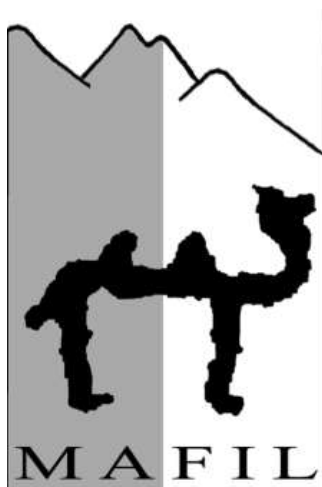


MAFIL
Mission Archéologique Franco-Indienne au Ladakh
FRANCO-INDIAN ARCHAEOLOGICAL MISSION IN LADAKH
(INDIA)

Report: fieldwork 2015

M. Vernier and L. Bruneau
With inputs from J. Suire, S. Broglia and R. Silveston



Co-direction:

On Laurianne Bruneau's behalf: Martin Vernier, Lausanne, Switzerland;
S.B. Ota, Archaeological Survey of India, Bhopal, India.

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
- 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
- The French Institute in India, Delhi;
- The Swiss Confederation's Research, Education and Innovation Service, Swiss Embassy, Delhi.

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A preliminary request of authorization must be sent in writing to:
mafil.project@gmail.com

MISSION BACKGROUND

The Franco-Indian Archaeological Mission in Ladakh was established in 2012 after 5 years of informal contacts (publications and invitations to seminars) between the two co-directors: Laurianne Bruneau, who is senior lecturer at the Ecole Pratique des Hautes Etudes (EPHE, linked to the UMR8155/CRAO, Paris) and Simadri Bihari Ota, who is one of the five regional directors (central zone, Bhopal) of the Archaeological Survey of India (ASI). From the outset, the 4-year project (2013-2016) was supported by Dr. B.R. Mani (then joint director of the ASI) and approved by the ASI board in the autumn of 2012.

Noticeably the ASI has rarely worked in collaboration with a French team. It is also the first archaeological mission in Ladakh. 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 2013, during the first season of cooperation between Indian and French staff, a considerable amount of largely technical information was gathered in preparation for the future excavations planned at the different sites (establishing a chronological sequence, studying the geophysical and geomorphic aspects of selected sites, as well as ceramic and lithic material).

In the 2014 season, there were torrential rains when the Franco-Indian team arrived in the Nubra valley. Heavy rainfall in high mountain areas, like Ladakh, can have immediate and disastrous consequences. The experience of the floods and mudslides of 2006 and 2010, witnessed by several of the team members, meant that the 2014 campaign had to be interrupted. The team was repatriated to Leh via the Khardong Pass (17 582 ft), which was opened temporarily.

Laurianne Bruneau was unable to supervise the 2015 campaign for medical reasons. Martin Vernier, a Swiss freelance archaeologist, managed the campaign (on the French side). L. Bruneau and M. Vernier have been working together since 2006, both in the field and on data publication. They have conducted three campaigns to survey rock art (2006, 2007, 2011) and published five papers (see bibliography at the end of the report). M. Vernier travels to Ladakh annually and has done so for almost 30 years. Therefore, he is familiar with the habits and customs and also speaks the local language (Ladakhi). He began to systematically record the rock art in Ladakh in 1996 (he received funding from the Fondation Carlo Leone et Mariena Montandon for 2 years). He published the one and only monograph on the subject (Vernier 2007). Over the last 10 years, M. Vernier has extended his research and fieldwork to include Ladakh's ancient Buddhist heritage (stelae and reliefs, as well as temple ruins).

M. Vernier was assistant director during the first two MAFIL campaigns in 2013 and 2014. In addition to being in charge of field logistics, he was also responsible for the drawings. He was invited to manage the 2015 campaign on the strength of his different skills and experiences.

RESEARCH BACKGROUND & CHALLENGES

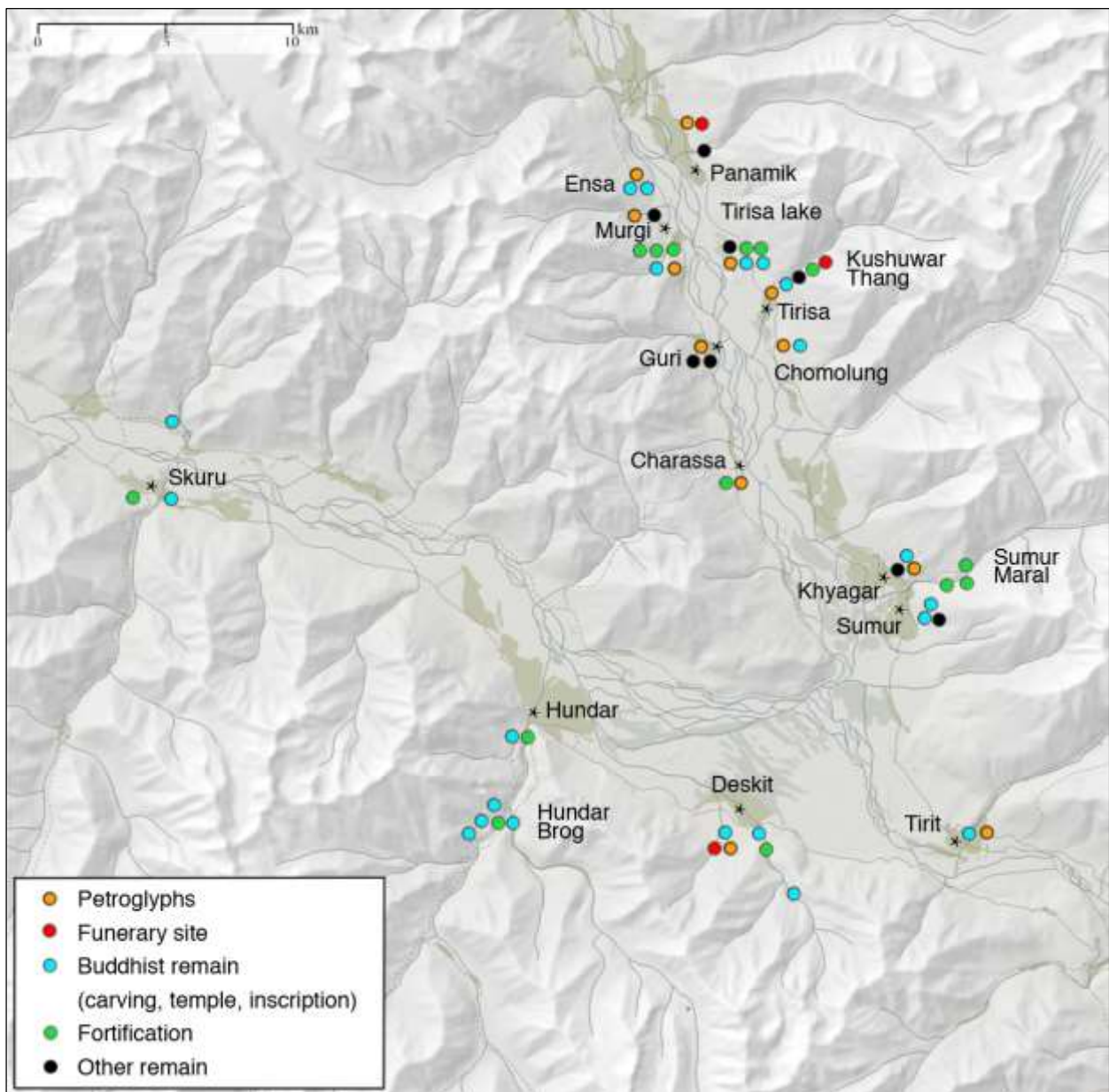
Ladakh (Jammu and Kashmir State) is a high mountain desert and the most northern region of the Republic of India. It borders Pakistan to the west (Gilgit-Baltistan Province), the People's Republic of China to the north (Xinjiang Autonomous Region) and east (Tibet Autonomous Region). Due to its geographical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

