

# DOCUMENTATION OF THE DOCUMENTATIONS OF THE KING OF THE KINGS

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## ABSTRACT:

Documentations made by Dariush I, King of the Kings, the great emperor of Persia (500 BC) are the largest inscriptions in the world including 1200 lines of about 2 meters length. These inscriptions written in Old Persian, that were simultaneously translated into Elamite and Babylonian, narrate the victories of Dariush over the rebellious rulers of the kingdom. This magnificent monument is carved on the stone wall of the holy mount of Bisotun in the western part of Iran. The monument was made at a height of about 80 meters above the road which made it almost impossible for anybody to get access to it. There has been a tendency since 450 years ago to decode these texts and record the relieves. In 1834, Rawlinson, hanging himself from the top of the mount, attempted to make a hand-recording and decoding of the entire monument which lasted 20 years. He could finally decode the old Persian language for the first time. Following this work, Thompson and Cameron tried to perform some restoration and correction works by means of photography and moulding. The new stage of this documentation process is the photogrammetric technique. For a long time, the photogrammetric documentation of this valuable and unique monument was investigated and desired by the authorities of the Iranian Organization of Cultural Heritage, but the dangerous situation of this monument that made the geodetic and photogrammetric operation very difficult, was a major reason for Iranian and foreign companies to not accept the photogrammetric documentation of this monument. This paper gives a scientific report on how this great job of “*Documentation*” was done within an academic project. All relieves, more than 120000 elements of the inscriptions and the surrounding objects and area were photogrammetrically documented and recorded with a precision of about 1 mm.

## INTRODUCTION

At first B.C. millenary a group of Aryans living in northern lands emigrated and settled down on the plateau of Iran and at 8<sup>th</sup> century B.C. they founded the Persian dynasty, called Achaemenes, from Hakhmanesh the name of the founder of the dynasty (Eckerhard, 1890). In 550 B.C., Cyrus the Great, established the Persian empire and set the chariot of the history of the Orient in motion and very soon he expanded the kingdom to Media, Lydia, Babylon and to the lands far from Persian territory (Figure 1); the first empire and perfect government made up of incongruous elements (Hegel, 1978). Cyrus ruled over the hearts much more than the lands, the unique emperor whose human rights decree made Persia name eternal.

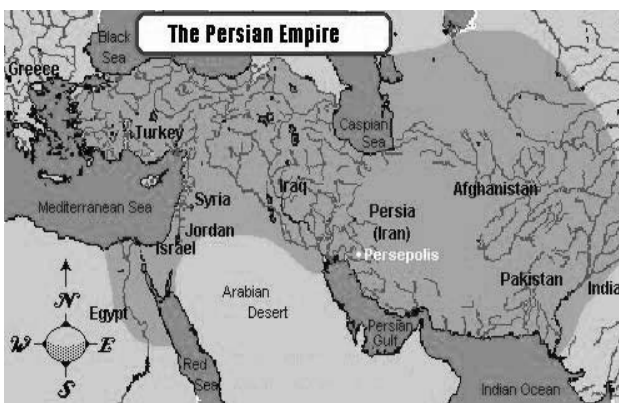


Figure 1. The Persian Empire

When Cyrus was killed, the vast empire plunged in chaos from which Dariush emerged, who was really capable to restore Achaemenid empire. Dariush expanded the realm of the Persian empire from India to Egypt. In 522 B.C., he erected his fabulous ritual palace, Persepolis, where the Achaemenids and all ritual people gathered together and set in festivity (Figure 2). For such a vast empire and necessary fast communication, Dariush built some 2500 km Royal Road in a short time (Hermann, 1977).



Figure 2. Persepolis

As an example, to erect the Persepolis as a symbol of the glory of Achaemenids to be visited by historians and personalities of all over the world and seen by the future generations of the empire, various expertise, material and a management of high level were necessary which are certified in 30000 inscribed clay tablets, found recently in the ruins of Susa, Dariush gives a list of materials, experts, talents and the regions from where they are collected: “ ... cedar wood from Assyria, gold from Bacteria, agat from Sogdia, ... goldsmith from Media, masons from Babylon, ... ”. All were used in the construction of Persepolis (Sharp, 1997). The workers were paid regular wages including silver, lambs, and so on. This deed will be remembered for ever (Figure 3).



Figure 3. The Gate of Nations

To fix an excellent management and to have an exact communication system between different parts of the empire, Dariush arranged a precise calendar and set the first day of the year coincide with the first day of spring, a tradition that is still present in Iran and is celebrated as Now- Rooz (the New Day) which is the official new year of the Iranians. During this ritual feast, delegates of 28 nations under the rule of Dariush, became the guests of emperor in Persepolis: “ ... May Ahura-Mazda Bless the King of the Kings “ (Figure 4).

