Melka Kunture and Balchit (Ethiopia) No 13rev

1 Basic information

Official name as proposed by the State Party
Melka Kunture and Balchit Archeological and Paleontological Site

Location
Kersa Malima Woredas, Sebeta Hawas Woreda
Southwest Shewa Zone, Oromia Special Zone Surrounding Finfine
Oromia National Regional State
Ethiopia

Brief description
Located in the Upper Awash Valley in Ethiopia, the nominated serial property preserves archaeological and palaeontological records that testify to the occupation of the area by the hominin groups from two million years ago. The sites, situated at an altitude of about 2,000 to 2,200 metres above sea level, yielded *Homo erectus*, *Homo heidelbergensis* and archaic *Homo sapiens* fossils, documented in well-dated strata in association with a variety of lithic tools made from volcanic rocks. The cultural sequence includes four consecutive phases of the Oldowan, Acheulean, Middle Stone Age and Late Stone Age techno-complexes. Fragments of palaeo-landscapes preserved buried under the volcanic and sedimentary deposits of Melka Kunture succession with fossil fauna and flora allow to reconstruct the high-mountain ecosystem of the Ethiopian Highlands during the Pleistocene and draw conclusions on the adaptation of hominin groups to the challenges and climatic conditions of high altitudes.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of six *sites*.

In terms of the *Operational Guidelines for the Implementation of the World Heritage Convention* (2023), paragraph 47, it has also been nominated as a *cultural landscape.*

[Note: the property is nominated as a mixed cultural and natural property. IUCN will assess the natural values, while ICOMOS assesses the cultural values.]

Included in the Tentative List
9 January 2020 as “Melka Kunture and Balchit”

Background
This is a new nomination.

Initially, the nomination of the Prehistoric Site of Melka Kunture in the Upper Awash Valley, Ethiopia, was submitted as a cultural property in 1978. It was evaluated by ICOMOS in 1981. The Bureau of the World Heritage Committee examined this nomination together with three others submitted by Ethiopia at its 5th session (Paris, 1981). All four were deferred until the Tentative List of properties which Ethiopia intends to nominate has been received (Report CC-81/CONF.002/4).

The World Heritage Committee at its 5th session (Sydney, 1981) took note of the decision of the Bureau to defer the nomination of the Melka-Kontoure, Ethiopia (Decision 5 COM VIII.16).

Consultations and technical evaluation mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the nominated property from 25 to 31 October 2023. This mission was conducted jointly with IUCN.

Additional information received by ICOMOS
A letter was sent to the State Party on 18 October 2023 requesting further information about the description, inventory of sites, serial nomination, boundaries of the nominated property, ownership and community involvement, legal protection, and the definition of the term “Melka Kunture”.

Additional information was received from the State Party on 20 November 2023.

An interim report was provided to the State Party on 20 December 2023, summarising the issues identified by the ICOMOS World Heritage Panel and the IUCN World Heritage Panel.
Further information was requested in the interim report on the nomination strategy, buffer zones, sub-sites within the buffer zones, protection, factors affecting the nominated property, management, research, and the ownership/involvement of communities.

Additional information was received from the State Party on 22 February 2024.

All additional information received has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
13 March 2024

2 Description of the nominated property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report provides only a short summary of the most relevant aspects.

Description and history

The nominated serial property is located in the Upper Awash Valley, in a half graben depression of the Ethiopian Plateau, at an altitude of about 2,000 to 2,200 metres above sea level and is composed of six component parts. It preserves a relatively continuous stratigraphic sequence formed by the accumulation of fluvial/alluvial and volcano-derived deposits interposed with tuff, informally known as Melka Kunture succession. Buried and preserved under these volcanic and sedimentary deposits are palaeontological and archaeological records, which yielded remains of *Homo erectus*, *Homo heidelbergensis* and archaic *Homo sapiens*, and a rich variety of lithic tools.

The Melka Kunture cluster of Palaeolithic archaeological and palaeontological sites testifies to hominin occupation of the area from around two million years ago and provides evidence of a long cultural sequence that includes the Oldowan, the Early and the fully developed (Middle and Late) Acheulean techno-complexes, the Middle Stone Age and the Late Stone Age lithic industries. Made from obsidian, basalts, trachyte and porphyritic rocks, the varied stone tools documented in different strata show that different types of rocks were used for different types of tools, and knapping techniques were adjusted accordingly. Besides large blocks of raw material, cobbles and pebbles found in alluviums and riverbeds were also collected and used to produce stone tools. Pollens, other palaeo-botanical evidence, and fossil fauna allow for a detailed reconstruction of past vegetation and drawing conclusions with regards to climatic conditions during the Pleistocene. The detailed chronology of the archaeological and palaeontological deposits is possible thanks to radiometric dating of tuffs.

Seven archaeological localities are included within six component parts of the nominated property. They were selected based on the richness of their material from among seventy archaeological outcrops identified in the area spanning over eighty square kilometres. The localities of Melka Kunture are named after the place of their discovery – in the gullies and valleys which eroded alluvial sediments from the Lower and Middle Pleistocene. Roman numbers refer to the sequence of discoveries, not the chronology of the sub-sites. The locality of Balchit, which complements the series of Melka Kunture sites, preserves the obsidian dome flow created as a result of volcanic activity some 3.5 million years ago. It received its name from the local term for the glassy volcanic rock procured by the hominins on the site.

Component part 001: Gombore-Garba

This component part includes archaeological and palaeontological sites identified within two gullies. Sites (and sub-sites) within Gombore gully date between 2.0 to 0.7 million years ago, with the most ancient phases of the human presence being identified at Gombore I (2.0-1.7 million years ago). Thousands of lithic artefacts that have been found within this component part belong to the Oldowan through Late Acheulean traditions. Remains of *Homo erectus* were identified at Gombore IB, associated with the Early Acheulean techno-complex, while at Gombore II-1 (1.0 million years ago) an early form of *Homo heidelbergensis* has been documented with Middle Acheulean industries. Hominin footprints of adults and children are preserved at Gombore II-2 (0.75 million years ago) suggesting that a family had congregated in this place. The lithic assemblages found at Gombore II OAM (1.0 million years ago) include so-called twisted bifaces made from obsidian, which are unique for this site within Melka Kunture, and in stratigraphic contexts within Africa in general. An open-air museum created at this sub-site has a permanent display of the archaeological surface with lithic material and faunal remains that were left *in situ*.

Faunal remains and analysis of pollen at Gombore gully provide palaeo-climatic information indicating existence of grassland-type vegetation with a forested environment, similar to present-day Ethiopian Highlands reality but at higher elevations. This suggests that dry evergreen Afromontane vegetation was more extensive in the past than today. Wet grassland and humid forest were a feature of this complex. Fossil faunal remains as well as animal footprints from Gombore show a great variety of animals. A high percentage of hippopotamus bones were found in this locality, as is a pattern for most sites in Melka Kunture area. The Gombore II-2 sub-site yielded fragmentary remains of two hippopotamus individuals found with lithic artefacts, which led to naming the site a “Butchery site”.

