultural heritage associated with the attribute is also high, as seen in the walking meditation circling the structure called Mubeng Beteng. This ritual is an attempt to reflect on one's life in the hope for a better future. One should walk in silence (called <i>Tapa Bisu</i> in Javanese) while performing Mubeng Beteng for more or less 5 km. It was said to be inspired by the Islamic tawaf in circling the Ka'bah in Mecca as well as the pradaksina in circling a Buddhist temple. The Southern Gate in particular retains its original function and meaning as a gateway to the southern land believed to be the word of the afterlife. Traditionally a Sultan is not allowed to go from the Kraton to the south via the Southern Gate while he is alive. The only time his body can pass through the gates is after he has passed away.
B.2	Inner Complex of the Palace and Its Squares	The Kraton has authenticity of traditions, techniques, and management systems, form and design, location and setting, and spirit and feeling, in connection with its position as the centre of the Javanese culture. The rituals and ceremonies of the royal court are performed periodically to maintain the sacredness of the complex, while at the same time preserving the traditional cultures, such as batik, kris and gamelan, through those processes. The preservation of the buildings is done with a high degree of care, with master craftsman used, and special ceremonies conducted. The Office of Cultural Affairs supports this work, with conservation experts and archaeologists advising on the conservation work. This has meant that the conservation of buildings after the 2006 earthquake has ensured that authenticity was retained.

Appendix 5. A table summarises the authenticity for each attribute of the property (ii).

<i>The Cosmological Axis of Yogyakarta and Its Historic Landmarks</i>		
ID	ATTRIBUTE/ GROUP OF ATTRIBUTES	AUTHENTICITY
B.3	Tamansari Royal Garden Complex	The Tamansari complex has retained authenticity of form and design and location and setting, in particular with the material preservation of current structures. Offerings (<i>sesajen</i>) are made at the site of Taman Sari Royal Garden Complex by the Kraton each year in preparation of the <i>Tingalan Dalem</i> (Sultan's birthday), as a prayer for goodness and virtue. Following the 2006 earthquake, UNESCO supported with a report and recommendations for the conservation of the site. This was used and helped ensure that authenticity was retained in the restoration work
B.4	Great Mosque Complex	The mosque has a high degree of authenticity through techniques, and management systems, form and design, location and setting, and spirit and feeling, while being used regularly as a place to worship and seek compassion. In the <i>Garebeg</i> festivals, which are held three times a year, the sacred gamelan musical instruments stored at one of its buildings, are played. Meanwhile, the <i>gunungan</i> (a mountain-shape offering) would start its procession from inside the complex. All conservation work at the site has used high conservation standards, while craftsmen have been used to preserve the original wooden structures. Some small sections of wooden material have been replaced due to damage (rotting wood) however, expert craftsmen have been used to replace the wood and create the carvings. This has helped to pass this expertise to new generations.
C.1	Northern Cosmological Axis	While the Northern Cosmological Axis has been compromised by the development of high-rise buildings, it has authenticity of use and function, in particular to provide access for the symbolic southward journey from Tugu Monument to the Kraton complex. Periodically the Sultan will perform a meditation by which he will focus his view through the northern cosmological axis, and the landmarks located on the adjacent to it that symbolically represent worldly desires. There are a number of ceremonies from the Kraton that use the northern cosmological axis, including the royal wedding ceremonies that depart from the Kepatihan to the Kraton using the royal carriage.
C.2	Beringharjo Market	While the form and design as well as the material and substance of the attribute have been modified in the 1920s, authenticity of use and function remains high, with the traditional foods, cloth, medicine (<i>jamu</i>) sold in the market also remaining unchanged. It has been continuously providing spaces for economic development within the city. Symbolically it is still considered as the main market of Yogyakarta, while the sellers prepare <i>sesajen</i> (offerings) on a certain market day to be put on their stalls as a prayer for successful business.

Appendix 5. A table summarises the authenticity for each attribute of the property (iii).

<i>The Cosmological Axis of Yogyakarta and Its Historic Landmarks</i>		
ID	ATTRIBUTE/ GROUP OF ATTRIBUTES	AUTHENTICITY
C.3	Kepatihan Complex	All attributes in the complex have authenticity of form and design and use and function, as the complex has been continuously used for the day-to-day governance of Yogyakarta until the present time. All conservation work at the site has used high conservation standards.
C.4	Tugu Monument	While the form and design of the attribute had been modified due to damages caused by the 1867 earthquake, the authenticity of use and function remain high by providing an historical landmark for the northern point of the cosmological axis. Offerings (<i>sesajen</i>) are made at the site of Tugu Monument by the Kraton each year in preparation of the <i>Tingalan Dalem</i> (Sultan's birthday), as a prayer for goodness and virtue.

Appendix 6. A full list of the protective designations and function.