After 220 years glorious government of Achaemenids, in spite of Dariush wish that “ ... no malevolent hand injure Persia “, Alexander of Macedonia arrived in 330 B.C. and put the ritual city of Persepolis in flame and the magnificent Persian empire became part of history and myths (Frye, 1963). After the occupation of Alexander, a high-level civilization was buried. It is admitted that most of our modern ideas about open, free, and progressing society, were realized in the Achaemenid Civilization (Kock, 1998).

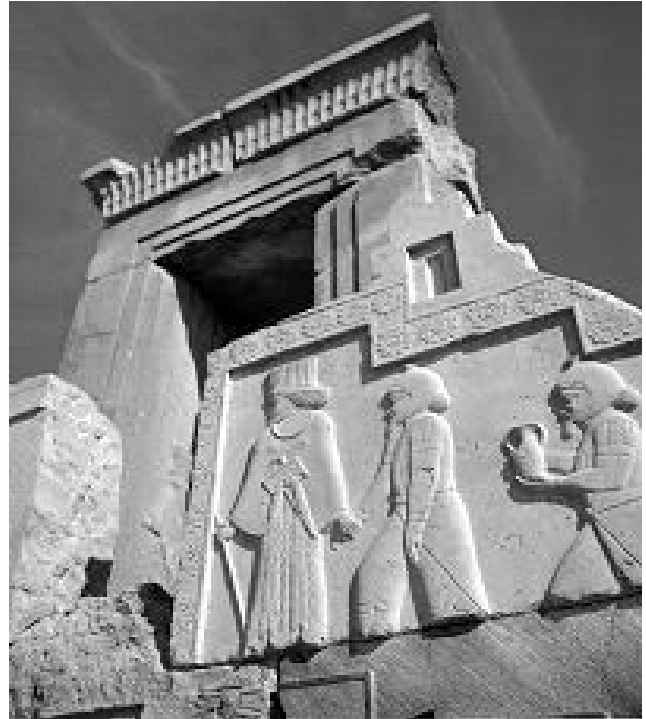


Figure 4. The Gift-Bearers in Now-Rooz

## OLD WRITINGS

After 19 victorious battles in the first years, Dariush needed to give a report of his victories to the nations all over his empire. Furthermore, it was necessary to transmit his commands everywhere. So he immediately started to use the Elamite and then Babylonian writing style (Cameron, 1963). But it was not meritorious to use the writing of the nations under his rule. Hence, he ordered experts to create new and easier writing called Old Persian (Figure 15) and afterwards all official documents were written in Old Persian using cuneiform and then translated into Elamite and Babylonian (Figure 8).

## BISOTUN INSCRIPTIONS

The Persian empire was forgotten for more than 2000 years in such a way that people believed that the wonderful Persepolis was built by Jamshid, the Persian epic, who had the demons under his rule. That is why it is called Takhte- Jamshid (the Throne of Jamshid). Even Sassanids did not mentioned them in their documents. There is also no name of Cyrus or Dariush in the Persian national and popular epic of Ferdowsi “ Shah Nameh” (the Book of Kings).

From the beginning of his kingdom, Dariush started to build his special political capital in Susa and buried under the foundations of his palace the stone tablets upon which all details of his operations were recorded (Perrot, 1981). After the invasion of the Macedonians, Alexander transferred all treasures and precious objects to Greece by some 10000 horses and 5000 camels. But, some important treasures survived that calamity to be witness for the next generations. Without these information it would be quite impossible to discover the mysteries of the ancient Persian empire and the nations under its rule. One of these remaining objects is a set of tens of thousands of clay and

wooden tablets and stone inscriptions buried and hidden under the ruins of the capital. But, the most important document that has survived is the “ relief and inscription of Dariush in Bisotun ” which is the largest rock inscription in the world.

Bisotun is situated 30 km apart form Kermanshah in the road to Hamedan in an elevation of more than 3600 m (Figure 5).



Figure 5. Topographic Map of Bisotun Area

Bisotun documents were made at a height of about 80 m above the road on a vertical and inaccessible rock. It consists of relief sculptures surrounded by inscriptions (Figure 6).



Figure 6. Sketch Map of Dariush Monument

Dariush selected the holy mount of Bisotun for recording the events of the first years of his kingdom for following reasons: The mountain is situated close to a high-traffic road. There are some attracting springs and rivers around the mount that make that area a popular visiting and resting place. Furthermore, the original name of he mount is Bagastan (residence of Gods) and it is said that it has been a peaceful place for worshipers for thousands of years (Figure 7).

