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**Report on the Second Phase Archaeological Investigations  
Carried Out for the Construction Project in the Territory of "Bamboo Beach  
Tsikhisdziri"**

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## Introduction

The document is prepared by Leyerko LLC (S/N 405721713) on behalf of the “Bamboo Beach” Tsikhisdziri LLC (S/N 405765104). The report is based on the results of the second phase archaeological investigation conducted on the project area located within the first coastal zone in the village of Tsikhisdziri, Kobuleti Municipality (cadastral code: 20.42.09.409).

The project area falls within the visual protection zone of the cultural heritage monument of the National designation the Petra-Tsikhisdziri Complex (#11756). Therefore, on the basis of the letter issued by the Agency for Cultural Heritage Protection of Adjara on 03/12/25 (MES 8 25 0001714670), the implementation of a second phase archaeological investigation, employing the method of evaluation test trenches, was established as a prerequisite for the planned construction works within the territory. The purpose of the second phase archaeological investigation is to prevent the disturbance or destruction of archaeological deposits within the project area, should such deposits be present.

## 1. Historical and Archaeological Overview of the Project Area

To the south of the project area are located several cultural heritage monuments, including the Petra-Tsikhisdziri Complex (#11756), comprising multiple components such as fortification structures, church complexes, bath complexes, and burial grounds; the Tower Villa (#13097); and the former Zalensky Dacha (#13637).

The Petra-Tsikhisdziri Complex was included in the list of monuments of national category in 2006, in accordance with the subordinate normative acts of Georgia. Subsequently, in 2008, by Presidential Decree No. 533, the monument was transferred to the National Agency for Cultural Heritage Preservation of the then Ministry of Culture, Monument Protection and Sport of Georgia under the designation "Petra Archaeological-Architectural Museum-Reserve."

As the Tsikhisdziri complex is classified as a cultural heritage monument of national significance, its visual protection zone extends within a radius of 500 m. The project area lies outside the physical protection zone of Petra Fortress; however, it partially falls within its visual protection zone. It should also be noted that the project area is situated within the visual protection zone of the architectural heritage monument known as the Tower Villa (#13097).

The Petra-Tsikhisdziri Complex is situated on the rocky coastline of the Black Sea, within the present-day village of Tsikhisdziri. The eighteenth-century Georgian historian and geographer Vakhushti Bagrationi describes its location as follows: "On the seashore, upon this river, lies Kobuleti, resembling a small town and possessing a very fine harbour. South of it flows the Chakvi River, descending from the mountains of Adjara westward into the sea. On this river, at the edge of the sea, stands the fortress of Kajeti, strong and situated upon a high cliff. It possesses a tunnel cut through the rock as a passageway" (Chronicles of Georgia, 4: 792,4-9).

It has been suggested that the territory of present-day Tsikhisdziri corresponds to the fortress-city of Petra mentioned in Byzantine written sources. The city of Petra is first referenced in the writings of Emperor Justinian I in 535 CE. Written accounts concerning the fortress-city are also preserved in the work *Wars with the Persians* by the sixth-century Byzantine historian Procopius of Caesarea, who states: "Petra is a coastal city in Colchis ... and Emperor Justinian strengthened it by means of outer walls and additional constructions, embellishing it in every respect"

(Justinian 1965: 32-36).

The Tsikhisdziri complex and its surrounding territory constitute an archaeologically sensitive area. Owing to the fortress's long and continuous history, the surrounding landscape is particularly rich in archaeological remains.

During the 1870s, while the Russian Imperial Army was excavating military trenches in Tsikhisdziri, several ancient burials containing luxurious grave goods were discovered. These finds became known in scholarly literature as the "Tsikhisdziri Hoard" and today represent one of the most significant assemblages for the study of Late Antique Colchian culture (1st century BCE – 4th century CE).

