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## **Franco-Indian Archaeological Mission in Ladakh (India). Report: fieldwork 2016**

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**MAFIL**  
**Mission Archéologique Franco-Indienne au Ladakh**  
**FRANCO-INDIAN ARCHAEOLOGICAL MISSION IN LADAKH**  
**(INDIA)**

**Report: fieldwork 2016**

**L. Bruneau**

**with inputs from M. Vernier, S. Bickelmann, S. Broglia and M. Poux**



**Direction and co-direction:**

On French side: Laurianne Bruneau & Martin Vernier.

On Indian side: S.B. Ota & Tsering Phunchok.

**The fieldwork in 2015 was supported by:**

- The Ministry of Foreign Affairs and International Development (through the Advisory Commission for Archaeological Research Abroad), Paris, France:

[http://www.diplomatie.gouv.fr/fr/IMG/pdf/Archeologie\\_GB\\_Avril2014\\_cle83d531.pdf](http://www.diplomatie.gouv.fr/fr/IMG/pdf/Archeologie_GB_Avril2014_cle83d531.pdf)

- The Archaeological Survey of India, Delhi, India: <http://asi.nic.in/>

- The East Asian Civilizations Research Centre, Paris, France:

<http://www.crao.fr/spip.php?article640&lang=en>

- The Special Programme Central Asia of the Gerda Henkel Foundation, Düsseldorf, Germany:

[https://www.gerda-henkel-stiftung.de/binaries/content/93757/file\\_zasienin-rgb-20151125-180-mit-cover\\_de.pdf](https://www.gerda-henkel-stiftung.de/binaries/content/93757/file_zasienin-rgb-20151125-180-mit-cover_de.pdf)

- The French Institute in India, Delhi.

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A preliminary request of authorization must be sent in writing to:

[mafil.project@gmail.com](mailto:mafil.project@gmail.com)

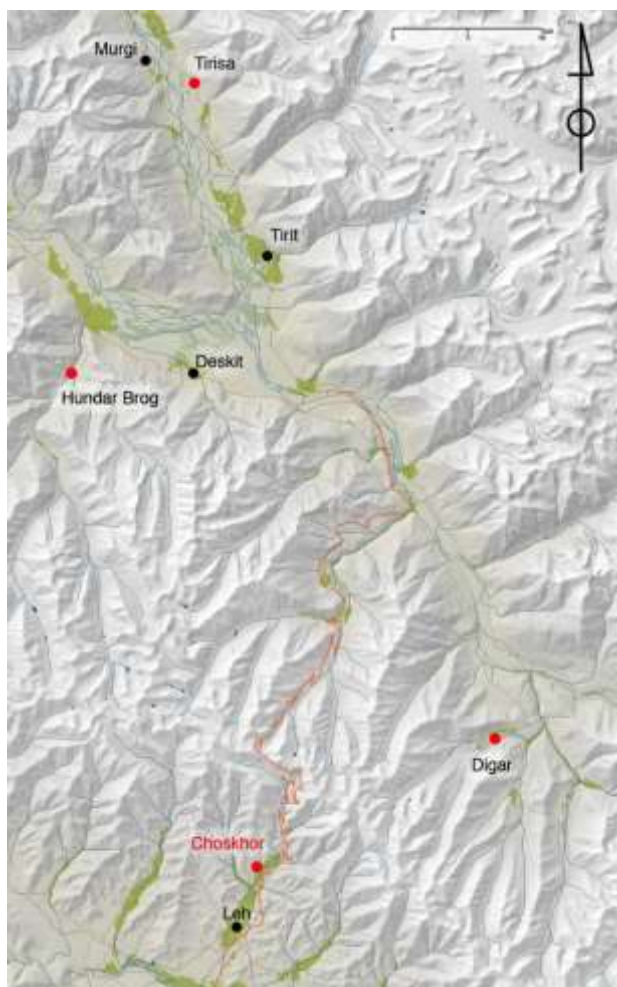
[www.mafil.org](http://www.mafil.org)

## MISSION BACKGROUND

The Franco-Indian Archaeological Mission in Ladakh (Mission Archéologique Franco-Indienne au Ladakh, hence MAFIL) was established in 2012 after 5 years of informal contacts (publications and invitations to seminars) between the two co-directors: Laurianne Bruneau, who is associate professor at the Ecole Pratique des Hautes Etudes (Paris) and permanent researcher at the East Asian Civilisations Research Centre (UMR8155/CRCAO, Paris) and Simadri Bihari Ota, who is presently joint director of the Archaeological Survey of India (ASI, Delhi). The MAFIL project was approved in autumn 2012 both by the ASI and the Advisory Commission for Archaeological Research Abroad of the French Ministry of Foreign Affairs and International Development.

The MAFIL is the first large scale-research oriented archaeological mission in Ladakh. Noticeably the ASI has rarely worked in collaboration with a French team. Keen to develop archaeological research in this Himalayan region, the ASI opened an independent local office in Leh, the cultural capital of Ladakh, in 2011. In 2016, Mr Tsering Phunchok, Deputy Superintending Archaeologist, was appointed head of the Leh Mini Circle and co-director of the MAFIL project. Martin Vernier (associate researcher, ArScAn/UMR7041) acted as joint director on the French side.

## RESEARCH BACKGROUND & CHALLENGES



*Map 1: Location of Leh Choskhor site in relation to the ancient Buddhist sites of the Nubra area.*

*Map: A. Pointet / M. Vernier.*

Ladakh (Jammu and Kashmir State) is a high mountain desert and the most northern region of the Republic of India. It borders Pakistan to the west (Gilgit-Baltistan Province), the People's Republic of China to the north (Xinjiang Autonomous Region) and east (Tibet Autonomous Region). Due to its geographical position, Ladakh is ideal for studying the cultural contacts between the Indian subcontinent and Central Asia (including the Tibetan Plateau).

Initially the 4-year project focused on the Nubra area (average altitude in the lower valley is 3000 m). Located in northern Ladakh, the Nubra has provided a gateway between the northwest of the Indian subcontinent and Central Asia in the modern period. Indeed, from the 17<sup>th</sup> century to the middle of the 20<sup>th</sup> century, the Nubra was the main route for trans-Karakoram trade between Leh and Yarkand (Tarim Basin, Xinjiang). The aim of the 4-year project was to understand the links between the northwestern region of the Indian subcontinent and Central Asia over time, by establishing a chrono-cultural sequence of the Nubra.

The first two campaigns of the project (2013 and 2014) were spent in Nubra as planned. However, the MAFIL faced difficulty in carrying out excavations there and the project was shifted to the Leh Choskhor site, located north of Leh at the foot of the pass leading to Nubra, in 2015. A trial pit was opened on this ancient Buddhist site in 2015 and full scale excavations were led in 2016. Results of the excavations are presented in details below.

## DISSEMINATION OF RESULTS

During the 2015-2016 academic year, the following actions were undertaken:

### Dissemination of results

#### Uploading reports of the fieldwork

A summary of the 2013-2016 fieldworks, in French and English, as well as a visual presentation of MAFIL are available online on the website of the East Asian Civilisations Research Centre (CRCAO), Paris. Laurianne Bruneau, the project's French director is a permanent member of the CRCAO:

French version: <http://www.crcao.fr/spip.php?article464&lang=fr>

English version: <http://www.crcao.fr/spip.php?article640&lang=en>

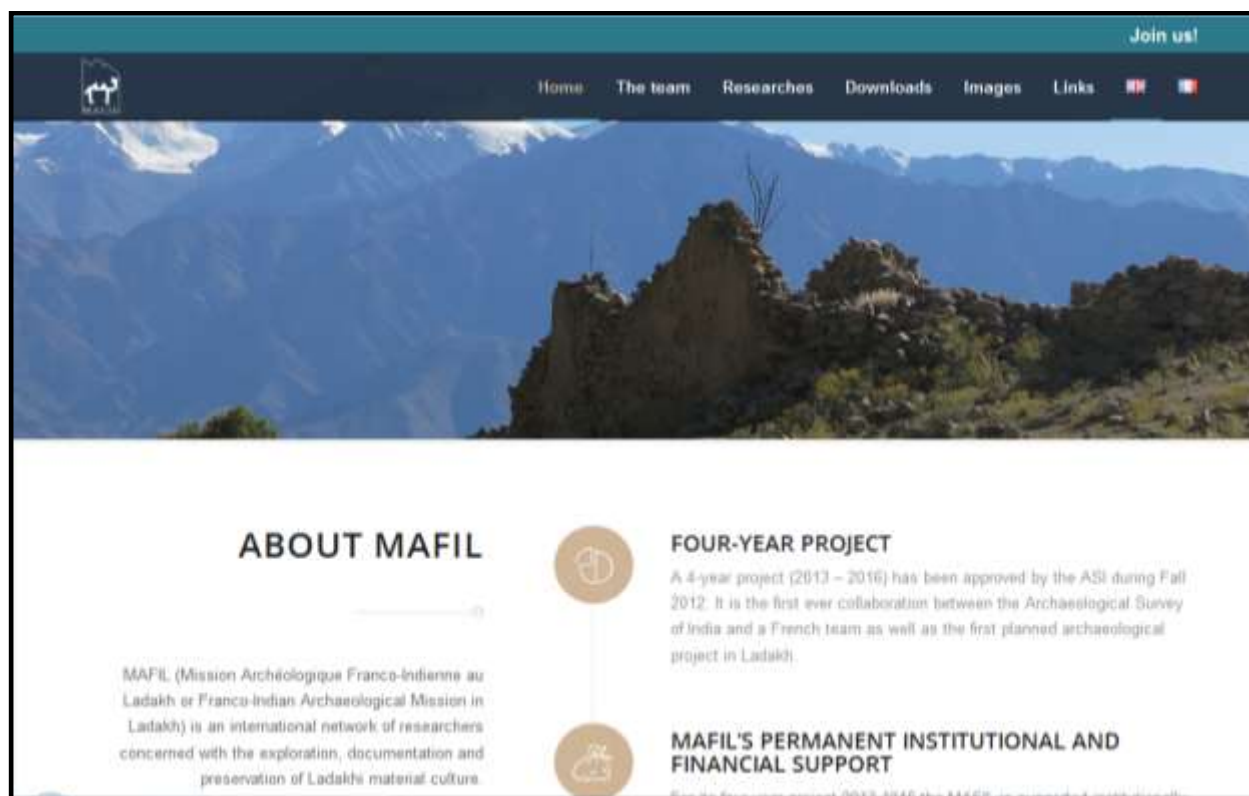
Detailed reports of the 2013-2016 campaigns are available for download on the Academia page of Laurianne Bruneau: <https://ephe.academia.edu/LaurianneBruneau>

Fieldwork reports (in French and English), are also available on a website dedicated to the MAFIL project: [www.mafil.org](http://www.mafil.org)

#### Website dedicated to the project and Facebook page

A bilingual website (French-English) dedicated to the MAFIL was created in spring 2016 to present the project, its research methods and share its results. The website (online in June 2016) enhanced the visibility of the project. The latter being very important since the project relies mostly on public funding. The website enables anyone interested in the archaeology of Ladakh, at an international and local level (in India and Ladakh especially), to be informed about researches initiated by the project.

About 200 pictures and drawings are online, along with detailed fieldwork reports, educational documents (on archaeology and rock art). A complete list of papers published and events organized within the frame the project is also available online.



*Fig.1: Home page of the MAFIL's website*

Alongside the website, a Facebook page in the name of the project was opened in October 2016:

<https://www.facebook.com/mafil.org/>

The page enables to keep people informed about the project, especially at the local level. Most of the information in Ladakh is made through Facebook where it is the preferred social media.

#### Poster

A poster presenting the MAFIL's website was presented on October 12<sup>th</sup>, 2016 at the first Digital Humanities Study Day organized by the Ecole Pratique des Hautes Etudes (teaching institution of the French director, L. Bruneau): <http://humanum.ephe.fr/en/node/68>

Posters presented during this study day will be published in a special volume.

➤ *APPENDIX 1: poster presented at the Digital Humanities Study Day, EPHE.*

#### Papers and Conferences delivered

L. Bruneau, the French director of the project, delivered 3 papers in connection with the MAFIL project during the year 2016:

- “Archaeological research in Ladakh: results of the Franco-Indian cooperation project”, Centre for Social Sciences and Humanities, Delhi, talk organized by the French Institute in India, 29<sup>th</sup> of June.
- “In between Kashmir and Xinjiang: Buddhist remains of the Nubra region. Results of the Franco-Indian Archaeological Mission in Ladakh”, 14<sup>th</sup> Seminar of the International Association for Tibetan Studies (IATS), Bergen (Norway), 20<sup>th</sup> of June.
- “Le Ladakh avant le Bouddhisme: nouvelles découvertes archéologiques”, Musée National des Arts Asiatiques-Guimet (MNAAG), Paris, 7<sup>th</sup> of April 2016. The conference was jointly organized by the MNAAG and AFAO.

A fourth paper was delivered jointly with Martin Vernier:

- “Le Ladakh : un cas d'étude pour l'archéologie himalayenne ?”, paper delivered at the *Journée d'études en mémoire d'Anne Chayet*, organized by Collège de France/CRCAO, Paris, 23<sup>rd</sup> of May.

#### Documentary film

In August and September 2016, a team of French journalists, working for the Delhi office of France 2 (one of the main French national TV channels: having obtained the necessary permission from the Tourism Department of J&K, filmed the excavations conducted by the MAFIL team at one of the Buddhist temples of the Leh Choskor site.

The MAFIL's work was part of 5-part documentary entitled ‘Dans les pas de Bouddha’ ([https://www.youtube.com/channel/UCoZOefloyQ\\_Ir8P8JJ0hRTw/videos](https://www.youtube.com/channel/UCoZOefloyQ_Ir8P8JJ0hRTw/videos): select épisodes 1, 3 and 5) aired at the beginning of January 2017 during the mid-day news (Journal de 13h).



*Fig.2: team of French journalists filming on site, 7<sup>th</sup> of September. ©MAFIL*

## ASSESSING MAFIL'S ACTIVITIES

### Research programme “Archaeology, Arts and Material Culture of the Tibetan Cultural Realm”

MAFIL's activities are part of the research programme “Archaeology, Arts and Material Culture of the Tibetan Cultural Realm” of the CRCAO (Paris).

Since spring 2014, Laurianne Bruneau, together with Matthew Kapstein (EPHE) and Françoise Pommaret (CNRS), has been coordinating this 5-year research programme (2014-2018). This unique programme aims to develop a promising field of research in Tibetan studies: the material analysis of monuments and objects. So far, numerous studies have focused on iconographic and stylistic aspects, as well as use and purpose, but very little research has been conducted in the technical domain. Another key feature of the programme focuses on vestiges of the pre-Buddhist Tibetan world, which remain largely unexplored to date. Special attention is given to the conservation and development of the cultural heritage. Research is conducted by members of the CRCAO in collaboration with renowned French and foreign specialists.

- A more detailed presentation of the programme is available:

<http://www.crcao.fr/spip.php?article614>

### C14 dating

During 2015 fieldwork, wooden and straw samples were taken from the sites of Hundar Brog and Leh Choskor. In Spring 2016, the CNRS-SHS commission granted MAFIL the authorization to submit six samples for C14 dating using ARTEMIS, an accelerator mass spectrometer (AMS) in Saclay (France). Permission to date samples was granted by the Director General of the ASI in April 2016.<sup>1</sup> Results are expected for spring 2017.

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<sup>1</sup> We would like to describe the protocol followed. All samples remained in the custody of S.B. Ota, the project's Indian director. As required by the Archaeological Survey of India, a request to date samples was submitted for approval to the ASI Director General in Delhi. In order to export the samples, S.B. Ota had to obtain a certificate from the department of pest control. Once the clearing documents were obtained, the samples were sent by private post directly to the Radiocarbon Dating Centre (*Centre de Datation par le RadioCarbone*, UMR 5138 "Archéométrie et Archéologie", Lyon: <http://carbon14.univ-lyon1.fr/p1.htm>), which prepared them for analysis. Finally, the samples were processed for C14 dating using the ARTEMIS accelerator (at the C14 measurement laboratory, the *Laboratoire de Mesure du Carbone 14*, in Saclay: <http://www.universite-paris-saclay.fr/en/node/408>).

## PREPARING FIELDWORK IN 2016

### Administrative preparation

The Archaeological Survey of India (ASI) delivered the permit for fieldwork in May 2016.

### Franco-Indian cooperation

As detailed in the reports of 2014 and 2015, the MAFIL faced difficulties to carry out its objectives in Nubra, despite its official cooperation with the Archaeological Survey of India (an institution depending from the Ministry of Culture, hence from the central government). Therefore, the support of local stakeholders is crucial to ensure the progress of the project in Ladakh.

Fieldwork carried out in 2015 at the site of Leh Choskor ended on a positive note with the involvement of a delegation of villagers from the nearby village of Gompa, monks from Spituk Monastery and the director of the ASI Leh Mini Circle (Mr Sunder Paul).

To prevent any concerns that may rise (or may have risen since the last campaign) at the local level and insure that the fourth, and last, fieldwork of MAFIL would go as smoothly as possible, the French director of the project asked for support to the French Institute in India (Institut Français en Inde, IFI)<sup>2</sup>.

As an institution representative of the French government, the role of IFI is to reinforce cultural cooperation between France and India, among which stand academic and scientific exchanges. Mr. Jean-Yves Coquelin (Deputy Director of IFI and Deputy Cultural Counsellor) followed and supported MAFIL's administrative procedures in India since the outset of the 4-year project.