NATIONAL PROTECTION DESIGNATION

Law	Description
<p>National Law No. 11 of 2010 concerning Cultural Property</p> <p>Accessible in English here: https://en.unesco.org/sites/default/files/ind_act11_10_clther_entof</p>	<p>Stipulates the overall policies and guidelines for the protection, zonation, development, research, revitalization, adaptation and utilization of cultural properties.</p>
<p>National Law No. 26 of 2007 concerning National Spatial Planning</p>	<p>Outlines the obligation of central and local government on spatial management and illustrates the procedures for rural and urban spatial management and planning. It also elaborates the arrangement of special plans and spatial plans at national, provincial, regency and municipal levels.</p>
<p>National Law No. 9 of 2015 concerning the Autonomy of Regional Government</p>	<p>Gives mandate to local government in organizing and managing its territory, particularly in the implementation of development of certain sectors, including the advancement of culture.</p>
<p>National Law No. 13 of 2012 concerning Exclusive Rights for the Government of the Province of the Special Region of Yogyakarta</p>	<p>Gives privileged authorization to the Government of the Province of Special Region of Yogyakarta to govern and regulate (a) election process for Governor and Deputy Governor, (b) the management and utilization of Sultanate's ground, (c) the organizational structure of the government, and (c) policy on the special (traditional) culture of Yogyakarta including the preservation of its tangible and intangible aspects.</p>
<p>National Law No 5 of 2017 concerning the Advancement of Culture</p> <p>Accessible in English here: https://bit.ly/32WkfsR</p>	<p>This Law covers the protection, development and organizing of both tangible and intangible cultural heritage as well as capacity building and empowerment for the protection, development and organizing of cultural heritage. This Law also links cultural heritage to national development strategies.</p>
<p>Government Regulation No. 26 of 2008 concerning the Implementation of National Spatial Planning</p>	<p>Gives a mandate for the implementation of spatial management in the province, district and municipality to the local government. Local government has a larger role in organizing and managing its territory, particularly in the implementation of development, including the preparation, review and implementation of its Spatial Plan for province and regency/municipality</p>
<p>Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 106 of 2013 concerning Intangible Culture Heritage</p>	<p>Provides a national framework for the registration and safeguarding of intangible cultural heritage.</p>
<p>Decree of the Minister of Education and Culture No. 117 of 2018 concerning the decision to designate the Kraton and its surrounding area as a National Cultural Property.</p>	<p>Provides legal protection under national law for the attributes within the Area of the Cosmological Axis of Yogyakarta City are covered under this decree.</p>

PROVINCIAL PROTECTION DESIGNATION

Law	Description
<p>Special Provincial Regulation No. 6 of 2012 concerning the Preservation of the Cultural Property and Heritage Sites</p> <p>Accessible in English here: https://bit.ly/31A7rba</p>	<p>Derivative of the National Law no. 11 of 2010 on the Cultural Property which details the implementation of the Law in the Province of Special Region of Yogyakarta.</p>
<p>Special Provincial Regulation No. 1 of 2017 No. 1 of 2017 on Building Architecture of Yogyakarta Special Region Special Characteristic</p> <p>Accessible in English here: https://bit.ly/3HEnAvl</p>	<p>Defines architectural styles for use in the cultural heritage areas.</p>
<p>Special Provincial Regulation No. 2 of 2017 concerning Spatial Management of the Sultanate Land</p> <p>Accessible in English here: https://bit.ly/3JlQJYj</p>	<p>Gives special right to the Provincial Government of Special Region of Yogyakarta to arrange the spatial policy of the land owned by the Sultanate. This includes the designated protected areas in the nominated property.</p>
<p>Special Provincial Regulation No. 3 of 2017 concerning Preservation and Development of Culture</p> <p>Accessible in English here: https://bit.ly/3F1qZ5P</p>	<p>Derivative of the National Law No.5 of 2017 on the Advancement of Culture which details the roles and responsibilities of the local government in the advancement of culture through protection, development and utilisation of cultural objects and community empowerment. This covers both tangible and intangible cultural heritage.</p>
<p>Decree of the Governor of Special Region of Yogyakarta No. 108 of 2017 concerning the Establishment of the corridor along the Cosmological Axis as the Cultural Heritage Structures</p>	<p>Designates the corridor and roads where the nominated attributes of The Cosmological Axis of Yogyakarta and its Historic Landmarks are located as a protected area.</p>
<p>Decree of the Governor of Special Region of Yogyakarta No. 75 of 2017 concerning the Establishment of the Kraton Conservation Area, City of Yogyakarta</p>	<p>Designates a cultural heritage protected zone. This covers the whole nominated property, buffer zone and wider setting of Component 1 of the nominated property. . All building permits in this area must go through an approval process regulated by the Office of Culture Yogyakarta and the Cultural Heritage Expert Advisory Team. As part of this process, any proposals with potential to impact the OUV of the property will be subject to a HIA assessment. This decree also protects the wider setting of the nominated area through planning controls. The objective is to create a city-wide approach to preservation in accordance with the UNESCO Historic Urban Landscape Approach.</p>
<p>Decree of the Governor of Special Region of Yogyakarta No. 42/KEP/2021 concerning the establishment of the Imogiri Conservation Area, Municipality of Bantul.</p>	<p>Designates a cultural heritage protected zone. This covers the whole nominated property, buffer zone and wider setting of Component 2 of the nominated property. All building permits in this area must go through an approval process regulated by the Office of Culture Yogyakarta and the Cultural Heritage Expert Advisory Team. As part of this process, any proposals with potential to impact the OUV of the property will be subject to a HIA assessment.</p>
<p>Special Provincial Regulation No. 5 of 2019 concerning Spatial Land-use Plan for 2019-2039 (Rencana Tata Ruang dan Wilayah/RTRW)</p>	<p>Special Provincial Regulation No. 5 of 2019 concerning Spatial Land-use Plan (Rencana Tata Ruang dan Wilayah/RTRW) in the Province of Yogyakarta Special Region which includes a number of cultural and natural protected areas in Yogyakarta Special Region, including all the protected areas and proposed buffer zones of the property. The type of buildings, height limits, and other heritage protection measures are regulated in this plan. All provincial governments (including the Municipality of Yogyakarta and Regency of Bantul) are updating their detailed spatial plans based on the DI Yogyakarta Plan.</p>

Appendix 7. Summary of HIA Guidelines for the Special Region of Yogyakarta.

Summary of the Heritage Impact Assessment Guidelines for the Special Region of Yogyakarta

Recognizing the need to strengthen this system to meet the Heritage Impact Assessment (HIA) requirements as outlined in the ICOMOS Guidance on Heritage Impact Assessment for Cultural World Heritage Properties, the DIY Government has developed the Heritage Impacts Assessment Guidelines for the DIY. The HIA Guidelines have been developed by cultural heritage experts with extensive knowable and experience of the HIA process. ICOMOS Guidance on Heritage Impact Assessment for Cultural World Heritage Properties was the key reference document for developing the guidelines. The HIA Guidelines are in the process of being legalized as provincial regulation. It is expected the new regulation will be finalised and made available in English by July 2022 at the latest. A summary of the key aspects of the HIA Guidelines is provided below.

