

# Listing the Plain of Jars of Laos as World Heritage

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**ABSTRACT**—This article traces the process to inscribe Lao PDR’s Plain of Jars as a World Heritage (WH) Property, from a Tentative Listing in 1992 to the official inscription in 2019. After discussing the criteria for proposing eleven archaeological sites from a total inventory of 100 sites, and the Advisory Bodies’ evaluation, the article will summarise future challenges inherent in a WH listing, from increased visitation to tourism-led development. Local involvement and village contracts will be essential for day-to-day maintenance, as will protection through national and international instruments to preserve a property’s outstanding universal value on which this prestigious accolade is granted.

## Introduction, location and summary of research history

On 6 July 2019, at the 43rd Session of the World Heritage Committee held in Baku, Azerbaijan (Figure 1), eleven archaeological sites located within the Plain of Jars in Xieng Khouang province of the Lao PDR were inscribed together as a serial property on the World Heritage List (<https://whc.unesco.org/en/list/1587>). It is the third inscription for Lao PDR, following listings for Luang Prabang (<https://whc.unesco.org/en/list/479>) and the Khmer-era temple of Vat Phou (<https://whc.unesco.org/en/list/481>) in 1995 and 2001 respectively.

The property (Table 1) is home to 1,325 jars, in three main rock types, and 215 discs, all shaped from sandstone.

The topography of Xieng Khouang is characterised by three distinct areas, namely the high plateau, low-lying depressed blocks of land bordered by parallel faults (graben) and mountains. The plateau consists of undulating landscape of grassland with isolated hills at an elevation of about 1,000 m crossed by shallow river valleys. The jar sites are located on the lower slopes and spurs of the mountains surrounding the central plain and upland valleys to the north and south (Lao PDR 2018: 34).

The Plain of Jars is located at the crossroads of two major eco-cultural systems of Iron Age (BCE 500–500 CE) Southeast Asia: “the Mun-Mekong System and the Red River/Gulf of Tonkin System” (Lao PDR 2018: 36). Xieng Khouang, at the northern end of the Annamite Range, provides relatively easy passage for trade or cultural exchange. Route 7 is the main artery that connects north and west Laos with central Vietnam, a potential association with “overland routes” (ICOMOS 2019: 156). Its construction began under French rule early in the 20th century to replicate historical paths that had provided “economic advantages for centuries” (Genovese 2015: 144). Originally, Route

7 reached as far as Phonsavan, modern capital of Xieng Khouang province, but in 1937, it was extended to Sala Phou Khoun, in Luang Prabang province, where it connects with arteries destined for the capital, Vientiane.



Figure 1. Baku, Azerbaijan, 6 July 2019, shortly before the Plain of Jars was officially recognised as a World Heritage Property. (Photo: Lia Genovese).

*Table 1. Plain of Jars sites inscribed as World Heritage Property in July 2019*

| Site | Name                   | District | Description              | Jar groups <sup>1</sup> | Jars  | Rock <sup>2</sup> | Discs <sup>3</sup> |
|------|------------------------|----------|--------------------------|-------------------------|-------|-------------------|--------------------|
| 1    | Ban Na O/Ban Ang       | Paek     | Jar site                 | 1                       | 334   | S, C              | 30                 |
| 2    | Ban Na Kho             | Phaxay   | Jar site                 | 1                       | 93    | S                 | 14                 |
| 3    | Ban Xiengdi            | Phaxay   | Jar site                 | 5                       | 242   | S                 | 38                 |
| 8    | Ban Xiengdi/Huay Luang | Phaxay   | Quarry                   | 1                       | 12    | S                 | 0                  |
| 12   | Ban Phakèo             | Paek     | Mfg site <sup>4</sup>    | 1                       | 32    | S                 | 6                  |
| 21   | Khangnongluang         | Paek     | Quarry                   | 1                       | 34    | S, C              | 2                  |
| 23   | Ban Namhom             | Kham     | Quarry site <sup>5</sup> | 1                       | 27    | C, B              | 1                  |
| 25   | Khum Songhak           | Phoukood | Jar site                 | 1                       | 33    | S                 | 8                  |
| 28   | Ban Nakhuan            | Phoukood | Quarry site <sup>5</sup> | 1                       | 1     | S                 | 0                  |
| 42   | Phou Xang              | Kham     | Quarry site <sup>5</sup> | 1                       | 113   | S                 | 10                 |
| 52   | Ban Phakèo             | Paek     | Quarry site <sup>5</sup> | 1                       | 404   | S                 | 106                |
| 11   |                        |          |                          | 15                      | 1,325 |                   | 215                |

<sup>1</sup> One jar group = one component.

<sup>2</sup> B = breccia; C = conglomerate; S = sandstone. Jars in other rock types are found at sites in these districts.

<sup>3</sup> The discs are almost universally fashioned from sandstone.

<sup>4</sup> Manufacturing site, generally near a quarry.

<sup>5</sup> Field of jars + manufacturing site, generally near a quarry.

Source: Adapted from Lao PDR 2018: 38-39.

A century ago, reports by explorers or surveyors appointed by the French or Siamese governments, were infused with notions of “mystery”,<sup>1</sup> a narrow basis for the jars’ presentation not supported by scientific evidence. To an extent, this concept still permeates informal literature, as well as books and travel accounts, depicting the Plain of Jars as “a unique and enigmatic collection of stone containers associated with early occupation of the region” (Chapman 2018: 239). For the International Council on Monuments and Sites (ICOMOS), the Plain of Jars represents “an unusual and impressive array” of megalithic sites (ICOMOS 2019: 163).

These early reports were compiled by educators or surveyors taking stock of Lao PDR’s borders, ethnic groups, education system, religions, demographics, customs and the administration of justice (De Barthélemy 1900 and 1901; Bonhoure 1900; McCarthy 1900; Pavie 1902; Raquez 1902; De Reinach 1906 and 1911). In 1881, James McCarthy (1853-1919) of the British Royal Engineers was seconded from India to the Siamese court of King Chulalongkorn (r. 1868-1910) as Superintendent of Surveys. In January 1884, he was despatched to Xieng Khouang to investigate disturbances caused by an invasion of “Chinese brigands” (McCarthy 1994: 44), often erroneously labelled as ‘Haw’ like the bona fide Muslim merchants who traded their wares in north Laos.

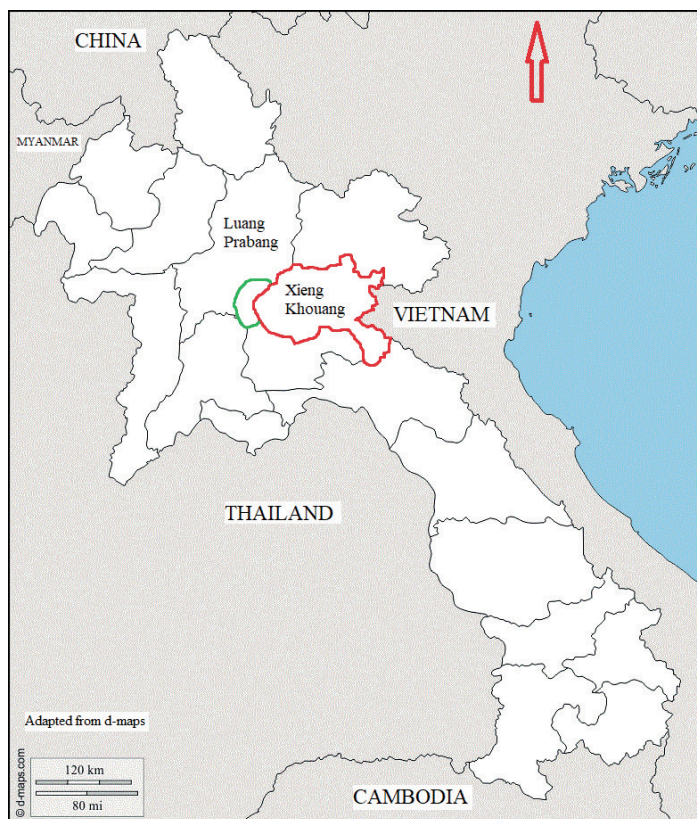
From the first quarter of the 20th century, intrepid tourists braved the not inconsiderable discomfort of lengthy and dusty journeys from Vietnam or north-east Thailand to admire the jars’ rugged beauty. Even within Xieng Khouang, four days were required to cover a distance of 115 km from the ancient provincial capital of Muang Khoun to Tha-do, in the province’s north-east, “a very tiring but picturesque journey” (Madrolle 1932: 306).