L. Bruneau and M. Vernier paid a week-long visit in Delhi at the end of June 2016 to prepare the fourth campaign of MAFIL. Besides meeting with S.B. Ota at the ASI headquarters, L. Bruneau and M. Vernier met with Mr Bertrand de Hartingh (Director of IFI and Counsellor for Cooperation and Cultural Action) and Mr Philippe Arhets (Counsellor for Science & Technology) to discuss the importance of ensuring local support in Ladakh to the MAFIL project and the means to do so. Consequently, the representatives of IFI invited several local stakeholders to meet with them in June and July. It was also decided that Mr J.-Y. Coquelin would go to Leh in August, a few days before the campaign, to ensure its running.

The IFI arranged a presentation of the MAFIL project on Wednesday 29<sup>th</sup> of June at the CSH (Centre for Social Sciences and Humanities) during which L. Bruneau shared the main achievements and prospect of the mission. The presentation was attended by representatives of the ASI, IGNCA, INTACH, HNB Garhwal University and IFI. It provided a unique opportunity to discuss the challenges of carrying out archaeological work as well as cultural preservation projects in the Himalayas.

L. Bruneau and M. Vernier also met with Mr Nicolas Idier (Attaché for Books, Ideas and Knowledge at IFI) to discuss the various possibilities for publishing the results of the project.

➤ *APPENDIX 2: invitation issued by IFI for the MAFIL conference at CSH.*

### Local preparation

Mr J.-Y. Coquelin (Deputy Director of IFI and Deputy Cultural Counsellor) spent about 10 days in Leh in August 2016. Noticeably it was the first time ever that a representative of the French government paid an official visit to Ladakh. While in Leh, he met with the representatives of the ASI (Mr Sunder Paul and Mr Tsering Phunchok), the manager of the Alliance Française branch (that is under the direction of the AF in Chandigarh) and Dr Sonam Wangchok (founder and director of the Himalayan Cultural Heritage Foundation – HCHF- and president the International Association for Ladakh Studies -IALS).

Dr S. Wangchok acted as facilitator and a meeting was organized on 19<sup>th</sup> of August with Prof. Geshe Konchok Wangdu, director of the Central Institute of Buddhist Studies (CIBS), to which J.-Y. Coquelin was joined by M. Vernier, joint director of MAFIL, as well as the representatives of the ASI.

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<sup>2</sup> <http://www.ifindia.in/content/services>

The archaeological site of Leh Choskor is located on a plot of land recently given to the Pethub Khangtsen Education Society of Leh by the villagers of Gompa in order to build a meditation centre. This project is, in turn, managed by the Central Institute of Buddhist Studies (CIBS). After a presentation of the work already carried out in 2015 within the frame of MAFIL and the work planned for 2016, permission was given to work again on the site of Leh Choskor. The following points were discussed and agreed upon: any material excavated shall remain in custody of Leh Mini Circle (ASI); the project of meditation centre may not be challenged; a copy of documentation (maps, drawings, photographs, reports etc...) shall be given to the CIBS.

The following day (20<sup>th</sup> of August) a *puja* (religious ceremony) was conducted on the archaeological site by two monks and excavations initiated. One of the monks, Geshe Jigmet, then visited the site and our team on an almost daily basis.



*Fig.3: monks performing a puja at the site of Leh Choskor to propitiate the ground deities before excavations.*  
©MAFIL

### **Logistical preparation**

The campaign's logistics was prepared, as the previous years, in partnership with M. Tsewang Gombo. A fixed camp was established at Gompa village, about 10mn walk from the archaeological site. The following facilities had to be provided: solar water heating system, individual tents, kitchen tent, dinner and storage tent, office tent and washing facilities (one canvas hut for a shower/bath and another for the toilet). A local team was responsible for the camp's daily organization. The camp being located at an altitude of about 3800m asl, climatic conditions during the 2016 campaign were demanding some days, with some snow and temperatures around 0° in the early morning.

From a health and safety point of view, the team was equipped with a pharmacy, suitable first aid kits and cell phones compatible with the different local operators. Lastly, the mission directors made sure that they had insurance details and emergency contacts for all team members.

Finally, part of the excavation material and workers' wages were provided by the ASI Leh Mini Circle.



*Fig. 4: MAFIL campsite at Gompa village, in proximity to Leh Choskor site*  
©MAFIL



## THE 2016 CAMPAIGN

MAFIL's fourth campaign ran from 15<sup>th</sup> August to 14<sup>th</sup> September 2016.

Fieldwork at Leh Choskor was carried out on a daily basis by French members of the team only. Assessment visits by the representatives of ASI (Mr S.B. Ota, Mr Tsering Phunchok and DG, Dr. Rakesh Tewari) took place during the excavations.

The above members of ASI carried out at the same time side researches beyond Panamik, in Nubra, in an area forbidden to foreigners and located within the LOC (Line of Control).

A prehistoric camp site, exposed by road construction, was spotted by S.B. Ota along the Saser stream in 2015. Three radiocarbon dates indicates that the site was in use for about 800 years in between 8500 and 7300 BC, making it the earliest evidence of human occupation in Ladakh and Western Himalayas. This important discovery was officially announced by ASI through a note of the Press Information Bureau from the Ministry of Culture on 16<sup>th</sup> of August:

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=148945>. The information was subsequently taken over by dozens of news websites.

Further researches conducted in September 2016 at the camp site located at the foot of the Saser pass aimed at knowing, among other questions, if a route from or to Central Asia, more specifically the Tarim basin (present-day Xinjiang), through the Karakoram indeed dates back to the prehistoric period.

Members of the scientific team at Leh Choskor site:

- L. Bruneau, associate professor, EPHE/CRCAO, Paris, director.
- M. Vernier, associated researcher, ArScAn/UMR7041, Nanterre, joint director.
- S. Bickelmann, archaeologist, Museum of London.
- S. Broglia, PhD student, EPHE, Paris, France.
- M. Poux, Master student, EPHE, Paris, France.
- Ekta Singh, Phd student, HNB Garhwal University.

Assisted by:

- T. Gombo, in charge of logistics and maintenance services.
- T. Spalzing, cook.
- T. Spaldon, helper.

## THE SITE OF LEH CHOSKOR

The Leh Choskhor site (*choskor*: religious enclosure, literally: religious site for circumambulating) was chosen for fieldwork in 2015 because of the importance of its Buddhist remains and its location, north of Leh oasis, just below the present-day Khardong pass leading to Nubra.<sup>3</sup>

M. Vernier has explored the site many times over the past 15 years (in 2003, 2004, 2007 and 2008) as well as recently with L. Bruneau during the 2014 season.

The earliest written mention of the site so far identified is that of A.H. Francke:

*"[...] I went higher up the Leh valley, following the desert road to the west of the cultivated area, accompanied by Pindi Lal and the Khalasi. Close to the village of dGonpa, we passed by the ruined site of an old town with mchod-rten of ancient type near it. There we found also a*

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<sup>3</sup> In previous MAFIL reports and presentations the site was mentioned under 'Khardong Choskor'. Since the land belongs to Gonpa hamlet (NIRLAC 2008, p.110) in the Leh area it is more appropriate to refer to it as 'Leh Choskor'.

*stone sculpture of some Bodhisattva, enshrined in a masonry wall, with a lhatho (altar of pre-Buddhist religion), in front of it. As usual, the altar was furnished with many ibex horns. This ruined town may be the original site of the present village of dGonpa.*"<sup>4</sup>

Unfortunately no photograph seems to have been taken by Pindi Lal, the photographer of ASI who accompanied Francke during his tour for the ASI in 1909-1910<sup>5</sup>. Although the description of the site is not very precise it matches well the remains documented in 2015 by MAFIL.



**Fig. 5:** Leh Choskhor site (in the foreground) and Leh Valley (in the background).  
©MAFIL / R. Silveston.

The site is also mentioned by Snellgrove and Skorupski:

*“On the way to the pass [i.e. Khardong] there are ruins of yet another monastic foundation attributed to Rinchen Zangpo. It is still known just as Cho-'skor (= Religious Enclave), a term suggesting a place of some importance.”* (1977, p. 4)

They also note: *“The term Cho-'skor is an interesting one, as it is used only of the more important monasteries of the time of Rinchen bzang-po. Tucci has suggested that the name may have used of monasteries where special ‘assemblies’ were held, as ‘khor means assembly or entourage rather perhaps than enclave, as suggested here by me.”* (1977, footnote 23, p. 28).

A brief description of the main temple of the site, referred to as Lotsava Choskor (in reference to Rinchen Zangpo), is found in the second volume of NIRLAC (2008, p.110).

The archaeological area measures about 800 m by 300 m (located between 3790 m and 3910 m asl): 137 built structures were inventoried and mapped (on a 1/100 scale topographical map and on a detailed insert plan at the scale of 1/100). Among these are 3 ruined temples and about 50 ancient *stūpa*.

These ruined monuments indicate that Leh Choskor was an important religious compound. This site is quite unique for Ladakh since among Buddhist monuments are traces of potential residential buildings, irrigation works and burials along with petroglyphs.

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<sup>4</sup> Francke 1914, p. 81.

<sup>5</sup> Some photographs taken by Pindi Lal are published in Francke 1914 but others, unpublished photographs, are available in the archives of the Kern Institute in Leiden. None of those shows the old town described by Francke.

During 2015 fieldwork, a systematic collection of surface pottery was carried out (about 1200 sherds) and samples for C14 dating collected from the 3 temples. A detailed documentation of temple 1 (Co.1 on the plans) was done and a trial pit was opened into that same temple.

Based on the evidence of the architectural plan of temple 1 as well as its building technique and material, in comparison with other ancient Buddhist temples in Ladakh and in the Western Himalayas (Himachal Pradesh, Kinnaur and Tibetan Autonomous Region), the site of Leh Choskor was most certainly in use at the beginning of the 2<sup>nd</sup> millennium AD.

However, at the present state of research, it is not possible to say whether all remains on the site are contemporary of this temple or if there were successive occupations.

Therefore, the 2016 campaign aimed at:

- specifying the date of foundation, use and abandonment of temple 1 by carrying out extensive excavations within the temple;
- obtain pottery from stratigraphic context for a better chronological understanding of the site structures;
- validate (or invalidate) the funerary and residential function of structures found in vicinity of temple 1 as well as obtaining datings for those.
- 

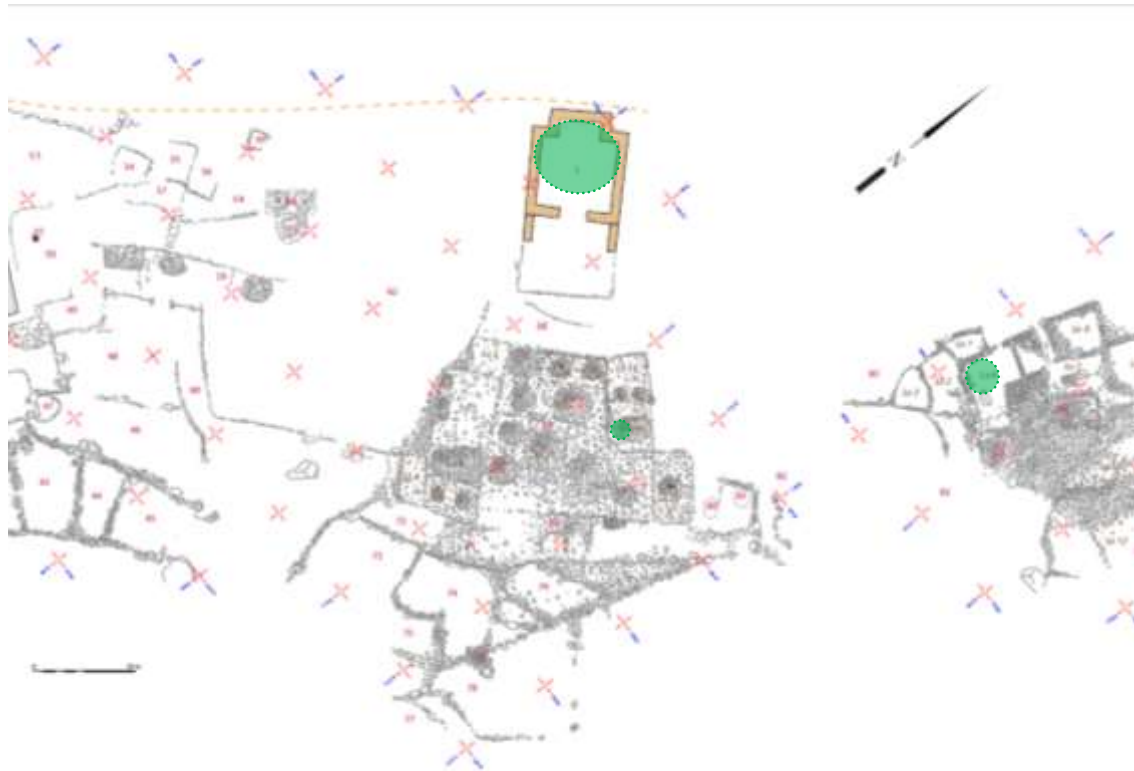
### **WORKS CARRIED OUT IN 2016**

In agreement with the representatives of ASI and CIBS, three areas were chosen for excavations:

-temple 1: L-LEH-Bu2-Co1

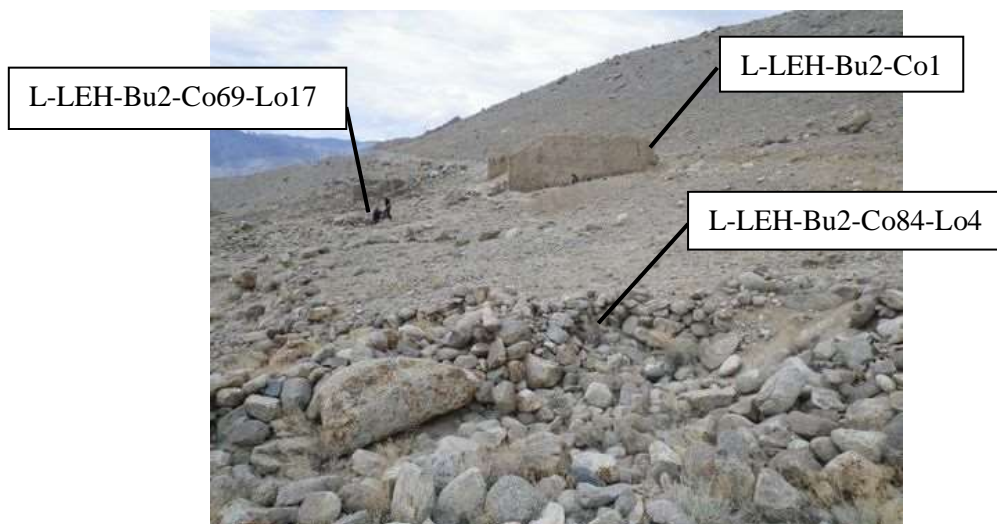
-a room within structure 84: L-LEH-Bu2-Co84-Lo4

-a buried stone structure within built area 69: L-LEH-Bu2-Co69-Lo17



*Fig. 6: 1/100 plan of Leh Choskor site. Green dots indicate the three areas excavated in 2016.*

© MAFIL / J. Suire



*Fig. 7: Location of the three areas excavated in 2016, viewed from the north-east.*

© MAFIL

### **Excavations of L-LEH-Bu2-Co69-Lo17**

East of temple 1, about 5m down the platform on which stands the latter, is a large (56m x 42m) complex built structure (Co69). Nineteen loci were identified during the topographical work carried out in 2015. Dry stone walls, lined up and delineating rectangular areas, are erected around accumulated stones arranged in a circular manner. Some circular stone heaps are disturbed (Lo.5, 6, 9, 10, 14, 15, 17 and 18) and buried stone structures visible underneath.

In order to identify the function of such buried stone structures, locus 17 was chosen for excavations. This particular buried stone structure (context 504) was chosen, among others, because it was already exposed and served as a modern trash bin. It was thus expected to provide a good understanding of the architecture before any opening of an intact structure, presumably conserving funerary material.

The excavations were led by Marion Poux and Martin Vernier from 1<sup>st</sup> to 9<sup>th</sup> of September 2016, under the supervision of L. Bruneau and S. Bickelmann.

Before any clearing and excavations, a detailed plan of the northern corner of Co.69 where locus 17 lies, was done: see the pre-excavation plan with contexts 500 to 504. Several elements were identified: two semi-circular masonry walls (501 and 502), a destruction phase (500) consisting in medium size stones, and in the south-east of the zone another buried stone structure (503) identical to structure 504. The destruction phase (500) has not been cleared and we cannot rule out the existence of other buried stone structures below it.