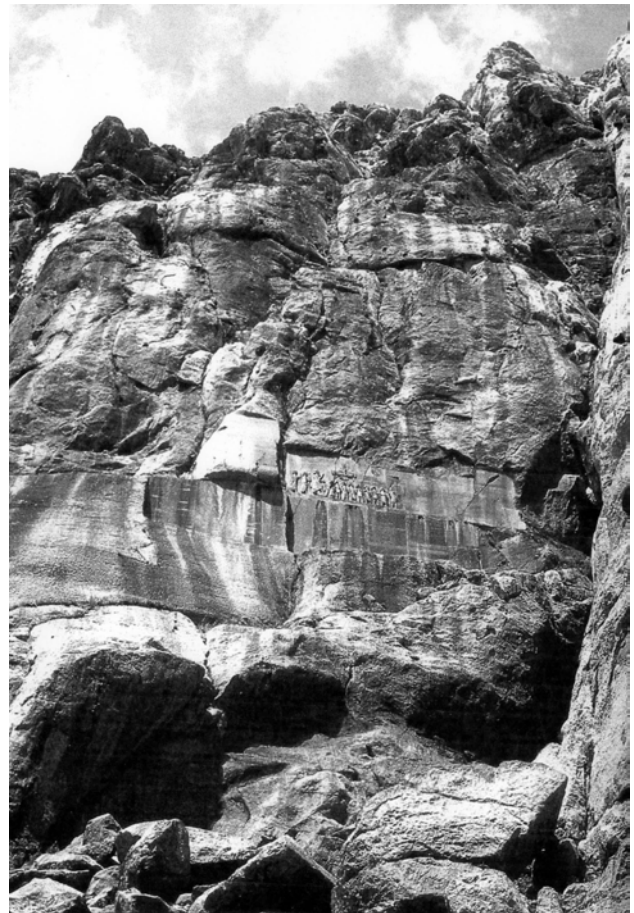


Figure 7. The Holy Mount of Bisotun

Dariush figure has been made in his real size of about 180 cm (Figure 11) with his foot over the chest of a liar priest. His archer and his lancer are standing behind him. All arrested rebellious rulers are shown in the front area. Above all is the figure of God (Ahura-Mazda) to which Dariush was always seeking mercy and help (Figure 13) .

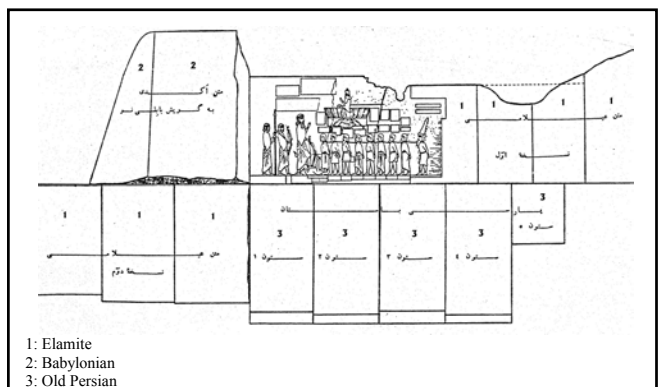


Figure 8. Different Writings of Dariush Inscription

### DECODING HISTORY

For several centuries after the attack of Alexander, Achaemenids were forgotten and nobody could understand the

meaning of the relief and inscriptions at Bisotun. The only source of information about Achaemenids were the remaining of the Roman and Greek writings. In 15<sup>th</sup> century, the European tourists entered Persepolis and a lot of investigations on the language and history of Persia began (Schlumberger, 1963). Many orientalist tried to decode the Old Persian writings. In 1621 Pietro Della Valle (Italian), in 1647 Jean Chardin (French) and in 1765 Neibuhr (Danish) have made copies of Bisotun document. Tychen (German) discovered the meaning of one alphabetical letter in the inscription! An important report is given by Grotefend (German) in 1802. He found 13 different forms of the proper names and distinguished the word VAZARKA (big) and also the word Dariush. During period 1831-1837, Sir Henry Rawlinson hanged himself from the top of the Bisotun mountain to make hand-copies of the inscription (Figure 9).