Garba gully contains evidence of hominin activity dating to 2.0-0.15 million years ago. Lithic assemblages documented indicate the transition from the Oldowan to the Acheulean techno-complexes, and the presence of the Middle Stone Age lithic industry. *Homo erectus* remains of a child have been found at Garba IV (2.0-1.95 million years ago) in association with Oldowan assemblages, while archaic *Homo sapiens* was documented at Garba III (0.6-0.15 million years ago) within the Middle Stone Age context. A possible evidence of the use of fire in the form of a burnt pebble was found at Garba I (0.6 million years ago). Thousands of lithics made of obsidian and basalt, with some assemblages showing signs of refined and standardised flake production, were found at different stratigraphic levels. The Middle Stone Age layer at Garba III included obsidian pebbles knapped with the Levallois technique.

In terms of ecosystems, high-level grassland can be reconstructed based on palynological analyses from Garba IV, while evidence of an open grassland/bushland is present in the layers at Garba I. Faunal remains from Garba XII (1.1 million years ago) suggest the existence of an open habitat. Evidence from Garba XIII (1.1 million years ago) indicates semi-arid conditions with some permanently humid areas.

Component part 002: Simbiro

Simbiro preserves archaeological layers dating to 1.3 million years ago. It includes a monumental natural section which yielded an impressive quantity of Acheulean implements of high-quality, showing a level of standardisation in the production of obsidian hand axes.

The evidence from Simbiro suggests the existence of a specialised lithic workshop, the earliest known, used solely for the preparation of tools that would be taken away for use elsewhere.

Component part 003: Balchit

This component part, which is located at a distance and at a higher altitude than the others, includes a flat dome flow of obsidian produced as a result of volcanic activity, and its outcrops which spread over a large area. The volcanic rock from Balchit was used as a primary source of obsidian ever since the Oldowan techno-complexes recorded at the nominated property. Obsidian knapping wastes are spread over the area of the component part. Huge accumulation of later residues suggests the intensive use of the Balchit site from the Late Stone Age (5,000 years ago) until historic times. Besides the dome flow, obsidian pebbles and cobbles found beyond the original outcrop (along the Atebella and Kella valleys) as a result of erosion were also utilised as a source of raw material for the production of stone tools.

Component part 004: Kella

Kella records the whole depositional sequence of Melka Kunture succession since two million years ago and includes Kella and Tuka Meja successions. Its archaeological record represents the Acheulean complex with Middle Stone Age and Late Stone Age implements dated to 1.0 million years ago to 4,000 years ago.

Component part 005: Wofi

The Wofi component part documents the later geological history of the area (Tuka Meja succession). It has archaeological deposit sealed within a brownish black clayey Holocene sediment. It yielded Acheulean and Middle Stone Age assemblages, with Late Stone Age lithic industries found eroding from surface deposits (1.0 million years ago to 5,000 years ago).

Component part 006: Atebella

Atebella is a gully with archaeological and palaeontological sites which yielded a rich Middle Acheulean lithic assemblage that can be dated to 1.2 million years ago. Atebella represents a kind of natural pavement of lithic tools. The alkaline obsidian found within this component part is similar to that documented within component parts 003 (Balchit) and 004 (Kella). Artefact typology shows similarities with component part 005 (Wofi) as well, but potential links between the sites are yet to be understood.

The original area of the six component parts as proposed in the nomination dossier and before changes made to the boundaries totalled 55.51284 ha, with buffer zones totalling 9,637.88 ha.

The Melka Kunture succession is a result of tectonic and volcanic activity in the region that can be dated to around ten million years ago. After each volcanic episode, the Awash River would re-establish its course, providing the sedimentary context of volcanic materials (tuff and lava) that buried and preserved archaeological deposits and palaeo-landscapes. Six erosion-sedimentation phases can be identified in the area. The first one, starting around two million years ago, represents the Oldowan sites and the evolution of *Homo erectus*. The second one was created by the erosion of the previous sediments and the deposition of clayey layers which preserved fossilised remains. The third phase, characterised by fluvio-lacustrine sediments (pebbles, gravels, sand, clay) and sealed by a layer of volcanic tuff, represents the Early Acheulean complex. The following erosion-sedimentation phase is characterised by Middle and Late Acheulean technology. The subsequent phase represents a period of erosion, with early Middle Stone Age and archaic *Homo sapiens* activity. The last phase, resulting from new tectonic activities, includes the clay and sand deposit with remains attributed to the Middle Stone Age. It is covered by an alluvial clay soil of Late Stone Age. During the last cycle, erosion exposed earlier layers, the effects of which can be observed in the present-day landscape.

In the additional information sent in November 2023, the State Party explained that the component parts were selected among many localities identified in the area; they include sites where the most significant discoveries were made. The seven localities included within the six component parts contribute individually to the whole series, providing complementary evidence on the evolution and activity of hominin groups over the span of two million years, as well as their natural environment and the sedimentary history of the Upper Awash River basin. More sites may be added to the nominated serial property at a later stage with the progression of research.

The State Party also updated and confirmed the dating of the different sites and sub-sites within the component parts of the nominated property in line with the newest research results.

State of conservation

Melka Kunture was discovered in 1963. The first site identified was Kella. Following a successful survey of the area, the first excavations took place in 1965 and continued until 1981. Investigations were resumed in 1993 for two years. Since 1999 excavations have been ongoing until present.

Most of the archaeological sites were discovered clustered over about eighty square kilometres. Thus far, out of more than seventy archaeological outcrops identified and tested, around thirty have been extensively excavated.

Most of the area of the nominated property is covered with vegetation that prevents erosion of sediments. However, some component parts, due to their location, have been affected by erosion as a result of either seasonal floods or land degradation caused by anthropogenic activity. At Simbiro (component part 002), the effects of erosion are larger than anywhere else. Located in the riverbed of one of Awash tributaries, this component part is affected both by seasonal floods and human-induced processes. A major threat to Simbiro are illegal sand quarrying

activities. Gombore-Garba (component part 001) and Atebella (component part 006) are seasonally affected by overflowing streams, while areas of Balchit (component part 003) and Kella (component part 004) are at risk of erosion due to land degradation.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation of the nominated property is satisfactory, but the component parts may become vulnerable due to the lack of resources necessary to put in place effective protection and conservation measures.

Factors affecting the nominated property
Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the nominated property are development-related or environmental.

Development pressures may pose a threat as the majority of the nominated property and the buffer zones are unfenced. Encroachment of settlements, which are a direct result of population growth, and increased farming and deforestation that lead to land degradation make the archaeological and palaeontological sites vulnerable to erosion. Waste management and the resulting pollution are increasingly problematic. Expansion of horticulture plantations towards the nominated property adds to the problem of environmental pollution.

Seasonal floods that result in erosion of sediments are a major risk given the proximity of the component parts to the Awash River and its tributaries. The problem of illegal sand quarrying (especially in the buffer zones and component part 003) is exacerbating, as sand mining is becoming an important economic activity in the area. The authorities are committed to putting an end to the illegal sand quarrying within the designate area of the nominated property.

Currently, human and financial resources available to address the factors affecting the nominated property are limited.