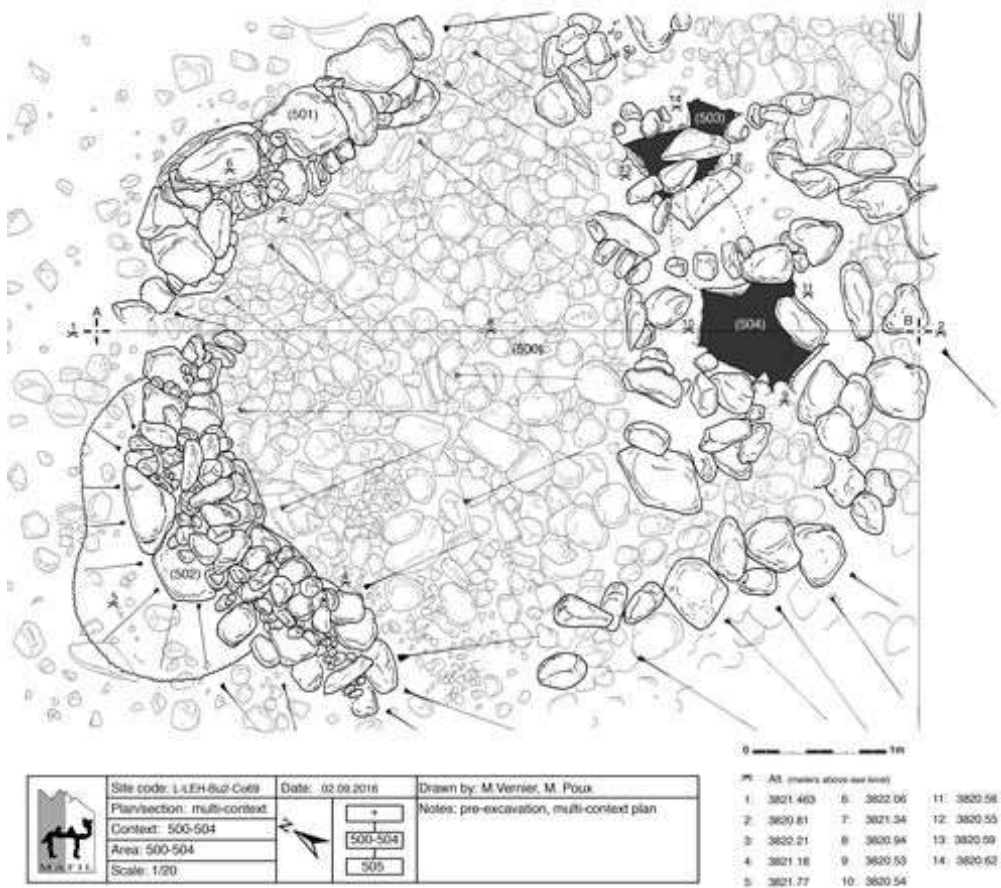


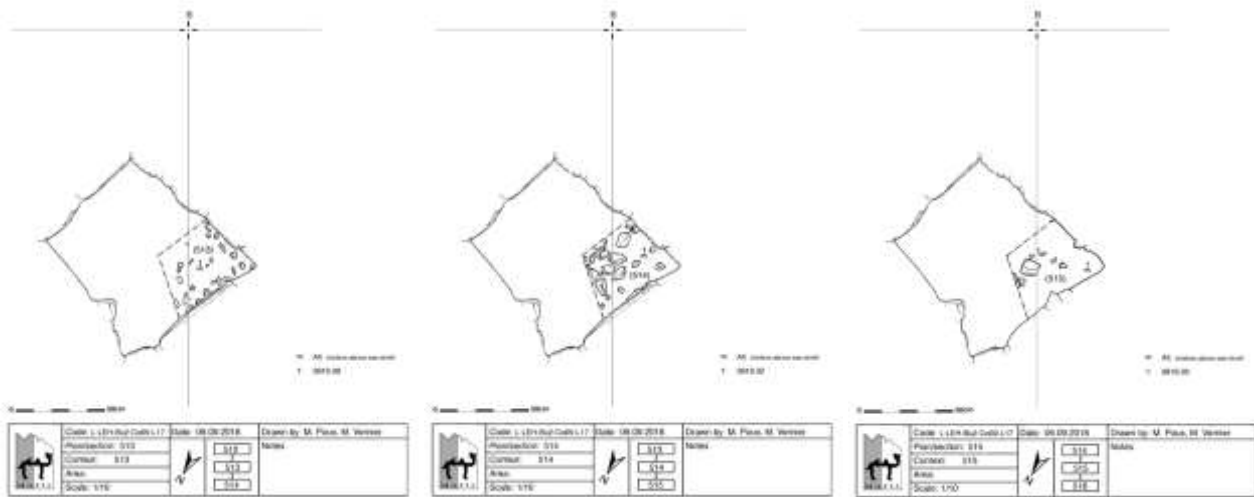
Fig.8: pre-excavation plan (contexts 500-504) ©MAFIL

The removal of layer 505 showed revealed that the inner stone surface of structure 504 was bricked up with an earth mortar (506), as were the covering slabs. The inner rectangular space of structure 504, whose covering slabs had collapsed, was then cleared. The first filling layer consisted in modern debris (507) mixed with collapsed covering slabs (508).<sup>6</sup> This clearing phase enabled to confirm that the north-east wall of structure 504 is adjoining structure 503 (Lo.18). In fact both structures are covered by a common corbelled slab. Under the destruction and modern debris layers was a muddy beige layer (509), also mixed with modern debris. Layer 509 is cutting another muddy layer, much more compact (510) that extends to the walls that may be the result of percolation of the earth mortar. The layer below (511), muddy but quite loose, displayed some medium sized stones that may originate from the hole in the north-eastern wall of the structure. The removal of this destruction layer exposed a homogeneous clay layer (512) in the centre of the structure.

The excavations were then carried on in the south-west corner of the structure only. Underneath layer 512 was a ground level (513), about a meter down the surface. It was identified as such because of its compactness and because it was formed of stone pebbles mixed with earth mortar in its upper part and small sized stones in its lower part. Below, a layer of larger stones (514), arranged in a flat manner, served as basemat. The deepest layer (515) before reaching natural soil was a fine, grey sediment layer probably used to level the soil. It is noticeable that the inner stone walls of structure 504 rest on the ground (513) although the latter continues under the north-west wall.

➤ **APPENDIX 3: stratigraphic matrix, L-LEH-Bu2-Co69-Lo17.**

<sup>6</sup> Although recorded as separate units these two layers were greatly disturbed. It was not possible to differentiate them stratigraphically.



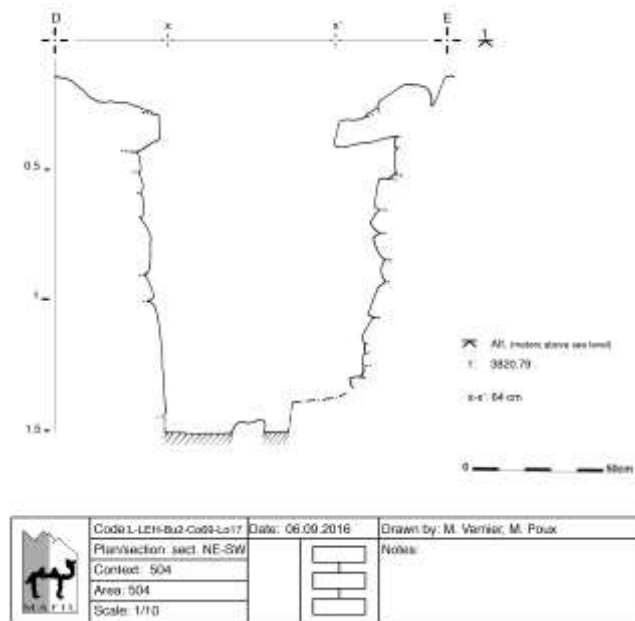
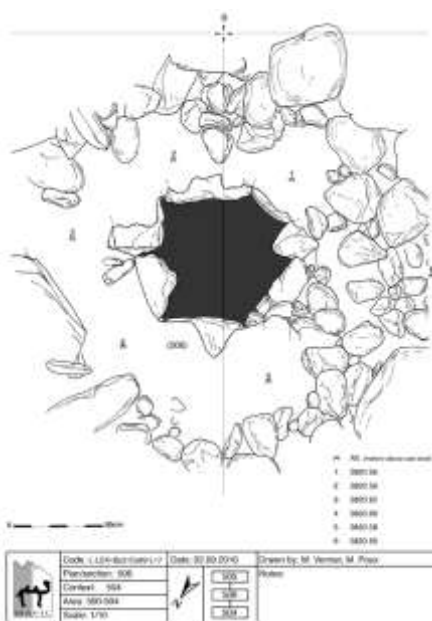
**Fig.9 a-c:** plans of units 513, 514 and 515 (from left to right). ©MAFIL

The archaeological material discovered into structure 504 is scarce: only two pottery shards (one in 509 and one in 510) were exposed. Two splinter of bone were exposed in layer 511 but their animal or human origin could not be specified. Also, no element for dating the structure was unearthed.

The absence of archaeological material into the buried stone structure Lo.17 did not enable us to identify its function.

If it was funerary we presume that bones were moved before labile articulations decomposed or that they were placed into a container. The absence of small bones such as carpal bones and the absence of any other material may point to a clearing of the structure before sealing slabs collapsed.

Another hypothesis may be the use of such buried stone structures for food storage but the absence of inner plaster does not support such a function. Of course, such buried stone structures may have been used as storage area if goods (of any type) were first placed into containers. A third hypothesis may be their use as temporary hiding places for goods, in the case of attack for example.



**Figs. 10 and 11:** context plan of structure 504 and section. ©MAFIL

In order to fully comprehend the function of such buried stone structures that are found in quite large number in vicinity of temples 1 and 2, and whose relationship is not yet grasped, we plan to excavate intact structures in 2018. In some cases the covering slabs and earth mortar are still in place.

#### **Excavations of L-LEH-Bu2-Co84-Lo4**

About 35m north-east of temple 1 remains of another large complex building (Co.84, 30m x 22) was documented in 2015. Formed of 10 rectangular areas, a housing function was presumed. In order to validate or invalidate this hypothesis a trial pit was opened in the north-western angle of the building (Lo.4). Within this room (3,7m x 4,4m long) a trial pit of 1m20 by 2m was set along the north-western and south-western walls.

The excavations were led by Samara Broglia de Moura from 1<sup>st</sup> to 4<sup>th</sup> of September 2016, under the supervision of L. Bruneau and S. Bickelmann.

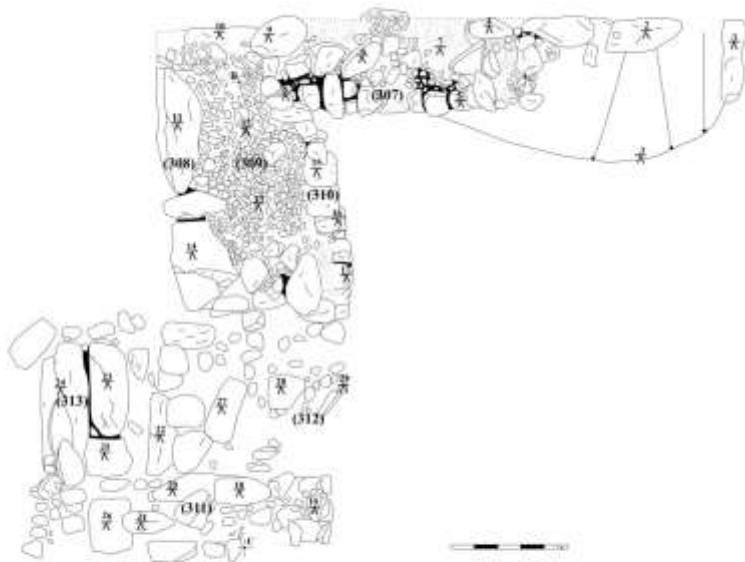
First, stones filling the inner space of the room, probably fallen from the walls, were cleared (300). Excavations began at the altitude of 3822,14 m asl. Six layers were identified below but only the two on top (301 and 302) delivered remains in the form of pottery. The natural soil (306) was reached at 3821,94 m asl. The thinness of the layers exposed (20cm deep only) may be explained by the fact that the excavations started below the original floor level. This is supported by the absence of archaeological material. The room may not have been in use over a long period of time and the original floor washed out by erosion.

Although not much archaeological material was unearthed, information was gathered on the architecture of the room, located at the north-west/south-west corner of building 84. The north-western wall (307: 0,8m wide) and the south-western wall (308, 309, 310: 1,5m wide) are both built in dry stone and joined by chaining stones. Both lie directly onto the natural soil. The north-western wall (307) was built using large stones and a natural boulder. Large stones were also used for the outer surface of the south-western wall (308) but its inner surface (310) was made of small and medium sizes stones mixed with an earth mortar. The inner part of the wall (309) was filled with small size stone and loose earth as well with pottery sherds and bone fragments.

Two entrances were identified: one facing west (314) and one facing south (312 and 313). The western entrance (0,34m large) was clearly visible before the excavations and an elongated stone with a hole may have been used as centre plate for a door. Its threshold corresponds to the large natural boulder on which the wall is resting. The southern entrance was revealed during excavations. It was filled with collapsed material from the wall and two destruction layers (304 and 305) were identified in the trial pit in front of the entrance. A stepped entrance, composed of three large flat stones (respectively 1,10m, 0,84m and 0,32m large), leading to a large opening (1,40m large at the threshold) was identified beyond the outer wall.

#### ➤ **APPENDIX 4: stratigraphic matrix L-LEH-Bu2-Co84-Lo4.**

The absence of an occupation level in Lo.4 of building 84 prevents us from validating or invalidating its housing function. The width of the outer walls (0,8m and 1,5m) along with the monumental dimensions of the eastern entrance questions the use of the building. These elements point to a possible defensive, palatial or religious function. In order to confirm one of these hypotheses further trial pits shall be opened. Hopefully elements for dating the construction, use(s), abandonment and destructions phases of the building will be unearthed and its relationship with temple 1 better understood.



Alt: (Above sea level)

- |                |                |
|----------------|----------------|
| 1. 3823, 51 m  | 16. 3822, 53 m |
| 2. 3823, 29 m  | 17. 3822, 35 m |
| 3. 3822, 46 m  | 18. 3822, 62 m |
| 4. 3823, 33 m  | 19. 3822, 66 m |
| 5. 3822, 99 m  | 20. 3822, 49 m |
| 6. 3823, 03 m  | 21. 3822, 38 m |
| 7. 3822, 72 m  | 22. 3822, 20 m |
| 8. 3822, 84 m  | 23. 3822, 01 m |
| 9. 3822, 99 m  | 24. 3821, 87 m |
| 10. 3822, 63 m | 25. 3821, 97 m |
| 11. 3822, 65 m | 26. 3822, 09 m |
| 12. 3822, 67 m | 27. 3822, 36 m |
| 13. 3822, 66 m | 28. 3822, 17 m |
| 14. 3822, 75 m | 29. 3822, 10 m |
| 15. 3822, 81 m |                |

	Site code: L-LEH-Bu2	Date: 01.09.2010	Drawn by: S. Brogka
	Plan/section: PLAN SEP-2010		Notes:
	Content: 307 to 315		
	Area: Co84-Lo4		
	Scale: 1:20		

**Fig.12:** excavation plan, L-LEH-Bu2-Co84-Lo4 ©MAFIL



**Fig.13:** south-western wall (308, 309 and 310) from above ©MAFIL



**Fig.14:** southern entrance viewed from south ©MAFIL



## Excavations of L-LEH-Bu2-Co1

During 2015 campaign, temple 1 (Co1) at the site of Leh Choskor, located more or less at the centre of the site, was fully documented.

The architectural documentation of this religious building (9,2m x 13,65m) identified as such by plugholes and fainted halo remains of deities distributed on the inner walls of the rear apse, was conducted using a stone-by-stone elevation drawing.

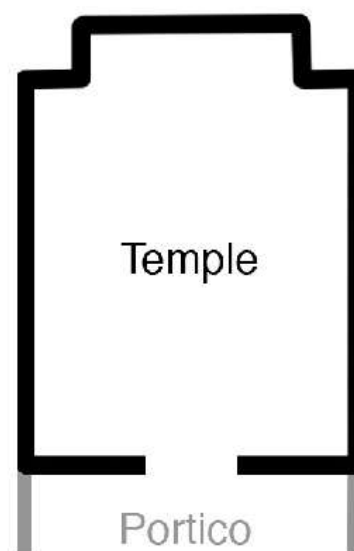
Two distinctive building stages were identified:

1. a preliminary mud brick (size of bricks: 41/42 x 9/10 x 20 cm) building phase, erected on stone foundations.
2. addition of a mud mortared stone masonry entrance portico, erected on a platform in front of the building (east side).

A trial pit (1m x 1m) was opened into the south-western inner corner of the building. Pieces of painted clay sculpture and murals were exposed revealing its archaeological potential.



*Fig.15: temple 1 from Leh Choskor (L-LEH-Bu2-Co1) viewed from south. ©MAFIL*



*Fig. 16: Schematic plan of temple 1  
Drawing: M. Vernier.  
Parts in grey indicate a later addition.*

Excavations were carried out in the temple from 20<sup>th</sup> of August to 8<sup>th</sup> of September 2016. Excavations were led and supervised by S. Bickelmann, with the assistance of L. Bruneau. M. Vernier, S. Broglia de Moura, M. Poux and E. Singh all took part at some point during the campaign.

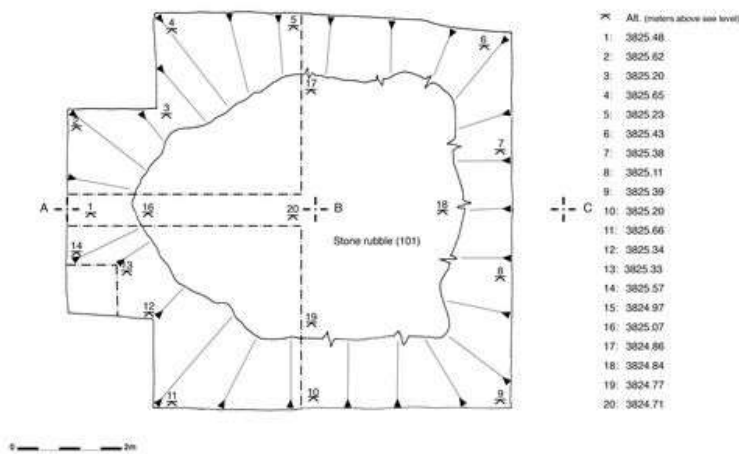
### Stratigraphic summary of excavations

The excavation took place in the northwestern side of the temple. The area was divided into two areas along the baseline AB. In order not to weaken the walls, and consequently threaten the stability of the temple, sections about 0.4m wide were left at the foot of the inner walls.