The 4-year project focuses on the Nubra area (average altitude in the lower valley is 3000 m). Located in northern Ladakh, it has provided a gateway between the northwest of the Indian subcontinent and Central Asia since the modern period. Indeed, from the 17th century to the middle of the 20th century, the Nubra was the main route for trans-Karakoram trade between Leh and Yarkand (Tarim Basin, Xinjiang). Apart from Buddhist texts (15th century), the oldest record of the Nubra dates back to the first

half of the 16th century, when it was invaded by a Turko-Mongol general from Yarkand. Recent history, therefore, proves that the month-long trek across the Saser and Karakoram passes (altitude of 5334 m and 5578 m, respectively) did not prevent contact between Ladakh and Eastern Central Asia.

A preliminary survey by the ASI in 1992¹ and five seasons of surveying (from 2006 to 2011) conducted by L. Bruneau, Q. Devers and M. Vernier (either separately or conjointly) and two additional campaigns within the frame of the MAFIL (2013 and 2014) revealed a huge array of vestiges (in terms of both typology and chronology) in a relatively small area (some 30 km²).

The aim of the 4-year project is 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. To achieve this, four sites were selected when the 4-year project was set up: Murgi, Tirisa, Deskit and Sumur.



Map 1: map of archaeological sites surveyed between 2006 and 2013. Map: A. Pointet / M. Vernier (drawn after Devers / Bruneau / Vernier 2015)

¹ Anonymous 1997.

DISSEMINATION OF RESULTS

During the 2014-2015 academic year, the following actions were undertaken:

Dissemination of results

Uploading reports of the fieldwork

A summary of the 2013 and 2014 fieldworks, in French and English, as well as a visual presentation of MAFIL and the complete reports in French (2013 and 2014) are now 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>

Publication of results

An article (about 16 000 words) presenting 66 archaeological sites in the Nubra Region, surveyed between 2006 and 2014 by L. Bruneau, M. Vernier and Q. Devers, was published in September 2015 in the academic journal *Études Mongoles et Sibériennes, Centre-Asiatiques et Tibétaines (EMSCAT)*: <http://emscat.revues.org/1348>

Besides a short description and preliminary analysis of each site, the article presents a map showing the distribution of the remains, as well as a preliminary chronology of the Nubra Region from the 2nd millennium BC to the 13th century AD.

- “An archaeological survey of the Nubra Region (Ladakh, Jammu and Kashmir, India)”, *Études mongoles et sibériennes, centrasiatiques et tibétaines* [online], 46 | 2015.

URL: <http://emscat.revues.org/2647>; DOI: 10.4000/emscat.2647

ASSESSING MAFIL'S ACTIVITIES

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 the fieldwork in 2013, wooden and straw samples were taken from the following sites: Murgi, Tirisa and Sumur Maral. In April 2014, the CNRS-SHS commission granted MAFIL the authorization to submit seven samples for C14 dating using ARTEMIS, an accelerator mass spectrometer (AMS) in Saclay (France).² Five samples were submitted in January 2015.

Before presenting the results 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>). Results were sent to the MAFIL directors in July 2015.

The sample from Murgi (calibrated date: 1163 to 1264 AD) has improved our understanding of the proximity of petroglyphs with water (see the 2013 report of fieldwork, p. 10, Fig. 7). The results obtained for the fortress in Sumur Maral indicate a low dating (from 1690 to 1928). Therefore, although the location and size of the fortified remains are remarkable, the site does not meet MAFIL's scientific goals (see 2013 fieldwork report, pp. 21-22). On the other hand, the C14 results obtained for the Buddhist site of Tirisa are of primary importance, not only for the MAFIL project, but also for the history of Buddhism in Ladakh and the Western Himalayas more broadly. Thanks to these results, we are able to date the Buddhist remains found in Ladakh as far back as half a millennium. This particular aspect is detailed below (pp. 20-21).

We would like to underline the significance of these results, which were obtained within the framework of MAFIL, because **only five C14 datings have been published for Ladakh**, all periods considered³.

PREPARING FIELDWORK IN 2015

Administrative preparation

The Archaeological Survey of India (ASI) delivered the permit for fieldwork in 2015 in January 2015.

In addition to the archaeological permit, French and Swiss members of the project had to obtain an Inner Line Permit from the regional police department in order to stay in the Nubra Region for more than 7 days (it is situated within a restricted border area).