HIA and *The Cosmological Axis of Yogyakarta and its Historic Landmarks* property

- Any proposal for change at a heritage property must fully understand the context and value of the property, the proposed projects, and the existing conservation management plan for the property and also the local regulations. In the case of *The Cosmological Axis of Yogyakarta and its Historic Landmarks*, there are two types of management plan. First is the management plan of the property in general, and the other ones are the individual conservation management plan for each attribute.
- Stakeholder participation will be an important part through the whole of the HIA process. In every project planning, there will be many sectors that are likely to be involved in order to have a fair and thorough assessment, for example, local government offices, general public and local communities, as well as outsourced consultants. It is important to note that the group of experts associated with this assessment should be multidisciplinary to address the gaps of information in the field. The involvement of local communities is highly encouraged and prioritized.

These are the HIA steps that are adopted at the *Cosmological Axis of Yogyakarta and its Historic Landmarks*:

1. Screening
 - (i) After a project proposal handed in by the proponent to Regency/Municipal One-stop Office for Investments and Integrated Services, it will then be delivered to the Office of Cultural Affairs of Yogyakarta Special Region to be consulted with Council of Heritage Experts (Dewan Penasehat dan Pelestari Warisan Budaya (DP2WB)) as regulated in the local regulation for Yogyakarta Special Region No.6/2012 on heritage conservation.
 - (ii) DP2WB is the one who is responsible to do the screening process and decide whether an HIA is needed for the proposal in question.
2. Scoping and developing term of reference
 - (i) Based on the project proposal and the significant value of the site, DP2WB should determine the scoping of the assessment. The scope of work can be determined by looking at the scale, location, and the way a project will be conducted and look at which attributes might be impacted. There are two regulations that should be used as reference:
 - Governor's Regulation No. 76 of 2019 concerning Cultural Heritage Permits.
 - Special Provincial Regulation No. 1 of 2017 concerning Protection of Architectural Style of Yogyakarta Special Region.
3. Commissioning
 - DP2WB will work with the proponent to appoint the consultants for the HIA study. The commissioning of outsourced consultants appointed by DP2WB will be done in a way that the consultant remains independent, credible, and transparent. It will not be appropriate if the consultant is working on the favor of the project proponent. Therefore, the team of consultant should have and obey a certain ethical framework.

4. Baseline assessment

- (i) First it is crucial to understand that for any World Heritage property, a baseline assessment should start with examining the statement of OUV to find out what are the key elements and attributes that contribute to the value of the property in question. This method could be done by revisiting the statement on the dossier and highlighting the keywords on the statement.

5. Understanding the proposed action

- (i) To identify what threats a project could bring to a heritage property, the assessor should understand the project correctly. It is important that the related government offices, such as the Regency/Municipal Office of One-stop Office for Investments and Integrated Services and the Office of Cultural Affairs, make sure that the project proposal is complete and that there is no additional information outside the proposal that are left behind or undisclosed.

6. Identifying and predicting potential impacts

- (i) First, an examination on how a particular action (threat) of a project plan would impact an attribute should be conducted. There might be more than one action to be look at and there are likely more than one attribute that will be impacted. Note that the impact doesn't always have to be a physical one but can also be on the value that determine the significance of the site.
- (ii) All this relevant information should be collected:
 - a. All the attributes of the property
 - b. The significance of attribute
 - c. The kind of proposed plans/works as possible source of threats
 - d. Existing vulnerabilities
 - e. Type of impact
 - f. Duration of impact
 - g. Scale of impact
 - h. Reversibility of impact
- (iii) Second, predictions of the future should be made. In the case Yogyakarta, the assessors should be sensitive to whether a project will affect the value of the cosmological setting of the axis. There will be two scenarios for the future; what will likely happen with or without the project.

There are four types of impacts:

- a. Direct Impacts: Impacts which cause measurable change to the fabric or materials of a resource or, in the case of intangible heritage or practices, results in measurable change to performance. In many cases, visual impact is categorized as an indirect impact. However, for the Cosmological Axis of Yogyakarta and its Historic Landmarks, visual impacts could be a direct impact if it occurs along the axis and blocking the view from one to the other end. For example: alteration of the façade of Beringharjo Market, a new construction of gate over-arching Margomulyo street.
- b. Indirect Impacts: Impacts which don't directly affect a heritage resource, but alter its environment, setting or context in ways that ultimately affect the value of the resource itself. Example: development of a non-permanent structure for food courts on the courtyard of Kepatihan Administrative Building.
- c. Residual Impacts that remain even though mitigation or alternative proposal has been implemented, most likely in the form of social and environmental impact. Example: a conservation is done at one of the gates of the Kraton complex that follows the national standard of conservation, however the community feels the loss of connectivity with the structure because visually it looks different.
- d. Cumulative Impacts: Cumulative impacts occur over time and are the result of combinations of impacts that individually may not cause significant damages, but over time the multiplication of these impacts is threat to heritage significance. Example: new additions of street decorations along the cosmological axis

7. Evaluation of Impacts:

By cross-referencing the identified works or plan and the type of impact they produce for the attributes, the severity of the impact will be graded using HIA Threat Matrix. Note that it is also possible that a project may enhance the value of the site. There are four nature of impacts:

- a. Beneficial; when the project complements the setting of the property and enhance the value
- b. Acceptable; when the project will give no significant effects on the fabric, setting, or the value of the site
- c. Acceptable with mitigation; when the project has some adverse impact but can be limited with some measures or mitigation
- d. Unacceptable; when the project will massively bring negative impact to the property without any possible mitigation measures