Area AB north and AB south were initially separated by a 0.6m wide section path which was later taken down. Both areas measured approximately 4m north-south by 5m east-west.



Fig.17: inner view of the temple before excavation



	Site code: L-LEH-Bu2-Co1	Date: 21 08 2016	Drawn by: S.Brogli, M. Vernier
	Plan/section: pre-ex		Notes: Pre-excavation plan of Temple 1
	Context: (100) + (101)		interior (multi-context).
	Area: ABC		
	Scale: 1/50		

Fig.18: pre-excavation plan ©MAFIL

A temporary benchmark was transferred from point A (topographical reference point set in 2015) onto point B within the temple site with a value of 3824.76m asl.

The results of the excavations are briefly summarized here in order to understand the stratigraphic sequence on the site.

### The occupation horizon

The temple floor (139) was reached at c. 3824.60m asl across the area. On top of this floor were 4 large flat stones; two of which (147) and (148) were aligned with the corners of the rear niche, while the other two stones (145) and (146) were positioned in the central area of the temple. The stones are likely to be pillar bases.

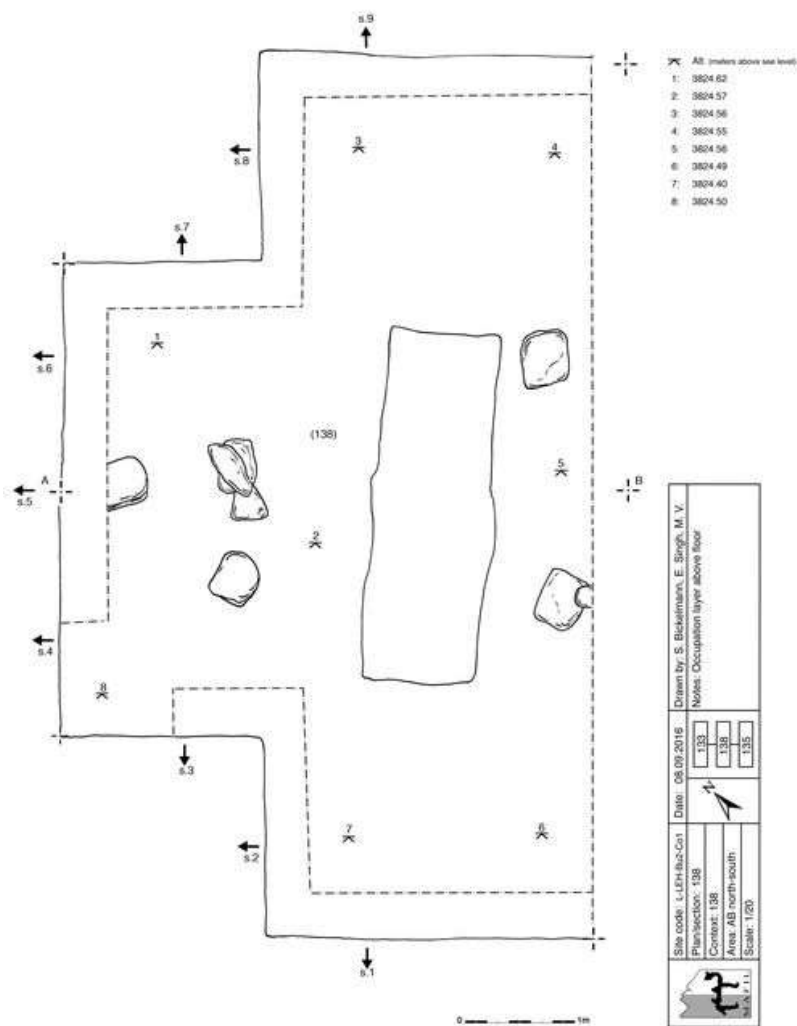
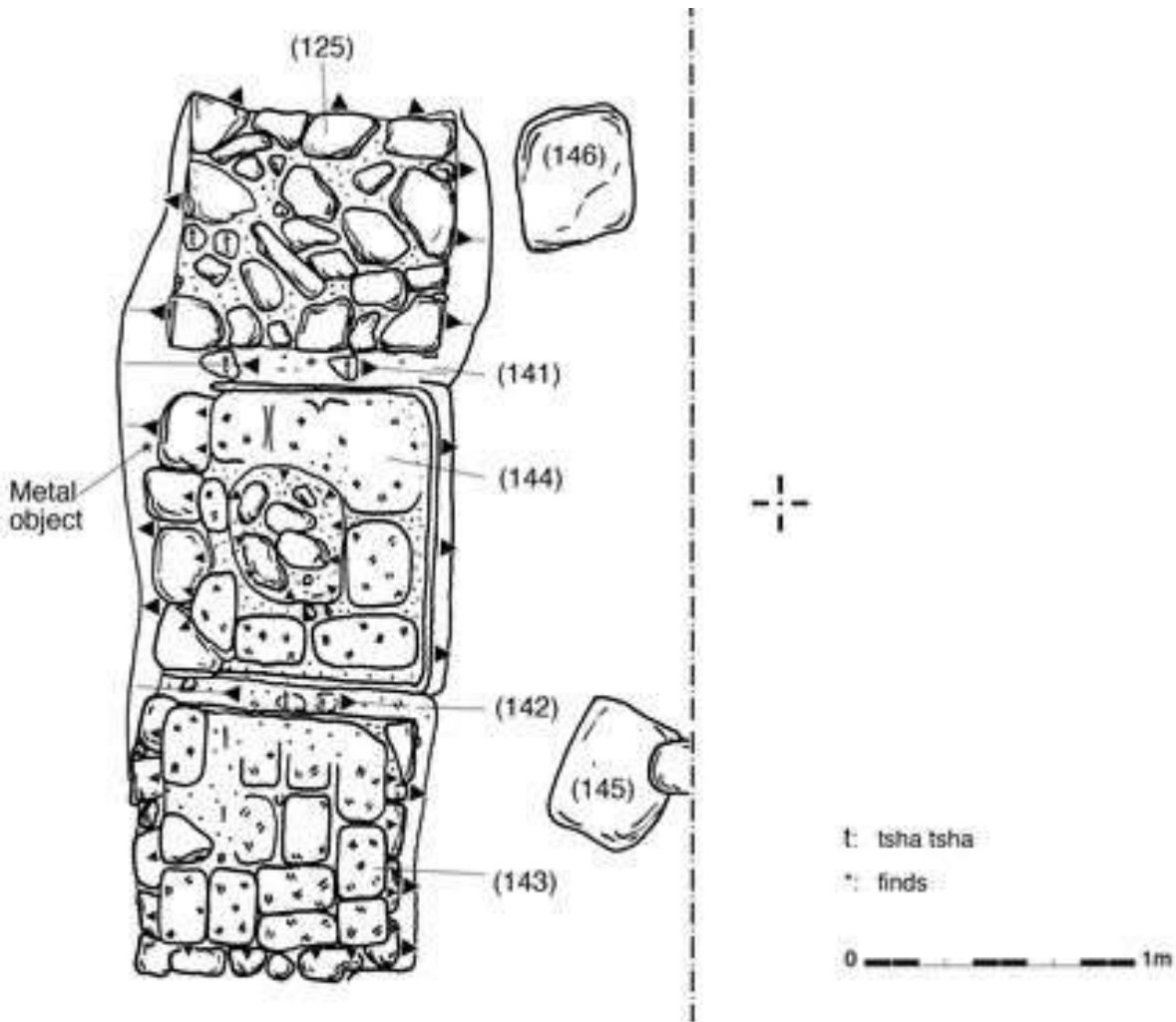



Fig.19: excavation plan (context 138) ©MAFIL

Three square structures (125, 143, 144) were also recorded on top of the floor within the central part of the excavation, c. 2.6m south of the niche. These measured c. 1m square by 0.2m high maximum. The northernmost structure (125) comprised a stone platform, made of medium to large roughly worked stones and a mud brick surround with a stone core. At least two *tsha tsha* (votive clay tablets) were visible within the stone platform and fragments of burnt bone were also revealed during cleaning of the structure and samples were taken (125). The southernmost structure (143) was not fully excavated, but as seen consisted of a stone platform and one course of mudbricks on top. Both structures seemed to be filled by soft silt deposits (121) and (122) in the central parts. The central structure (144) revealed the most interesting finds. It comprised a stone platform sealed by a mudbrick surround. The central area was filled by a number of clay objects (140) in the base with *tsha tsha* on top (136). The structures are likely to have been higher as noted by a lot of clay collapse around the structures (124, 130, 131) but only survived to a height of 3824.75m asl. Between the structures and connecting them were clayey infills (141) and (142), which revealed more *tsha tsha* and pottery fragments. A number of pottery fragments were also recorded surrounding the structures within the occupation layer (138) above the floor. The area immediately west of the structures contained ashy material (135), which may be associated with some kind of burning ritual in the temple.



	Site code: L-LEH-Bu2-Co1	Date: 08.09.2016	Drawn by: S.B., E. S., M. V.
	Plan/section: 139 detail	<div style="text-align: center;">             125/141-146              ┆              139              ┆              --           </div>	Notes: detail of central structure contexts
	Context: multi-context		
	Area: AB north-south		
	Scale: 1/20		

*Fig.20: plan of the central structures (125, 143 and 144) and associated finds. ©MAFIL*

### *The collapse of the temple*

Sealing the temple interior were a series of layers relating to the collapse of the building. Layers (129) and (133) were formed of a distinct soft brown silt and contained very degraded organic material, such as straw and wood. These are likely to represent the collapse from the roof together with (132) and (134). Sealing the roof collapse were up to 0.3m thick compacted clay layers (127) and (128), containing a number of mud brick fragments and noticeably clay statue fragments along the western walls, where deities would have ordained the walls and central niche. These layers covered the entire area of the temple and were in total up to 0.7m thick.



*Fig.21: collapse layer (133, AB south) viewed from east ©MAFIL*



*Fig.22: collapse layer (134, AB south) viewed from top ©MAFIL*

### *The disuse of the site*

Sealing the temple remains was an accumulation of debris layers comprising of compact clay layers (100, 111 = 112, 117, 118, 119) along the temple walls, presumably washed down or melted from the walls during prolonged periods of decay, and loose stoney silt layers (101, 114 = 115) in the central area of the temple, where the deposits were probably windblown and more disturbed. The layers were sloping quite steeply from the walls into the central area with a maximum height at 3825.62m asl at point A in the niche and a minimum height of 3824.71m asl near point B in the centre of the temple.

- The plan and stratigraphic matrix of the excavations of temple 1 are found as *APPENDIX 5 and 6*.
- The sections of the excavations of temple 1 are found as *APPENDIX 7*.
- The sequence of excavation in temple 1 is illustrated in *PLATE 1*.

30 sites plans were drawn during excavations and about 300 photographs taken. Description of each photograph (context, object, direction, etc...) was registered.

Presentation of the archaeological material

The archaeological material from temple 1 consists mostly in clay fragments. The other types of material are: sherds of wood, pottery and bones as well as metal and stones objects.

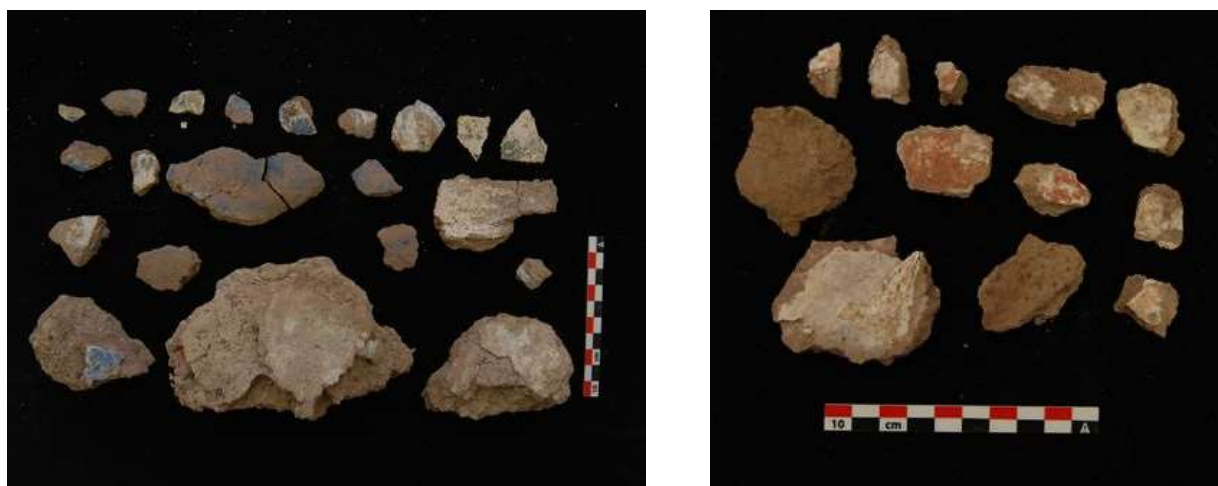
Clay pieces	Pottery sherds	Wooden pieces	Bone sherds	Metal objects	Stone objects	Bark object
227	199	9	3	2	2	1

*Type of material excavated in temple 1*

All of the above archaeological material was recorded into a ‘small finds’ inventory with dimensions, context, description and photographs number.

- *APPENDIX 8: excerpt of the inventory of archaeological material excavated in temple 1.*

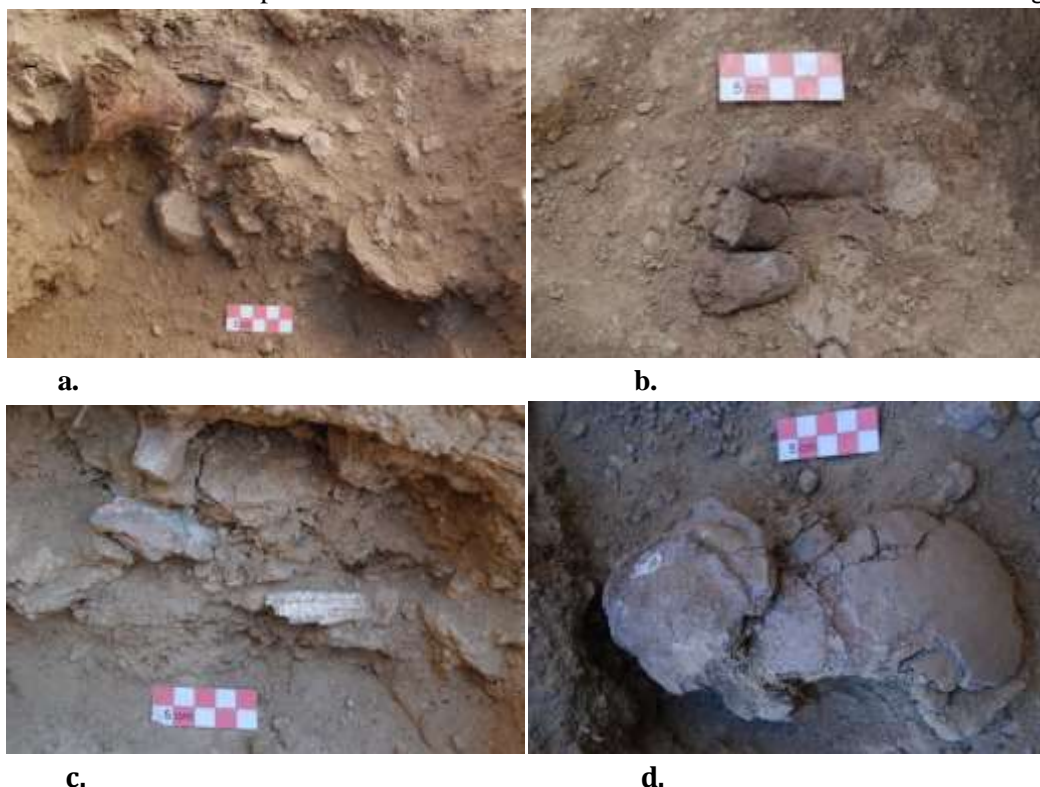
Regarding clay pieces, fragments with identifiable shapes or ornamentation only were recorded into the ‘small finds’ inventory. Shapeless clay fragments were recorded into a separate list (‘bulk finds’) amounting to another 251 pieces.



*Fig.23 (a & b): examples of bulk fragments. ©MAFIL*

Noticeably, about 65% of the 232 clay pieces (‘small finds’) found in the temple (and 20% of the bulk finds) were unearthed in a 1m x 1m area in the north-western corner of the niche, at the exact location of the trial pit carried out in 2015. Most of the temple former ornamentation is thus preserved at the bottom of the walls. As explained above, 0,4m wide sections were left at the bottom of the walls, at the exception of that corner.

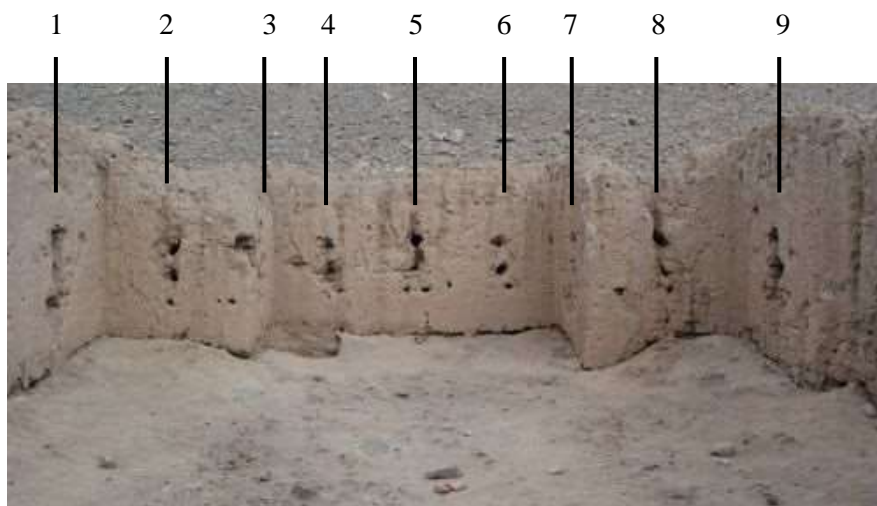
Many more elements of ornamentation are presumably preserved in those sections, planned to be excavated in 2018 with the expertise of mural painting and clay sculpture specialists. Most painted clay fragments and painted mural remains were very fragile, probably damped and weakened by the decomposition of organic material from the collapse of the roof as well as rodents whose traces were noticed during excavation.