² The demand to the CNRS-SHS AMS ARTEMIS programme was filed by Q. Devers and L. Bruneau.

³ A C14 dating was obtained for the Neolithic site of Gaik (Sharma et al. in 1989) and three others for the nearby site of Kiari (Ota 1993). R. Vohra also published a C14 dating for one of the wooden Buddhist statues at Sumda Chen in 1993. For a corrected interpretation of the C14 results, see Luczanits 2005, p. 84.

As specified on the annual official document issued by the Archaeological Survey of India with regard to the submission of archaeological projects, any collaboration between Indian and foreign researchers (or any foreign institution) requires the approval of the Government of India. Foreign collaborators have to obtain an authorization (clearance) from the Ministry of Home Affairs / External Affairs. This authorization is also essential for obtaining the appropriate 'research visa' issued by the Embassy of India in France (or anywhere else abroad). 'Clearance' may be granted more easily if researchers are supported by their Embassy. The project managers would like to thank the French Institute in Delhi for its support for obtaining clearance.

Local preparation

The cultural and socio-political context in Ladakh generated numerous difficulties for MAFIL, among which: absence of local support and anticipation on the part of the ASI, population's lack of knowledge of archaeological matters, various superstitions and beliefs relating to all aspects of religious vestiges, funerary structures and soil excavation in general.

In addition, MAFIL has unfortunately received confirmation of rumours that several local cultural stakeholders were actively trying to disrupt the mission, especially in the Nubra region. This reflects a general trend in Ladakh, which increasingly rejects any foreign interference in the management of affairs in the region. Ladakh has an independent local government (*Ladakh Autonomous Hill Development Council*, LAHDC) and it is interesting to note that the involvement of Delhi's central administration is perceived as "foreign", just like that of organizations and individuals that are not of Indian origin. A brief recap would be useful to provide the background to some of the factors, which may partly explain the recent rise in a form of xenophobia in the field and the increasing difficulties faced by MAFIL as a result.

For the last 30 years, Ladakh has enjoyed a special aura abroad and, more recently, in India, though for different reasons. The idealization of Ladakh, which was partly linked to the supposed mysteries of Tibetan Buddhism, the region's inaccessibility and the fact that its borders were only recently opened to foreign visitors, generated intensive mass tourism overnight. This new industry in Ladakh (a region with a fragile balance because of its historical and geographic context) has had a major impact on social, economic, climatic and ecological levels. Only recently, has there been an attempt to manage the industry. In the wake of the tourist trend and once Ladakh was open to tourism, numerous foreign NGOs started working there. To some extent, the society's authentic traditions and anachronistic aspects encouraged NGOs, which initially focused on education and health. Over time, their involvement increased and diversified to cover all aspects of local life.

Numerous NGOs are now working in Ladakh on the conservation, protection and management of the country's cultural, architectural, artistic, historic and archaeological heritage. Unfortunately, as far as the historic and archaeological heritage is concerned⁴, there is still no local institutional body to enforce central (ASI) and regional (Jammu and Kashmir State) legislation. The resulting situation is confusing, with each organization operating as they choose. Invariably, their technical expertise and ethics are assessed by site owners as a function of the amount of money invested. Bizarre restoration projects, looting, religious-based activities, unsuccessful endeavours, exemplary projects, etc., have overwhelmed Ladakh. Tired of the interference and unsure who it can rely on, Ladakh is withdrawing.

⁴ Since 2010 different stakeholders (ASI, NGOs, MAFIL, etc.) organized several workshops in Leh (in 2011 and 2014, particularly), to improve communication between the different parties and propose a road map to the LAHDC to set up a Ladakhi authority for heritage conservation and protection: c.f. Devers / Bruneau / Vernier 2014, note 23. Unfortunately, the proposal remains unanswered and has had no impact so far.

It is also important to note that the ASI has only had an independent local office (Mini Circle Leh) since 2011, which is directly under Delhi's central jurisdiction. So far, it has failed to establish itself because there are no archaeologists of Ladakhi origin who are, therefore, socially accepted.

In this context, it is hardly surprising that MAFIL is struggling to achieve its goals. We can only hope that the information and outreach campaigns initiated by the mission since the first campaign will bear fruit.

During the 2013 campaign, MAFIL was faced with resistance from some villagers opposed to archaeological research in the Nubra (particularly the Tirisa site). The approval of the religious authorities was also essential to complete research. As a result, the mission's co-directors decided to inform the different local representatives of their activities before the 2014 campaign. To achieve this, the mission's French representatives designed four leaflets (double-sided A4): a general presentation explaining the definition of archaeology, the MAFIL project's objectives and methods; and three specific leaflets, each devoted to one of the sites chosen for the 4-year programme.

The bilingual leaflets, written in the Ladakhi dialect and English, were distributed during the 2014 campaign in the various sites in the Nubra. Despite our efforts, we have to admit that the communication campaign, which involved government cooperation, failed to convince the local populations.

In preparation for the 2015 season and to achieve its objectives, MAFIL's board of directors re-assessed its strategy and suggested three distinct approaches:

1. Prepare a brief summary of MAFIL's position, its objectives, resources and stakeholders to be submitted to His Holiness the Dalai Lama for his approval in principal.

The French representatives of the mission wrote a brief summary for the approval in principle of His Holiness the Dalai Lama. Tibet's religious leader in exile actually represents the highest religious authority in Ladakh. His opinions are heard and respected. Over and above his religious office, the Dalai Lama is a charismatic unifying figure, respected throughout India for his humanist commitment and world-renown as a contemporary thinker. The French and Swiss representatives in India are in an uncomfortable position vis-à-vis the spiritual leader in exile. As a result, a less official approach was encouraged, using the MAFIL's French board's personal network. Therefore, the request was submitted to the Tibetan Administration in Paris and to the *Private Office* in Dharamsala (Central Tibetan Administration in exile) via Mr. Jean Claude Buhner who is a colleague of M. Vernier and close friend of the Dalai Lama. In addition, the same request was submitted via Mr. Manuel Bauer, the Dalai Lama's personal photographer and friend of MAFIL's joint-director. The requests addressed to Tibet's spiritual leader in exile have not been answered yet.