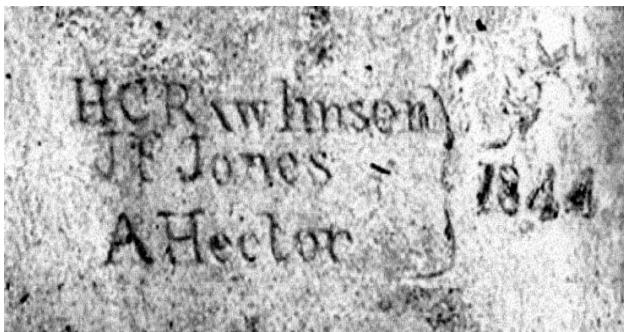


Figure 9. Signature of Rawlinson on Dariush Inscription

Rawlinson worked for more than 20 years on the cuneiform writing and succeeded to read Old Persian, Elamite and Babylonian. He was awarded and acknowledged by the Iranian and British governments. But this was not the end of work in Bisotun and other experts continued to find better recording and decoding for that monument, among them G.G. Cameron, R.G. Kent, L.W. King and R.C. Thompson were the major researchers.

### PHOTOGRAMMETRIC DOCUMENTATION

The nearly vertical location of the bed rock of the document and its height cause difficult situation for making copies or moulding of the relief and inscriptions. This has led to the unreliability of the documentations and decodings. To overcome this deficiency photogrammetry should be employed which was the subject of this report and one of the stages of Bisotun Relief and Inscription Documentation project. For a long time, the use of photogrammetric technique for the documentation of this valuable and unique monument was investigated and desired by the authorities of the Iranian cultural heritage. But, the extremely difficult and dangerous position of the monument for photogrammetric and geodetic operations, was the major reason for national and international companies to refuse undertaking the project.

In spite of the mentioned problems, the photogrammetric approach was performed through an academic project. Among other difficulties of the project, it should be mentioned that the form of the narrow valley in front of the document dictated to perform the geodetic operations on a semi-hanged scaffolding (Figure 10). Bad climate conditions and changing weather were another problems that were taken into account.



Figure 10. Scaffolding

The scale of the produced maps is 1:5 with 5 mm contour intervals (Figure 12). In this project, a P31 Wild photogrammetric camera was used. The photography scale was 1:30 and Control network was established using a Sokkia PoweSet 1000 total station (Figure 14). All relieves and inscriptions (more than 120000 cuneiform elements) as well as the surrounding objects were photogrammetrically documented with a precision of about 1mm (Figure 17). More detailed technical information can be found in our previous report in (Zolfaghari and malian, 2000).



Figure 11. Overall Image of the Sculptures

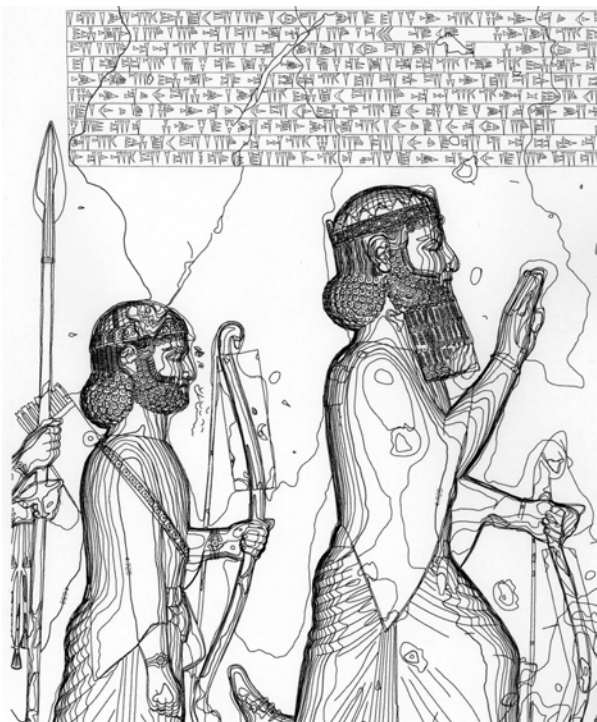


Figure 12. Detailed 3D Photogrammetric Map of Dariush



Figure 13. Image of Ahura-Mazda sculpture

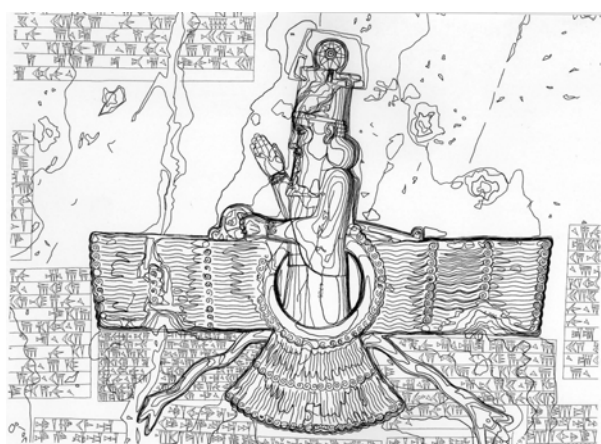


Figure 14. Photogrammetric Map of Ahura-Mazda Sculpture

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Says Dariush the King : Who that shall worship God, divine blessing will be upon him, while living and when dead ... Says Darius the King : If you shall behold this inscription or these sculptures, and shall not destroy them and shall protect them as long as to you have strength, may God be a friend to you, and may family be to you in abundance, and may you live long, and what you shall do, that may God make successful for you.