The Plain of Jars consists of around 100 sites, spread between Xieng Khouang and Luang Prabang provinces (Map 1), with a total inventory of around 2,100 jars and 240 discs. The inventory of sites is managed by the Lao Heritage Department. The vast majority of the 100 sites are located in Xieng Khouang, within N19° and E103°. A few sites on the province’s western edge, and all the sites in Luang Prabang’s Phou Khoun district, fall within N19° and E102°. Of the eleven sites inscribed as World Heritage Property in 2019, ten fall within N19° and E103°, with Site 28, in Phoukood district, located within N19° and E102°.

The first large-scale documentation of the Plain of Jars was financed by the École Française d’Extrême-Orient (EFEO) and conducted in 1931-33 by the French archaeologist, Madeleine Colani (1866-1943), who excavated at five of Xieng Khouang’s eight districts, as well as at Luang Prabang’s Phou Khoun district (Map 2). When Colani embarked on her expeditions, she relied on informal reports by explorers, who had encountered jars during border surveys or fact-finding missions on behalf of the French or Siamese governments.

Colani had access to negligible amounts of information about the jars, relying on villagers to locate sites, especially the particularly inaccessible sites in Luang Prabang.

<sup>1</sup> Letter dated 21 December 2018 from Ms Gwenaëlle Bourdin (Director, ICOMOS Evaluation Unit) to Ambassador Yong Chanthalangsy, Permanent Delegation of the Lao PDR to UNESCO, Paris.



Map 1. Map of Lao PDR, with Xieng Khouang province contoured in red and Luang Prabang province's Phou Khou district in dark green. (Adapted from d-maps).



Map 2. Xieng Khouang's eight districts and Luang Prabang's Phou Khou district. Thathom is the only district where megalithic jars have not been found to date. Map not to scale. (Map by Lia Genovese).



Her monograph (Colani 1935) detailed her fieldwork in Xieng Khouang and Luang Prabang, as well as surveys to the fields of funerary stones beyond Phou Khoun and the standing stones of Hua Phan, which she surveyed respectively in 1932 and 1933. Starting with Colani's excavations, the richest grave furnishings have been collected from the larger sites, with human remains consisting of bones, teeth and skull fragments stored in pits or clay pots accompanied by grave goods. Research came to a halt during the Second Indochina War (1964-1973), but resumed late in 1994 with test excavations by Lao and international archaeologists.

The prospect of sections of the Plain of Jars functioning as possible prehistoric burial grounds was first raised by Thongsa Sayavongkhamdy. During his doctoral fieldwork in 1994-96, from a test pit at Site 1 he recovered human skull fragments, one of which (OZD-770) gave a laboratory reading which suggested that burial activity in the site might have commenced as early as "3000 years ago" (Sayavongkhamdy and Bellwood 2000: 106).

From 1995 to 2015, UNESCO supported research projects assisting the Laotian government in their efforts to safeguard the Plain of Jars, with activities including mapping, aerial surveys, remote sensing, identification of new sites, demining, preparation of site-interpretation materials and setting up Village Agreements, precursors of the Village Contracts discussed later.

In 2016-2019, a consortium of Australian universities worked with the Lao Ministry of Culture and Tourism, conducting archaeological excavations at some of the largest sites, with activities ranging from the collection of samples for dating, to mapping, drone photography and documentation of the megaliths (O'Reilly et al. 2019a).

A summary of visits and historical research is provided in Table 2.

### Jars, discs and iconography

Most of the jars have been manufactured with a degree of knowledge of what materials and techniques were suitable, presumably using iron chisels, although "no conclusive evidence for this exists" (Lao PDR 2018: 35). In general terms, the stone is sourced from a quarry relatively close to where the jars and discs are deposited, and can include outcrops as well as boulders in river valleys. Often, a manufacturing site is created near the quarry. Non-local rocks have been documented, typically quartz at Site 1 and andesite at Site 25, but no jars carved from andesite have been found, despite a statement to this effect in the nomination document (ICOMOS 2019: 157).

Jars are carved from five main rock types—sandstone, granite, limestone, conglomerate and breccia—but the surviving discs are almost universally sculpted from sandstone.<sup>2</sup> All the jars in Luang Prabang and the vast majority of the Xieng Khouang units are in sandstone, which abounds in both provinces. A few conglomerate units are found at Sites 1 and 21 among the sandstone jars. Site 23 hosts jars in conglomerate or breccia, the latter available only at this site. Granite jars tend to be small-to-medium in

<sup>2</sup> In Khun district, Colani (1935, vol. 1: pl. 23/3) documented some plain and decorated discs in granite, but none have survived.

size, their smooth finish after centuries of exposure to the elements a testament to the carvers' skill in dealing with an igneous rock. The low stock of limestone jars, found exclusively in the eastern districts of Xieng Khouang, has dwindled dramatically in recent decades, almost to the point of extinction, due to erosion, urbanisation and the passage of time.

*Table 2. Summary of historical visits and research at the Plain of Jars*

|                 |  |
|-----------------|--|
| 1884, 1888-1890 | Missions to Xieng Khouang by James McCarthy and Auguste Pavie  |
| 1900-1903       | Mission by Alfred Raquez and first map of the Plain of Jars by Pierre Morin  |
| 1912-1913       | Henry Parmentier surveys temples in Xieng Khouang and documents groups of jars   |
| 1925, 1932      | Madrolle guidebooks illustrate the "enigmatic jars" of Laos  |
| 1931-1933, 1940 | Madeleine Colani surveys sites in Xieng Khouang and Luang Prabang provinces  |
| 1935            | Publication of Colani's <i>Mégalithes du Haut-Laos</i> monograph   |
| 1992, March     | Lao PRD submits Plain of Jars' Tentative Listing to the World Heritage Centre  |
| Mid-1990s       | Test excavations by Lao and international archaeologists   |
| 1995-2015       | UNESCO-supported research projects (mapping, aerial surveys, remote sensing, demining, museum/visitor centre at Site 1, Village Agreements, Draft WH nomination dossier, etc.) |
| 2016-2019       | Lao and international team research project at larger Plain of Jars sites  |
| 2018, February  | Lao PDR submits new World Heritage nomination dossier  |
| 2018, October   | Technical evaluation by ICOMOS team  |
| 2018, November  | Meeting between ICOMOS and Lao representatives in Paris  |
| 2019, 6 July    | Baku, Azerbaijan: Plain of Jars inscribed as a World Heritage Property   |

Jars and discs, carved from a single rock boulder, are plain or, rarely, decorated with human or animal figures. A frog carved on a sandstone jar at Ban Pha Thai, a site of two jars in the south of Xieng Khouang, may be “the first aquatic figure” discovered at the Plain of Jars (Genovese 2020: 63). The jars are generally barrel-shaped but the lip rim shows some style variations, possibly to reflect “social markers” (Genovese 2015: 94).

The jars' function continues to be debated, but their use as vessels for the decay of the body is not supported “by the limited instances of secondary burials in their vicinity” (Genovese 2019: 67). No discernible pattern of placement of the jars “within the sites” (ICOMOS 2019: 157) has been identified, but imposing units are generally found at the entrance or on prominent positions, with medium or small-size jars in the site's interior.

The discs, outnumbered by the jars by a ratio of 10:1, have also been the subject of scholarly debate. Their suggested use as lids has not received wide support due to a number of factors, including ill-matching fit and low quantities relative to jars. Moreover, it is a matter of speculation whether discs could have sealed recumbent jars, particularly the massive units in Xieng Khouang's Phoukood district.

## World Heritage Convention (1972) and outstanding universal value

A WH inscription rests on the concept of outstanding universal value (OUV), which requires properties to meet at least one out of ten selection criteria (<http://whc.unesco.org/en/criteria>), as well as satisfying tests of authenticity and integrity. The criteria were formally adopted by the WH Committee in 1980 and are regularly updated to reflect the evolution of the WH concept.

Protection of heritage at the national level often remains incomplete due to the scale of the resources required and the insufficient economic, scientific and technological means of the country where the property is situated, with the deterioration or disappearance of this heritage deemed “a harmful impoverishment of the heritage of all the nations of the world” (UNESCO 1972: 1).