8. Mitigation and enhancement

- (i) In close coordination with DP2WB, the consultant will draft a mitigation plan on how to avoid the already identified impacts. This mitigation plan could also be a proposal of alternative project plan that could possibly enhance the value of the heritage property.
- (ii) The consultant will write a report and deliver it to Regency/Municipal Office of One-stop Office for Investments and Integrated Services and the Office of Cultural Affairs. This report will then be sent to the proponents for evaluation and adjustment. After the adjustment is made, the proposal is re-evaluated (back to step 5). These steps are only possible to be done when there's enough time. Therefore, it is advised that a particular timeframe and schedule for a project proposal in a heritage property is regulated by the One-stop Office for Investments and Integrated Services in order to make sure that all these steps are doable.
- (iii) Principally, this is the hierarchy of mitigation:
 1. Enhance positive impact
 2. Avoid negative impacts
 3. Minimize (or reduce) what cannot be avoided
 4. Remedy (or restore) what cannot be reduced
 5. Compensate for what cannot be remedied

9. Report

- (i) The report should use the format recommended by the ICOMOS HIA guidelines and it has to clearly state whether or not a project should proceed. In any relevant cases, report could be shared with the UNESCO World Heritage Centre.

10. Review

- (i) The review will be done by the stakeholders involved, and if appropriate, the advisory body of the World Heritage Committee. Note that this is not the step to evaluate or decide whether a project should proceed, but rather a review to judge whether the assessment had been done in a correctly.

11. Decision making by relevant authorities

- (i) This last step is the most crucial one and should consider all identified impacts and their scale, mitigation, and alternative proposed plan. The decision will reflect the commitment of the related government offices in safeguarding the significant values of the heritage property
- (ii) . The designed plan needs to be approved and signed by the Head of the Office of Cultural Affairs. For a project related to nationally registered heritage property, the signature of the Minister of Culture and Education is required, and for World Heritage property, approval and/or recommendation from UNESCO is mandatory (as per Paragraph 172 of the World Heritage Operational Guidelines). Without these signatures and/or approval, the Office of One-stop Office for Investments and Integrated Services cannot issue the permit.

12. Implementation and Monitoring

- (i) The implementation of HIA mechanism will be monitored by DP2WB and the One-Stop Office of Investment and Integrated Services. The long term-monitoring will also be done jointly by those two institutions.

Traditional Management System *Tata Rakiting Wewangunan* at the Kraton Yogyakarta

I. Tata Rakiting Wewangunan

'The Tata Rakiting Wewangunan is a set of concepts related to spatial planning, buildings, decoration, vegetation, as well as the function and use of the space or building itself within the *Karaton Ngayogyakarta Hadiningrat*¹ (Kraton Yogyakarta).

The rooms and buildings in the Kraton have functions that are closely related to the implementation of traditional ceremonies. At the Kraton, in a year no less than 25 traditional ceremonies are held to commemorate Islamic holidays, commemorate the ascension of the Sultan's throne, and life cycle ceremonies.

Given the importance of buildings and spatial planning in the Kraton, various treatments are imposed to maintain the values contained in them. For example, buildings dedicated to the Sultan will be decorated with special motifs, and only certain ceremonies may take place in those buildings. The existence of certain rituals practiced at certain buildings demonstrates that the spatial planning and buildings in the Kraton are not just empty spaces but are full of values that can be grouped into intangible cultural activities.

Some references related to the *Tata Rakiting Wewangunan* can be found in old manuscripts. The story about the construction and the initial concept of the Kraton by the founder of Yogyakarta is contained in the 'Kuntaratama' manuscript by GPH Buminoto which tells the journey of Prince Mangkubumi in establishing the Kraton (*nagari dalem*).

In addition to buildings and open spaces, all plants in the palace also have meaning. Further discussion is found in 'Salokapatra' manuscript, which was compiled by an *Abdi Dalem* who took care of the vegetation under Sri Sultan Hamengku Buwono VIII's leadership.

¹ <https://www.kratonjogja.id/hal-tata-rakiting-wewangunan>

The principles of choosing specific wood for the building structures are contained in the Javanese architectural manuscripts of 'Kawruh Kalang' and 'Kawruh Griya' compiled at the turn of the 19th-20th centuries (Prijetomo, 2005)². Furthermore, Javanese architectural principles can be seen in 'Centhini' manuscript compiled by Yasadipura I in the early 19th century to Mpu Prapanca's 'Negarakertagama' in the 14th century.

II. Maintenance, Conservation and Additional Constructions

The existing buildings that can be found within the main Kraton complex are architectural works of the reigning sultans. The oldest buildings were built during the reign of Sri Sultan Hamengku Buwono I (1755-1792). After that, the reigning Sultan equipped and added existing buildings according to the needs of the time.

The last conservation and addition of new buildings was carried out during the reign of Sri Sultan Hamengku Buwono VIII (1921-1939). During the reigns of Sri Sultan Hamengku Buwono IX (1939-1988) and Sri Sultan Hamengku Buwono X (1989-present) there were no additions to new buildings except for tourism supporting facilities. Outside the main area, the current Sri Sultan Hamengku Buwono X has ordered a construction of a new tomb complex to be built in Imogiri.

Existing buildings are treated as cultural heritage. The renovations carried out during the reign of Sri Sultan Hamengku Buwono IX and X were maintenance and repairs without making changes to existing buildings. Currently, the maintenance of the Kraton buildings and assets is carried out by an institution called *Kawedanan Wahana Sarta Kriya* a unit responsible for infrastructure affairs, including land, building and vehicle within the Kraton. This institution is under the *Kawedanan Hageng Punakawan Parasraya Budaya*, a Kraton department responsible for all administrative matters in the palace.