The maps supplemented by the State Party in response to the joint ICOMOS-IUCN interim report indicate that development pressures threaten the most Gombore-Garba (component part 001) and Kella (component part 004). The extensive buffer zones with legal restrictions are meant to enhance the protection of these component parts.

The State Party further explained in additional information sent in February 2024 that it plans to mitigate the risks related to soil erosion by planting vegetation and controlling grazing in the most susceptible areas. Illegal sand quarrying is being addressed through law enforcement. The State Party plans to run awareness campaigns to educate the communities about the importance of preserving the cultural heritage in the area so that the public actively helps limit the threats to the nominated property.

ICOMOS considers that the state of conservation is satisfactory but factors affecting the nominated property and limited resources may rapidly change the situation, making the component parts vulnerable.

3 Proposed justification for inscription

Proposed justification
The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The property is one of the earliest evidence of human occupation of high altitudes and their adaptability to the challenging environment of the cold and high-mountain ecosystem. The extremely long fossil record provides detailed information on palaeo-environmental changes and allows to understand the emergence and development through time of the distinctive Afromontane flora and fauna of the Ethiopian Highlands.
- The nominated property is one of the most important archaeological and palaeontological ensemble in East Africa preserving an exceptionally long cultural sequence and testifying to a variety of archaeological contexts of the Pleistocene epoch. The presence of hominin fossils found in association with well-dated archaeological material allows to understand the development of skills and cognitive capacities in early hominin groups. The nominated property allows to refute the old notion positioned on the thought that *Homo erectus* and *Homo heidelbergensis* took different evolutionary paths.
- The exceptionally rich concentration of lithic assemblages testifies to the centuries-long tradition of procurement and use of obsidian from the Oldowan to Acheulian and later until historic times, making the nominated property the earliest known example of obsidian utilisation and an outstanding witness of continuity of exploitation of this raw material.

The above arguments presented by the State Party are scattered throughout the nomination dossier and not necessarily set out in detail in the justification for inscription section of the dossier.

Based on the nomination dossier, the key attributes of the nominated property are the archaeological and palaeontological deposits with lithic assemblages and fossil faunal and floral remains, hominin remains including footprints, techno-lithic outcrops on the ground, volcanic and sedimentary deposits, including alluviums and volcanic ashes, as well as volcanic rock outcrops.

In response to the joint ICOMOS-IUCN interim report, in February 2024, the State Party decided to proceed with the nomination of this serial property on the basis of cultural

criteria only, and forgo the natural criterion (viii). Simultaneously, a new name of the nominated property was proposed, namely "The Paleo-Archaeological Landscape of Melka Kunture and Balchit: A Serial Property of Human Origin and Evolution Sites in the Highland Area of Ethiopia Associated with a Geological Setting".

ICOMOS considers that the nominated property presents evidence of the evolution of hominins under the influence of opportunities for resource availability, including water and raw material for stone and tool making. The archaeological sites that form part of the nominated property are set within a riverine environment and close to the source of obsidian. The hominins took advantage of this setting, and the interplay of hominin activity and natural processes shaped the landscape which can be said to bear evidence of some two million years of human occupation. The sequence of palaeo-landscapes, which include geological, archaeological and palaeontological characteristics, preserved under volcanic and sedimentary deposits, allows to study ways in which hominins adapted to the environmental challenges and the climatic conditions of this high mountain area, and throws light on their social and cultural development through the use of and changes in stone tool technologies.

However, it is difficult for ICOMOS to consider the nominated scattered fragments of the palaeo-landscapes included within the component parts as representative of what used to be a cultural landscape, in the World Heritage Convention terms. ICOMOS considers that not all of the nominated individual component parts preserve significant distinguishing features that testify in a tangible and discernible form to the combined works of nature and of man. Therefore, ICOMOS considers that the application of this category to the nominated serial property does not appear justified. A serial approach of archaeological and palaeontological sites in which the combination of component parts reflects the evolution of human species within the changing environment at high altitudes against the backdrop of the geological history of the area seems to ICOMOS a more viable nomination strategy that allows to justify the proposed Outstanding Universal Value.

In this light, ICOMOS further considers that the proposed new name of the nominated property may be confusing as it refers to both a landscape and a serial property. Moreover, the geological setting of the nominated property is already alluded to in the term "Melka Kunture" which designates the geological succession that enfolds most of the selected localities. Therefore, a simple reference to Melka Kunture, with the addition of Balchit as a separate feature, as initially proposed, seems sufficient to indicate the context of the nominated property, while its serial character is acknowledged by the plurality of sites that constitute it.

Comparative analysis

The comparative analysis has been developed around similar hominin-related palaeo-anthropological sites of the Pleistocene epoch. Two parameters were used for analysis (which is implied rather than explicit): the length of sedimentation sequences and techno-complexes documented, as well as the type of palaeo-environment. It has examined properties within East Africa and the Middle East inscribed on the World Heritage List as well as other properties. Only some of them have been analysed qualitatively. The information on the comparators is scattered throughout the nomination dossier.

The closest comparators to the nominated property are the Lower Valley of the Awash (Ethiopia, 1980, criteria (ii), (iii), (iv)), Lower Valley of the Omo (Ethiopia, 1980, criteria (iii), (iv)), and Ngorongoro Conservation Area (Tanzania, 1979, criteria (vii), (viii), (ix), (x), and 2010, criterion (iv)). The nominated property preserves evidence of an utterly different palaeo-environment to the dry and hot savannas of the other properties, and it testifies to human occupation of high altitudes characterised by a different ecosystem. Moreover, the evidence of four consecutive techno-complexes documented in the nominated property is unmatched by any of the mentioned inscribed properties. Archaeological material from the Olduvai Gorge in the Ngorongoro Conservation Area seems to indicate that the Oldowan and Acheulean industries were developed parallel to each other, without interaction, by two different hominin species. Evidence from the nominated property shows continuity in the development of the two technological traditions that can be attributed to *Homo erectus*, and transition between the Oldowan and the Acheulean, thus allowing for a reinterpretation of human evolution.

The comparative analysis also mentions Koobi Fora, an important rock formation in Kenya, east of Lake Turkana, as a close comparator in terms of its Plio-Pleistocene sedimentation sequence record which spans almost four million years. Although no qualitative analysis of this property is provided, Koobi Fora can be said to differ from the nominated property both in dating, as it represents an earlier period of human evolution, and palaeo-environment.

ICOMOS notes that the comparative analysis did not consider properties included in the Tentative Lists of States Parties. Among these, The Emergence of Modern Humans: The Pleistocene occupation sites of South Africa (South Africa, Tentative List) and Olorgesailie Prehistoric Site (Kenya, Tentative List) can be said to be the closest comparators. However, the first property testifies to the activities of archaic *Homo sapiens* in the Middle Stone Age, the sedimentary records starting at *circa* 162,000 years ago, while the second preserves evidence of ancestral hominids and *Homo erectus* from *circa* 1.2 million years ago. The nominated property is much older than both of these properties and more diverse in terms of hominin activity, as it preserves evidence related to *Homo erectus*, *Homo heidelbergensis*

and archaic *Homo sapiens*, the cultural tradition sequence reaching back to two million years ago and starting with Oldowan techno-complexes.