At September 2021, the WH List included 1,154 properties from 167 States Parties (<https://whc.unesco.org/en/list/>), of which 897 are cultural sites, 218 are natural and thirty-nine are mixed. Member states can seek a WH nomination for sites on their soil (<https://whc.unesco.org/en/nominations/>).

## Plain of Jars’ Tentative Listing (1992)

In March 1992, Lao PDR lodged a Tentative Listing, signalling its intention to seek a WH nomination for the Plain of Jars, under criteria (i) as “a masterpiece of human creative genius” and (iii) as a “unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared” (<https://whc.unesco.org/en/criteria/>).

Some of the statements in the 1992 application have since been amended or refined. For example, the highest jar inventory, given as 250 units, possibly a legacy from early French-language publications (Parmentier 1954: 31; Colani 1935, vol. 1: 122, 126, 133, 166, 261), has now been refined to 334 units for Site 1 and 404 units for Site 52, two of the inscribed sites. The totality of the Plain of Jars, quoted as sixteen sites in the 1992 Tentative Listing, increased to eighty-five sites in the new submission (ICOMOS 2019: 157), but still slightly short of the 100 locations identified to date, a result of recent research which has widened the extent of the Plain of Jars.

## Selection of sites, nomination dossier (2018) and serial property principle

In February 2018, the Plain of Jars’ journey towards a WH nomination accelerated, when the 1992 Tentative Listing was withdrawn and replaced with a “new nomination” (ICOMOS 2019: 156) solely under criterion (iii). The dossier proposed eleven sites comprising fifteen components (Table 1), featuring the attributes necessary “to convey the significance and characteristics of each component” (Lao PDR 2018: 7), as it contributes to the complete expression of the OUV. The eleven sites are located in Xieng Khouang, with none of the Luang Prabang sites proposed for inscription.

The 2018 submission listed “a small selection of key sites” (Lao PDR 2018: 34) as a serial property, which should be treated “in the same way as single sites” (WHC 2010:

1). A serial property's components must contribute to its overall manageability and coherence, be clearly linked and reflect cultural, social or functional links over time. The sites submitted for nomination encompass large and small sites, as well as manufacturing locations and quarries, to provide a comprehensive basis for future research on population distributions “and the geographical associations with ancient trade routes” (ICOMOS 2019: 157), an approach that best represents the “characteristics” (ICOMOS 2019: 159) of jar sites extending over a large area. Sites with large and small clusters were selected, as well as “sites with jars with unusual stone types” (ICOMOS 2019: 158). The range is indicative of specific features of the wider Plain of Jars, where the inventory varies from one single jar—Site 28, for instance—to over 400 units, as at Site 52 in the Ban Phakèo complex (Figure 2).



Figure 2. Sandstone jars at the large complex of Ban Phakèo, Paek district. (Photo: Lia Genovese).

From the overall site inventory, approximately ninety locations were omitted for reasons including poor state of the stone artefacts or not essential “to convey the proposed Outstanding Universal Value” (ICOMOS 2019: 158). The jars and discs, as well as secondary burials, human remains and manufacturing sites, are the attributes that convey the heritage values of the eleven sites, while the associated archaeological deposits demonstrate the Plain of Jars’ “long human history” (ICOMOS 2019: 159).

The dossier claims that within the eleven sites, unit no. 229<sup>3</sup> at Site 1 is the only decorated jar in Paek district, displaying a “human bas-relief carved on the exterior” (Lao PDR 2018: 35). This is an incomplete rendering, however. In late 1994, Thongsa

<sup>3</sup> Site 1 is the only location where all the jars are numbered.



Sayavongkhamdy, the Lao archaeologist, uncovered at Site 1 a stone slab engraved with two human beings locked in an amorous embrace and set on a background of interlaced curved lines intercut with straight lines. This remarkable discovery subverts the theory that figures at the Plain of Jars consist of single representations, whether human or animal. It remains the only double representation found at the Plain of Jars, albeit without photographic records.<sup>4</sup>

The couple on the stone slab at Site 1 recalls the decoration on a Dong Son bronze sarcophagus, discovered in 1961 in Vietnam's Yen Bai province, on display in Hanoi's National Museum of Vietnamese History. Known as a *thap*, the 81 cm-high sarcophagus housed a smaller pot containing ash and human remains. The lid, decorated with a twelve-ray sun, is fashioned like a truncated cone, with handles in the shape of copulating couples "hinting at a reproductive symbolism" (Higham 2002: 176), with the male figures decorated with daggers on their hips.

The eleven sites stretch 80 km west to east and 40 km north to south, covering an area of 173.56 ha with ten buffer zones totalling 1,012.94 ha, aimed at controlling "development in the vicinity of the selected components" (ICOMOS 2019: 157). Buffer zones are not formal components of a WH property, but are intended to protect it from "negative influences" (UNESCO 2009a: 12) by functioning as areas for the control of development or other factors with potential negative impacts on the property's OUV. While not claiming outstanding universal value, buffer zones protect the value and integrity of the property and represent a zone that may influence a WH listing.

The nomination for the Plain of Jars focuses on five major locations—Sites 1, 2, 3, 42 and 52—with 1,186 jars and 198 discs. The remaining six locations—Sites 8, 12, 21, 23, 25 and 28—are home to 139 jars and 17 discs, to ensure that all attributes necessary to express the OUV "are within the property" (Lao PDR 2018: 95). Reservations were expressed about the inclusion of these six smaller sites, since reducing the overall series could have practical advantages for managing the property.<sup>5</sup> The rationale for including Site 3's five jar groups was also questioned as a seemingly "confusing arrangement" (ICOMOS 2019: 159) with potential conservation problems, in addition to various intrusive elements best managed as a 'whole site' to strengthen their integrity.

Site 1 has been subject to "the most archaeological research" (ICOMOS 2019: 157) and derived the sandstone for its jars from Site 21. Site 2 (Figure 3), spread over two adjoining hills, is connected to Site 3 through a 2.5 km path that also leads to Site 8, the quarry associated with both sites. Site 12 is a manufacturing site in Ban Phakèo. Site 23 is a good example of a smaller jar site with quarry, with the smaller Sites 25 and 28 representing the northern and western reaches respectively. Site 42 (Figure 4) is a large quarry in the eastern district of Kham, while the 404 units at Site 52 represent the largest jar inventory known to date. During recent excavations, archaeological evidence recovered from Site 52 was modest compared to that collected from Site 1,

<sup>4</sup> Thongsas's camera experienced a malfunction on the day of the discovery. Personal communication dated 1 January 2019 from Thongsas Sayavongkhamdy, former Director-general of the Lao Department of Cultural Heritage.

<sup>5</sup> Letter dated 21 December 2018 from Ms. Gwenaëlle Bourdin (Director, ICOMOS Evaluation Unit) to Ambassador Yong Chanthalangsy, Permanent Delegation of the Lao PDR to UNESCO, Paris.



Figure 3. Zoomorphic carving on a jar at Site 2, discovered by the author in 2009. (Photo: Lia Genovese).



Figure 4. Sandstone jar at Quarry Site 42. (Photo: Lia Genovese).



but nevertheless “similarities in the suite of artifacts between the two sites are apparent” (O’Reilly et al. 2019b: 12).

Information from the Lao government in February 2019 strengthened the justification for including each of the fifteen components, which in their assembly represent the range of sites (topographic and locational contexts, stone types, density and size of jars and other archaeological evidence). The fifteen components also ensure “the protection of the substantial archaeological potential of these sites” (ICOMOS 2019: 163). The additional information clarified the rationale behind the choice of the eleven sites, and particularly the attributes that sustain the proposed OUV, as well as their consistency with paragraph 137-b of the Operational Guidelines, which stipulates that each component “should contribute to the Outstanding Universal Value of the property as a whole in a substantial, scientific, readily defined and discernible way”, with the resulting OUV “easily understood and communicated” (UNESCO 2017: 38).