After the Privileges Act (*Undang-Undang Keistimewaan*) for the Special Region of Yogyakarta emerged in 2012, the maintenance of buildings in the Kraton began to be carried out in stages since 2016 with a budget from the Privileges Fund . In the implementation of this building maintenance and repair project, the Office of Cultural Affairs of the Special Region of Yogyakarta (Dinas

² Prijetomo, J. (2005). *Pengkonstruksian Sektor Guru Dari Griya Jawa: Tafsir Atas Kawruh Kalang*. *DIMENSI (Journal of Architecture and Built Environment)*, 33(2).

Kebudayaan DIY/ Disbud DIY) is the lead implementer. Representatives from the Sultanate will be involved in the planning and supervisory team which gives consideration to the principle matters related to cultural aspects. The team always and should have a conservator or archaeologist working to incorporate historical and cultural studies into the technical aspects of the project.



Figure 1. *Sesajen* or offerings for repairing the Bangsal Kencana



Figure 2. *Sugengan* ceremony (prayer requesting for physical and spiritual safety to God) on the construction of the new mausoleum at the Imogiri Royal Tomb.

In the beginning of every repair or maintenance project, the Sultanate holds a *sugengan*, or prayer requesting for physical and spiritual safety to God, with certain offerings depending on the size of the project and the level of sacredness of the building. *Sugengan* will be led by *Abdi Dalem Kanca Kaji* who is in charge of religious affairs within the palace walls. The offerings or facilities served in the *sugengan* ceremony are made by *Abdi Dalem* in *Pawon Gebulen* and *Sekullanggen* (royal kitchens). The offerings or *sesajen/ srana* are distributed after the *Penghageng* or the elder palace representatives give permission to start praying together. This ritual is interpreted as a prayer request for physical and spiritual safety during the repair or maintenance of the building and builders and workers involved in the project join the ceremony.

Inside the *Kraton*, the color of clothing has a meaning that distinguishes one profession from another. Blue is worn by janitors or gardeners. They are often referred to as *Kanca Biru*. While the yellow and green colors were worn by *Abdi Dalem* who take care of the animals which were also the main means of transportation in the past. The red color is worn by daily laborers and haulers (*Kanca Abang*), including carriers of the *gunungan* or daily food for the Sultan (*ladosan dhahar*). Therefore, every handyman or construction worker of the palace building is required to wear the red clothes provided by the palace like *Abdi Dalem Kanca Abang*. However, unlike the *Kanca Abang*, who wears a red *kuluk* (cap) and a blue *jarik* (batik cloth) with a *jumputan* motif (as the bottom on top of the red

clothes), the builders only need to wear a red top. This is because the bright red visual aspect makes a distinction as well as a marker that can be used as identification for personal safety.

Prior to every building repair or maintenance project at the Kraton, conservators or archaeologists are responsible for checking the condition of the buildings which are mostly wooden structures. The wood used is checked in such a way as to whether there is any that can be used or must be replaced, for the safety of the building. In addition to checking the condition of the wood, the conservator also checks the condition of the structure and also the location markers for Javanese building components, which are usually not always the exact same unit of measure. This is because the units of measurement in ancient times used many references to the body of the building owner, for example *sekilan* (a stretch of a hand from the tip of the little finger to the thumb), *sedepa* (one cubit), *sebahu*, *senyari*, *sepecak*, etc. To mark the location of building components in certain cardinal directions, certain markers will be given, as written in the 'Kawruh Kalang' book.



Figure 3. The Kraton builders are required to wear red clothes.



Figure 4. Southwest direction structural connection marker.

Repairs or maintenance carried out in the Kraton should always pay attention to the old elements in the previous building components. Therefore, during conservation project it is not uncommon to use a "cannibal" system, which uses previously existing wood to be made to complement a new structure. Incorporating old elements into repairs to become new elements also applies to metal components. For example, if there is damage on a Kraton's *Gamelan*, it will be fused with new elements and made into new blades or units. With this system, it is believed that the "spirit" of the old elements will not disappear or always accompany the newly created elements.

If new wood is needed, the selection of wood, processing and manufacture of the structure of the Kraton building will also be considered jointly by the planning team. In the past, there were specialized *Abdi Dalem* divisions that handled buildings, for example: woodcutters (*blandong*),

carpenters/carpenters (*gowong*), wood ornament makers (*ukir*), decorative ornament coloring experts (*sungging*), metal craftsmen making gutter (*talang*) and rooftop (*wuwung*), stained glass expert, and floor tiles maker. Currently all areas of expertise are carried out by the best available (external) experts, although not all of them are *Abdi Dalem*.

At the end of the project, the Sultanate holds a ceremony called *sum-suman*. This is ceremony of *syukuran*, or an expression of gratitude to God, offering the main course of *jenang* sumsum (sumsum porridge). Sumsum porridge is made from rice flour and topped with liquid brown sugar called *Juruh*. The Javanese believe that sumsum porridge soothes the fatigue and pain of the muscles and bodies of the builders. Apart from sumsum porridge, performances can also be held during the ceremony. It is said that to mark the completion of the construction of *Bangsai Kencana*, the consort of Sri Sultan Hamengku Buwono II who holds the title *Ratu Kencana* also became part of the *Bedhaya* dancers in the inauguration ceremony.

III. Spatial Layout

One of the things that is considered in the spatial concept of the Kraton refers to the concept of the human life cycle in the Javanese tradition called *Sangkan Paraning Dumadi* (origin and direction of human life). A life cycle process from the origin of humans in the womb (*sangkan*), and the path that must be taken to return to the Creator (*paran*). In the layout of the Kraton, this concept is expressed through a linear axis from *Panggung Krapyak Monument* to the Kraton, and from *Tugu* back to the Kraton.