2. Visit to Leh (Ladakh) by a MAFIL representative in order to check that the ASI's local office (Leh Mini Circle) is actively cooperating in the field and with a French PhD student's research on ceramic material.

At the beginning of May 2015, M. Vernier went to Leh to meet the directors of ASI's local office and several stakeholders on the local cultural scene. The visit was intended to mitigate the lack of follow-up in terms of communication between French members of MAFIL and the ASI office in Leh. Despite requests by the French co-directors, the hierarchy within ASI was clearly so strong that its representatives in Leh failed to take any decisions (even secondary ones, *e.g.* logistics) or initiative without the approval of or an explicit request from MAFIL's Bhopal-based Indian director, S.B. Ota.

3. Send an anthropologist specialized in Ladakh to the village of Murgi in the Nubra to prepare the groundwork.

After numerous exchanges about the documentation, protection and study of rock art in Ladakh with V. Mehta, an Indian anthropologist specializing in Ladakh acquainted with the French-speaking members of MAFIL, the latter decided to ask him to undertake a preliminary visit to Murgi, the site next to the village of the same name. Originally planned for April, Viraf Mehta's visit actually took place at the end of July (22nd-24th). Following his visit the expert reported to the MAFIL that "the local atmosphere, although vitiated by last year's [i.e. 2014] abortive effort, is receptive to the project's rock-art related objectives this year in Aug/Sept [i.e. 2015]" (quoted from *Appendix 2*).

Several recommendations were made by V. Mehta following his visit at Murgi regarding the progress of the MAFIL's work there: please see *Appendices 4 and 5* for details

- **APPENDIX 1:** *Guidelines to Viraf Mehta, regarding his trip to Nubra and related mandate for MAFIL.*
- **APPENDIX 2:** *Brief report of the visit to Murgi, Nubra, by Viraf Mehta.*

Comments on Franco-Indian cooperation

MAFIL's French directors are delighted with the support from and renewed interest shown by their Indian partner. The latter, who is well aware of the issues at stake and how they are perceived locally, adapts as far as possible to the project's objectives of cooperation.

We would also like to highlight the interest and commitment shown by the French and Swiss diplomatic institutions from New Delhi. They have followed and supported MAFIL's administrative procedures in India since the outset of the 4-year project. L. Bruneau and M. Vernier wish to thank Mr. Jean-Yves Coquelin, co-director and cultural co-adviser at the Institut Français en Inde, and Mr. Indraneel Ghose, his Swiss counterpart and special adviser on teaching (Education), research and innovation.

It is great to see that a constructive partnership has been established between the different representatives and our ASI partner. This is undoubtedly an essential component of MAFIL's success.

Despite the socio-political difficulties that MAFIL faces in the field, in addition to the climatic problems experienced in the last 2 years, it is managing to conduct pioneering archaeological research for the Ladakh region.



Fig. 1: Meeting between M. Vernier, co-director of MAFIL and M. Indraneel Ghose, thematic adviser for education, research and innovation, Swiss Embassy in New Delhi. ©MAFIL / R. S.

Logistical preparation

The aim of MAFIL's 4-year project is to establish a chrono-cultural sequence of the Nubra and involves studying several sites. This rules out setting up a fixed base for the mission and calls for camping. In addition, the climatic and social events that occurred during the first 2 years in the field further encouraged the co-directors to make this decision.

M. Vernier prepared the campaign's logistics in partnership with his local contacts M. Tsewang Gombo and M. Rigzin Phalgon. A team is responsible for the camp's daily organization, coordinated by M. Vernier (one cook, one driver/aide-de-camp, one maintenance supervisor/assistant).

The initial 2015 field project involved an extended camp in a fixed location in Murgi, a village in the Nubra. Therefore, certain facilities had to be provided: solar water heating system, individual tents, kitchen, office and washing facilities (one canvas hut for a shower/bath and another for the toilet). Climatic conditions during the 2015 campaign were very demanding, with some snow and temperatures below freezing in the early morning.

From a health and safety point of view, the team was equipped with a pharmacy, suitable first aid kits, cell phones compatible with the different local operators and two fully revised 4x4 vehicles. Lastly, the mission supervisor made sure that he had the insurance details for all team members.



***Figs. 2 and 3:** MAFIL campsite in Choskhor, Leh Valley. ©MAFIL / R.S.*

RECAP OF THE METHODS AND OBJECTIVES OF THE 2015 CAMPAIGN

For the 2015 campaign, mission supervisors decided that only the French team would be involved in fieldwork.

The two main reasons for this were:

1/ After the problems encountered with the Nubra villagers in the 2014 season, the mission supervisors wanted to avoid the involvement of any staff connected with the central government for the 2015 season to ease local tensions due to events that occurred the previous year.

2/ The mission supervisors considered that in order to ensure that the 2015 campaign went smoothly, it would be sensible to let French team members take the initiative because some of them have several years' experience of the Murgi site and, in parallel, have developed a special relationship with inhabitants from the neighbouring village. In addition, the research planned on site only required a few professionals.

Indeed, after the 2014 campaign, the co-directors decided to conduct the following operations on the rock art site in Murgi:

- Full topographical survey of the site;
- Detailed technical study of engravings on the site;
- Completion of copies of the most remarkable motifs;
- Interaction with villagers to find the best way to manage the site's imminent designation to the rank of "*National Protected Monument*".

The main objectives were to:

- Document the site thoroughly with a view to publishing a monograph.
- Guarantee the long-term conservation and protection of the site.

In addition to the research conducted on the rock art site in Murgi, a visit to the Digar, Hundar Brog and Yulkam Tokpo sites had been planned in order to complete the report and take advantage of the photographer specially appointed for the 2015 campaign.

THE 2015 CAMPAIGN

MAFIL's third campaign ran from the 16th August to the 18th September 2015.

The team for the 2015 mission was organized according to the campaign's objectives, as already mentioned. Therefore, the choice of a topographer (to draw a detailed plan of the site) and a professional photographer (for high quality photographic coverage) seemed quite natural. The plan was to document and conduct a detailed technical study of the engraved works using macro photography, as well as to use transparent plastic sheets for drawings of the most pertinent figures not yet surveyed with this method. Ms. Samara Broglia, a PhD student researching Ladakh's ceramics since October 2014, joined the team to learn about Nubra's archaeological sites.