A wider geographical and geological representation would have been achieved by encompassing some of the Luang Prabang sites and at least one site populated with granite jars in the south of Xieng Khouang. The rationale for excluding the Luang Prabang sites may stem from logistical considerations, since visits can require a four-wheel drive vehicle and a narrow boat for particularly inaccessible sites, like Phu Da Pho. If and when some Luang Prabang sites are included in the tourist itinerary, visitors can observe jars in pink sandstone, in a range of sizes, as well as massive sandstone discs decorated with feline forms and others fashioned like mushrooms, neither variety found in Xieng Khouang.

### Authenticity and integrity

The WH Committee noted that the sites’ authenticity is based on their form, design, materials and locations, as well as the sheer number of extant jars. Their antiquity is justified by “secondary burials and archaeological deposits”, while their integrity rests on “the relatively stable state of conservation” and the “intactness of the individual components and the series as a whole” (WHC 2019: 252).

Despite irreversible damage from impacts like passage of time, exposure to the elements, economic development and conflict, the property demonstrates authenticity in relation to the proposed OUV, based “on the form, design, materials and locations of the jars and other elements” (ICOMOS 2019: 159), with numerous sites hosting all stages of the production sequence—from stone harvesting to carving and removal to funerary location—like the “*in situ* evidence of each step of the quarrying process” (ICOMOS 2019: 157) at Site 21.

The integrity of the nominated serial property is based on the rationale for the selection of the components and “their ability to convey the potential Outstanding Universal Value” (ICOMOS 2019: 159). The dossier also noted the size of the jars, the “technological skill” to produce and move the jars from quarry to funerary site, the archaeological evidence related to “funerary practices, the material culture of the ancient civilisation” (Lao PDR 2018: 95) and the funerary sites’ cultural meaning.

The materials are mostly original, “located in their original locations, with relatively

little disturbance to the archaeological deposits” (ICOMOS 2019: 159), although damage from conflict has had an impact at some sites and looting and disturbance by animals or agricultural practices have occurred at other locations. The setting is mostly as an agricultural or forest landscape, consistent with, or sympathetic to, the original.

### Comparative analysis

The unintended “subjective elements” (Jokilehto 2008: 13) encountered in the evaluation of cultural heritage are offset by a comparative analysis. The appraisal conducted by ICOMOS (2019: 158) considered comparative examples found in “India, Indonesia, Malaysia, Myanmar, Viet Nam and the Philippines”, as well as other parts of Laos like the jar sites in Luang Prabang and the standing stones of Hua Phan. The analysis omitted the decorated stones of Luang Namtha province in the north-west of Laos, which have been studied in recent years by Lao and foreign researchers (New Frontiers 2006; Schipani 2008; Bouxaythip 2011) and assessed for local ecotourism. Stone jars in funerary sites are found in the region, but the density of sites in Xieng Khouang is “remarkable” (Lao PDR 2018: 17).

Similar to other vast and impressive human creations, like Cambodia’s Angkor Wat or Indonesia’s Borobudur temples, the Plain of Jars belongs to the category of humanity’s visible heritage, whose scale and beauty “impress anyone who has an opportunity to contemplate them” (Condominas 2003: 19), such is their scientific and technical achievement.

The Plain of Jars’ OUV was recognised by ICOMOS (2019: 158) under three main headings: 1) the jars and associated elements as an “exceptional testimony” to the funerary practices and the civilisation that created them; 2) the “impressive” nature of the jars due to their large number and size, and the technical skill required to carve and transport them; and 3) the “important archaeological evidence” of material culture and cultural practices across several different eras and cultures. The funerary sites are the outstanding surviving evidence of this civilisation and their associated elements are recognised as an exceptional testimony to their ritual practices.

The comparative analysis established the Plain of Jars’ “distinctiveness” (ICOMOS 2019: 158) and justified consideration for the World Heritage list.

### Interpretation

ICOMOS lamented the limited archaeological research carried out at the Plain of Jars, reflected in the relatively scarce knowledge in the public domain about the peoples who manufactured and used the jars. It requested additional information on the longer-term research plans to improve the state of knowledge and also about future plans for archaeological research to deepen the interpretation of the nominated property. The lack of knowledge about the Plain of Jars’ histories, peoples and cultural traditions poses challenges within the context of the WH Convention, but proper understanding through continuing research “will enrich the appreciation of the importance of these sites” (ICOMOS 2019: 159) over time.



Comments were also expressed about the modest on-site interpretation, particularly when considering the difficulties in accessing some of the sites.<sup>6</sup> On-site interpretation is provided at the major sites, but additional installations are needed, particularly at the smaller and remote sites. The measure has been assigned high priority, with some results already implemented thanks to financial support from New Zealand and Australia, which has allowed a number of key improvements to be made “in the documentation, protection and presentation” (ICOMOS 2019: 161) of the nominated property.

### Evaluation and justification for inscription

The dossier submitted by a State Party is appraised by Advisory Bodies (ABs) whose technical evaluation establishes if an inscription is warranted. The rigorous process is conducted by qualified experts and entails numerous steps, which must be completed within specified time limits. The WH Committee relies on three international ABs: ICOMOS, IUCN and ICCROM.

ICOMOS is concerned with the evaluations of cultural and mixed properties and the IUCN (International Union for Conservation of Nature) deals with the technical evaluations of natural heritage properties. ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property) provides Member States with “the best tools, knowledge, skills and enabling environment to preserve their cultural heritage in all of its forms, for the benefit of all people” (<http://whc.unesco.org/en/advisorybodies/>).

The nomination dossier stated that “no risk preparedness measures have been developed” (ICOMOS 2019: 161) due to the jars’ robust nature and few risks associated with natural hazards. Enquiries were made about future risk-reduction strategies and the jar sites’ protection, conservation, disaster risk-management, heritage impact assessment (HIA), proposed developments, community awareness and involvement, interpretation, tourism management plan and monitoring.<sup>7</sup>

Members of both the WH Committee and ICOMOS Evaluation Unit had planned to visit the Plain of Jars in the summer of 2018, but heavy rains that August led to floods, causing a dam to collapse and “a slight postponement of the ICOMOS evaluation mission” (ICOMOS 2019: 161). Although few areas within the nominated property were directly affected, Site 1 experienced some flooding and the access road to Sites 52 and 12 was impacted.

The technical evaluation was postponed to October 2018, but the advanced state of desktop research and analysis enabled ICOMOS to formulate requests for further details, which the Lao government provided in November 2018.<sup>8</sup> A few weeks later, members of the Lao Permanent Delegation to UNESCO met with representatives of the ICOMOS Panel in Paris, where further clarifications were identified.

<sup>6</sup> Letter dated 9 October 2018 from Ms. Gwenaëlle Bourdin to Ambassador Yong Chanthalangsy.

<sup>7</sup> Letter dated 9 October 2018 from Ms. Gwenaëlle Bourdin to Ambassador Yong Chanthalangsy.

<sup>8</sup> Letter dated 9 October 2018, from Ms. Gwenaëlle Bourdin to Ambassador Yong Chanthalangsy.

Consistent with the Operational Guidelines for the implementation of the WH Convention and its Annex 6, on 31 January 2019 the ABs submitted an interim report on the Plain of Jars. After further comments from Lao PDR, the evaluation was completed in March 2019, when ICOMOS (2019: 159) concluded that the nominated property “meets criterion (iii)” and constitutes “an impressive achievement of an ancient civilisation of southeast Asia” (ICOMOS 2019: 163), justifying inscription on the World Heritage List.

### State of conservation and UXO clearance

Pending the finalisation of a programme of conservation, the Lao government has developed a general set of Conservation Guidelines for site management, including “a comprehensive risk map” ICOMOS (2019: 159) for each component. ICOMOS (2019: 161) also noted that conservation measures, research and improvements to the presentation of the overall property “are not prominent at this level of management planning”.

Divergent opinions on the state of conservation were expressed during the appraisal process, ranging from variable across the nominated components to “generally good” (ICOMOS 2019: 157). The Lao government envisages a conservation plan and acknowledges the need for “additional training” (ICOMOS 2019: 60) to expand the capacity of conservation personnel.

Vegetation growth at some sites was mentioned as a potential threat, as was visitor pressure, particularly from “climbing on the jars” to “stepping on the discs” (ICOMOS 2019: 158), and erosion, caused by past cattle grazing (although fencing has since been installed and the practice is no longer permitted).