ICOMOS further considers that the hominin-related properties on the World Heritage List from the Asia and the Pacific region are not relevant as comparators as they testify to a much later period in the evolution of humans.

ICOMOS considers that the comparative analysis has demonstrated that the combination of proposed Outstanding Universal Value and attributes for the nominated property is not yet represented on the World Heritage List. There are no equivalent examples of preserved palaeo-landscapes that testify to the occupation by the hominins of high altitudes, with their distinctive vegetation. Moreover, despite long sequences of sedimentary records attested at other World Heritage properties, none of them preserves records of four consecutive technological traditions within one area, and documented in different archaeological contexts, as does the nominated property.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed
The property is nominated on the basis of cultural criteria (iii), (iv) and (v) and natural criterion (viii).

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

This criterion is justified by the State Party on the grounds that the nominated property preserves a unique sequence of four consecutive phases of stone tool technological traditions (Oldowan, Acheulean, Middle Stone Age and Late Stone Age) documented in a single area. Hominin fossils of *Homo erectus*, *Homo heidelbergensis* and archaic *Homo sapiens* discovered in well-dated archaeological layers with Oldowan, Acheulean and Middle Stone Age industries, paired with the evidence of varying use of different rocks through time, contribute to the understanding of human evolution, development of cognitive capacities in early hominin groups, and their adaptation to the environment by employing different strategies of raw material procurement during the Pleistocene.

ICOMOS considers that the nominated property is the only known place in the world to have preserved in a single area an exceptionally long cultural sequence consisting of four consecutive phases of Oldowan, Acheulean, Middle Stone Age and Late Stone Age techno-complexes. It includes one of the most complete sequences that document the Acheulean industrial complex in East Africa, from its emergence to its transition into the Middle Stone Age.

Homo erectus remains found in association with Oldowan and Acheulean techno-complexes show that this hominin species was responsible for the cultural change and behavioural patterns from around 2.0 to 1.4 million years ago. Evidence of continuity in the development and transition between Oldowan and Acheulean, rather than their parallel development by different hominin species, allows for reinterpretation of human evolution. The transition from *Homo erectus* to *Homo heidelbergensis* is well documented in the nominated property, showing discontinuity in various aspects of techno-economic behaviours. Remains of archaic *Homo sapiens* found within the early Middle Stone Age context prove that this industry was produced by archaic modern humans. Evidence of knapping of obsidian found within the nominated property shows changes with regard to the size of stone and techniques used, suggesting a fundamental step in the development of human intelligence and adaptation.

ICOMOS considers that criterion (iii) is justified.

Criterion (iv): *be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;*

This criterion is justified by the State Party on the grounds that the nominated property preserves the record of palaeo-landscapes, buried under volcanic tuffs and sedimentary deposits, and includes the unique landscape of a flat obsidian dome flow of Balchit, which was used by the hominins as a primary source of volcanic glass. The preserved fragments of palaeo-landscapes of the Pleistocene epoch allow to reconstruct the environmental history of the area and draw conclusions on the lifestyle of hominin groups, including their adaptation to the high-mountain ecosystem.

ICOMOS considers that the nominated property is an exceptional cluster of sites that preserve fragments of Quaternary fossil landscapes which include geological, archaeological and palaeontological characteristics. The volcanic material that buried these palaeo-landscapes has scientific value as it allows to date and establish the chronology of the cultural horizons. The fossil fauna and flora found in the different strata allow to reconstruct the palaeo-environment and palaeo-climate of the Ethiopian Plateau during the Pleistocene, testifying to the emergence of an Afromontane forest and grassland complex. Hominin remains documented within the nominated property provide one of the earliest evidence of human occupation of high altitudes and their adaptation to the challenging environment of the cold and rainy high-mountain ecosystem, which marks a significant stage in human history and allows for revisiting the theory of *Homo erectus* migration out of Africa.

ICOMOS also considers that, as a place available for research at more than 2,000 metres above sea level, the nominated property provides opportunity to record human evolution in an environment different from the dry savannas of lower elevations and explore limits of hominin adaptability during the Pleistocene.

ICOMOS considers that criterion (iv) is justified.

Criterion (v): *be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;*

This criterion is justified by the State Party on the grounds that the nominated property testifies to the long tradition of procurement of obsidian by the hominin groups and extensive use of this volcanic glass for tool production that starts with the Oldowan industry. It is the earliest known example of obsidian utilisation and the only known place in the world that holds an uninterrupted record of systematic procurement of this raw material and its knapping since two million years ago.

ICOMOS considers that the nominated property testifies to the consistent exploitation of obsidian as a raw material, procured and knapped since at least two million years ago. The changes in the size of stone obtained and chipping techniques employed that can be observed thanks to the long record of use of this volcanic rock throw light on the development of cognitive capacities among the hominin groups and a level of planning and innovation. High-quality and quantity of standardised obsidian tools found in Acheulean contexts suggest possible introduction of specialised production sites.

ICOMOS considers that criterion (v) is justified.

ICOMOS considers that the nominated property meets cultural criteria (iii), (iv) and (v) and that the serial approach is justified. However, ICOMOS considers that the application of the cultural landscape category to the nominated serial property is not justified.

Since the natural criterion (viii) was withdrawn by the State Party in February 2024, following the joint ICOMOS-IUCN interim report, the property is being nominated as a cultural property only, and not a mixed cultural and natural property.

Integrity and authenticity

Integrity

The integrity of the nominated property is based on the wholeness and intactness of the archaeological and palaeontological deposits sealed within the stratified volcanic and sedimentary deposits, and the related geological evidence.

All component parts contribute substantially to the proposed Outstanding Universal Value and are needed as they provide complementary evidence on the evolution and activity of hominin groups over the span of two million years, their natural environment and the sedimentary history of the Upper Awash River basin.

The archaeological and palaeontological deposits and the deep stratigraphy are well-preserved throughout the nominated component parts, even if they were partly damaged in the excavated sections. The excavated trenches have been mostly backfilled, artefacts and remains of the hominins taken for storage or exhibited in the Ethiopian National Museum in Addis Ababa or the site museum located within the area of component part 001 (Gombore-Garba), where a section of the excavated area has also been left open for public display. The volcanic and sedimentary deposits that buried the archaeological and palaeontological evidence allow to establish the chronology of cultural horizons of the Pleistocene epoch and date the different archaeological layers. The preserved palaeo-landscapes are considered a rarity as they seldom survive erosion.

The component parts generally suffer from erosion to a small extent, as the area is covered with grass and trees. Erosion resulting from seasonal overflows of the Awash River and its tributaries pose a risk to the intactness of the deposits, as some of the component parts are located along or inside the riverbed. Component parts 002 (Simbiro) and 006 (Atebella) suffer the most in this regard. Component part 002 is additionally vulnerable to the activities related to sand quarrying.

The integrity of the setting of the nominated property has been largely preserved. The areas which carry potential for future archaeological and palaeontological discoveries have been included within the buffer zones to protect them from encroachment from potential development or agricultural activities.

ICOMOS considers that the integrity of the whole nominated series as well as the integrity of each of the component parts have been demonstrated.