**Fig.24 (a-d):** clay and painted elements in course of excavation. ©MAFIL

Description of the material

As already mentioned plugholes and halo remains of deities are visible on the inner walls of the temple. Based on the size and layout of the plugholes, it is possible to assert that the temple once sheltered nine seated deities, made of clay, distributed on its side walls and rear niche. For recording purposes these were numbered from 1 to 9, from south to north (that is to say from left to right when one enters the temple). Wooden pegs and pieces of wood, most probably once part of a wooden armature onto which the clay body of the sculptures was constructed, were found during the excavation: see **PLATE 2** for wooden pegs.



**Fig.25:** location of clay statues, from south to north (from left to right when entering the temple) ©MAFIL



**Fig.26:** close view of plugholes, statue 1 ©MAFIL

In order to identify each deity along with its original position in the temple each clay fragment was recorded with a statue number (for example at the bottom of statue 4 or in between statues 3 and 4) in addition to its context (stratigraphic unit).<sup>7</sup> It is hoped that such a systematic recording will enable, once the temple fully excavated, to reconstruct its iconographic program.

Fragments of clay painted faces (in white, red, blue or green) were unearthed along with broken elements (noses and ears). Other elements such as fingers, hair or deteriorated body parts were also recovered: see **PLATES 3 & 4**. From these elements we know that the seated deities were about life-size. Several fragments of large, pointed and molded lotus petals (either painted blue or red) belonging to the throne on which the deities rested, were exposed (see **Fig.33** below). Broken pieces of *vajra* painted black and/or blue were discovered, being so far the only identifiable attribute: see **PLATE 5**. Many fragile and intricate fragments of ornamentation, such as pearls of ranks, rounded and drop shaped elements and scrolls, to describe a few only, were discovered: see **PLATES 5 & 6**.

Fragments of mural paintings, displaying mostly white, black, red and blue paints were recovered. Some elements of vegetal decoration are recognizable: see **PLATE 7**. The largest fragment recovered displays two white geese, painted head to tail, contoured in red on a blue background. Very thin pieces of painted wood, from the ceiling or other painted wooden elements, were also identified.



*Fig.27: fragments of mural painting with two geese represented head to tail.*  
©MAFIL

One of the most interesting discoveries in the temple were *tsha tsha* and associated objects. Sixteen *tsha tsha* were recovered: three from the rear niche (below statues 3 to 5) and the others from, in between, next to or within the central square structures. All *tsha tsha* are *stūpa* shaped. Most have an elongated conical base on which rests a stepped *stūpa*. Several bear traces of paint (red, green and black) and have a hole drilled at either at the bottom of the base or at the top of the *stūpa* (in some cases both): see **PLATE 8**. Some *tsha tsha* were broken: bone fragments were recovered but also a small folded birch bark sheet found in association with a small polished grey stone: see **PLATE 9 (objects n° 1-3)**.

Small clay objects were found in association with the *tsha tsha*: pearls, discs and elongated conical elements: see **PLATE 9 (objects n° 6-8)**. All objects are pierced. Sixteen round clay dishes (about 7,5cm in diameter and 1cm in height) were also found in association with the *tsha tsha*: see **PLATE 9 (n° 4)**. They are all pierced in their centre and decorated with engraved lotus petals on the edge. Some bear traces of paint (red, blue, black or green). One piece, different in shape, displays painted lotus petals in red and black: see **PLATE 9 (n° 5)**.

<sup>7</sup> These information are recorded in the 'small finds' and 'bulk finds' inventories.



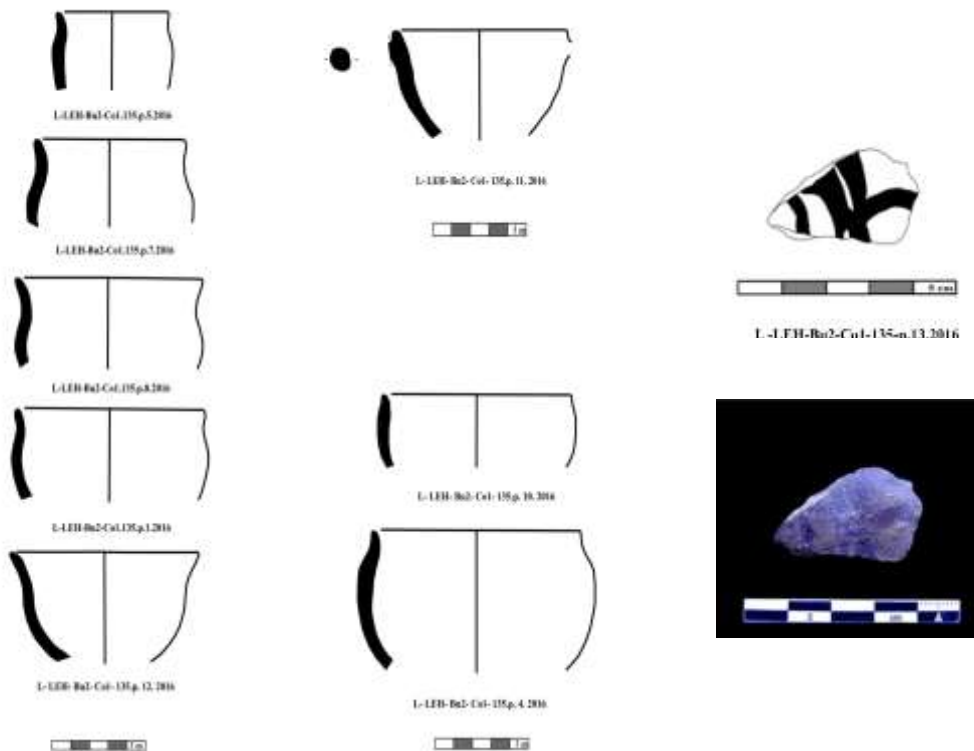


**Fig.28:** central square structure (144) viewed from east ©MAFIL



**Fig.29:** clay objects deposited in the central square structure ©MAFIL

Apart from *tsha tsha* and associated clay objects, pottery sherds were recorded next to the central square structures. Some were found in between the structures (contexts 141 and 142) and thus clearly reused in the construction process. One sherd was found in the filling of the central structure (context 144). These sherds correspond to small globular pots (10cm in diameter). In the area immediately west of the structures that contained ashy material (135) 13 diagnostic sherds were recovered, among which a painted one. The typology also consists in small globular pots (about 10cm in diameter) with widen rims, with or without neck.<sup>8</sup>



**Fig.30:** typology of pottery found in layer 135. ©S. Broglia de Moura /MAFIL



**Figs.31 a & b:** painted sherd found in layer 135. ©S. Broglia de Moura /MAFIL

<sup>8</sup> The detailed study of the 199 sherds of pottery excavate (among which 38 diagnostic sherds) in temple 1 was carried out by S. Broglia de Moura.

➤ **APPENDIX 9: table of potsherds excavated in L-LEH-Bu2-Co1.**

The other objects discovered in temple 1 consist in one corroded coin, a corroded pointed metal object, a sharpened crystal and clay ‘tokens’: see **PLATE 2**.

**Preliminary comments on the site of Leh Choskor**

The diversity and quantity of remains at the site of Leh Choskor are remarkable. Evidently the site was mainly religious in nature (with 3 ruined temples and about 50 *stūpas*). At the present state of research, it is not possible to assign a final function to any of the other built structures documented at the site. Also we are unable to say whether the Buddhist site was built on an already existing site or if the Buddhist site was reoccupied, or both.

During 2016 campaign we focused on the central area of the site arranged around temple 1. Preliminary excavations conducted in structures 69 and 84 in vicinity of the latter did not enable us to comprehend their function nor their relation (if any) to the temple. We are unable to state whether or not these are contemporary or if they result from an anterior or posterior (or both) occupation(s) at the site.

We reach firmer ground when dealing with temple 1. Its ground plan (rectangular with an apse and addition of a verandah) and building technique (mud bricks on a stone foundation) can be compared to preserved early Buddhist temples (11<sup>th</sup>-13<sup>th</sup> centuries) in the Western Himalayas, in Ladakh as well as in Himachal Pradesh, Kinnaur and the Tibetan Autonomous Region.

A preliminary typology of these temples was set up by Holger Neuwirth.<sup>9</sup> Interestingly enough, out of the 30 or so temples studied, only 7 display a rectangular plan with an apse: Tabo’s Maitreya and large Bromston temples, Sumda’s main temple, Mangyu’s Vairocana temple, Alchi’s Dukhang, two of the ruined temples of Nyarma and the ruined temple (Gyatsa) of Tholing.<sup>10</sup> All seven temples display a verandah and all extant temples at Tabo, Sumda, Mangyu and Alchi are pillared (4 or 6 pillars). The ruined temples of Nyarma and Tholing have not been excavated. The flat stones exposed in the middle of Leh Choskor’s temple and interpreted as pillar bases are thus consistent. However, since only half of the inner surface of the temple was excavated it is not yet possible to state whether it was four or six pillared.

Concerning the iconography and style of the clay decoration of early Buddhist temples in the Western Himalayas we can rely on the in-depth and reference study carried out by C. Luczanits<sup>11</sup>. He writes: “*Constituting the main images of many early western Himalayan monuments, the clay sculptures represent the main iconographic topics, and an examination of them is indispensable for the identification and analysis of the iconographic programme of the temples.*”<sup>12</sup> As explained above nine seated deities, made of clay, were occupying the apse and side walls of the temple of Leh Choskor. This particular arrangement of life-size deities hanging on the walls at eye level and seating on lotus thrones, strongly recalls the decoration of the Assembly Hall of Tabo’s main temple.<sup>13</sup>

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<sup>9</sup> From 2007 to 2010 H. Neuwirth (Faculty of Architecture, Graz University of Technology) initiated a research program entitled ‘Buddhist Architecture in the Western Himalayas’ supported by the Austrian Science Fund (FWF): <http://archresearch.tugraz.at/index.html>.

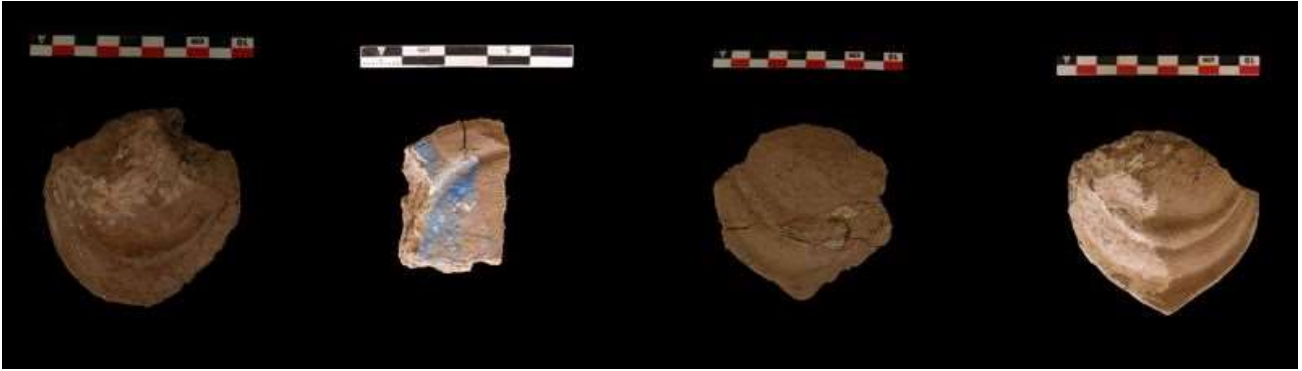
For the typology of temples: <http://www.archresearch.tugraz.at/project/typology.pdf>

<sup>10</sup> These are the temples of Nyarma numbered 2 and 5 by the Graz University of Technology. Nako’s translator temple also displays an apse at the back but it is not clear whether the corners outside the apse were always closed off: Luczanits 2004, Fig.74.

<sup>11</sup> Luczanits 2004.

<sup>12</sup> Luczanits 2004, p. 202.

<sup>13</sup> On Tabo’s main temple see Luczanits 2004, pp. 33-56. See for instance Fig.30.



*Fig.32 : fragments of moulded lotus petals once adorning the throne of the seated deities. ©MAFIL*

Presumably, a mandalic configuration once also adorned the walls of Leh Choskor's temple. The fragments of lotus petals excavated in the latter are identical in style and colour to the ones ornamenting the thrones of Buddhas and Bodhisattvas in Tabo's Assembly Hall.<sup>14</sup>

Since only 1m<sup>2</sup> was excavated at the base of the inner walls (where most of the sculptural remains are to be found) it is not yet possible to identify the deities displayed in Leh Choskor's temple<sup>15</sup>. *"The most crucial factor for the identification of the figures is the body colour used for each of them."*<sup>16</sup> Fragments of faces painted red, blue, white and green were found in the rear niche with remains of hairline painted black. The curled hair in the middle of one of the foreheads recovered is identical to the hair style of some Bodhisattvas in Tabo's Asssembly Hall: *Figs.34 & 35*.<sup>17</sup> Pieces of braids, made of three moulded parallel locks of hair, found at Leh Choskor (see *PLATE 4*) are identical to the Jinas' and Bodhisattvas' braids from Tabo.<sup>18</sup> As noted by C. Luczanits *"there is apparently no special rule for distinguishing the main image from the secondary images by its ornamentation, or the Jinas from the Bodhisattvas."*<sup>19</sup>



*Fig.33: broken head of a clay deity, with a blue painted face. ©MAFIL*



*Fig.34: detail of the hair curled in the middle of the forehead. ©MAFIL*

<sup>14</sup> See for instance Figs.33, 34 and 283 in Luczanits 2004.

<sup>15</sup> On the four types of deities (Buddhas, Bodhisattvas, goddesses and protectors) to be differentiated in early Buddhist monuments of the Western Himalayas see Luczanits 2004, p.202.

<sup>16</sup> Luczanits 2004, p. 52.

<sup>17</sup> See for instance Figs.45 and 301 in Luczanits 2004. This type of curled hair in the middle of the forehead is also known Kashmiri bronzes and stone reliefs, such as the monumental one in Mulbekh.

<sup>18</sup> See for instance Figs. 33, 34, 35, 43, 45, 301 and 302 in Luczanits 2004.

<sup>19</sup> Luczanits 2004, p. 243.

Although no intact face was recovered at Leh Choskor the proportions of the various fragments (upper part with hair, forehead and eyebrows or lower part with mouth and chin, as well as broken noses) match the style of Tabo's images.<sup>20</sup> As stated above, remains of several *vajra* (painted blue and/or black) were found. This attribute is far too common to make any valuable hypothesis on the identification of the deities. In Tabo's Assembly Hall, of all the sculptures preserved only one deity carries an original attribute. Noticeably it is a *vajra* very similar in style and size to the ones excavated at Leh Choskor.<sup>21</sup> Five fingers, once part of a right hand, were excavated at Leh Choskor but no particular gesture was identifiable.

Even if the ornaments retrieved from the temple of Leh Choskor do not contribute to the identification of the deities, they bring valuable stylistic information. Numerous single, double and triple string of pearls were recovered: they were part of the jewellery once adorning the deities, Jinas and Bodhisattavas but also possibly goddesses and protectors. Double strings of pearls are for example used for bracelets, necklaces and jewelled belt of the deities of Tabo's Assembly Hall. Triple strings of pearls are characteristic of the *mala* hanging from the shoulders of the deities.<sup>22</sup> Such pearl wreaths are visible in Tabo's Assembly Hall, although badly preserved. Single strings of pearls recovered at Leh Choskor could have been part of jewelled crowns. Larger individual pearls could have adorned the halos of deities such as seen in Tabo.<sup>23</sup> Pendants found at Leh Choskor were also originally adorning a crown, necklace, bracelet or belt. Square ornaments were most probably the central element of a bracelet or necklace, as is seen in Tabo Assembly Hall.<sup>24</sup> Most ornamentation fragments excavated at Leh Choskor were painted red, blue, black and white. This same range of colours is found on the murals' fragments recovered at the Leh Choskor. Once more, this corresponds to the colours in use at Tabo Assembly Hall.

The stylistic parallels we are able to draw between the material excavated at Leh Choskor and Tabo Assembly Hall are very significant since "*Both the ornamentation of the sculptures and the throne constructions of the main images vary greatly within the early Buddhist monuments in the Western Himalayas*".<sup>25</sup> Thanks to two inscriptions painted inside Tabo Main temple we know that it was founded in 996 and renovated in 1042<sup>26</sup>, making it the earliest extant Buddhist temple of the Western Himalayas. Based on a preliminary stylistic comparison, we propose that the temple excavated at Leh Choskor was in use in between the end of the 10<sup>th</sup> century and the middle of the 11<sup>th</sup> century.