ICOMOS (2019: 158) expressed concerns about a new “high voltage transmission line” running through the buffer zone of Site 3, as well as “roadworks” causing damage to some components at Site 52, low-density “residential development” in the buffer zone of several components, which could be a future issue for “Sites 1 and 25”, agricultural encroachment at Site 23, but logging in the buffer zone of Site 42 is not deemed to have “any detrimental impact” on the property’s OUV. There is no mention of the contemporary burials revealed in UNESCO’s Training Manual for tour guides at the Plain of Jars, including Site 52: “Both Hmong and Phuan burials have been recorded at jar sites, and while the Phuan burials use lower foothills and spurs to place jedis, Hmong prefer the mountain ridges” (UNESCO 2009b: 27).

ICOMOS (2019: 158) also noted the removal of some jars from their original archaeological location. Famously, Gen. Vang Pao (1929-2011), the Hmong leader, donated a sandstone jar to the US government in 1970. The jar, from Site 1, has never been on public display in the US and remains in a storage facility managed by the Smithsonian Institution (<https://collections.si.edu/search/results.htm?q=A459245-0>). In another instance, in the early part of 1985, two sandstone jars were moved from Site 2 to inaugurate the Soviet-financed “Lat Sen Commune Cattle Farm” (Genovese 2020: 61), where they can still be admired. The Lao government has issued assurances to the effect that the unauthorised removal of jars “is not a current issue” (ICOMOS 2019: 158).

Under the terms of the WH inscription, mining is “prohibited” (ICOMOS 2019: 158) in the property and in the buffer zone. The mineral wealth of Laos, and that of

Xieng Khouang in particular, was well known in French colonial times, when a map (Russier 1931) identified numerous deposits of gold and tin ore, the latter transported east to Vietnam and subsequently shipped to Europe.

The current conservation challenges were summarised as “removing unexploded ordnance [UXO] from surrounding areas, visitor pressures, and various site-specific pressures of development and agricultural encroachment” (ICOMOS 2019: 158). UXO (Figure 5) are legacy devices from the Second Indochina War, when over two million tons of ordnance were dropped on Laos, equivalent to “a bombing mission every 8 minutes, 24 hours a day, for 9 years” (<http://nra.gov.la/uxoProblem.php>).<sup>9</sup> The Lao government advises that the property has been demined, with operations ongoing in the buffer zones (ICOMOS 2019: 161), but an entry in the nomination dossier (Lao PDR 2018: 120-121, Table 13) suggests that Sites 28 and 42 await clearance.



Figure 5. UXO Garden in Phonsavan, displaying unexploded devices collected from Xieng Khouang province. (Photo: Lia Genovese).

Demining efforts were intensified at the property in preparation for the WH listing, to provide a safe and comfortable experience for visitors and villagers alike. Mines Advisory Group (MAG) started working in Lao PDR in 1994, where it employs over 900 staff (<https://www.maginternational.org/what-we-do/where-we-work/laos/>). The concrete markers introduced by MAG to demarcate a cleared path still bear their name, but are being gradually phased out (ICOMOS 2019: 161). For decades, numerous organisations have cleared unexploded devices in Laos, including JMAS (Japan Mine Action Service), an NGO that has operated in the country since 2005 through funding from various donors, including the Japanese government (<http://>

<sup>9</sup> The National Regulatory Authority (NRA) is an institution of Lao PDR, operating under the Ministry of Labour and Social Welfare. It is responsible for the regulation, co-ordination and facilitation of all operators in the country working on the impact of UXO, including bombs, artillery shells, grenades, landmines and other items (<http://www.nra.gov.la/>).



jmasvte.yolasite.com/). In February 2019, the author was granted special permission to observe their demining work at the village of Ban Bi in Paek district (Figure 6). A protocol has been developed “to guide UXO clearance in archaeologically sensitive locations” (ICOMOS 2019: 161), with research priorities articulated in a research plan (Lao PDR 2018, Annex L. 11).



Figure 6. JMAS (Japan Mine Action Service) has conducted demining operations in Laos since 2005. The PC 130 in the picture was specially modified for clearance work in Xieng Khouang. L-R: Khambay Saiyavongsar (UXO-Lao Senior explosive ordnance disposal technician), Lia Genovese, Hideki Kamei (JMAS Technical advisor). (Photo: Lia Genovese).

Although there were no occupants in the property, at the time of the dossier preparation twenty-four residents dwelled within the buffer zone of Site 1, which the Lao government intends to relocate “outside the buffer zone” (ICOMOS 2019: 157). Forced evictions must be avoided when persuading people to leave site grounds, and relocation strategies must enable local communities to have property justice, with their “livelihoods and the maintenance of a social community” (Silverman 2017: 123) not impeded in the process.

The controversy involving the Phra That Phanom temple in Thailand’s Nakhon Phanom province, submitted in 2017 as a Tentative Listing (<https://whc.unesco.org/en/tentativelists/6183>), illustrates the conflict between a WH nomination requirement and the rights of communities dwelling or trading in the area. When threatened with eviction from the temple grounds, to pave the way for registration as a WH Property, vendors voiced their grievances at the prospect of losing the modest income generated by the sale of food and souvenirs, that for many years had allowed them to support their families. They also criticised the relevant agencies for not providing an alternative space for their trading.<sup>10</sup>

Tables 12-14 in the nomination dossier (Lao PDR 2018: 118-124) provide a detailed

<sup>10</sup> “Vendors evicted as temple readies for heritage site status,” *Bangkok Post*, 7 November 2018.



condition of the stone artefacts, conservation issues and statistics on visitor numbers (reproduced as an Annex in this article), with issues summarised in Table 3.

### Protection in law, management plan and projected visitor numbers

The Ministry of Information, Culture and Tourism, on behalf of the Lao government, is the owner of the entire property in accordance with Articles 3 and 9 of the current *Land Law 2003* (ICOMOS 2019: 160). Buffer zones are also owned by the Lao government, but their private use is allowed under Provincial Decree 996 (Lao PDR 2018: 128) if sympathetic to the site's OUV.

The Plain of Jars is primarily protected by the *Law on National Heritage 2013*, with sanctions stipulated by the Lao Penal Code for offenders. Additionally, the Provincial Governor's Decrees 995 and 996 concern the Management and Conservation of the Plain of Jars World Heritage Sites and also deal with management aspects. Further protection is guaranteed by the Decree of the President of the Lao PDR (1997) on the Preservation of Cultural, Historical and Natural Heritage. The Lao government has drafted a Ministerial Decree on the Protection of the Plain of Jars upon its inscription on the World Heritage List (ICOMOS 2019: 160).

For Lao PDR, a WH inscription is a poverty-alleviation strategy through heritage tourism and hospitality. With the inevitable media coverage and interest that follows a listing, the Plain of Jars' growth in visitor numbers has been estimated at 5-10 per cent annually (Lao PDR 2018: 125-126), but the distance from Vientiane, Luang Prabang and other tourism routes is likely to keep these projections on modest levels until Xieng Khouang becomes an international airport. Other factors like local security and travel safety are likely to affect visitation figures.

The management plan is a key document in the evaluation process to ensure a stronger co-ordination "of the overall strategic vision for the serial property",<sup>11</sup> able to withstand the application of "cooperative approaches to potential problems within the framework of the plan" (ICOMOS 2011: 2). At the Plain of Jars, "a consolidated Management Plan for the overall property" (ICOMOS 2019: 161) is in the making, but a "provincial tourism strategy" (Lao PDR 2018: 126) is already in place.

For UNESCO (2017: 31) the management plan must specify how a property's OUV should be preserved "for present and future generations". In the case of the Plain of Jars, the current infrastructure must possess the ability to support high visitation periods like the Hmong New Year and the Lao New Year (ICOMOS 2019: 162).

WH properties face the quandary of providing accessible tourist infrastructure, albeit at a safe distance. All such infrastructure built in the buffer zone can be uncomfortably close to the property, as with Melaka, inscribed on the WH roll in 2008 (<https://whc.unesco.org/en/list/1223/>). Long-term residents of this Malaysian city lament the loss of old-world charm and the "soaring hotels that tower a bit too close to the main heritage zone".<sup>12</sup> Melaka has considered a one-stop centre to

<sup>11</sup> Letter dated 21 December 2018 from Ms Gwenaëlle Bourdin to Ambassador Yong Chanthalangsy.