The earliest archaeological discoveries identified within the territory of present-day Tsikhisdziri and its surrounding area date to the Late Bronze and Early Iron Ages (15th–7th centuries BCE). Various artefacts include bronze axes, spearheads, fibulae, copper ingots, and related materials have been discovered in the Tsikhisdziri area at different times, although without precise provenance. In addition, the remains of a dune settlement were identified north of Tsikhisdziri, in the area of Bobokvati, approximately 200 m from the seashore.

Archaeological investigations in the vicinity of Tsikhisdziri were conducted intensively during the 1960s. These excavations demonstrated that the Petra/Tsikhisdziri fortress complex was distributed across two hills. The north-western hill contained the citadel, covering an area of approximately 1.5 ha. Archaeological excavations within the citadel revealed numerous significant discoveries.

Approximately 500 m north of the citadel, within the coastal zone at Bobokvati, excavations conducted on the territory of a former plantation (approximately 700 × 300 m) revealed archaeological remains whose chronology, with certain interruptions, ranged from the Pre-Classical period to the Early Middle Ages. This area is regarded as one of the principal residential quarters of the Tsikhisdziri urban settlement. In the south-western sector of this territory, approximately 25 m from the shoreline, a bath complex oriented north-east to south-west was discovered. The structure measures 20 m in length and 10 m at its maximum width.

A second bath complex was identified 70 m east of the first; this structure measures 13 m in length and 8 m in width and is oriented south-east to north-west. It consists of five rooms.

The Bobokvati sector of Tsikhisdziri has yielded approximately 300 Early Classical and Hellenistic burials, although the material remains largely unpublished. In addition, fourteen Late Antique and Early Medieval burials were excavated in the same area.

Today, the territory of the Petra-Tsikhisdziri Complex accommodates an open-air museum together with a museum building intended for the display and preservation of archaeological materials. Archaeological excavations continue periodically within the complex, resulting in the discovery of numerous important artefacts and substantially enriching the corpus of material culture from Adjara.

## 2. Methodological Framework

During the first stage of the archaeological investigation within the project area, the following activities were undertaken:

- Bibliographic research;
- Examination of archival materials and identification of cultural heritage monuments located in the vicinity of the project area;
- Preparation of maps;
- Field inspection of the project area;
- Surface archaeological surveys.

The first stage of the investigation consisted of bibliographic research, including the collection and analysis of information preserved in scholarly literature and written sources concerning the project area and adjacent cultural heritage monuments. Following the review of published materials, the next phase of the research involved the examination of archival documentation, determination of the visual protection zones of cultural heritage monuments located near the project area, and assessment of their spatial relationship to the planned development zone. Relevant maps were also prepared during this stage.

The subsequent phase of the investigation included a visual inspection of the project area and the implementation of surface archaeological surveys. The privately owned project territory and its surrounding area were systematically examined. The investigation included photographic documentation and aerial photography of the site.

### 2.1. Methodology for the Examination of Archival Materials and Preparation of Maps

At the bibliographic research stage, reports and archival records relating to archaeological surveys and excavations conducted by various archaeological expeditions were examined.

Following the completion of the archival review, the second phase of investigative activities was initiated. This phase involved the study of cultural heritage objects registered on the Cultural

Heritage Portal ([memkvidreoba.gov.ge](http://memkvidreoba.gov.ge)). During the next phase, all cultural heritage monuments located in the vicinity of the project area were plotted onto maps, and archaeologically sensitive zones were identified. At this stage, available aerial photographs were also reviewed, and additional observations were carried out through aerial mapping programs in order to identify and mark potential cultural heritage and archaeologically significant features.

The study took into account internationally accepted standards regarding the visual protection zones of visible monuments. Consequently, only those monuments located within the project area or within a radius of approximately 1–2 km were specifically recorded during the investigation. Although cultural heritage monuments situated beyond a distance of 1 km could not realistically be affected by the proposed project, it was nevertheless decided to document them within the scope of the research.