Such a dating seems to be supported by the *tsha tsha* recovered within the temple. *Stūpa* shaped *tsha tsha* with long conical bases are in found in an extensive area, from Afghanistan in the west to Tholing in the east passing through Gilgit (northern Pakistan) where they seem to have been in use from the 8<sup>th</sup> to the 12<sup>th</sup> century AD.<sup>27</sup> Although such *tsha tsha* were recovered from excavations in Afghanistan it is the first time that they are recovered *in situ* for the Western Himalayas. The clay elements discovered along the *tsha tsha* (pearls, discs, small elongated conical elements and round dishes) were once part of the *tsha tsha*, forming an upper structure and a base: all elements originally being held together by a stick, most probably wooden.<sup>28</sup> Such lavish decoration, along with the extensive use of colour on the various clay elements, point to *tsha tsha* created using

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<sup>20</sup> Luczanits 2004, p.50: "*Stylistically, the Tabo mandala images are remarkable for their even and harmonious proportions. The shovel-shaped faces have a small nose which is slightly emphasized at the nostrils. The eyebrows describe smooth semicircles on the forehead, the urna set precisely between their inner ends. The mouth is relatively small, pointed and has been set in a slight hollow (this might be because it was meant to be seen from below). The full round cheeks describe a smooth, even curve.*"

<sup>21</sup> See Figs.41 and p.48 in Luczanits 2004. The discovery of several *vajra* at in the temple of Leh Choskor seems to confirm C. Luczanits's hypothesis that all images in Tabo's Assembly hall once held attributes. As noted by him, attributes are proportionally small in the hands of sculptures as well as in paintings.

<sup>22</sup> See for instance Figs.42, 47 and 254 in Luczanits 2004.

<sup>23</sup> See for instance Figs.29 and 257 in Luczanits 2004. Large individual pearls are also known in Mangyu where they adorn the belt of the monumental clay standing Maitreya: Fig.262, Luczanits 2004.

<sup>24</sup> See for instance Figs.42 and 43 in Luczanits 2004.

<sup>25</sup> Luczanits, p. 239.

<sup>26</sup> Luczanits 2004, p. 34.

<sup>27</sup> We wish to sincerely thank here Kunsang Lama Namgyal, currently a postdoctoral fellow at SOAS in Tibetan art, for her preliminary examination and comments on the *tsha tsha*.

<sup>28</sup> Some of these elements are visible *in situ* on Fig.30. See also Plate 9 (objects 6-8).

the bodily remains from one (or several) important figure(s). The fact that most of the *tsha tsha* were found inside or around the square structures located at the centre of the temple confirms their importance.

As stated above, three central square structures were exposed in the centre of the temple. They are lined up on a north-south axis and face the entrance of the temple: one has to go around them to access the apse. They each consist of a stone basis with a mud brick surround. An opening, facing west and thus accessible once in the apse, was identified into the central structure where *tsha tsha* were deposited. No material originating from a possible upper structure was identified in course of excavation. It does not seem likely that votive *stūpa* or statues in clay were built on top of the square structures. Of course we cannot rule out the possibility that such elements were made of more perishable (wood) or transportable (metal for instance) material. Also it is not clear if the central structures were part of the original mandalic programme of the temple or a later addition, since we know about at least a second architectural phase (addition of the verandah). Further excavations in the temple are needed to answer these questions.

The *tsha tsha* may have been deposited within the temple for its consecration or for particular rituals. The inscription engraved on the outer edge of one of the *tsha tsha* as well as a birch bark sheet, folded and containing traces of writing, recovered from a broken *tsha tsha* might bring valuable information in that regard. From the ashy layer excavated immediately west of the central structures and from the fact that more than 55% of the 199 potsherds found within the temple display burnt traces we may think that some ritual associated with fire was repeatedly carried out within the temple. We cannot also disregard the possibility that ceramics were used as sources of light (for example for containing a wick lighted up with oil or butter) but the typology identified (small globular pots) does not seem to match this purpose.

### Future researches

On the last day of fieldwork, the excavated area in temple 1 was refilled for protection, as were the other two excavated areas at the site. A green cloth was unfolded above the three square structures in the middle of the temple in order to preserve their architecture. Further excavations at the temple 1 of Leh Choskor will hopefully be led in 2018 and 2019 since many questions remain unanswered.

Based on a comparative study of its ground plan as well as clay and murals remains unearthed with extant early Buddhist monuments of the Western Himalayas (and more noticeably Tabo Assembly Hall), we may propose that temple 1 of Leh Choskor was in use at the end of the 10<sup>th</sup>-beginning of the 11<sup>th</sup> centuries. However we are not able to assert that it was actually founded during that period and we cannot rule out the possibility of an earlier foundation. The C14 dates (5<sup>th</sup>-6<sup>th</sup> centuries) obtained by MAFIL in 2015 for the ruined *stūpa* of Tirisa (Nubra) proves that Buddhism was present in Ladakh (or at least in some areas of the region) much before the 'later spread of Buddhism' (as it is called in Tibetan historical literature) emanating from the West Tibetan kingdom in the 10<sup>th</sup> century.

Even though we know that the original temple 1 of Leh Choskor was reshaped by the addition of a verandah, at the present state of research we are not able to assign a date to this second architectural phase.<sup>29</sup> Also, we are not yet able to date the abandonment of the temple. The various samples taken in course of excavations in 2016 and that will be submitted for C14 dating will provide some answers to these questions.

However, other important questions such as the historic and religious background for the foundation, use and abandonment of the temple, and more generally of the site, shall be addressed by further researches.

The three ruined temples and the fifty or so ruined *stūpa* of the site of Leh Choskor make it a key centre for early Buddhism in Ladakh and the Western Himalayas.

So far no mention of the site, that is one the largest archaeological site of Ladakh (as seen above Francke even used the word 'town' to describe it), has been found in any historical source.<sup>30</sup> Archaeologically

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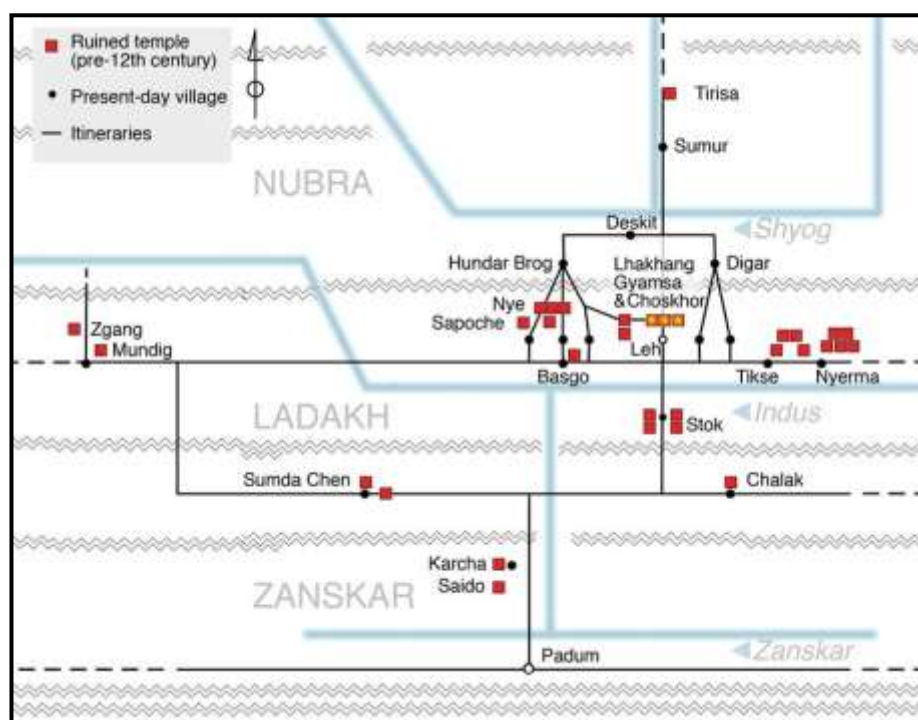
<sup>29</sup> So far, we have not identified any traces of repaint on the murals that could correspond to this second phase: such repaints are frequent in the extant early Buddhist temples of the Western Himalayas.

<sup>30</sup> A careful examination of the Royal Chronicles of Ladakh and Guge-Purang as well the biographies of some Buddhist masters shall be carried out to confirm this fact.

speaking, the well-known site of Nyarma in Ladakh is equivalent to the site of Leh Choskor. The former is mentioned in the texts as one of Rinchen Zangpo's three major foundations.<sup>31</sup> The five ruined temples at the site of Nyarma have been architecturally studied and their sequence of building is quite certain but none has been excavated or securely dated. About 25 similar ruined temples are known over Ladakh these have been architecturally or archaeologically studied.<sup>32</sup>

Special attention shall be drawn to the ruined temple of Gyamthsa near Gonpa (mentioned by Francke<sup>33</sup>) in a valley adjacent to the site of Leh Choskor. Other remains in the Leh valley, namely the numerous Buddhist stone sculptures<sup>34</sup> as well as the *chorten* of Mane Tsermo<sup>35</sup> and the caves of Tragkhung Kowache<sup>36</sup>, most probably corresponding to the earliest phase of Spituk monastery said to have been founded by the Western Tibetan king 'Od lde in the middle of the 11<sup>th</sup> century<sup>37</sup>, point to Leh as being an important centre for Buddhism at the turn of the 2nd millennium. We may even hypothesize that Leh was an important Buddhist centre before the Later Spread emanating from the Western Tibetan Kingdom as some stone sculptures seem to suggest<sup>38</sup>.

The temple of Leh Choskor is the first and only excavated Buddhist monument in Ladakh. The results of the 2016 campaign are very promising and further studies at the site, carried out in an archaeological, historical, religious artistic and material perspective, will be integrated into a larger research program dealing with early Buddhism in the Western Himalayas. (*Please consult the 'note de synthèse and plan à quatre ans' for details*).



**Fig.35:**  
*the three temples of Leh Choskor (in yellow) in relation to the other early ruined Buddhist temples of Ladakh (in red). Drawing and data: M. Vernier.*

<sup>31</sup> The other two are Kojarnath and Tholing. On Nyarma see Kozicz 2007; Neuwirth 2010: <http://archresearch.tugraz.at/results/Nyarma/nyarma.html>; Panglung 1983.

<sup>32</sup> For a list of such temples, documented by M. Vernier see MAFIL's 2015 report, Appendix 4, pp. 47-48. Only three other ruined temples have been architecturally studied: Basgo: Luczanits 2005; Chigtan: forthcoming paper by Bayerova and Kozicz; temple in between Nyarma and Thiksey: Neuwirth.

<sup>33</sup> Francke 1914, p. 81-82 : 'Marching upwards in the side-valley to the left of the village of dGonpa, we came to the ruins of an ancient temple, which is generally known by the name of Gya-mthsa. [...] there are traces of medallions on two of its walls ; In that respect Gya-mthsa reminds us of the ruined monasteries of Basgo and Chigtan.'

<sup>34</sup> Alexander/van Schaik 2011; Dorjay 2010, p.48, Figs. 8-11; Dorjay 2014, pp. 48-53, Figs. 2.11-2.14; Francke 1914, Plates XXXII and XXXIV; NIRLAC 2008, pp. 79, 82, 105,133, 140, 331.

<sup>35</sup> Francke 1914, p. 75 ; NIRLAC 2008, p. 125.

<sup>36</sup> van Ham 2011; NIRLAC 2008, p. 406 (listed under the name Takphuk Khavachan).

<sup>37</sup> Bellini 2014, p. 226; van Ham 2011, p. 57.

<sup>38</sup> One of the stone sculptures of Changspa may predate the 10<sup>th</sup> century : Linrothe 1999, p. 133, Figs. 132-133.

## THE END OF THE MISSION

The excavated material was inventoried and handed to the local ASI office in Leh on 9<sup>th</sup> of September 2016.

Back to Delhi (11<sup>th</sup>-12<sup>th</sup> of September), L. Bruneau and M. Vernier met with Mr De Hartingh, Mr. Coquelin and Mr Idier at the French Institute in India (IFI) to present the results of the campaign and discuss the prospects of the MAFIL.

## TRAINING OPERATIONS

Miss Samara Broglia, a PhD student at the EPHE (Ecole Pratique des Hautes Etudes, Paris, France) took part in the 2016 campaign. She enrolled under the supervision of Charles Ramble (professor at the EPHE and research at the East Asian Civilisations Research Centre) and Corinne Debaine-Francfort (research director at CNRS and director of the research unit 'Archaeology of Central Asia'). L. Bruneau and A. Didier are also supervising her research.

Miss Broglia's dissertation is entitled "Ceramic production of Ladakh (India): material and cultural interactions between the Indian, Central Asian and Tibetan worlds over time (from Neolithic to Islamization)". It is partly based on the study of pottery shards collected in Nubra by MAFIL and partly on potsherds collected over the years by Q. Devers (member of the MAFIL in 2013 and 2014). The study area includes Nubra, Central Ladakh, Zanskar, Changthang and the Markha Valley.

S. Broglia spent an initial period studying ceramics prior to MAFIL's fieldwork (8<sup>th</sup> of July to 17<sup>th</sup> of August 2016) thanks to support from a doctoral fieldwork grant awarded by East Asian Civilisations Research Centre.

The aim of her second ceramic study campaign was to continue morphological, technical and stylistic analyses. S. Broglia was able to study 13 sites in Central Ladakh and Purig: 153 diagnostic sherds from a total of 835 were studied. The documentation includes 438 photographs, 144 drawings, and 55 precise descriptions of the selected diagnostic sherds.

Simultaneously, S. Broglia spent time re-surveying four sites (Balumkhar, Staglung, Nyoma and Tangtse). The aim was to improve understanding of the environment of the previously collected sherds and to collect further samples: 221 new ceramic shards were collected. The newly collected material was documented, analysed, inventoried and handed to the ASI Leh Mini Circle.

In addition, as a result of her participation in the MAFIL campaign, S. Broglia took part in the excavation of temple 1 and was in charge of the trial pit opened in building 84. She also conducted the study of the pottery unearthed in temple 1.

A working paper on the pottery of Ladakh by S. Broglia de Moura was published online in July 2016:

"La production céramique du Ladakh et ses interactions techniques avec l'Asie centrale", *Working paper n°11 de l'IFEAC* : <https://ifeac.hypotheses.org/2940>

Miss Ekta Singh, enrolled as a Phd student into the Department of History and Archaeology of H.N.B. Garhwal University (Uttarakand, India) where she conducts researches on the rock art of Spiti under the supervision Dr. P.M. Saklani, took part in the 2016 campaign.

E. Singh took part in the excavations at temple 1. She got trained in topographic methods as well as archaeological drawing. She was in charge of taking photographs of the excavations at temple 1 (about 450 photographs) and dressing an inventory of those (including numbering, direction, description and context, scale, photographer's name and date).

## OUTCOME OF THE 2016 CAMPAIGN

During the 2016 campaign of MAFIL, several scientific breakthroughs for the archaeology of Ladakh, and more generally for Himalayan archaeology, were made:

- the first extensive excavations were led in Ladakh. Until then trial pits only were opened (in the 1990s and in 2011) on prehistoric camps by S.B. Ota (the co-director of MAFIL) and a grave opened in the early 20<sup>th</sup> century by A.H. Francke.<sup>39</sup>
- for the the first time in Ladakh a Buddhist temple and profane structures were excavated.
- for the first time in Ladakh archaeological material such as coinage and *tsha tsha* was discovered *in situ*.
- for the first time in Ladakh local religious authorities brought support to an archaeological project.

We would like to highlight here the interest and support demonstrated by the Pethub Khangtsen Education Society (Leh) and the Central Institute for Buddhist Studies (Choglamsar) to the work carried out by MAFIL at the site of Leh Choskor. A representative of these institutions (Geshe Jigmet) visited the site on an almost daily basis and a meeting was held at the site with several important local figures (notably Prof. Geshe Wangdu and Dr S. Wangchok) on 8<sup>th</sup> of September 2016 during which the results of excavations were presented. A discussion was engaged between religious authorities and the Director General of the ASI, Dr Rakesh Tewari, who also visited the site and our team that day.

The land on which stands the archaeological site of Leh Choskor is managed by the Central Institute for Buddhist Studies (CIBS) that plans the building of a meditational retreat, a Dharma centre, a museum and a library at the site. Preservation of the archaeological remains have been discussed with the directors of MAFIL and agreed upon. As a result a conservation scheme will be designed and proposed by MAFIL. A discussion between CIBS and ASI was also initiated in September 2016 to explore the possibility of having a site museum with excavated finds.



**Fig.36:** visit of Dr. R. Tewari, D.G of the ASI, at the site of Leh Choskor, 8<sup>th</sup> of Sept.2016.

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**Fig.37:** visit of Geshe Prof. K. Wangdu at the site of Leh Choskor, 8<sup>th</sup> of Sept. 2016.

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<sup>39</sup> Francke 1914; Ota 1993.





**Fig.38:** Prof. Wangdu examining the remains of mural paintings, 8<sup>th</sup> of Sept .2016



**Fig.39:** Geshe Jigmet (Pethub Khangtsen Education Society) examining the finds from Leh Choskor. 31<sup>st</sup> of August 2016.

## PROSPECTS

The results of the 4<sup>th</sup> campaign of MAFIL are very satisfactory both at the cooperation and scientific levels and a renewal of the project for the period 2017-2020 is proposed.

The year 2017 would be dedicated to the study of material from the site of Leh Choskor, to the design of a conservation scheme for the site and to the publication of the MAFIL's work carried out in Nubra in 2013 and 2014. As per national policy, annual permits for fieldwork cannot be renewed for more than 5 years in a row and issuing of a new permit is subject to the publication of results. A joint publication (Franco-Indian) is thus planned for January 2018.<sup>40</sup>

The subsequent years (2018, 2019 and 2020) fieldwork would continue at Leh Choskor. Extensive excavations would be led together with the implementation of a conservation scheme for the site as asked for by the local religious authorities.