<sup>12</sup> "Hipsters vs Heritage", *Bangkok Post*, 19 February 2018, Asia Focus, p. 7.

provide tourists with “accessibility, places, food, and hotel[s]” (Jusoh et al. 2014: 7), essential for a pleasant sojourn.

*Table 3. UXO clearance work and other issues at the inscribed sites*

| Site:  | 1       | 2 | 3 | 8 | 12 | 21 | 23 | 25 | 28 | 42 | 52 |
|--|---------|---|---|---|----|----|----|----|----|----|----|
| Jar groups/paths cleared of UXO                      | ✓       | ✓ | ✓ | ✓ | ✓  | ✓  | ✓  | ✓  |    |    | ✓  |
| Removal of concrete markers                          | ongoing |   |   |   |    |    |    |    |    |    |    |
| Clearance of UXO from buffer zones                   | ongoing |   |   |   |    |    |    |    |    |    |    |
| Farming/vegetation                                   |         | ✓ | ✓ | ✓ |    | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Active management issues                             |         | ✓ | ✓ | ✓ | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Tourist activity issues                              | ✓       | ✓ | ✓ |   |    | ✓  |    |    |    |    |    |
| Unauthorised past removal of jars                    | ✓       | ✓ |   |   |    |    |    | ✓  |    |    |    |
| Development in the buffer zone                       | ✓       |   |   |   |    |    |    | ✓  |    |    |    |
| Agricultural encroachment in the property            |         |   |   |   |    |    | ✓  | ✓  |    |    |    |
| War activity damage                                  |         |   |   |   |    |    |    | ✓  |    |    |    |
| Future large-scale restoration                       | ✓       |   |   |   |    |    |    |    |    |    |    |
| High voltage transmission line in buffer zone        |         |   | ✓ |   |    |    |    |    |    |    |    |
| Relocation of dwellers outside buffer zone           | ✓       |   |   |   |    |    |    |    |    |    |    |
| Ongoing erosion from use of road through the site    |         | ✓ |   |   |    |    |    |    |    |    |    |
| Building water basins & concrete structure near jars |         |   | ✓ |   |    |    |    |    |    |    |    |
| Logging in the buffer zone                           |         |   |   |   |    |    |    |    |    | ✓  |    |
| Damage caused by urbanisation                        |         |   |   |   |    |    |    |    |    |    | ✓  |
| New road suitable for vehicles within the site       |         |   |   |   |    |    |    |    |    |    | ✓  |

Source: Numerous sources, including Lao PDR 2018: 120-121, Table 13.

The carrying capacity is the number of people that “can be permitted into an area without risk of degrading the site and the visitors’ experience of it”, a concept aimed at better understanding “the relationship between the number of visitors and the impacts they cause” (Pedersen 2002: 56). For the Plain of Jars, the carrying capacity has been estimated at 1,000 visitors per day “if properly managed” (Lao PDR 2018: 126) by devising a set path for visitors and posting guards at the sites.

The Laotian jars can withstand a degree of wear while “visitor pressure is low” (ICOMOS 2019: 162), but tourism is seen as a future challenge, including the possibility of increased vandalism and damage, with management steps needed to be in place within the next five years (Lao PDR 2018: 125-126). While visitor numbers remain modest, it is important to prevent some of the harmful developments observed in Luang Prabang, where visitation grew significantly after its WH inscription in 1995. However, Luang Prabang’s experience is not a useful model to predict visitor numbers for the Plain of Jars, which is not as well served by tourist facilities and domestic or international connections.

From statistics published by the provincial Department of Information, Culture and Tourism, Site 1 (2012-2015) and Site 2 (2010-2015) experienced average annual growth rates of 7 per cent and 2 per cent respectively, while Site 3 experienced a decrease of 7 per cent (Lao PDR 2018: 125-126). In 2015, Site 1 recorded a total of 38,000 visitors, while Sites 2, 3 and 21 welcomed on average 3,000-5,000 visitors (Lao PDR 2018: 124, Table 14). The patterns are uneven and the concentration of visitors towards Site 1 is driven by its large size and proximity to Phonsavan's domestic airport and tourist facilities.

It is likely that Sites 1, 2, 3 and 21 will remain the most visited, bearing the brunt of the 1,000 projected daily visits, a development likely to cause conservation problems. The biggest risk factors in this scenario are erosion from footfall, uncontrolled tourist movement, littering and vandalism (Lao PDR 2018: 126). Infrastructure (ticket booths, restaurants, toilets and signage) and private investment (hotels, access roads and restaurants) must not diminish the Plain of Jars' OUV by encroaching on the property.

Identified threats range from lack of planning or maintenance, deficiencies in staff capacity, looting, removal of or damage to the jars, inappropriate archaeological research, graffiti or other tourism impacts, vandalism and "wild animals" (Lao PDR 2018, Conservation Guidelines, L. 12). The same document identifies as conservation issues the natural deterioration of the stone, inappropriate conservation interventions, the elements including windborne matter, and natural threats like algae and fungi.

### Monitoring, village contracts and heritage impact assessment (HIA)

ICOMOS (2019: 159-160) noted that the integrity of the property "is vulnerable due to the impacts of natural processes, and current and past human activities", but the monitoring system was deemed "adequate for the current conditions and pressures". Local participation in the day-to-day management is a key detail in the overall monitoring programme for the inscribed sites, which found favour with the advisory bodies. The dispersed nature of the sites, and the remote setting of some locations, present conservation challenges which have met with partial success.

On a theoretical level, the Plain of Jars is protected by national legislation and internationally by the terms of the WH inscription. On a practical level, however, conservation problems ensue when communities living in close proximity to the sites engage in potentially harmful activities, including the use of jar and disc fragments to build stone cairns to commemorate departed relatives. Fires lit during seasonal slash and burn, at times near jars and discs, cause intense heat and smoke for the sandstone artefacts' porous structure. At some remote sites, crops are planted among jars and discs, with the jars occasionally functioning as containers for farming debris. More pervasive is the use of a jar's rim as whetstone to sharpen knives or farming implements. These challenge are likely to remain until more effort is devoted to instil appreciation for the stone objects' heritage value.

The Lao government was asked to elaborate on the management system, the active role played by villagers in maintaining and managing the nominated components, with the overall result being a combination of villagers, Action Plan and legal framework.

On-site responsibility for safeguarding a site is shared between “national, provincial and local actors, linking with higher level national processes” (ICOMOS 2019: 160), and is enshrined in village contracts, which are accompanied by detailed Site Guidelines, specific to the site in question and providing “clear instructions on what to do”.<sup>13</sup>

Under these village contracts (Figure 7), the local authority is required to set up a Village Heritage Team, trained, equipped and supervised by the provincial and district heritage authorities, to provide daily monitoring, “supported by technical staff” responsible for the direct implementation of the contracts, with considerable reliance on village communities for “effective management” (ICOMOS 2019: 160).

On a regular basis, the teams visit the nominated sites, undertake basic maintenance and carry out “preventative measures for protection including monitoring visitor behaviour”.<sup>14</sup> Under the terms of Provincial Governor Decree 995, villagers receive a portion of the revenue from admission tickets, shared between the Plain of Jars Heritage Technical Division, villages and district administrations, including a “province-wide heritage fund” (ICOMOS 2019: 161).

Future community involvement is crucial to the successful implementation of the management system, with ICOMOS seeking to establish whether the communities associated with the nominated components, and their wider settings, are aware and supportive of the nomination. Local communities have gained awareness of the World Heritage nomination process and its local implications, especially in relation to future land use. While the engagement and active custodianship of local communities are strengths of the nomination, the devolved approach will require “considerable and active coordination” (ICOMOS 2019: 162). Long-term management expectations include enhanced conservation and ongoing research into the sites; avoidance or mitigation of adverse developments; harmonious tourism development; strengthened community understanding and support, and “increased conservation capacity” (Lao PDR 2018: 18).

An inscribed property’s OUV is reflected in the attributes which must be protected for this unique value to be sustained. The heritage impact assessment (HIA) is a key process to evaluate “the impact of any proposed project or change” (ICOMOS 2011: 1), to preserve the OUV on which WH status was conferred. As part of the inscription journey, ICOMOS enquired about the Plain of Jars’ HIA detailed in the nomination dossier, including measures already in place, and how they link to the legal frameworks. Requests for further details also concerned proposed developments, whether for the sites themselves or the buffer zones at Sites 1, 3, 25 and 52.