Members of the scientific team:

- M. Vernier, independent archaeologist, co-director of fieldwork in 2015, Lausanne, Switzerland.
- J. Suire, topographer, CNRS, Paris, France.
- S. Broglia, PhD student, EPHE, Paris, France.
- R. Silveston, freelance photographer, Lausanne, Switzerland.
- P. Rigzin, field assistant, Leh, Ladakh.

Assisted by:

- T. Gombo, in charge of logistics and maintenance services.
- T. Spalzing, cook.
- T. Nordon, camp assistant and driver.

Arrival in Leh: acclimatization

The first days of the mission were spent in a guesthouse in Leh (3500 m). This time was essential for acclimatizing to the altitude and provided the opportunity to meet the local ASI representatives, as well as S.B. Ota, the Indian co-director of the project.

The heavy rains and flooding in Ladakh that occurred in July 2015 seriously damaged the country's road network. Fortunately, most of the damage was material. The initial itinerary, which involved crossing the Wari pass (5200 m) to reach the Nubra valley, was confirmed to be practicable at the last minute. In numerous places, the team had to clear fallen rocks from the track so the vehicles could pass.



Fig. 4: Track between the Wari pass and the village of Digar in Upper Nubra.
©MAFIL / R.S.

Murgi rock art site

Recap of the operations already conducted on site

The Murgi site is located opposite Panamik on the west bank of the River Siachen, north of the village of the same name. The most important rock art site in Ladakh (877 engraved boulders, with a total of 3301 petroglyphs) was entirely documented (photographic survey and in situ copies) by L. Bruneau, M. Vernier and Q. Devers between 2006 and 2011. The rock art site comprises six zones.

We will not dwell on the site's content because that has been partially published (Bruneau in press, Bruneau / Bellezza 2013; Devers / Bruneau / Vernier 2015; Bruneau / Devers / Vernier 2011). In short, the motifs, themes and styles of the petroglyphs in Murgi show strong links with the world of the steppes (the Okunev culture, particularly) in the Bronze Age (end of the third and second millennia BC). They also illustrate the existence of ancient contacts between the Nubra and Central Asia.

The geomorphological study conducted in 2013 explained the interactions between the rock art site and the rock glacier where it is located. Various vestiges (ruins, ceramics, rock shelter, stone tools) were also discovered close to the rock art site thanks to extensive surveying work carried out the same year (see 2013 campaign report for details of the operations and the results obtained).

Given the importance of the Murgi rock art site and after the 2013 campaign, a request (suggested by S.B. Ota, MAFIL's Indian co-director) was submitted to the Archaeological Survey of India for the national protection of the site.

The events that occurred in the summer of 2015

In order to provide the most accurate summary of the events that occurred in Murgi in August 2015, as soon as MAFIL's team members arrived, here is an extract from the diary written by the mission's co-director:

"We arrive in Murgi at 1.15 pm. The vehicle with our equipment is being unloaded when a group of about a dozen of villagers (Yul-pa, Go-pa members) approach our host's house and try to stop the equipment from being unloaded. The tone is aggressive. I take my western colleagues aside and we withdraw from the discussion. We shelter from the rain near the house, leaving Rigzin and our drivers, Spalzing and Stanzing, talking to the Murgi-pa group. Their position is clear: we will not sleep in the village, let alone work there. We are hardly allowed to eat a meal before leaving. During the discussion, which quickly becomes confrontational, the word "doctor" is repeated several times. We later came to know who was involved: it happens that it is the same person who did his utmost to make our 2014 mission to Deskit fail.

"If you go to the site, we'll throw stones at you", "Go away and don't come back", the DSPT's family⁵, which offered to put us up in Murgi, as they had done for more than five years, was now being threatened. As the tones rise, I interrupt to reassure the villagers that we will leave Murgi right after the meal without stopping at the site. Hurried meal sheltered from the rain at our hosts' house, before heading to Panamik. As we pass below the rock art site, we notice watchmen posted above (summit of area II) to make sure we do not stop. The site is now crowned with two prayer poles and prayer flags (summit of areas I and II). Our stay in Murgi lasted less than two hours."

Extract from M. Vernier's mission diary, 23rd of August 2015.

M. Vernier spoke to S.B. Ota in Panamik the same day and they agreed on the decision to leave the Nubra. To make the most of the allocated time, as well as the team's scientific and technical expertise, and in order to complete MAFIL's 4-year project in Ladakh, the mission's co-directors agreed with M. Vernier's proposal to focus on other sites that could be relevant to the project's research remit. However, the sites are in Central Ladakh, on the other side of the summits and passes that divide Central Ladakh from the Nubra.

Between Murgi and Leh, surveying and documentation operations were conducted quickly at the Yulkam Tokpo rock art site and at Hundar Brog and Digar Kharpoche, fortified villages in ruins.

Yulkam Tokpo rock art site

The 2015 campaign's specification included the copy (using a transparent plastic sheet) of boulder n°2 at the Yulkam Tokpo rock art site (N-YUT), discovered and documented during the 2014 campaign. The engraved surface is of particular interest because of the diversity of the motifs and their probable contemporaneousness. A single surface features: a mascoïd, representations of ibexes with some stylistic features akin to the "animal style", representations of bi-triangular ibexes and one hand. Birds and one lizard, rare motifs in Ladakh's rock art, are also featured. In specialist literature, these motifs are often

⁵ DSPT: Digital Satellite Public Telephones. The Government of India provides such phones to villages too remote to have access to land or mobile lines.

presented as being representative of a particular period (Bronze Age and Iron Age, notably). M. Vernier and L. Bruneau undertook a preliminary analysis of this panel (Vernier/Bruneau *in press*).

M. Vernier made the copy using a felt-tip pen on A4 sheets of acetate, with the assistance of S. Broglia and T. Spalzing. The copy was made in rough weather conditions (violent sand storm and rain). The team also documented two new engraved boulders upstream of the site and noted that a considerable part of the site had disappeared beneath recent mudslides on the west bank of the torrent. A topographic sketch of the undamaged area was drawn to locate the engraved boulders.



Figs. 5, 6 and 7: Yulkam Tokpo, record on transparent plastic sheets. Drawings: M. Vernier ©MAFIL / R.S.