## 2.2. Methodology of Archaeological Survey

The first stage of archaeological survey included an on-site inspection of the study area. Based on previously available information, the present condition of known archaeological and cultural heritage objects was assessed, and their distance from the project area was verified. The territory was carefully inspected, photographically documented, and significant locations were recorded using GPS coordinates in the UTM system. These data were subsequently transferred onto maps through the use of GIS software. Both previously known and newly identified archaeological features were marked accordingly.

Particular attention was also paid to interviews with the local population in order to obtain information concerning previously unknown or unregistered cultural heritage monuments, archaeological objects, and/or religious sites, including shrines, places of worship, icons, and related features.

### 2.3. Second Phase Archaeological Investigation (Evaluation Trenches)

Following the completion of the surface archaeological surveys, a second-stage archaeological investigation was conducted within the project area, involving the examination of the territory through evaluation trenches. The dimensions and extent of the evaluation trenches were determined by the Agency for Cultural Heritage Protection of Adjara. Three locations within the project area were selected for the placement of such trenches. The arrangement of the trenches was determined on-site, taking into account the existing built environment and vegetation cover within the area.

The locations of the evaluation trenches were recorded using a GPS GNSS AlphaGEO SurPro V6 device. Prior to the commencement of fieldwork, aerial photography of the territory was carried out using a DJI Mavic Air 2 drone. The same drone was employed for aerial documentation of the evaluation trenches during the course of the investigation.

The evaluation trenches were excavated by archaeologists with the assistance of local workers. At certain stages of the work, heavy machinery was employed. The use of heavy equipment became necessary after the identification within the trenches of a sterile sand layer, approximately 2 m in thickness, deposited during coastal reinforcement activities. Due to the presence of these sand deposits, the cleaning of trench profiles and the documentation of stratigraphic sections presented certain difficulties. Heavy machinery was also utilized during the subsequent recultivation and backfilling of the trenches.

### 3. Description of the Works Conducted within the Project Area

#### 3.1. Prerequisite for the Second Phase Archaeological Investigation

Archaeological works were planned within the territory owned by the company "Bamboo Beach Tsikhisdziri". The total area of the project zone measures 3,639 m<sup>2</sup>. The land is of an irregular rectangular form, measuring approximately 74 × 49 m.

The scope and character of the archaeological works, as well as the total area of the trenches, were determined by the letter issued by the Agency for Cultural Heritage Protection of Adjara on 03/12/25 (MES 8 25 0001714670). In response to application No. 114-11425308158, the Agency instructed the company to undertake second phase archaeological excavations prior to the commencement of the proposed development project.

During the second-phase archaeological investigation, the archaeological expedition planned to examine three trenches measuring 2 × 10 m each, or alternatively trenches of an equivalent cumulative area distributed across smaller sectors of the project territory. This approach was intended to ensure comprehensive archaeological assessment of the entire project area through the implementation of evaluation trenches.

#### 3.2. Report on the Second Phase Archaeological Investigation

In February of the 2026, a second phase archaeological investigation was carried out on the project area (cadastral code: 20.42.09.409) located in the village of Tsikhisdziri, Kobuleti Municipality, employing the method of evaluation trenches. The aim of the investigation was to determine the archaeological potential of the territory, as the surrounding area constitutes an archaeologically sensitive zone. The project area is situated approximately 400–500 m from the Petra-Tsikhisdziri Complex. Furthermore, numerous archaeological complexes dating from the Late Bronze–Early Iron Age (15th–7th centuries BCE) to the Medieval period (5th–18th centuries

CE) have previously been identified within the surrounding area. Due to these circumstances, the implementation of second phase archaeological investigations through the method of test trenching represented an essential requirement.

The project area consists of a trapezoidal land covering 3,639 m<sup>2</sup>, situated on relatively level terrain at an average elevation of approximately 5 m above sea level (cadastral code: 20.42.09.409). The territory is bordered to the north by a residential complex, while to the east it adjoins the road connecting Kobuleti and Batumi. To the south lies an open "camping" area, whereas the western boundary directly adjoins the seashore reinforced with concrete embankments.