Lao PDR submitted its “Heritage Impact Assessment for Plain of Jars, Xiengkhouang, Lao PDR”, qualified to the effect that these HIA Guidelines “were prepared prior to revisions to the management system for the Plain of Jars” and that they are due “to be revised to reflect the final form of the management system” (Lao PDR 2018, Heritage Impact Assessment Guidelines, L. 14).

Pending a final system, the immediate implementation envisages enforcing the HIA system by requiring that economic activities in the area of the relevant elements, including

<sup>13</sup> Letter dated 9 October 2018 from Ms. Gwenaëlle Bourdin to Ambassador Yong Chanthalangsy.

<sup>14</sup> Letter dated 9 October 2018 from Ms. Gwenaëlle Bourdin to Ambassador Yong Chanthalangsy.



## L.9 VILLAGE CONTRACT – SAMPLE

### *Official Translation*

The following is a sample of a village contract for one of the components, Site 2. Contracts for other sites are similar. The contracts are linked to the site guidelines.

Department of Information, Culture and Tourism, Xieng Khuang  
Plain of Jars Heritage Technical Division

No.  
Date.....December 2017

### **Village Contract Between the Plain of Jars Heritage Technical Division, and Village Authorities at Ban Na Kho**

- Refer to the Heritage Law no. 044 / dated 24 December 2013
- Follow the Governor's Decree on protection and conservation of the Plain of Jars World Heritage Site, No. 996/dated 17 November 2017
- Refer to the Governor's Decree on establishment of the Plain of Jars World Heritage Site Office, No. 870/MoICT, dated 25 October 2017
- Follow the Village [Site] Guidelines on the protection and conservation of the Plain of Jars Site 2, Ban Na Kho

Based on the study, review and consultation about the Village Guidelines for the protection and conservation of the Plain of Jars Site 2, Ban Na Kho, we, which comprise of Village Authorities and the villagers in Ban Na Kho, have all agreed in consensus to put the said Guidelines into operation and to implement them with a view to achieving results.

As a result, the Village Authorities and the Plain of Jars Heritage Technical Division have developed the Village Contract to serve as a reference document that defines the sharing of responsibilities between the Plain of Jars Heritage Technical Division and the Village Authorities at Ban Na Kho. For details of the responsibilities of the Village Authorities in protection and conservation of the heritage site, refer to the Village [Site] Guidelines in the attachment.

Village Authorities

Plain of Jars Heritage Technical Division

*Signature*

*Signature*

District Governor

Department of Information, Culture and Tourism

*Signature*

*Signature*

Figure 7. A sample village contract for the division of duties and sharing of revenue from admission tickets to the Plain of Jars. (Source: Lao PDR 2018 nomination dossiers).

industrial and agricultural activities and the development of ancillary infrastructure, must obtain the prior approval of the Lao “Information department concerned” (Lao PDR 2018, Heritage Impact Assessment Guidelines, L. 14), so that the appropriate measures can be identified to ensure their sustainability.

## Looking ahead

Cultural heritage is increasingly prone to disasters caused by natural and human-induced hazards, like the August 2018 floods that caused the postponement of the Plain of Jars' technical evaluation. In response to the floods, the Lao government contacted the Institute of Disaster Mitigation for Urban Cultural Heritage, Ritsumeikan University, Kyoto, to enhance its risk preparedness (ICOMOS 2019: 161).

Possible future development pressures likely to impact the property include an increase in agricultural land area and the livestock grazing area, logging, tourism activities, residential expansion, road construction and other infrastructure development (e.g. electrical and telecommunications). There is no ongoing or proposed mining or exploration, all such activities being prohibited in the property and in the buffer zones. While all development is prohibited in the inscribed sites, some low-density residential expansion is present in the buffer zone of a few components, but further development in the buffer zones will be strictly controlled through the management system. Aside from the transmission line near Site 3 mentioned earlier, there are no current or proposed infrastructure developments in the property or buffer zones. In general, such infrastructure may be possible in buffer zones, subject to HIA, but not in the property.

At this time, there are no new road proposals or anticipated upgrading of existing networks. Even with WH listing, the pressure for increased access is not likely to extend beyond a few sites, likely to be the most visited Sites 1, 2, 3 and 21, with proposals subject to HIA. In the case of Site 52, upgrade of the current track, which runs through the site, may be necessary, but no proposals have been submitted as yet.

Capacity building is planned, with some key staff positions not yet filled and the office of the Plain of Jars Heritage Technical Division "not yet fully established" (ICOMOS 2019: 161). Present capacity is modest, but the training of Lao heritage practitioners is ongoing and mechanisms of international co-operation are envisaged.

Visitor facilities are well developed at Site 1, but limited or non-existent at locations like Site 28, whose single gigantic sandstone jar is unlikely to attract large visitor numbers. Some interpretation signs have been recently installed and others are planned. In Phonsavan, a lively night market is now fully functional and the newly rebuilt Provincial Museum displays some recent archaeological finds (ICOMOS 2019: 162).

ICOMOS (2019: 60) reports that the communication of February 2019 from Lao PDR indicated the possibility of a future "large-scale" restoration at Site 1, including consolidation of vulnerable jars and improvements to the site's presentation. Any such plans would require in-depth conservation planning and HIA, with plans for restoration or significant conservation programmes submitted to the WH Centre, in accordance with Paragraph 172 of the Operational Guidelines, for review by the Advisory Bodies.

An immediate priority is the updating of survey maps of all the components, starting with "the most prominent and heavily visited sites" (ICOMOS 2019: 160). Revised maps have been drawn for Site 25 and part of Site 23, with further efforts to improve maps for all inscribed sites through an application for support and assistance lodged with the US Ambassador's Fund in September 2019 (ICOMOS 2019: 160). In August 2021, the US government announced its intention to provide \$129,000 for the conservation of

the Plain of Jars, chiefly for the establishment of a database and GIS system to develop and maintain an inventory of jars and jar sites, for conservation and restoration of stone artefacts and for capacity-building among local staff and authorities responsible for the World Heritage sites in Xieng Khouang province (<https://la.usembassy.gov/united-states-provides-129000-for-preservation-of-plain-of-jars/>).

## Discussion and conclusion

Research into the Plain of Jars began from a position of disadvantage, firstly on account of its inaccessible topography, compounded by poor road infrastructure in recent years, and subsequently by the conflict and unsafe conditions caused by the presence of UXO. When research resumed in the mid-1990s, it became apparent that our knowledge and appreciation of the Plain of Jars would be greatly expanded. This would satisfy several of the requirements for deeper interpretation of the sites and the stone artefacts that populate them. The Plain of Jars' outstanding universal value is undisputed, for although stone jars in funerary contexts are found from India's Assam state to Indonesia's Sulawesi, the 2,000 extant Laotian units are remarkable for their quantity and a testament to the carvers' skills after centuries of exposure to the elements and human vagaries, including conflict and development. Original materials bestow these jars authenticity and integrity.

Restricting the selection to just eleven sites, exclusively from Xieng Khouang province, has clearly been a laborious process, with so many worthy candidates to choose from a total inventory of 100 sites. The inclusion of seemingly inconsequential locations like Site 28 raised queries during the evaluation process, with the Lao government ultimately providing clarifications to satisfy the Advisory Bodies' requirements. There is, however, a residual uncertainty that the eleven sites, which encompass over 60 per cent of the Plain of Jars' entire jar inventory, are not representative of its totality, considering the exclusion of granite jars (and limestone units) from the inscribed property. The omission of the Luang Prabang sites, with their unusual mushroom-shaped discs and massive, animal-decorated sandstone domes, is also perplexing, not least because it limits the geographical spread to just one province.

The evaluation found interpretation to be inconsistent over the eleven sites and robust recommendations have been issued for efforts to be strengthened in this area. Few comparative studies have been carried out (Genovese 2015, 2016 and 2019), to a degree hampered by the megalithic jars of Laos being a unique phenomenon in Mainland Southeast Asia. Opportunities will be missed if this trend continues, precluding a wider understanding of these jars as a megalithic expression within Southeast Asia's mainstream archaeology. The current emphasis on archaeological excavations is important, but other lines of enquiry should be pursued in parallel, like the jars' rim styles and morphology, as well as studies on theories for the concentration of megalithic expressions in north Laos, with jars spread over two provinces, standing stones in Hua Phan, decorated menhirs in Luang Namtha and undecorated, funerary stones beyond Luang Prabang's Phou Khoun district.