The Hundar Brog site

Hundar Brog is a fortified village, located on a terrace that is difficult to get to and demarcated by vertical rock faces. It was briefly documented during the 2013 and 2014 campaigns. The site's existence was revealed by Abram Pointet, who noticed it on satellite images in the spring of 2013.

The objectives of 2015 included:

- Photographic documentation of Hundar Brog's ruins.
- Survey and count of the different structures in the fortified village.
- Expert analysis of the cone of waste from the metallurgy industry.

As a result of the bad weather in the summer of 2015 and consecutive landslides, access to the top of the site is now blocked. It was raining when the team arrived, which made the ground slippery and unstable in many places. The only way to reach the summit's plateau is along a ledge overhanging a sheer 50 m drop. For obvious safety reasons, the supervisors decided not to proceed with field investigations.

The team carefully examined the cone of waste from the metallurgy industry. The area covered by the mixture of ash, charcoal, slag and red ferrous soil is spread across the slope in a cone shape that is 10.2 m long and a maximum of 3 m wide. An examination of the surface layers at the top of the cone revealed a 7 cm thick layer of ash mixed with stones, then a 1 cm thick layer of partially charred twigs, beneath which the soil was compacted with a high slag and charcoal content.

The team photographer documented the three Buddhist reliefs documented in 2014 with new photographs.



Fig. 8: Hundar Brog, remains of metallurgical industry. ©MAFIL

Digar Kharpoche, the site revisited.

In 2014, following some villagers' request, L. Bruneau and M. Vernier went to Digar for a day (see field report 2014, pp. 32-33). The villagers asked our advice about a Buddhist carving because they wanted to build a structure to protect it. Unfortunately, during the brief visit, it was not possible to carry out a comprehensive expert survey of the surrounding site.

Meeting the village representatives in Digar

The 2015's co-director made a point of meeting village community representatives to explain the reasons for the MAFIL team's visit to the Kharpoche site. M. Vernier also took the opportunity to talk to the villagers and discuss their plan to build a structure to protect the Buddhist carving. This was the main

reason why the villagers sought advice. The meeting was organized in two different phases. A preliminary discussion took place at the village leader's residence. The second discussion took place at the MAFIL campsite, with the joint director and three village representatives sent by the leader.

The discussion was very friendly and the atmosphere was one of mutual respect and curiosity. It proved fruitful. Both sides agreed on the importance of protecting Kharpoche's site and stressed their interest in its history. The villagers agreed not to start any practical work on the site without prior discussions with the MAFIL team or the ASI office in Leh.

In addition to renewing contact with the villagers, the aim of the day spent by the MAFIL team at the Kharpoche site in 2015 was to complete the survey of the fortified settlement. This involved:

- Mapping the various remains on the basis of a satellite image.
- Collecting the surface pottery material.
- Documenting the rock art present on the site.
- Documenting all major remains on the site (lithic artefacts if any, caves, ruined *stūpa*, etc...).

Mapping

Situated at an average altitude of 4 050 m, the main part of the site is a triangular shaped plateau, which is 350 m long and 110 m high, covering an area of about 2 hectares.

The topographical sketch plan was drawn during MAFIL's 2015 campaign using a GPS. Satellite images were used to provide an overview of the site and to locate its various remains. The final document was then drawn at a 1/1000 scale. This document should be used as a working tool for further evaluation, excavations or research strategy plans. The topographical sketch plan made it possible to divide the site into five different zones where the various built remains are still standing. These zones were also used to record the ceramics collected on the ground.



Fig. 9: General view of Digar Kharpoche site. ©MAFIL / R. S.

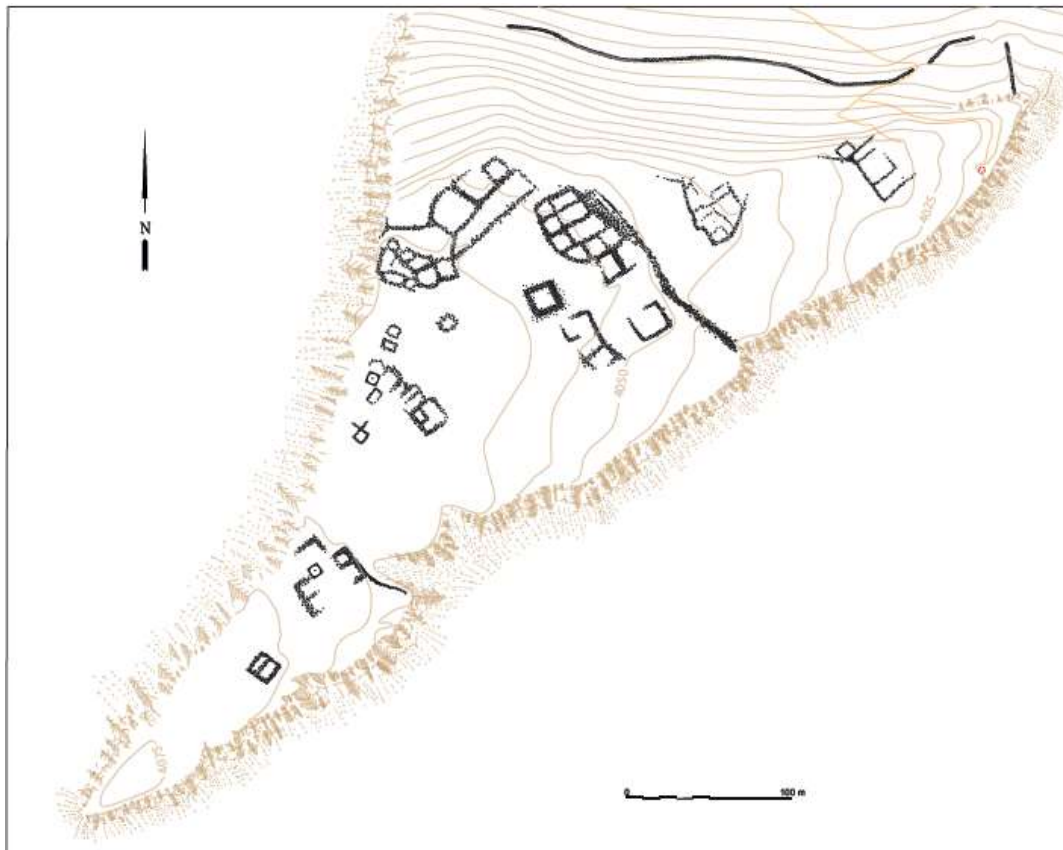


Fig. 10: Topographical sketch plan of Digar site, scale: 1/1000. © J. Suire / MAFIL

The red circle in the top right corner of the plan indicates the location of the monumental Buddhist stela.