A single-storey building is located approximately in the central part of the territory, while an extensive area to its south is covered with a concrete surface. Several small structures are also present across different parts of the land. The remaining territory is sparsely vegetated with trees and low grass.

Three trenches, each measuring 10 × 2 m, were planned within the project area. In consideration of the existing environment, relatively open sectors were selected for excavation in order to facilitate earthworks and maximize the potential for identifying cultural deposits and assessing the archaeological potential of the territory.

Trench N1, oriented along a NW–SE axis, was placed in the southern sector of the territory; Trench N2, aligned NE–SW, was situated within the south-eastern sector; and Trench N3, also oriented NW–SE, was positioned in the northern part of the study land.

Excavation works revealed a relatively uniform stratigraphic sequence across all three trenches. The upper layer consisted of black topsoil, 20–50 cm in thickness, containing a high concentration of plant roots together with small quantities of pebbles and modern domestic refuse, including glass, asbestos, plastic, iron, textiles, and related materials. Ceramic fragments were identified within this layer, the overwhelming majority of which consisted of modern roof tiles.

The subsequent layers were represented by sterile sand deposits measuring approximately 10–15 cm in thickness, characterized by alternating grain fractions and clearly distinguishable horizontal stratification.

Excavation depths varied between the trenches (N1: 1.8 m; N2: 2.3 m; N3: 2.0 m). Up to an

average depth of approximately 2 m, the stratigraphic sequence remained uniform and consisted of the alternating sterile sand deposits described above. Further excavation could not be undertaken due to the instability and friable nature of the sand layers, which rendered the preservation of trench profiles technically impossible. Consequently, no additional deepening of the trenches was carried out at this stage, and following completion of the fieldwork, the trenches were recultivated and backfilled using mechanical equipment.

It should be noted that both the stratigraphic evidence recorded within the trenches and information obtained through communication with the local population indicate that the soil and sand deposits present within the territory were artificially made and represent dumped inert material, most likely associated with Soviet-period coastal reinforcement works.

#### 4. Conclusion and Recommendations

As a result of the second phase archaeological investigations conducted within the project area, no archaeological remains were identified in the evaluation trenches excavated during the course of the fieldwork. It should be noted, however, that due to the coastal reinforcement works carried out in the area during the previous century, including the construction of embankments and the deposition of substantial quantities of inert sand fill behind them, excavation could not be extended to stable natural geological layers. Therefore, there remains a limited possibility that the full archaeological potential of the territory could not be entirely assessed.

The investigation established that no archaeologically significant obstacles are present for the implementation of earthworks to a depth of 2.3 m. Nevertheless, owing to the proximity of the Petra-Tsikhisdziri Complex, it remains possible that soil layers containing archaeological material may exist beneath the deposited inert strata, at depths exceeding 2.3 m.

In consideration of the above, and in order to eliminate any potential risks associated with the territory, it is strongly recommended that all foundation excavation works be carried out under the continuous supervision of an archaeologist. Such supervision would ensure the effective prevention of damage to any archaeological deposits, should they be encountered during the course of construction activities.