Authenticity

The authenticity of the nominated property is based on the ability of the stratified archaeological and palaeontological deposits and the geological evidence to credibly express the proposed Outstanding Universal Value. The nominated property can be said to be authentic in terms of location and setting, as well as materials and substance.

The area has been excavated to a small degree and the context of discoveries remains intact. The stratigraphic record, which includes multiple layers of sedimentation, and the chronological cultural sequence are preserved undisturbed. Volcanic tuffs preserved in the Melka Kunture succession have scientific value to determine the chronology of cultural horizons of the Pleistocene epoch. Component part 001 (Gombore-Garba) includes an open-air museum, where an excavated area has been left displayed to the public under a thatched roof.

The immediate setting of the nominated property has not been compromised. The present-day settlements and infrastructure do not pose an immediate threat to the

majority of the component parts of the nominated property, but their development needs to be monitored.

ICOMOS considers that the authenticity of the whole nominated series as well as the authenticity of each of the component parts have been demonstrated.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity of the whole nominated series and of the individual component parts have been met.

Boundaries
There are no permanent inhabitants within the component parts of the nominated property. A small number of people estimated at sixty individuals live within the buffer zones.

The boundaries of the component parts have been delineated largely along the stream valleys of the Awash River, with no physical markers, except for component part 001 (Gombore-Garba), where the boundary essentially follows the perimeter of a fence that delimits the Palaeo-Archaeological Park created at this locality. The vast buffer zones include areas with future research potential. Their boundaries are not discernible in the landscape.

In the additional information provided in November 2023, the State Party clarified that the boundaries of the nominated property and the buffer zones were established taking into consideration the extent of archaeological and palaeontological sites and the future research potential of the area, with due consideration for the needs of local communities residing nearby and their agricultural practices. The buffer zones protect the component parts as well as areas with research potential from encroachment related to agricultural practices or future development of the area (such as road construction).

In additional information sent in February 2024, the State Party adjusted the boundaries of component parts 001 (Gombore-Garba) and 004 (Kella) to include within the nominated property sub-sites that have been previously left in the buffer zones, such as Garba I, III and XII, and Kella. Updated maps were provided. The State Party also reiterated the need for extensive buffer zones around the component parts as they protect areas with high future research potential and include already identified archaeological and palaeontological sites that could be added to the serial nomination at a later stage. The most significant localities have been indicated on the supplemented maps, which also show areas of highest risk from development pressures.

Evaluation of the proposed justification for inscription
In summary, ICOMOS considers that the comparative analysis justifies consideration of the nominated property for the World Heritage List. The six component parts together contribute to the understanding of human evolution, allowing to revisit the existing theories related to the development of techno-industries by the hominins, and suggesting fundamental steps in their cognitive capacities and adaptation to the climatic conditions and the natural environment of high altitudes. The nominated property also provides valuable information on the sedimentary history of the area and allows to determine the chronology of cultural horizons of the Pleistocene epoch based on the dating of volcanic tuffs preserved in the Melka Kunture succession. ICOMOS considers that the nominated property meets criteria (iii), (iv) and (v), on the basis of the proposed justification for inscription.
The conditions of integrity and authenticity of the whole series and of the individual component parts have been met. Given that the area of the nominated property and the buffer zones are largely unfenced, development pressures need to be monitored to prevent encroachment related to agricultural practices or urbanisation of the area.
The serial approach is justified but the application of the cultural landscape category for the nominated property is considered unsuitable. The scattered fragments of the palaeo-landscapes included within the component parts cannot be considered representative of a cultural landscape, in the World Heritage Convention terms.

4 Conservation measures and monitoring

Documentation
The documentation of the nominated property includes inventory of major finds from the excavations undertaken within the component parts as well as monitoring data. The records are kept by the Directorate for Inventory and Inspection of Cultural Heritage within the Authority for Research and Conservation of Cultural Heritage (ARCCH, federal level), as well as the Oromia Culture and Tourism Bureau (regional level).

Artefacts excavated at the sites are stored or on display in the Ethiopian National Museum in Addis Ababa and the site museum located in the Palaeo-Archaeological Park within component part 001 (Gombore-Garba).

ICOMOS considers that it is unclear what documentation relating to the state of conservation of the attributes of the nominated property is available. A detailed baseline documentation of all attributes of the proposed Outstanding Universal Value is key for any future management, conservation and monitoring.

Conservation measures
Due to the lack of human and financial resources, there is at present no regular maintenance of the component parts. It is done on an occasional basis.

ICOMOS considers that due to the nature of the nominated property, no long-term conservation plan is necessary. However, basic maintenance activities should be programmed.

Monitoring

Currently, monitoring is not done in a systematic way due to the lack of resources, including personnel. The management plan envisages, however, periodical monitoring based on established indicators that will be conducted by the responsible departments of the respective authorities at the national, regional and zonal levels: ARCCH, Oromia Culture and Tourism Bureau, and South West Shewa Zonal Office of Culture and Tourism, respectively.

The monitoring system for the nominated property has been developed around the threats posed to the component parts by both natural and anthropogenic factors. Records are scheduled to be taken on an annual basis. They will be kept by the Culture and Tourism Bureau offices at the district and administrative zone levels, as well as the Administration and Preservation Office.

In the future, regular inspections of the nominated property will be done by the site administration in collaboration with the local communities.

ICOMOS considers that the proposed monitoring system adequately encompasses the attributes of the nominated property. However, it is unclear how the records will be used to inform preventive and mitigating actions.

ICOMOS considers that baseline documentation of all attributes of the nominated property is essential for future management and conservation measures. Regular maintenance and monitoring should be programmed. ICOMOS considers that it would be advisable that the monitoring system is adapted for easy integration of its outcomes into the Periodic Reporting questionnaire.

5 Protection and management

Legal protection

The nominated property is a registered national heritage. In line with the Proclamation for Research and Conservation of Cultural Heritage No. 209/2000, it is owned, managed and protected by the government and the public. The Proclamation to Provide for the Classification of Cultural Heritages into National and Regional Cultural Heritages No. 839/2014 grants power and assigns responsibility for the management of the nominated property to the federal government. Accordingly, the nominated property and the buffer zones are protected through the Regulation No. 159/2013 Issued to Establish Administration and Preservation Office of Pre Historic Site of Melka Kunture and Balchi Heritage, and administered by the Oromia Culture and Tourism Bureau, in collaboration with the Authority for Research and Conservation of Cultural Heritage (ARCCH).

Environmental Impact Assessment is endorsed at the national level. Heritage Impact Assessment is conducted upon request of interested parties, including the communities living around heritage sites.

The boundaries and the buffer zones of the nominated property have been established through Regulation No. 159/2013, which controls future construction within the nominated area. Alterations to the sites require permission from ARCCH. There is, however, limited capacity within the established management framework to enforce the Regulation, especially given that the nominated area is largely unfenced. Moreover, there is currently no directive stipulating the conservation policy and strategy, and no procedures to put into practice the Regulation with regard to protection and conservation of the nominated property.

In the additional information provided in November 2023, the State Party clarified that the state is the exclusive owner of the land, while people receive usufruct rights to plots of land.