Survey of the various remains

The following built remains were documented at the Kharpoche site: bases of walls made of large stone blocks; rectangular-shaped rooms in stone with mud masonry and sub-circular rooms, some built using dry stone masonry. Generally, round rocks were used for masonry. The plateau is divided by two long walls running at right angles and made of large blocks. Among the ruins, several flat and cleared areas seemed to have been used as squares. A clear area, located within the lowest part of the site, contains several light depressions surrounded or swamped by stone circles; their significance has not yet been determined (**Fig.12**). Several cavities are located in the easternmost part, which is now located on the edge of the plateau. The largest cavity is about 28 m deep and measures a maximum of 3 m high by 8 m wide. It was (and maybe still is) extensively used to shelter sheep, goats and cattle. The floor is covered with dry manure and did not reveal any visible remains. The upper part of the site includes several rectangular rooms made out of mud mortared stone masonry. The external walls lean inwards and the corners are made of large roughly carved stones that have been carefully jointed. Remains of a hemicyclic group of connected buildings are located in a small circular depression in the ground on the western edge of the plateau. Several small stone structures display stone corbelled remains together with possible melted mud bricks. They have been identified as *stūpa* remains. The main top part of the site is located around a large flat area and consists of ruins of large mud mortared stone masonry walls. The top of the site ends with the vestiges of an important topping structure with a square base covered with the melted remains of a possible mud brick-built element. A mud mortared stone masonry structure, divided symmetrically, is linked to these large remains. The whole set resembles a large *stūpa* completed by a large divided structure. A dozen grindstones, in various states of conservation, were found among the significant elements at the site.



Fig. 11: One of the grindstones documented at the site. ©MAFIL



Fig. 12: Stone circle, zone III. ©MAFIL

Pottery

The division of the site into five zones facilitated the precise and systematic collection of the ceramic shards. Few ceramic shards with geometrical painted motifs have been collected at the Digar site. These are of a similar type to those found in Central Ladakh: Saspol, Balumkhar, Alchi, Wanla, Phyang, Igu, Rumtse, Chemre, Nyarma, Sasoma, Saspotse, Sakti, Sabu and Khaltse.

Ceramic collected at Digar – Nubra						
<i>Code zone</i>	<i>Potsherds</i>	<i>Rimsherds</i>	<i>Basesherds</i>	<i>Handles</i>	<i>Decorated sherds</i>	<i>Total</i>
N- DIG- Bu1 – Bu2 (1)	20				1	21
N- DIG- Bu1 – Bu2 (2)	41					41
N- DIG- Bu1 – Bu2 (3)	6	2				8
N- DIG- Bu1 – Bu2 (4)	47	6		2	4	59
N- DIG- Bu1 – Bu2 (5)	12	2			1	15
					TOTAL	144

Table 1: Ceramic shards collected in Digar. Table: S. Broglia.

The pottery collected in Digar, together with that collected in Hundar and Choskhor during the fieldwork in 2015, will be studied in detail in 2016.

Petroglyphs

On the upper part of the Digar site, there is an engraved stone that represents a duel scene involving two archers. There are other figures on the same rock that are too faded for identification. The stone surface was too fragile and flaked, which meant that we did not make a copy on transparent plastic sheets. Instead, we drew a sketch from careful observation and took photographs. On another boulder, the large figure of a bovid, probably a yak, was identified by its dorsal hump and double curved horns. This was equally difficult to document due to the lack of contrast in the design. Here again, drawings and photographs were used.

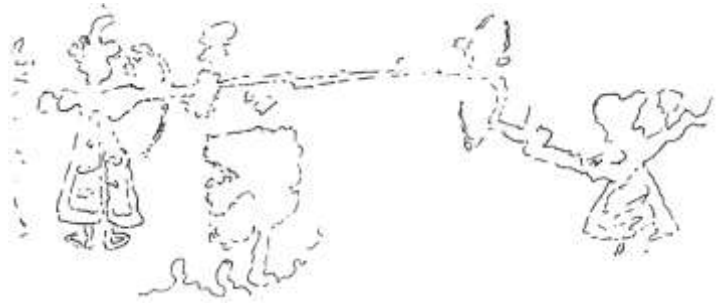


Fig. 13: Surface engraved with a bow duel scene and matching sketch.

©MAFIL / R.S. Drawing: M. Vernier.

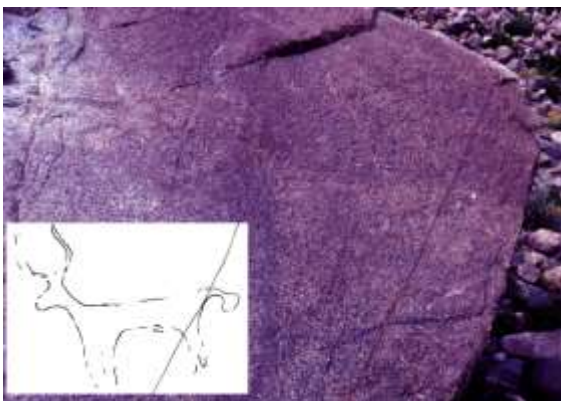


Fig. 14: Engraving of a large bovid and sketch of the figure.

©MAFIL / R.S. Drawing: M. Vernier.



Fig. 15: Rock with engravings of various stupa designs and sketch of the main stupa.

©MAFIL / R.S. Drawing: M. Vernier.