The experts charged with the technical evaluation concluded that the criteria had

been met for OUV, authenticity and integrity. The August 2018 floods in Xieng Khouang delayed the technical evaluation by a few months, but they highlighted the need for disaster preparedness. As an Advisory Body to the WH Centre, ICCROM recently held the first workshop at the Plain of Jars, by helping site managers to reinforce “the capacities of national and local authorities, providing technical assistance for the implementation of emergency preparedness and risk mitigation interventions”, including the need to raise awareness “within the Lao government on the importance of protecting heritage in emergency situations”.<sup>15</sup>

Through the application of national and international legal mechanisms, the stone artefacts’ state of conservation must be closely monitored, to ensure that their world-class status is not eroded by the elements or human intervention, including the management of visitor numbers and development in the buffer zones. If Site 1 remains the most visited, there is a legitimate concern for possible degradation of the stone artefacts due to concentrated tourist numbers, as well as restricting appreciation for the Plain of Jars’ totality.

Communities will be key allies in the day-to-day management, through village contracts and other measures. It will also be important to impress on locals and visitors alike the heritage value of these ancient stone artefacts, more so in view of their fragility within an open setting.

The journey, that began in 1992, came to a glorious end in 2019. The Plain of Jars has earned its status as a remarkable human creation, not only in Southeast Asia’s mainstream archaeology, but also on the global stage. The onus is now on all members of the human family to cherish and protect these unique stone artefacts, so that they may be admired in our time and preserved for future generations.

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<sup>15</sup> “Disaster Risk Management of the Plain of Jars World Heritage Property in Lao PDR” workshop, Xieng Khouang, 17-21 February 2020, <https://www.iccrom.org/news/disaster-risk-management-plain-jars-world-heritage-property-lao-pdr>.



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## Annex

Table 12. Details of the condition of jars and discs at ten sites from a survey in 2017.

| Table 12. Condition of Attributes at 10 Sites in 2017 |          |        |       |          |        |       |       |       |
|---|----------|--------|-------|----------|--------|-------|-------|-------|
| Site  | Jar      |        |       | Disk     |        |       | Stone | Total |
|   | Complete | Broken | Total | Complete | Broken | Total |       |       |
| 2   | 39       | 54     | 93    | 0        | 14     | 14    | 0     | 107   |
| 3   | 63       | 178    | 242   | 9        | 29     | 38    | 21    | 279   |
| 8   | 7        | 5      | 12    | 0        | 0      | 0     | 10    | 22    |
| 12  | 15       | 17     | 32    | 3        | 3      | 6     | 11    | 49    |
| 21  | 12       | 22     | 34    | 2        | 0      | 2     | 12    | 48    |
| 23  | 15       | 12     | 27    | 0        | 0      | 1     | 27    | 55    |
| 25  | 15       | 18     | 33    | 0        | 8      | 8     | 1     | 42    |
| 28  | 1        | 0      | 1     | 0        | 0      | 0     | 0     | 1     |
| 42  | 24       | 89     | 113   | 0        | 10     | 10    | 14    | 137   |
| 52  | 121      | 283    | 404   | 21       | 85     | 106   | 0     | 510   |
| Total   | 312      | 678    | 991   | 35       | 149    | 177   | 96    | 1,250 |

*Table 13. A summary of issues for each of the eleven inscribed sites.*

| Table 13. State of Conservation Issues at each Site |  |
|---|--|
| Site  | Issues   |
| Site 1  | <ul style="list-style-type: none"> <li>• Bomb/war activity damage.</li> <li>• Jar groups and paths UXO cleared, but not the rest of the site.</li> <li>• Jar removal issue.</li> <li>• Tourist activity issues.</li> <li>• Development in buffer zone.</li> </ul>  |
| Site 2  | <ul style="list-style-type: none"> <li>• Jar groups and paths UXO cleared, but not the rest of the site.</li> <li>• Farmers using the road through the site, encouraging ongoing erosion.</li> <li>• Vegetation issues.</li> <li>• Jar removal issue.</li> <li>• Tourist activity issues.</li> <li>• Active management issue.</li> </ul> |
| Site 3  | <ul style="list-style-type: none"> <li>• Jar groups and paths UXO cleared, but not the rest of the site.</li> <li>• Vegetation issues.</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>• Tourist activity issues.</li> <li>• Active management issue.</li> <li>• New high voltage transmission line through the buffer zone.</li> </ul>  |
| Site 8  | <ul style="list-style-type: none"> <li>• Paths UXO cleared, but not the rest of the site.</li> <li>• Vegetation issues.</li> <li>• Active management issue.</li> </ul>   |
| Site 12   | <ul style="list-style-type: none"> <li>• Jar group and paths UXO cleared, but not the rest of the site.</li> <li>• Active management issue.</li> </ul>   |
| Site 21   | <ul style="list-style-type: none"> <li>• Jar groups and paths UXO cleared, but not the rest of the site.</li> <li>• Vegetation issues.</li> <li>• Tourist activity issues.</li> <li>• Active management issue.</li> </ul>  |
| Site 23   | <ul style="list-style-type: none"> <li>• Jar groups and paths UXO cleared, but not the rest of the site.</li> <li>• Vegetation issues.</li> <li>• Active management issue.</li> <li>• Agricultural encroachment in property.</li> </ul>  |
| Site 25   | <ul style="list-style-type: none"> <li>• War activity damage.</li> <li>• Jar groups UXO cleared but not the rest of the site.</li> <li>• Vegetation issues.</li> <li>• Jar removal issue.</li> <li>• Active management issue.</li> <li>• Agricultural activities in property.</li> <li>• Development in buffer zone.</li> </ul>          |
| Site 28   | <ul style="list-style-type: none"> <li>• No UXO clearance.</li> <li>• Vegetation issues.</li> <li>• Active management issue.</li> </ul>  |
| Site 42   | <ul style="list-style-type: none"> <li>• No UXO clearance.</li> <li>• Vegetation issues.</li> <li>• Active management issue.</li> </ul>  |
| Site 52   | <ul style="list-style-type: none"> <li>• Jar groups and paths UXO cleared, but not the rest of the site.</li> <li>• Vegetation issues.</li> <li>• Active management issue.</li> <li>• Possible destruction of jars by nearby communities.</li> <li>• New road suitable for vehicles within the site.</li> </ul>                          |

*Table 14. Visitor numbers for organised access to four of the eleven inscribed sites.*

| Table 14. Visitor Numbers at Selected Sites |        |                |              |                  |
|---|--------|----------------|--------------|------------------|
| Site  | Year   | Total Visitors | Lao Visitors | Foreign Visitors |
| Site 1                                      | 2012   | 32,000         | 25,500       | 6,500            |
|   | 2013   | 29,200         | 16,400       | 12,800           |
|   | 2014   | 37,300         | 20,700       | 16,600           |
|   | 2015   | 38,000         | 24,000       | 14,000           |
|   | Totals | 136,500        | 86,600       | 49,900           |
| Site 2                                      | 2010   | 4,762          | 539          | 4,223            |
|   | 2011   | 4,127          | 684          | 3,443            |
|   | 2012   | 4,923          | 459          | 4,464            |
|   | 2013   | 4,896          | 428          | 4,468            |
|   | 2014   | 5,199          | 756          | 4,443            |
|   | 2015   | 5,154          | 723          | 4,431            |
|   | Totals | 29,061         | 3,589        | 25,472           |
| Site 3                                      | 2010   | 4,064          | 285          | 3,779            |
|   | 2011   | 3,985          | 249          | 3,736            |
|   | 2012   | 3,581          | 196          | 3,385            |
|   | 2013   | 3,663          | 135          | 3,528            |
|   | 2014   | 2,938          | 243          | 2,695            |
|   | 2015   | 2,756          | 295          | 2,461            |
|   | Totals | 20,987         | 1,403        | 19,584           |
| Site 21                                     | 2014   | 4,650          | 3,900        | 750              |
|   | 2015   | 5,093          | 4,151        | 942              |
|   | Totals | 9,743          | 8,051        | 1,692            |

Source: Lao PDR 2018: 118, 120-121, 124.