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### Appendix 1 - Maps



Map 1. Project area



Map 2. Location of the evaluation Trenches in project area

## Appendix 2 - Figures



Fig. 1. Aerial photo of the project area



Fig. 2. Aerial photo of the project area



Fig. 3. Aerial photo of the project area



Fig. 4. Project area. View from the south



Fig. 5. Area of the evaluation trench N1



Fig. 6. Area of the evaluation N2



Fig. 7. Area of the evaluation trench N3



Fig. 8. Aerial photo of the evaluation trench N1

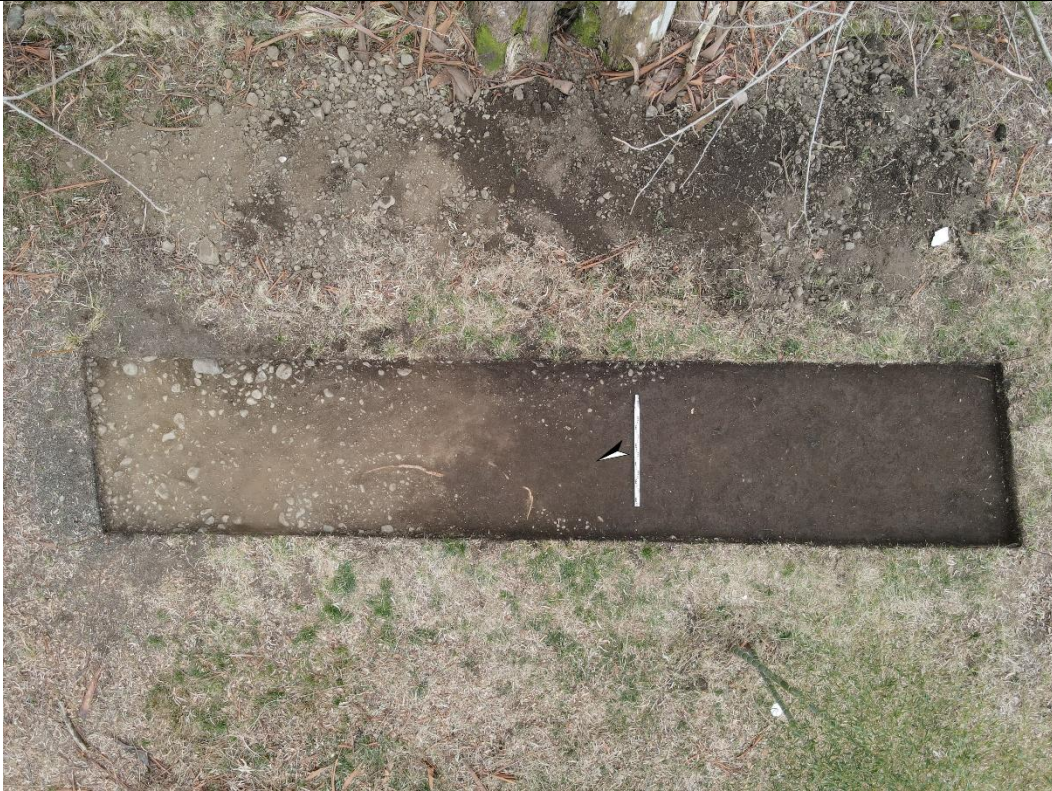


Fig. 9. Aerial trench of the Evaluation trench N2



Fig. 10. Aerial photo of the evaluation trench N3



Fig. 11. Evaluation trench N3. West corner



Fig. 12. Evaluation trench N1 after excavation



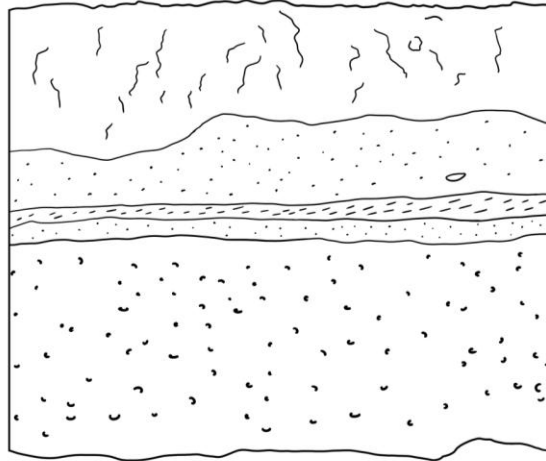
Fig. 13. Evaluation trench N2 after excavations



Fig. 14. Evaluation trench N3 work in progress

ცხინსძირი

თხრილის პროფილი



- ჰუმუსი
- წვრილი კენჭი
- ქვიშა
- მსხვილი კენჭი

Fig. 15. General section of the evaluation trenches  
(description of the layers from top to bottom: topsoil; small pebbles; sand; gravel)



Fig. 16. Evaluation trench N1 after recultivation



Fig. 17. Evaluation trench N2 after recultivation



Fig. 18. Evaluation trench N3 after recultivation