The MAFIL is the first ever archaeological mission in Ladakh and is one the rare cooperation projects in archaeology in India. The permits for exploration, excavations and C14 datings delivered by the ASI during the first phase of the project (2013-2016) shows a will to develop archaeological research in Ladakh. An independent office of the ASI (Leh Mini Circle) was opened in Leh in 2011. In 2015, a Ladakhi archaeologist (Mr Tsering Phunchok) was for the first time appointed director there (Deputy Superintending Archaeologist). Also Ladakh is explicitly listed as a priority area for archaeological research (regarding the investigation of Northern Neolithic) in the recent annual invitations for proposals for exploration and excavations issued by the ASI.

The growing interest in the archaeology of Ladakh is well illustrated by archaeological programs being currently put into place by Indian university researchers, in some cases in collaboration with French or Russian archaeologists. This recent attention draws onto the high archaeological potential of Ladakh that MAFIL contributed to disclose in the last few years. Therefore, the mission wishes to continue to play a leading role in the archaeology of the area in the forthcoming years by implementing a second phase for its project.

<sup>40</sup> National Policy on Archaeological Exploration and Excavation, document issued by the ASI: [http://asi.nic.in/national\\_policy\\_expl\\_excav.asp](http://asi.nic.in/national_policy_expl_excav.asp)

## ACKNOWLEDGMENTS

Laurianne Bruneau and Martin Vernier would like to thank S.B. Ota, currently joint director of ASI, for its support to the MAFIL project over the years and its genuine interest in the archaeology of Ladakh. A special vote of thanks is addressed to the DG of ASI, Dr. Rakesh Tewari, who took some time to visit the MAFIL team at the site of Leh Choskor.

In Leh, Laurianne and Martin wish to thank Mr Sunder Paul and Mr Tsering Phunchok (Leh Mini Circle) for their assistance as well as Dr Sonam Wangchok who acted as facilitator and Prof. Geshe Konchok Wangdu who supported the MAFIL project at Leh Choskor. A special thank to Geshe Jigmet from the Pethub Khangtsen Education Society for the enthusiasm he showed when visiting (on an almost daily basis!) the team at the site.

The 4<sup>th</sup> campaign of MAFIL would not have been so successful without the involvement of the representatives of the French Institute in India (Delhi). May Mr Bertrand de Hartingh, Mr Philippe Arhets and Mr Jean-Yves Coquelin receive here our sincere gratitude for the precious time they spared for the project.

The logistic supervision and handling of maintenance services was successfully and smoothly monitored by Tsewang Gombo (Lungta Travels, Leh) in Ladakh and Rajender Raina (Adventure Tours) in Delhi: their help was priceless to us and we would like to express our sincere gratitude for their support and dedication over the years. Last but not least, we would like to thank Tsetan Spalzing (our cook and much more!), Tsering Spaldon and Rigzin Phalgon for their help at the camp. Year after year, it has been and continues to be a pleasure to work with our Ladakhi friends whose support to our archaeological cause and personal involvement go way beyond their initial contractual functions.

Finally Laurianne and Martin wish to sincerely thank the expert members of MAFIL: Stella Bickelmann, Samara Broglia de Moura, Marion Poux and Ekta Singh. Thank you for your hard work in the field, dedication and enthusiasm, but also your contribution to the report. We hope to work again with you all in the second phase of the project! Of course, work in the field would not have been possible without the assistance of the six workers hired for the occasion, may Sajad Ahmed and Mohammad Iqbal Wani be thanked here.



**Fig.40:** *L. Bruneau, S.B. Ota and T. Phunchok planning excavations at Leh Choskor site.©MAFIL*



**Fig.41:** *members of the team during tea break in the field. ©MAFIL*



**Fig.42:** excavations at temple 1  
©MAFIL



**Fig.43:** other members of the team during tea break Leh Choskor.  
in the field. ©MAFIL

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APPENDIX 1: poster presented at the Digital Humanities Study Day, EPHE, Paris (October 2016)

## Présentation

Responsable du projet :  
Laurianne Bruneau,  
maître de conférences à l'EPHE

Centre de recherche  
sur les civilisations  
de l'Asie orientale



# MAFIL

## (Mission Archéologique Franco-Indienne au Ladakh)

La Mission Archéologique Franco-Indienne au Ladakh (MAFIL) est un réseau scientifique international et pluridisciplinaire se consacrant à l'exploration, la documentation et la conservation du patrimoine archéologique du Ladakh.

Créé en 2013 la MAFIL est la première coopération entre l'Archaeological Survey of India et une équipe française, tout comme il s'agit de la première mission archéologique au Ladakh.

L'équipe compte chaque année une dizaine de membres français, indiens et ladakhs et se compose de chercheurs (archéologues, préhistoriens, historiens de l'art), d'ingénieurs (topographe, dessinateurs et photographes) et d'étudiants (en Master ou Doctorat).

Le premier quadriennal (2013-2016) avait pour objectif de comprendre les liens entre le nord-ouest du sous-continent indien et l'Asie centrale au cours du temps en établissant une séquence chrono-culturelle d'une vallée, celle de la Nubra, du Néolithique à l'époque médiévale.

Le site Internet a été créé pour présenter la MAFIL, ses méthodes de travail et ses résultats avec le plus grand nombre. Il s'agit d'un moyen de rendre visible un projet de recherches financé en grande partie par des fonds publics.

Le site est bilingue, français et anglais. Il est ainsi accessible aux Indiens et aux Ladakhs, qu'ils soient chercheurs, érudits ou simples curieux puisque le projet est mené en Inde, au Ladakh.

L'accent a été mis sur la présentation institutionnelle du projet car il s'agit du premier et seul projet de coopération archéologique français en Inde à ce jour.

Une sélection de la documentation (rapports annuels, plans, dessins de sites et d'objets, photographies) réalisée dans le cadre du projet est mise en ligne pour montrer les méthodes de travail de la mission et les résultats obtenus.

Certains documents téléchargeables sur le site Internet sont en langue locale (ladakhi et hindi). Libres de droits, ils ont une vocation pédagogique.

Une liste complète des publications, des conférences et des interventions publiques en lien avec le projet est mise à jour régulièrement sur le site.

Enfin, le site est un moyen de faire connaître le projet à la presse et d'appuyer des demandes de financement.

**Quelques chiffres :**

- près de 200 photos et dessins mis en ligne ;
- 4 rapports annuels, 4 carnets de missions, 8 dépliants, 4 panneaux muséographiques, 1 présentation Powerpoint mis en ligne ;
- une vingtaine d'articles, 6 séminaires organisés, une vingtaine de communications et une dizaine d'interventions dans la presse (écrite, radiophonique ou télévisuelle) listés.
- une trentaine de sites Internet connexes ou de ressources en ligne recensés.






Centre de recherche sur les civilisations de l'Asie orientale, 52, rue du Cardinal Lemoine, 75005 Paris  
[www.craoa.fr](http://www.craoa.fr)







**APPENDIX 2: invitation issued by IFI for the MAFIL conference at CSH.**



**SAVE THE DATE**

We are very delighted to invite you to the presentation of the  
**MAFIL project**  
*"Indo-French Archaeological Mission in Ladakh"*  
on  
**Wednesday 29 June at 3 pm**  
at the  
**CSH Library**  
2, APJ Abdul Kalam Road (formerly Aurangzeb Road).

This session will be a unique opportunity to share the main achievements and prospects of this important archaeological program, in the presence of the French and Indian co-directors of the MAFIL project.

Looking forward to welcoming you on this occasion, we thank you in advance for confirming your participation.

With our best regards,



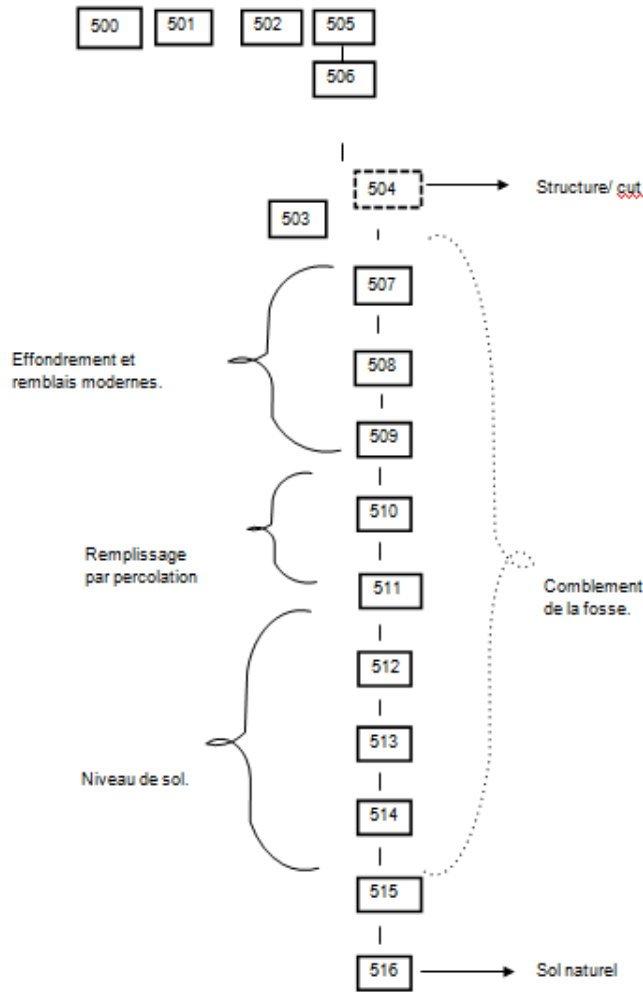
Dr Philippe Arlet  
Counsellor for Science & Technology



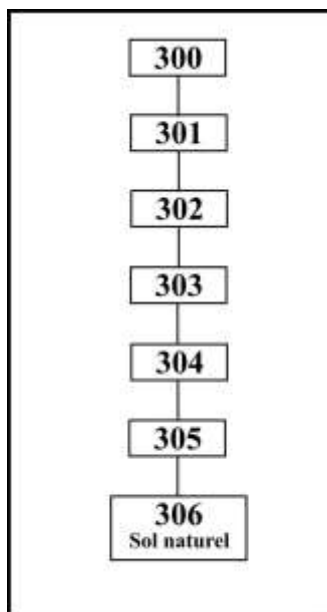
Dr Jean-Yves Coquelin  
Deputy Counsellor for Cooperation and Cultural Affairs

*French Embassy in India - New Delhi*  
2, APJ Abdul Kalam Road - 110011 New Delhi  
RSVP: [shefall.choudhary@diplomatie.gouv.fr](mailto:shefall.choudhary@diplomatie.gouv.fr)