In addition to linear concepts, there is also a centralized hierarchical picture based on the cardinal directions. Sacred buildings in the Kraton originated from the *Bangsai Prabayeksa* and *Bangsai Kencana*. Inside the *Bangsai Prabayeksa* resides a couple of eternal lights named *Kyai Wiji* and *Nyai Wiji* which are always on and cannot be extinguished. There are also royal heirlooms from the *Mataram* period. *Bangsai Kencana*, just to the east of *Bangsai Prabayeksa*, is the venue for important ceremonies in Javanese tradition at the Kraton.

In the north to south cosmological axis, only *Bangsai Prabayeksa* and *Bangsai Kencana* face east and out from the axis of the *Parang Kusuma* beach to *Merapi* mountain. The sacred value of *Bangsai Kencana* is reflected in the situation of the Sultan who always faces east when watching *Wayang*

Wong or other dancing performances. During the reign of Sultan Hamengku Buwono I, V and VIII, which was marked by a big *Wayang Wong* performance at the *Tratag Bangsal Kencana*, the position of the Sultan in the middle of the ward was like the puppeteer of an ongoing play. The position of the mastermind facing east is full of symbols, just like Lord Vishnu, the preserver, who in sacred Hindu buildings such as the Prambanan Temple is also depicted facing to the east direction.³

The sacred values of *Bangsal Prabayeksa* and *Bangsal Kencana* which are in the center of the layout are then surrounded by 5 gates (*plengkung*). The five gates are *Plengkung Nirbaya* (south), *Plengkung Madyasura* (east), *Plengkung Tarunasura* (northeast), *Plengkung Jagasura* (northwest), and *Plengkung Jagabaya* (west) which are gates located around the *Kraton's* fort.

IV. Decorative Ornaments

The three main ornaments that form the basis of the identity and philosophy of the *Kraton* are:

1. The "*Putri Mirong*" ornament, carved on the pillars, is the figurative shape of a hair bun and jasmine flower as a reflection of the importance/presence of mothers/women in the Javanese rule. Buildings that are allowed to use this motif are important buildings where the presence of the Sultan is glorified. Several buildings situated in the main area of the *Kraton* that have *Putri Mirong* decorations, among others, are *Bangsal Witana*, *Bangsal Kencana*, and *Bangsal Pancaniti*. *Bangsal Witana* is the place of throne for the Sultan, which include an area called *Watu Gilang* where the Sultan is positioned as the center point of the cosmological axis. *Bangsal Kencana* is the place where the sultanate's official ceremonies take place, while *Bangsal Pancaniti* was formerly known as a place for discussion, and where the king weighed the legal cases presented.

³ Pramutomo (Raden Mas). (2010). *Tari, seremoni, dan politik kolonial: Kajian'pseudoabsolutisme'dan konteks perkembangan tari Jawa gaya Yogyakarta (1823-1940) dengan pendekatan etnokoreologi*. ISI Press Solo.



Figure 5. Putri Mirong motif in the saka guru pillars at the Bangsal Kencana and Meru-Ombak motif in umpak saka guru (bottom part of the pillars).

2. The decoration of "Meru-Ombak" (Meru-waves) on the *umpak* (bottom part of the pillars) depicting the two poles of the cosmological axis of the Kraton, as a representation of the basic philosophy of the founding of the Kraton which is located on the cosmological axis of Mount Merapi and the South Sea. This ornamental variety can also be found on the *umpak* of the Plered Palace.
3. The symbol of "Meru" or mountain, which is represented in the form of a *joglo* roof. The *joglo* roof is only used by people in high positions. *Meru* is the sacred mountain where the Gods live in Hindu tradition, which symbolizes majesty.

V. Vegetation

In the Yogyakarta spatial plan designed by Prince Mangkubumi, vegetation has a function as a symbol of Javanese teachings. Some of the trees planted on the main road sections and the palace environment have their own philosophy, both in terms of the type of plant and in relation to the location where they are planted.

The journey from the Panggung Krapyak Monument to the Kraton represents the *Sangkan* (origin) philosophy, the human journey from birth to maturity. Symbolically, the tamarind tree (*Tamarindus indica*) and the *tanjung* tree (*Mimusops elengi*) which are planted along the road from Panggung Krapyak Monument to the Kraton also have their own meaning. The leaf of the tamarind tree (*sinom*) symbolizes a young girl (*anom*). This girl is always praised for causing *sengsem* (attraction) for the opposite sex.

Further north is the Southern Square. Surrounding the Southern Square, *pakel* (*Mangifera foetida*) and *kweni* (*Mangifera odorata*) trees are planted. These trees symbolize a young man who has reached puberty and is willing (brave) to propose to a girl. Heading further north, there is the Southern Sitihiinggil (now known as *Sasana Hinggil Dwi Abad*). In the Southern Sitihiinggil, there are *cempora* mango (*manga/pelem*) trees (*Mangifera indica*) and *soka* trees (*Ixora javanica*). The white-flowered *cempora* mango symbolizes the male seed and the red-flowered *soka* symbolizes the female seed.

Further north, there is the Southern Kamandhungan Courtyard which comes from the word *kandungan* (womb). To the north of the Kamandhungan Courtyard, there is the Kemagangan Courtyard, symbolizes newborns from the womb growing up as humans. In both courtyards, there are lots of *dersana* guava (*jambu*) (*Syzygium malaccense/ Eugenia malaccensis*) or better known as *jambu bol*. The fruit is similar to water guava and is red in color. The word '*dersana*' is derived from *darsana* which means an example, can also come from the Javanese phrase '*kaderesan sih ing sesama*' which means the teaching of love for others. The direction of the axis of the *Sangkan* philosophy stops here, then the *Paran* philosophy starts from the Tugu Monument to the Kraton.