Figure 15. Old Persian Writing (Cuneiform) and Its Translation

#### ACKNOWLEDGEMENT

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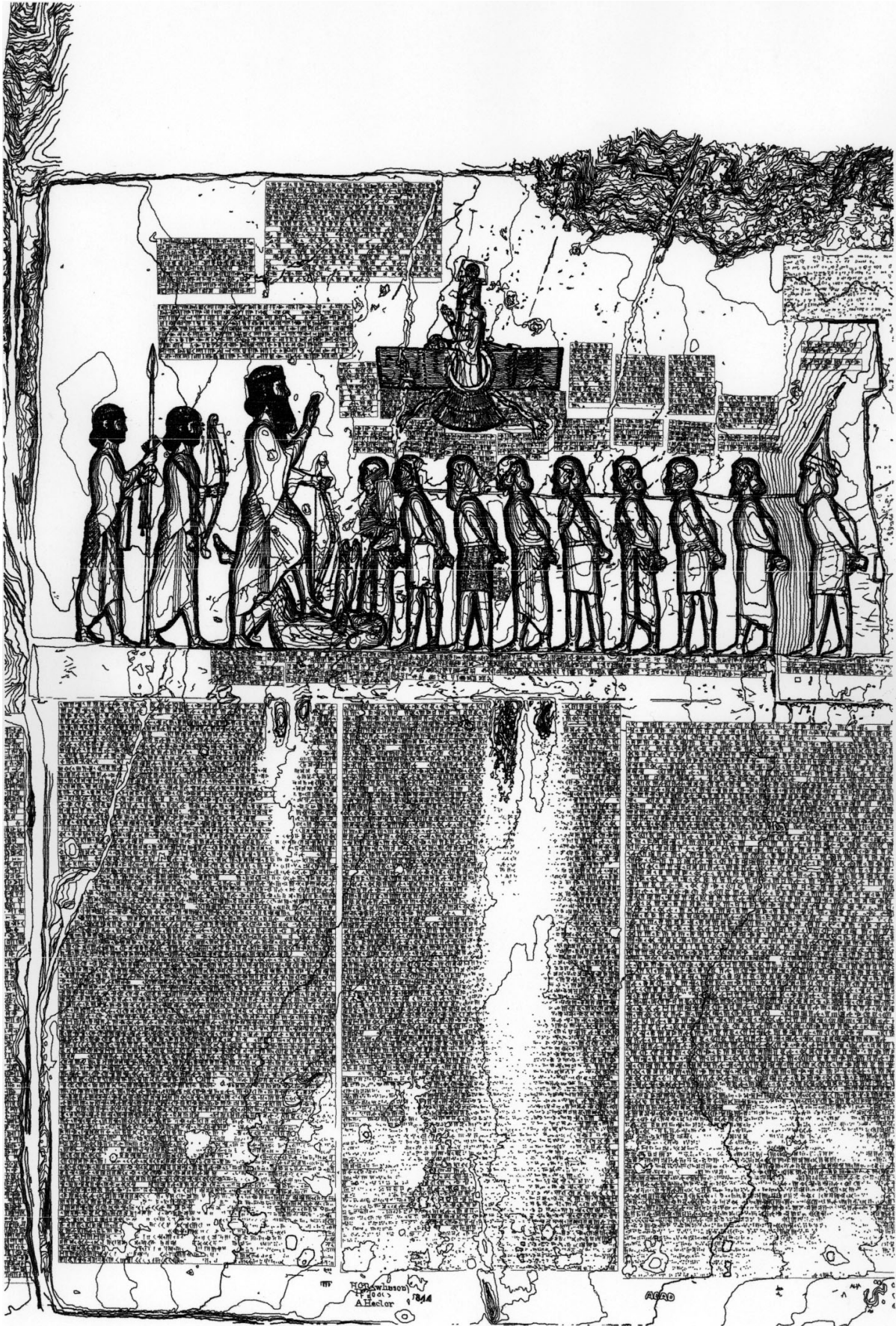


Figure 16. 3D Photogrammetric Map