In the additional information sent in February 2024, the State Party also explained that given the extent of the nominated property and the buffer zones, which are largely unfenced, areas of particular importance within the buffer zones and those at greatest risk of encroachment have been mapped with the objective of strengthening their protection (maps have been provided). The vital role of communities in this endeavour has been emphasises by the State Party. Initiatives will be created to raise awareness among the inhabitants of the nearby areas of the significance of the nominated property and actively involve the communities in the every-day protection of the sites.

ICOMOS considers that relevant procedures, strategies and practical mechanisms that would ensure the protection of the nominated property as per the existing legal framework should be put in place as a matter of urgency.

ICOMOS also considers that Heritage Impact Assessments should be conducted before any future developments are undertaken within the boundaries of the nominated property, or any major projects planned within the buffer zones, irrespective of whether a specific request was made by the stakeholders or not.

Management system

The Oromia Culture and Tourism Bureau is responsible for the protection and conservation as well as promotion of the nominated property. It is run by a director and managed by an Advisory Board that includes representatives of government departments and local actors. In the frame of a future collaborative management structure, the Bureau will share some of the roles and responsibilities in terms of conservation and management with ARCCH.

At the site level, a site manager within the Administration and Preservation Office (accountable to the local office of the Oromia Culture and Tourism Bureau) will be responsible for the day-to-day administration of the property and will coordinate relations with relevant government departments and agencies. The manager will be working in cooperation with the Administration and Preservation Committee composed of various

stakeholders, including local authorities and representatives of the local community. The Administration and Preservation Committee will provide recommendations regarding preservation, maintenance and development of the nominated property and support the work of the Administration and Preservation Office. It will function under the Oromia Culture and Tourism Bureau, and the Ministry of Culture and Tourism.

As there is no directive establishing procedures and responsibilities regarding the protection and conservation of the nominated property under Regulation No. 159/2013, there is a lack of cooperation and coordination among the different stakeholders at this stage. The roles of the Administration and Preservation Committee are also not yet binding.

Funds for the operation of the Administration and Preservation Office managing the site are currently insufficient. The human resources and the capabilities within it are also inadequate. There is no technical staff; conservation specialists can only be requested, if needed, at the federal level.

The management plan has been developed through a consultative process by the Oromia Culture and Tourism Bureau in cooperation with ARCCH, both of which will be responsible for its implementation. It covers the period 2022-2027 and includes an action plan addressing issues of the conservation of the property, and its future development as a tourist destination. While the Oromia Culture and Tourism Bureau works with an annual operating budget dedicated to the implementation of the action plan, the majority of the financial resources towards that goal will need to be sourced from international donors. The realisation of development and infrastructural projects are paid from the capital budget. Currently, the available funds are not sufficient.

Given that the nominated property falls under two different Woredas and Administrative Zones, the respective Culture and Tourism Offices of the Oromia Culture and Tourism Bureau at the district and administrative zone levels will serve as a bridge between the site administration and other government institutions at higher levels.

The regional government envisages to develop the nominated property as a cultural, sustainable tourism attraction alongside its current role as a research and education centre. As the Oromo people living around the nominated property consider the area as theirs, the management and development of the sites will be negotiated with them, and a collaborative approach and co-management strategy sought.

In the additional information sent in February 2024, it was further emphasised that the collaborative approach to the management of the nominated property will ensure conflict-free protection of the archaeological and palaeontological sites in the area. Active participation of the local communities through consultations on matters that affect their livelihoods has been practiced, and employment opportunities related to future research, protection, conservation and tourism development will be created.

Elaborating further on the pro-active measures taken to ensure effective protection and management of the nominated property, the State Party informed that, on an institutional level, a Memorandum of Understanding has been signed between ARCCH and Oromia Culture and Tourism Bureau to co-manage the nominated property. The document outlined the duties and responsibilities of each party. A plan of action has been prepared by both institutions, stipulating short-term and long-term management goals, such as creating an adequate organisational structure and hiring qualified personnel, updating and implementing the management plan so that the values of the nominated property are maintained, and ensuring periodic monitoring of the sites.

The State Party also informed that it is collaborating with the Italian-Spanish Archaeological Mission to develop a research plan that would address future scientific projects within the area and reorganisation of the site museum, as well as matters related to communication and dissemination, tourism development, and capacity building for local personnel and communities at large.

ICOMOS considers that the management system is based on protecting the proposed Outstanding Universal Value through a collaboration of varied stakeholders at the national, regional and local levels. It requires development of mechanisms for the involvement and coordination of the different parties, whose roles and responsibilities should be clearly set out and enforceable.

ICOMOS further considers that the Administration and Preservation Office needs to be capacitated, and suitably trained personnel employed for effective protection, management and conservation of the vast area of the nominated property. Local community members should be actively engaged in these activities and initiatives.

Visitor management

The nominated property has limited exposure to visitors at the time of this evaluation and is yet to be marketed as a tourist destination.

A museum built in 2007 as part of the Palaeo-Archaeological Park located within component part 001 (Gombore-Garba) presents exhibitions detailing the geological, palaeontological and archaeological history of the area. Constructed in the local style, it houses some of the artefacts collected during the investigations of the sites. Basic tourist facilities are available. Additionally, at Gombore II OAM sub-site, an open archaeological site has been left exposed under a thatched roof, while at Gombore II-2 “Butchery site” casts of the excavated lithics and hippopotamus fossils are displayed on the archaeological surface. Signposts have been erected to guide the visitors. The few information panels installed are not suitable for a general public, as they are considered too scientific. The

nominated property also has very limited professional guide services.

A tourism development plan covering five years has been prepared by the Oromia Culture and Tourism Bureau. It will be implemented in collaboration with local communities. The management plan of the nominated property includes activities geared towards upgrading visitor facilities, refurbishment of the museum, and development of interpretation and promotional materials.

Community involvement

The local people have thus far benefited little from the sites within the nominated property. The primary focus of the authorities has been on research rather than economic development of the area with heritage as a driver. The community, however, has been actively involved in archaeological investigations since the 1960s, developing skills and knowledge related to archaeological techniques. Empowering the local communities through creation of employment opportunities is part of the action plan included in the management plan.

In the additional information provided in November 2023, the State Party confirmed that the local community consented to the nomination and was involved in the nomination process.

In the additional information sent in February 2024, the State Party added that the local communities will be included in the decision-making on the issues of management, protection and development of the nominated property. The State Party is also committed to providing benefits to the communities in the form of employment opportunities and compensation for potential losses.

ICOMOS notes that management issues arising from the presence of local communities, land use and land ownership will be negotiated with the local communities. ICOMOS considers that buy-in and active engagement of the communities living around the nominated property is key to the effective management of the nominated property, given its extent, the existing development pressures and the economic needs of the people, as well as traditional uses of land within the nominated property that may be considered a threat to the sites.

Effectiveness of the protection and management of the nominated property

In summary, ICOMOS considers that while the legal tools to ensure protection of the nominated property are in place, there is a need to put in place adequate procedures and strategies to ensure the protection of the nominated property within the existing legal framework. As the management system is based on a close collaboration of varied stakeholders at the national, regional and local levels, an effective coordination mechanism should be ensured, and clear division of duties and responsibilities established. Including local communities in the management and development of the nominated property is of utmost importance, given their relationship to the land, and limited human resources in the management structure. Strengthening human capacity and ensuring sustainability of funds for the protection, maintenance and management of the nominated property should be made a priority.