From Tugu Monument to the south, lies a road called Margatama street which means the road to virtue. Next is Maliabara (Malioboro) street which means using a torch in the form of the teachings of the Guardians. Further south is Margamulya street which means the road to true glory. To get there, humans must be able to expel (*ngurak*) their bad desires. That's why the next road is called Pangurakan street. Along Margatama to Margamulya street, tamarind and *Gayam* (*Inocarpus edulis*) trees are planted. The tamarind tree symbolizes *sengsem* (attraction), the young leaves are called *sinom* (*enom*) and the *gayam* symbolizes *Ayom* (calmness). Both symbolize the situation of youth who are serious about becoming more calm or mature.

Entering the front yard of the Kraton, there are many banyan (*beringin*) trees around the Northern Square. There are two kinds of banyan trees grown in the Kraton, namely the banyan we know in general (*Ficus benjamina*) and the *beringin preh* (*Ficus ribes*). Both have the same meaning. Right in the middle of the square, both Northern and Southern Square, a pair of banyan trees are planted with a fence. The banyan tree in the Northern Square is always trimmed every month of *Suro*, this symbolizes the human journey in the *Paran* cycle from the monument to the palace which has begun to form. Meanwhile, banyan in the Southern Square is allowed to grow freely because it symbolizes the human journey in the *Sangkan* cycle which is still at the stage of child or adolescent. The banyan tree's fence in the Southern Square is shaped like a bow, symbolizes the spirit of youth who are free, enthusiastic to reach their goals in life.

The trees found in the Pagelaran and Northern Sitinggil Courtyard include *gayam*, *kepel*, and *kemuning* trees. There are two types of *kepel* trees known in the Kraton complex, namely the *kepel* tree (*Stelechocarpus burahol*) and the *kecindul* tree (*Cynometra cauliflora*). The first *kepel* tree is found in the Srimanganti Courtyard. The *kepel* tree found in the Northern Sitinggil is a type of *kecindul* tree. Both fruits are attached to their bark. *Kepel* means 'clenched hands', symbolizing determination and willingness to work as adults. Other symbols of adulthood are also implied in the *kemuning* tree (*Murraya paniculata*) which is located behind the Bangsal Witana. *Kemuning* is interpreted as '*ning*' which means 'quiet', or '*weninging pikir*' which means clarity of mind. This tree symbolizes purity and a clear mind.

The *keben* tree (*Barringtonia asiatica*) is found in the Northern Kamandhungan Courtyard. In fact, most people are more familiar with this court as Kebeen Courtyard than its original name. There are several meanings of the *keben* tree. Some interpret it as the nature of the king who *hangrukebi* or protects. There are also those who interpret it as *tangkeb-en*, or closing- to close the worldly lust. There is also a *cengkir* coconut tree (*Cocos nucifera* L) which can be found in the Northern Bangsal Kamandungan. *Cengkir* tree means *kencenging pikir* which means the 'strength or clarity of mind'. In the *Paran* cycle, these trees symbolize human nature of ageing.

Another symbol is depicted in *jambu* (guava) *klampok arum* (*Syzygium jambos*) which can be found both in Srimanganti Courtyard and Kedhaton. This fragrant guava implies the meaning that humans should be *arum* or fragrant- or good in words and action. Finally, in the main building of the Kraton, there is a sapodilla (*sawo kecil*) tree (*Manikara kauki*). *Sawo kecil* is interpreted as *sarwa becik*, or

goodness. In addition to the main area of the Kraton, *sawo kecil* is also planted in areas of worship, and the homes of nobles.

VI. Governance

Prince Mangkubumi (Sri Sultan Hamengkubuwono I) designed and built the Kraton as the official residence of the reigning king and his entire family, as well as the center of government administration. Outside the Kraton walls, the city of Yogyakarta was designed, built and developed to accommodate the space needs for families, relatives and government infrastructure. As an illustration, the space between the inner Kraton wall (*Cepuri*) and the fort (*benteng*) which became known as the inner fort (*njeron benteng*) area was reserved for princes and their families, sultanate officials and royal households (*Abdi Dalem*) according to their class of duties.

Outside the fort area, areas are arranged and designated for the royal administration (Kepatihan), the residence of the royal family (*Dalem-Dalem Pangeran*) which cannot be accommodated in the *njeron benteng* area, the administrative center and residence of colonial bureaucrats (*Loji Kecil* area), business centre (Beringharjo Market) as well as other supporting urban activities. The spatial dynamics related to governance take place following the ebb and flow of history. For nearly 200 years, Yogyakarta as the capital of the sultanate faced the tidal wave of colonialism until it finally became the center of struggle in the national revolution.

Since the reign of the first sultan until the end of the Japanese occupation, the reigning Sultan appointed a *Pepatih Dalem* (a royal official at the level of prime minister) to carry out the administration of the royal government. A few months before the Proclamation of Indonesian Independence, Sultan Hamengku Buwono IX took over the role of the last *Pepatih Dalem* and started his office at the Kepatihan, a tradition that continues to this day.

After the independence of the Republic of Indonesia, Yogyakarta became part of the country with a special regional status at the provincial level. Sultan Hamengku Buwono is the king and head of a special region. The Kepatihan Complex changed its function from the official residence and office of *Pepatih Dalem* to the provincial administrative center or governor's office. As the head of a special region at the provincial level, the Sultan carries out his duties assisted by a set of civil servants as in other provinces. As a King, the Sultan is assisted by a set of *Abdi Dalem* who had changed roles from

merely royal employees to a corps of cultural conservationists. The Kraton still functions as the official residence of the King, and the *Abdi Dalem* carry out their duties as managers of the royal household, its cultural works, and assets.

Currently, there are two types of status of *Abdi Dalem* in the Kraton. The first type is *Abdi Dalem Kaprajan*, and the second is *Abdi Dalem Punakawan*. *Abdi Dalem Kaprajan* is an *Abdi Dalem* of the Kraton who is still active as a civil servant, TNI, and police. While the *Abdi Dalem Punakawan* is an *Abdi Dalem* who carries out daily tasks in the Kraton environment.