**APPENDIX 3: stratigraphic matrix, L-LEH-Bu2-Co69-Lo17. ©MAFIL**

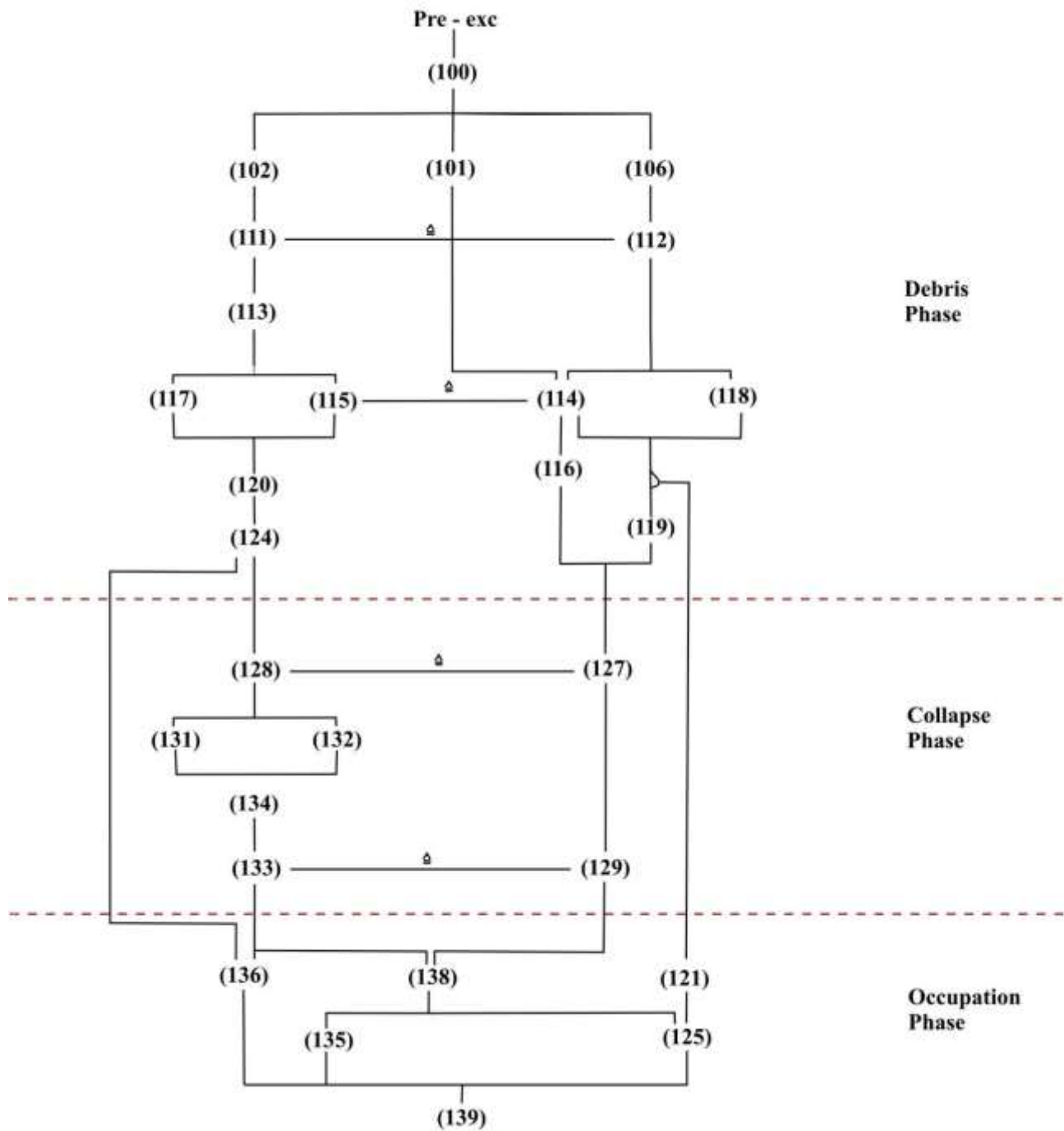


**APPENDIX 4: stratigraphic matrix L-LEH-Bu2-Co84-Lo4. ©MAFIL**



**APPENDIX 5: plan matrix of the excavations in temple 1, Leh Choskor, L-LEH-Bu2-Co1.**  
 ©MAFIL

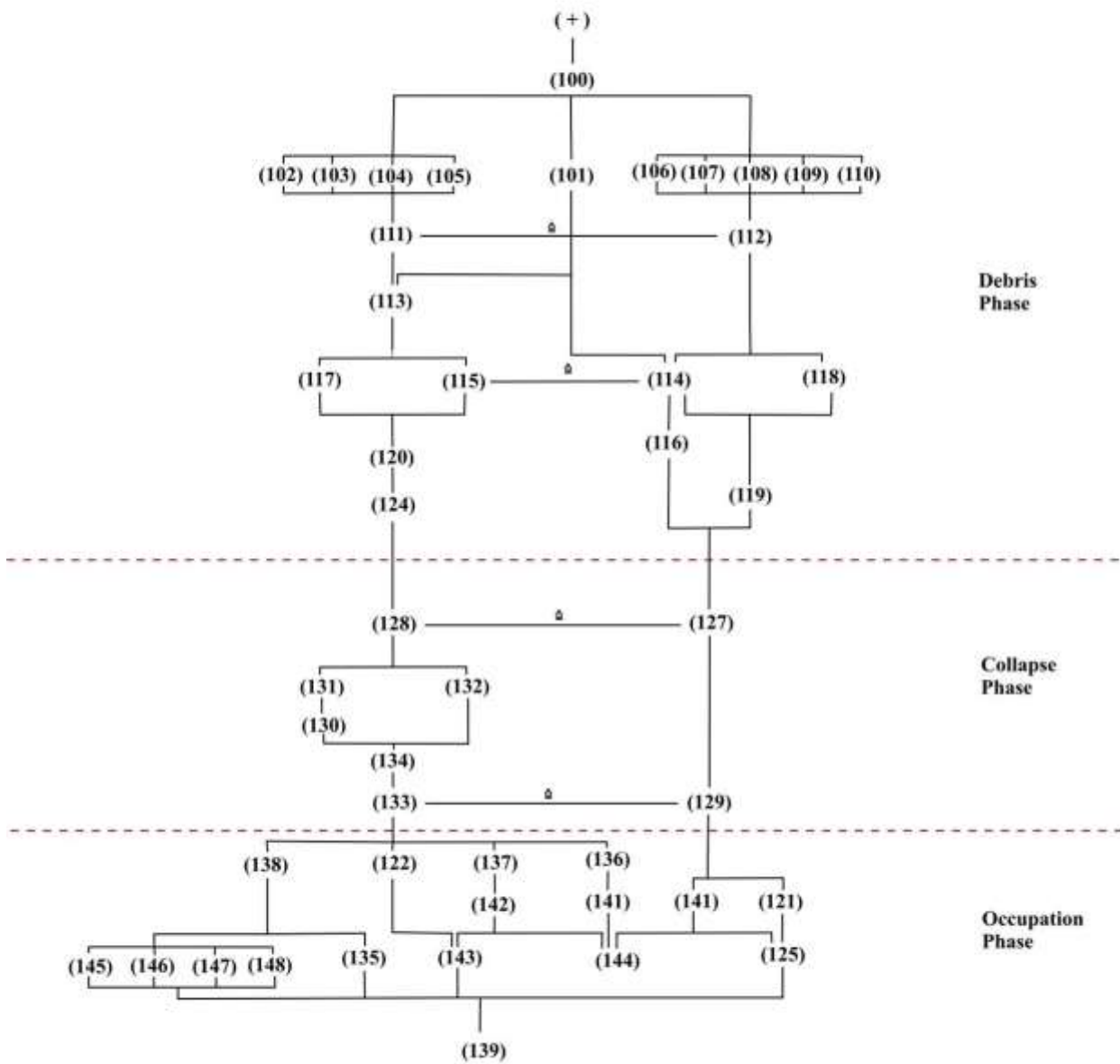
**Plan Matrix**



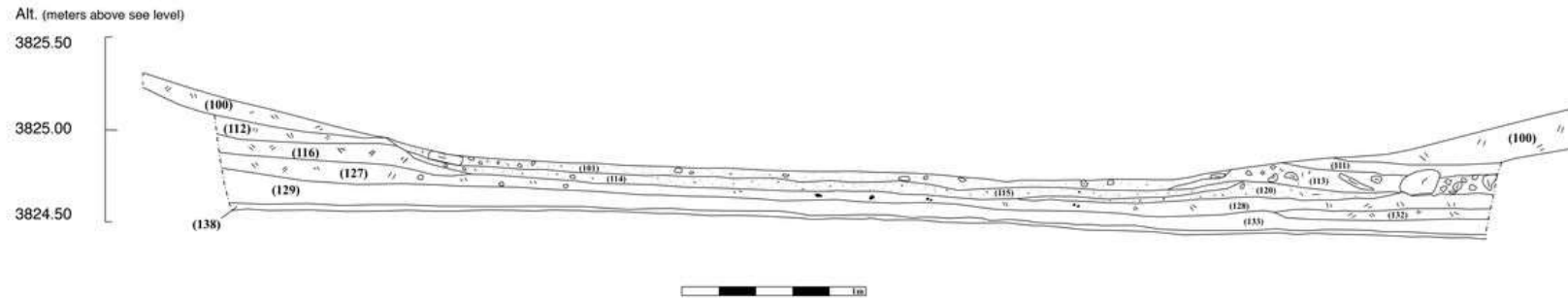



**APPENDIX 6: stratigraphic matrix of the excavations in temple 1, Leh Choskor, L-LEH-Bu2-Co1. ©MAFIL**

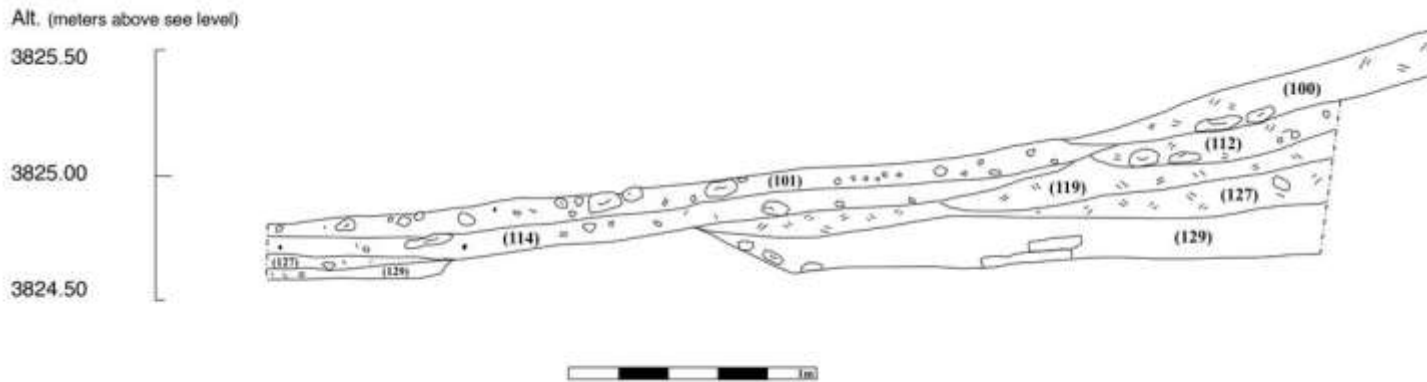
**Stratigraphic Matrix**




**APPENDIX 7: sections of excavations in temple 1, Leh Choskor, L-LEH-Bu2-Co1. ©MAFIL**









	Site code: L-LEH-Bu2-Co1	Date: 05.09.2016	Drawn by: S. Bickelmann, S. Broglia
	Plan/section:		Notes: West facing section of temple 1 interior from AB
	Context: Multi-context		
	Area: AB		
	Scale: 1/20		



	Site code: L-LEH-Bu2-Co1	Date: 05.09.2016	Drawn by: S. Bickelmann, S. Broglia
	Plan/section:		Notes: North facing section of temple 1 interior from AB North
	Context: Multi-context		
	Area: AB north		
	Scale: 1/20		

**APPENDIX 8: excerpt from the inventory of archaeological material excavated in temple 1, Leh Choskor, L-LEH-Bu2-Co1. ©MAFIL**

Context	Find n°	Area	Material	Object type	Paint	Dimensions W.H.D	Comments	Image n°	
127	0.0001	Statues 6-7	Clay	Statue piece	x	3,5 x 4,1 x 2,1 cm	Nose of a statue	IMG_2346 ; 2352; 2353; 2355; 2379 ;	
127	0.0002	Statues 6-7	Clay	Statue piece	Red	2.9 x 3.2 x 0.8	Rectangular pendant with a flower design and small traces of red paint.	IMG_2358; 2359; 2360; 2361; 2362; 2364 2367; IMG_0075	
127	0.0003	Statues 6-7	Clay	Statue piece	Red	2.4 x 3.5 x 0.7	Vegetal scroll fragment	IMG_2368; 2369; 2371; 2372; 2373; 2374; 2375; IMG_0076	
127	0.0004	Statues 6-7	Clay	Statue piece	Red	3.3 x 3.8 x 1.8	Lotus petals	IMG_2381; 2383; 2384; 2385; 2386	
127	0.0005	Statues 6-7	Clay	Statue piece	Red	2.2 x 1.6 x 0.6	Vegetal scroll fragment	IMG_2391; 2393	
127	0.0006	Statues 6-7	Clay	Statue piece	x	1.9 x 1.3 x 1.0	Beads (x2)	IMG_2394; 2395; 2398	

**APPENDIX 9: table of potsherds excavated in temple 1, Leh Choskor, L-LEH-Bu2-Co1. ©MAFIL**

<b>L - LEH - Bu2 - Co1.2016</b>								
<b>Unité Stratigraphique</b>	<b>Panses</b>	<b>Col</b>	<b>Lèvres</b>	<b>Anses</b>	<b>Bases</b>	<b>Décorées</b>	<b>Panses brûlées</b>	<b>Total</b>
101	1		3				1	5
111	1							1
114	1			1			1	3
115	1							1
119	1							1
120	2		1					3
122							1	1
124	1						4	5
125	1		1				1	3
127	3					1	1	5
128	5		1				2	8
128 (statue 3 et 4)	3						2	5
129	7	1	4				15	27
131	1						1	2
133	7	1	4	1		1	26	40
135	3		12			1	34	50
136			3				2	5
138	4		1				20	25
141			1				2	3
142			1				2	3
144			1				2	3
<b>TOTAL</b>								199
<b>TOTAL DIAGNOSTIQUES</b>								38

**PLATE 1: evolution of excavations in temple 1, Leh Choskor (L-LEH-Bu2-Co1). ©MAFIL**



22<sup>nd</sup> of August 2016



24<sup>th</sup> of August 2016



27<sup>th</sup> of August 2016



30<sup>th</sup> of August 2016



2<sup>nd</sup> of September 2016



7<sup>th</sup> of September 2016

PLATE 2: miscellaneous finds, temple 1, Leh Choskor (L-LEH-Bu2-Co1). ©MAFIL



PLATE 3: fragments of clay sculptures, temple 1, Leh Choskor (L-LEH-Bu2-Co1). ©MAFIL



PLATE 4: fragments of clay sculptures, temple 1, Leh Choskor (L-LEH-Bu2-Co1). ©MAFIL





PLATE 5: fragments of clay ornaments and attributes, temple 1, Leh Choskor (L-LEH-Bu2-Co1). ©MAFIL



PLATE 6: fragments of clay ornaments, temple 1, Leh Choskor (L-LEH-Bu2-Co1). ©MAFIL



PLATE 7: fragments of mural paintings, temple 1, Leh Choskor (L-LEH-Bu2-Co1). ©MAFIL



PLATE 8: *tsha tsha*, temple 1, Leh Choskor (L-LEH-Bu2-Co1). ©MAFIL

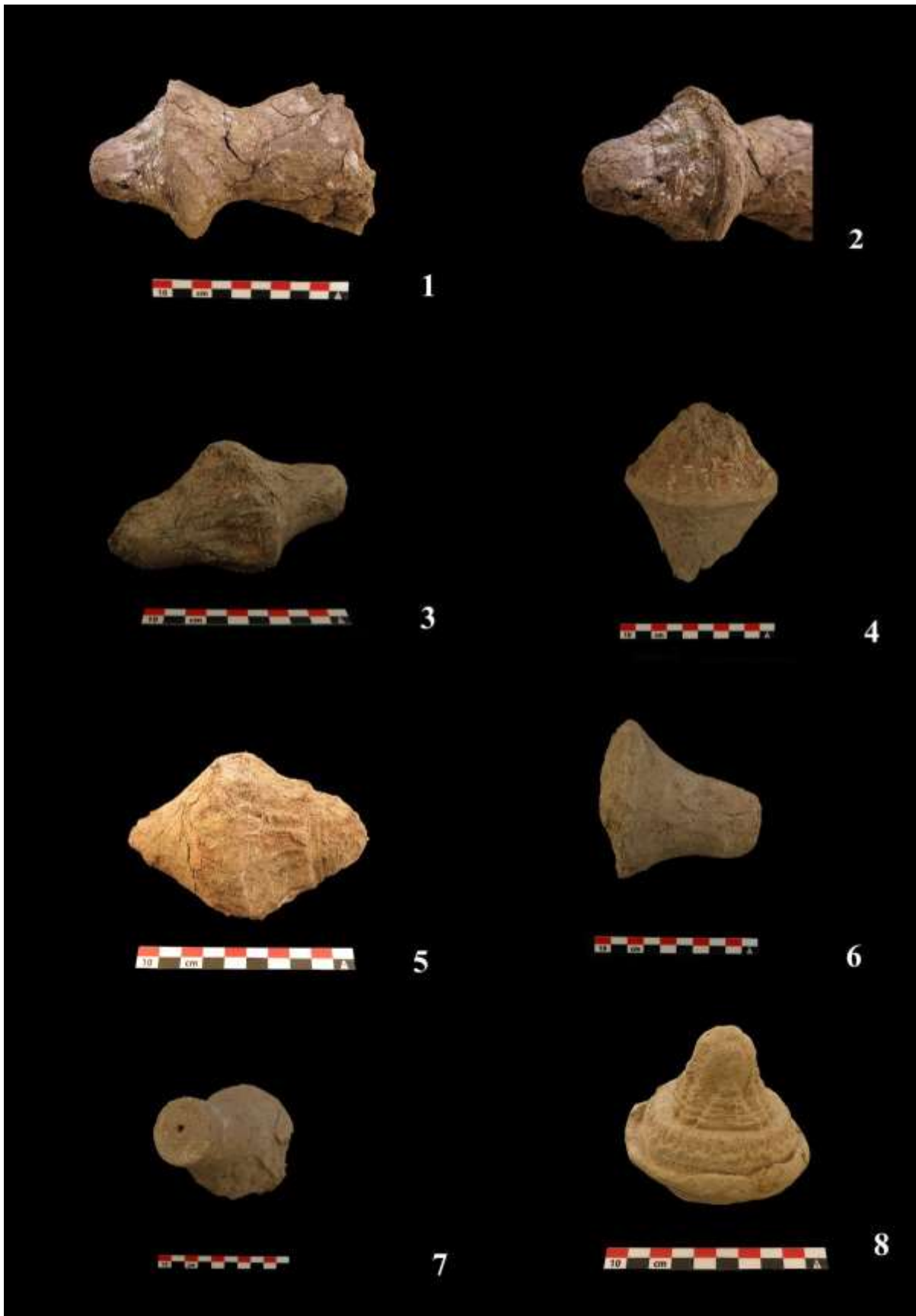
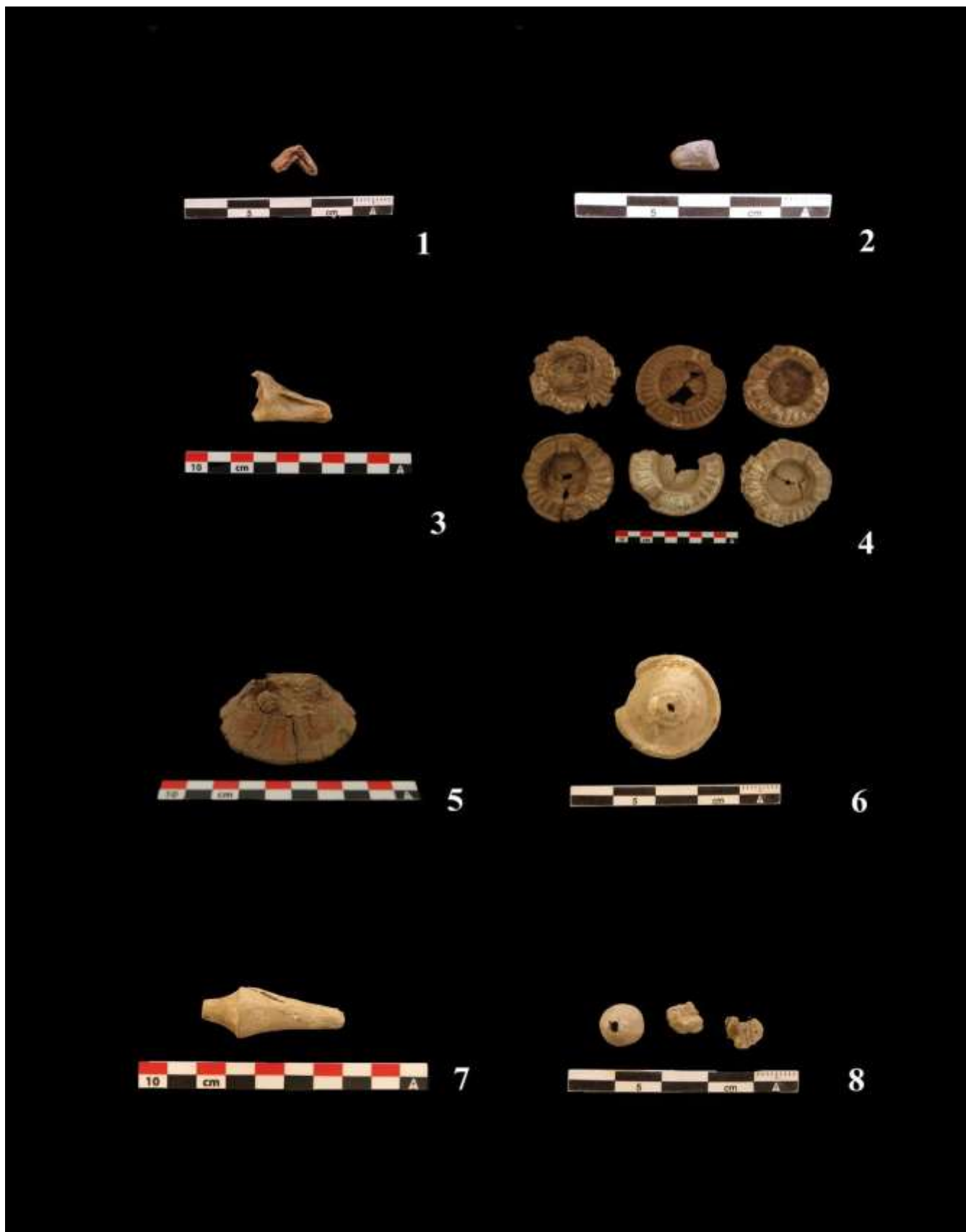
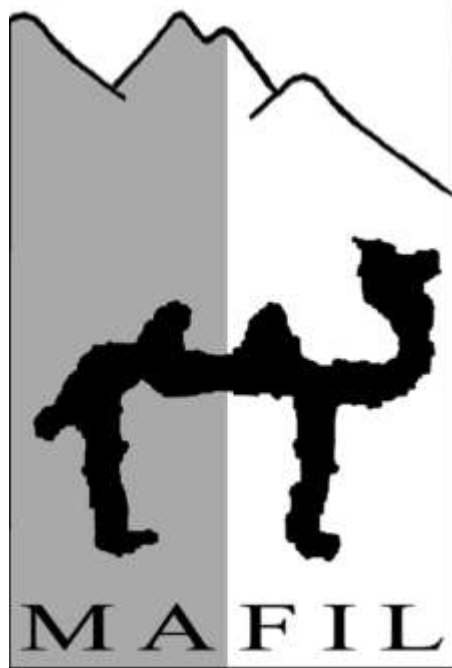


PLATE 9: objects found in *tsha tsha* (1 to 3) and clay objects found in association with *tsha tsha* (4 to 8), temple 1, Leh Choskor (L-LEH-Bu2-Co1). ©MAFIL





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*June 2017.  
Laurianne Bruneau.*

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