6 Conclusion

The Melka Kunture and Balchit Archeological and Paleontological Site preserves evidence of hominin occupation of high altitudes from around two million years ago, and their adaptation to the challenges and climatic conditions of the high-mountain ecosystem. It documents an exceptionally long cultural sequence consisting of four consecutive phases of Oldowan, Acheulean, Middle Stone Age and Late Stone Age techno-complexes, which allows to observe the development of skills and cognitive capacities among the hominin groups, and particularly *Homo erectus*, *Homo heidelbergensis* and archaic *Homo sapiens* whose remains have been found in well-dated strata in association with varied lithic tools.

ICOMOS acknowledges the effort made by the State Party in elaborating the nomination dossier and appreciates the work it carried out to provide clarifying additional information.

ICOMOS considers that the proposed Outstanding Universal Value has been demonstrated, according to criteria (iii), (iv) and (v), and that the conditions of integrity and authenticity of the whole series and of the individual component parts have been met.

ICOMOS also considers that the serial approach is justified and the selection of component parts is relevant to the proposed Outstanding Universal Value. ICOMOS acknowledges that minor boundary modification requests may be submitted in the future, as the research in the area progresses and new localities are investigated. In this regard, developing a research strategy for further studies and excavations of the sites included in the nominated property and beyond, in the areas that carry high scientific potential, would be important, with a view to expand the understanding of the hominin activities, their behaviour, and adaptation techniques that the material from Melka Kunture can help explain.

ICOMOS further considers that the scattered fragments of the palaeo-landscapes which contain archaeological, palaeontological and geological characteristics, included within the nominated component parts, cannot be considered representative of what used to be a cultural landscape. Therefore, the application of the cultural landscape category for the nominated property is not justified.

Legal protection is formally adequate but practical mechanisms that would ensure effectiveness of existing regulations should be put in place, both with regard to the nominated property and the buffer zones. Operationalisation of the co-management system remains to be finalised, and guidelines for the cooperation between

the different bodies and institutions at the national, regional and local levels should be established for the management system to be effective. Greater inclusion of the local communities in the protection, management and development of the nominated property is also necessary, especially given their relationship to the land and the limited human resources currently available at the site level within the management structure. Strengthening human capacity and ensuring sustainable sources of funding for the protection, maintenance and management of the nominated property are of utmost importance. Given the existing threats, and especially the erosion of land and sand quarrying activities observed in some of the component parts, development of a disaster risk management plan that would supplement the management plan of the nominated property is advisable.

7 Recommendations

ICOMOS recommends that the World Heritage Committee adopts the following draft recommendations, noting that this will be harmonised as appropriate with the draft recommendations of IUCN regarding their evaluation of this mixed site nomination under the natural criteria and included in the working document WHC/24/46.COM/8B.

Recommendations with respect to inscription
ICOMOS recommends that the Melka Kunture and Balchit Archeological and Paleontological Site, Ethiopia, be inscribed on the World Heritage List on the basis of **criteria (iii), (iv) and (v)**.

Recommended Statement of Outstanding Universal Value

Brief synthesis

The cluster of Pleistocene archaeological and palaeontological sites of Melka Kunture and Balchit lies along the upper course of the Awash River, on the Ethiopian Highlands, at an altitude of about 2,000 to 2,200 metres above the sea level. With a relatively continuous stratigraphic sequence formed by the accumulation of fluvial/alluvial and volcano-derived deposits interposed with tuff, the property preserves an exceptionally long cultural sequence consisting of four consecutive phases of the Oldowan, Acheulean, Middle Stone Age and Late Stone Age techno-complexes, documented in a variety of archaeological contexts, testifying to the occupation of the area by hominin groups from two million years ago. Fragments of palaeo-landscapes preserved buried under the volcanic and sedimentary deposits with fossil fauna and flora allow to reconstruct the high-mountain ecosystem of the Ethiopian Highlands during the Pleistocene and draw conclusions on the adaptation of hominins to the challenges and climatic conditions of high altitudes. The presence of *Homo erectus*, *Homo heidelbergensis* and archaic *Homo sapiens* fossils, found in association with well-dated archaeological material, throws light on the development of skills and cognitive capacities in the early hominin groups. Rich concentration of varied lithic assemblages made from volcanic rocks with different knapping techniques, and evidence of high-quality of standardised obsidian tools, suggest a level of planning and innovation. Evidence of the centuries-long tradition of procurement and use of obsidian starting with the Oldowan industry makes the property the earliest known example of obsidian utilisation and an outstanding witness of continuity of exploitation of this raw material.

The component parts together contribute to the understanding of human evolution, allowing to revisit the existing theories related to the transitions between the techno-industries, and suggesting fundamental steps in the development of human intelligence and adaptation skills. They also provide valuable information on the sedimentary history of the area and allow to determine the chronology of cultural horizons of the Pleistocene epoch based on the dating of volcanic tuffs preserved in the Melka Kunture succession.

Criterion (iii): The ensemble of Pleistocene archaeological and palaeontological sites of Melka Kunture and Balchit is the only known place in the world to have preserved in a single area an exceptionally long cultural sequence consisting of four consecutive phases of Oldowan, Acheulean, Middle Stone Age and Late Stone Age techno-complexes. Hominin fossils of *Homo erectus*, *Homo heidelbergensis* and archaic *Homo sapiens* discovered in well-dated archaeological layers with Oldowan, Acheulean and Middle Stone Age industries, paired with the evidence of varying use of different rocks through time, contribute to the understanding of human evolution, development of cognitive capacities in early hominin groups, and their adaptation to the environment by employing different strategies of raw material procurement and use.

Criterion (iv): Fragments of Quaternary fossil landscapes, preserved buried under volcanic tuffs and sedimentary deposits of the ensemble of Pleistocene archaeological and palaeontological sites of Melka Kunture and Balchit, allow to reconstruct the palaeo-environment and palaeo-climate of the Ethiopian Highlands during the Pleistocene epoch and understand better the lifestyle of hominin groups occupying the area. Hominin remains documented within the property provide one of the earliest evidence of human occupation of high altitudes and their adaptation to the high-mountain ecosystem, different from the dry savannas of lower elevations, which marks a significant stage in human history. The volcanic material that buried the palaeo-landscapes has scientific value as it allows to date and establish the chronology of the cultural horizons.

Criterion (v): The cluster of Pleistocene archaeological and palaeontological sites of Melka Kunture and Balchit testifies in an exceptional way to the consistent exploitation of obsidian as a raw material and its extensive use for tool production that starts with the Oldowan industry. It is the earliest known example of obsidian utilisation, and the only known place in the world that holds an uninterrupted record of systematic procurement

of this volcanic glass and its knapping since two million years ago. High-quality and quantity of standardised obsidian tools found in Acheulean contexts suggests possible introduction of specialised production sites.