In total, currently there are around 3,000 *Abdi Dalem Punakawan* and *Keprajan* in the Kraton. *Abdi Dalem* assignments are regulated in a structure known as the *Tata Paprentahan Rakiting* system. The units assigned by *Abdi Dalem* in the Kraton are traditional institutions that have been operating since the early days of the Sultanate. During the current reign of Sri Sultan Hamengku Buwono X, there are two additional units, namely *Tepas Purwo Aji Laksono* and *Tepas Tandha Yekti*. The first one is responsible for Sri Sultan's household affairs at the Kraton Kilen, while the second one is responsible for managing documentation and IT so that traditions can adapt to the modern times.

Within the structure of *Abdi Dalem* in the Kraton, the Sultan is assisted by four *Kawedanan Hageng* or a large ministry-level institution that manages smaller units called *Kawedanan* or *Tepas*. The first major institution is the *Kawedanan Hageng Punakawan Parwa Budaya*, which is an institution that manages the core of the Kraton cultural affairs, namely Islam and Java. The units within this large institution include *Pengulon* who is responsible for Islamic religious affairs, and *Kridhamardawa* who is in charge of Javanese cultural arts activities. The second major institution is the *Kawedanan Hageng Punakawan Nitya Budaya* who supports the core culture activities. The units under this institution are, among others, responsible for the implementation of traditional ceremonies, libraries, literature, museums, and tourism. The third and fourth major institutions are *Kawedanan Hageng Punakawan Parasraya Budaya*, responsible for infrastructure affairs, and *Kawedanan Hageng Panitra Pura*, responsible for administrative affairs.

VII. Knowledge Transfer

There are fundamental key points that need to be considered in discussing the subject of knowledge transfer in the Kraton:

1. The Kraton was built by an architect, namely Prince Mangkubumi who was later crowned Sultan Hamengku Buwono I. Prince Mangkubumi was the designer responsible for the construction of the Surakarta Palace, when he moved from the Kartasura Palace. This has had a major influence on the design of the Kraton physically and philosophically.
2. The Bangsal Kemandungan, which is said to be the oldest building in the Kraton complex, is a building brought by Sultan Hamengku Buwono I from Karangnongko Village, Sukowati and moved to the Yogyakarta as a guide for the typology of buildings to be built in the Kraton.
3. However, the first building of the Kraton is thought to be the Pendapa Tamanan. Before being used as a school, Pendapa Tamanan was the place where Sultan Hamengku Buwono I supervised the construction of the Bangsal Prabayeksa.
4. For the purpose of building the Tamansari (water castle), Sultan Hamengku Buwono I sent two construction experts to Batavia to learn about brick wall making.
5. During the reign of Sri Sultan Hamengku Buwono II, the Kraton was heavily damaged by the *Geger Sepahi* incident in 1812. Many buildings were burned to the ground, gates (*regol*) were torn down, and arches (*plengkung*) were demolished. During the reign of Sultan Hamengku Buwono II and until Sultan Hamengku Buwono VI, the Kraton underwent changes that cannot be traced back. During the reign of Sultan Hamengku Buwono VII, Pesanggrahan Ambarukmo was built as a resting place for the sultan after Hamengku Buwono VIII ascended the throne.
6. During the time of Sultan Hamengku Buwono VIII, it is known that there was a reconstruction process in terms of the culture of the Kraton, from dances, music (Gamelan), *Wayang Wong* performances, costumes, as well as spatial planning and palace buildings. It was during the reign of Sultan Hamengku Buwono VIII that *gedhong* buildings (buildings with brick walls) and construction elements from Europe were increasingly adapted and became part of the Kraton area. One of the buildings that was built during this period was the Bangsal Pagelaran and Gedhong Jene.
7. During the time of Sultan Hamengku Buwono VII and Sultan Hamengku Buwono VIII, various notes related to the technique of building Javanese houses in the 'Kawruh Kalang' manuscript appeared, and the technique of selecting teak wood by identifying the *angsar* (character) of the wood, which was described in the 'Kawruh Griya' manuscript. Various versions were found, but in essence these two main notes are an attempt to transfer knowledge by the Javanese. The record tells of the process of making Javanese houses, which later became a general reference for craftsmen in 20th century Java. However, after the craftsmen used more carpentry techniques brought by the Dutch, the carpentry method that followed the Javanese carpentry tradition began to be abandoned.

8. The most recent change occurred after the 2006 earthquake. The renovation of the Bangsal Trajumas Ward marked the beginning of the long process of Kraton buildings' conservation to this day.
9. From 2006 to 2020 there has been a process of conservation not only the physical area and buildings belonging to the Kraton, but also the preservation of traditional carpentry skills among skilled carpenters. One example is Pak (Mr). Petrus, a carpenter who has been involved in the reconstruction process since its early stages (2006). Pak Petrus is a carpenter who has been involved since the reconstruction of Bangsal Trajumas, and continued to several buildings in the Kraton complex until he fell ill.
10. What is of concerning in the case of Pak Petrus is the process of transferring knowledge, which is from Pak Petrus to his son, Pak Tri. The basic thing that drives the transfer of knowledge occurs naturally (from father to son). From the minimal experience he had, he met some difficulties during replacing his father's job. Pak Tri then decided to "*nyantrik*" (apprentice) to his father. This is how the transfer of knowledge takes place in the Kraton. This is not a special case, many of similar experiences were also felt by several *Abdi Dalem* in the Kraton, such as the *Gunungan* and *sesajen* (offerings) preparers. Skills are passed through from father/mother to their son/daughter by doing "*nyantrik*".

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Sumardi : Conservator of the Kraton conservation project



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