Integrity

All component parts contribute substantially to the Outstanding Universal Value, providing complementary evidence on the evolution and activity of hominin groups, their natural environment and the sedimentary history of the Upper Awash River basin over the span of two million years. The archaeological and palaeontological deposits and the deep stratigraphy are well-preserved throughout the property. The excavated sections have been backfilled, except for one section which has been left open for public display. Artefacts and hominin remains are stored and exhibited in the Ethiopian National Museum in Addis Ababa and the site museum. The component parts suffer from erosion to a small extent, due mainly to seasonal overflows of the Awash River. Intactness of the deposits in some areas is threatened by activities related to sand quarrying. The setting of the property has been largely preserved and the areas with future research potential have been included within the buffer zones to protect them from potential encroachment related to development of the area or agricultural practices.

Authenticity

The area has been excavated to a small degree and the context of the sites remains intact. The cultural sequence and the geologic record – with volcanic tuffs that allow to determine the chronology of cultural horizons – are preserved undisturbed. The immediate setting of the property has not been compromised but the expansion of settlements and the related development of infrastructure need to be monitored at some of the component parts.

Protection and management requirements

The property is a registered national heritage, owned by the state while people receive usufruct rights to plots of land. All component parts and the buffer zones are protected through the Regulation No. 159/2013. At the highest level, the property is managed by the Oromia Culture and Tourism Bureau, in collaboration with the Authority for Research and Conservation of Cultural Heritage (ARCCH). At the site level, the Administration and Preservation Office is responsible for the day-to-day administration of the property and coordination of stakeholder relations. Since the property falls under two different Woredas and Administrative Zones, the respective Culture and Tourism offices of the Oromia Culture and Tourism Bureau serve as a bridge between the site administration and other government institutions at higher levels, at the district and administrative zone levels.

The management plan (2022-2027) has been developed through a consultative process and will be implemented collaboratively by the Oromia Culture and Tourism Bureau, and ARCCH. Local communities will be actively engaged in the management and development of the property to ensure conflict-free protection of the archaeological and palaeontological sites. Key challenges in the short term will be to put in place adequate procedures and practical mechanisms to guarantee effective protection and management of the property within the existing legal framework, to strengthen human capacity, and to ensure sustainability of funds for the maintenance of the property.

Additional recommendations

ICOMOS further recommends that the State Party give consideration to the following:

a) Developing and implementing a Heritage Impact Assessment for any future development proposals within the boundaries of the property or major projects planned within the buffer zones,

b) Putting in place procedures and practical mechanisms to ensure effective protection and management of the property,

c) Operationalising the proposed co-management structure and creating guidelines for the cooperation between different stakeholders on the national, regional and local levels,

d) Ensuring an active role of the local communities in the decision-making related to the management and development of the property,

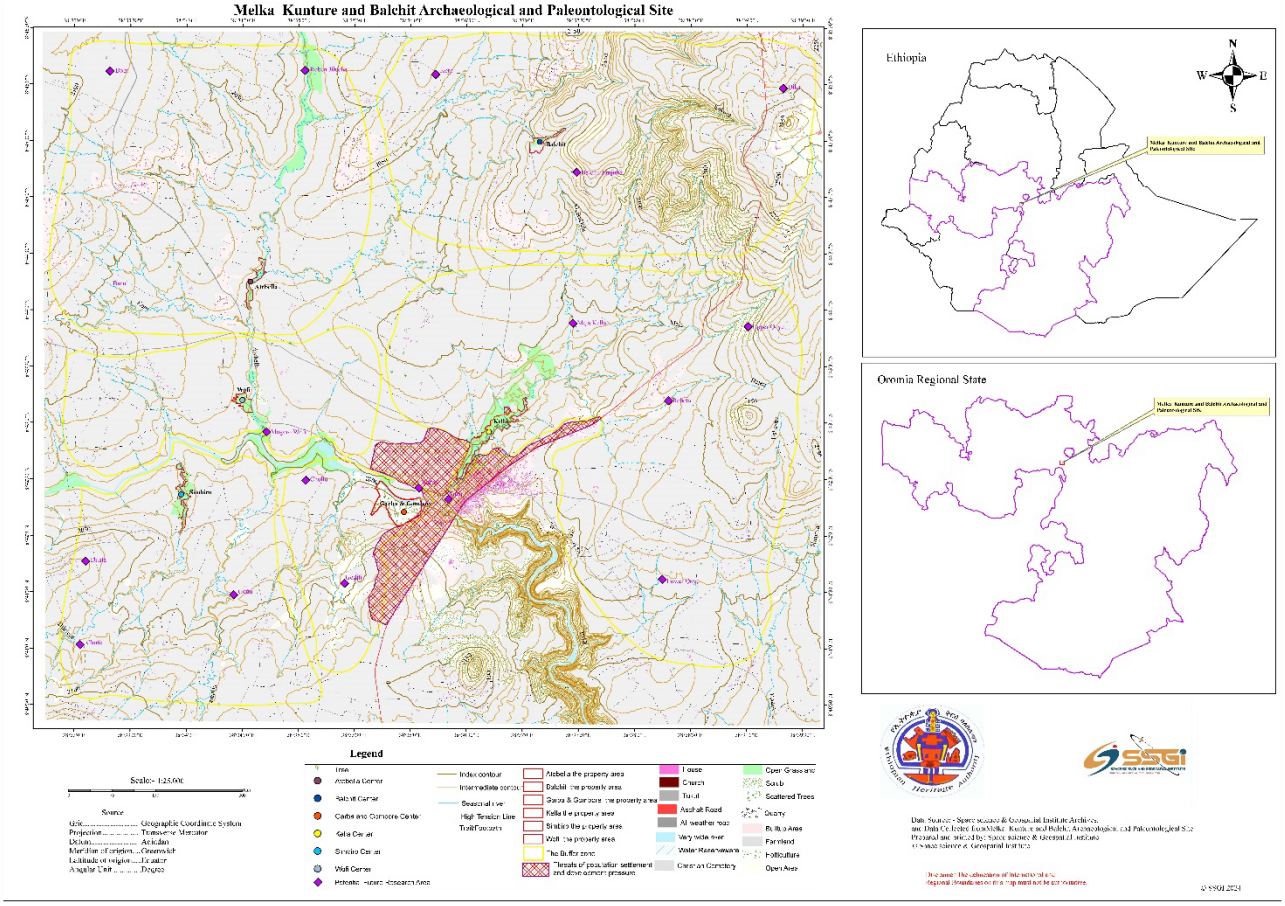
e) Raising awareness among the local populations of the importance of protecting the property and their vital role in this endeavour,

f) Developing a research strategy to ensure continuation of studies and expanding archaeological investigations beyond the boundaries of the property, into the buffer zones, to explore further their research potential,

g) Preparing a disaster risk management plan that would address the threats to integrity and authenticity of the property, and integrating it with the management plan,

h) Providing updated figures for the areas of the revised boundaries of the serial property as a whole and of each component part, as well as for the buffer zones;

ICOMOS recommends that the name of the serial property be changed to: “Melka Kunture and Balchit: Archaeological and Palaeontological Sites in the Highland Area of Ethiopia”.



Revised map showing the location of the nominated component parts (February 2024)