Digar Kharpoche is the only rock art site in Ladakh, so far, where the representation of a *stupa* with a hemispheric shaped dome, set back on a base and topped by a harmika supporting a parasol, has been documented. At least two representations of this type of *stupa* were documented on the same surface, where there are other indecipherable motifs. These *stupa* representations are unique in the whole of Ladakh. Typologically, they match some engravings documented in the Chilas area (Gilgit-Baltistan, Pakistan)⁶. The Chilas area is located at only a few days' walking distance from Digar and the whole Nubra Region, in general.

⁶ This type of *stupa* corresponds to category five, as identified for the *stupa* engravings from the Chilas area in L. Bruneau's typology: Bruneau 2007, Table 2 and Fig. 5, p. 66.

Chronology of Digar Kharpoché

As already mentioned in the 2014 report (p. 33), Digar Kharpoché's topographical setting is similar to that of Hundar Brog, which was surveyed during the 2013 campaign⁷.

The comparative table below highlights the diversity of the remains documented at both sites.

Site	Location			Material				Remains							
	Confluence	Built on a promontory	Leading to a pass (towards Ladakh)	Dry stone	Stone masonry	Mud bricks	Wood	Defensive structure	Stūpa	Metal work remains	Petroglyphs	Ceramic	Buddhist carving	Cave dweller	Burial structures
Digar Kharpoché	X	X	2	X	X	X	-	X	X	-	X	X	2	X	(X)
Hundar Brog mkhar	X	X	2	X	X	?	?	X	?	X	X	X	3	X	?

Table 2: Comparative table of the remains at Digar Kharpoché and Hundar Brog.

N.B.: there are some question marks regarding the Hundar Brog remains because the site was too dangerous to allow access for further surveying. Table: M. Vernier

The dark patina of some petroglyphs, as well as some motifs and their stylistic features (bow duel and representation of large bovid with a ball-shaped tail) may indicate the possible temporary occupation of the site at an early stage, maybe during the Bronze Age. This is not very surprising because Digar Kharpoché is located on a route that links the Nubra Region with the villages of Sabu and Stagmo in Central Ladakh, via the Digar Pass, where the rock art sites present similar Bronze Age figures.

The route's historical importance is also indicated by the presence of the large Buddhist stele, which stands on the lowest part of the Kharpoché site and marks the entrance on the easternmost side of the former settlement. **(Figs. 10 and 16-19)**

"It consists of a three side standing stone (dosku) of 4 m high. Each side is engraved with one (or two) standing Bodhisattva figure(s), identifiable through their specific attribute. A first side (2.6x4.1m) shows a representation of Mañjuśrī and one of Tārā; a second surface (1.4x4.1m) depicts Vajrapāṇi, while the third one (1.6x4.1m) represents Padmapāṇi. Each Bodhisattva presents a different set of headdress, garment and jewellery. The space between each figure is filled up with floral and makara motifs. A preliminary stylistic and comparative study of the carving, unique for the whole of Ladakh by its style, size and iconography, enables us to propose a 8th to 12th century period for its creation".

Extract from the 2014 campaign report, p. 32.

⁷ For the Hundar Brog site, see: Devers / Bruneau / Vernier 2015, pp. 39-40.

In an article (*in press*) that discusses the impact of Kashmiri art on that of Ladakh and Guge during the 11th and 13th centuries, Amy Heller points out the Kashmiri origin of the Bodhisattvas' jewellery (three-pointed crown, large circular earrings and necklaces with ranks of pearls), as well as that of the floral motifs between the Bodhisattva figures. She compares the carving of Digar, especially its composition and size (a little more than 4 m high), with monumental clay statues found in Alchi, Mangyu and Sumda. She proposes that they date from around the second half of the 11th century (950-1000)⁸.

The stele is located at the lowest extremity of the plateau and, thus, marks the edge of the fortified settlement. This suggests that it could be identified as contemporary. However, given our present knowledge, it is impossible to specify the duration of the site's occupation, nor when it was founded and abandoned. Hopefully, the study of the pottery collected during the 2015 campaign will shed light on the chronology of the site.

The Digar Kharpoche and Hundar Brog sites have many similarities. We could speculate about their coexistence. Hundar Brog, like Digar Kharpoche, is located on a route that links Central Ladakh and Nubra via high passes (Nia and Lasirmu Passes, in the case of Hundar Brog). An iconographic and stylistic study of the two Buddhist steles and the relief documented around Hundar Brog's fortified settlement is required before we can propose the first dating of the site.

The fortified settlements of Hundar Brog and Digar Kharpoche are the irrefutable proof of the former existence of routes linking Nubra and Central Ladakh via the Kardong Pass, but that have been forgotten since the opening of the road suitable for vehicles in 1976. The study of Buddhist stele and reliefs is fundamental to further our understanding of the spread of Buddhism in the Nubra Region and throughout Ladakh.



Figs. 16, 17 and 18: The three Buddhist carvings in Hundar Brog. ©MAFIL/R. S

⁸ We are grateful to Amy Heller for sharing her article with us (although it is still in press) and for proposing a dating for the Digar stele (personal e-mail communication on 15th October 2015). We also had several written exchanges about the stele in the spring of 2015.



Fig. 19 Digar Kharpoche stele. Drawing: M. Vernier, 2014.

For a photographic documentation of this stele, see the 2014 field report (Figs. 37 and 38) and also: Devers / Bruneau / Vernier 2015, Fig. 21.

Historical views: the spread of Buddhism in the Nubra

“None of the many Buddhist monuments in Ladakh appears to preserve anything that makes it possible to attribute it to the phase when Ladakh first came into contact with Buddhism. [...] The claim that Buddhism reached Ladakh at the time of the Kusanas can neither be supported nor refuted: there is simply no surviving evidence. [...] Nevertheless, it may be safe to presume that by the time the Tibetans assumed control of the region as early as 663, the Ladakhis, [...], had at least come into contact with Buddhism. [...] A major lacuna regarding the early Buddhist artistic heritage of Ladakh is a detailed study of the numerous rock carvings found in the region and neighbouring areas. [...] Similarly, a secure date cannot be forwarded for any surviving stūpa, some of which are occasionally considered to predate the West Tibetan kingdom. [...] We reach more secure historical ground with the West Tibetan kingdom founded by descendants of the Central Tibetan monarchy in the region of Purang, south of mount Kailash. It is certain that during the late 10th and the beginning of the 11th century this kingdom included a large part of Ladakh. Right at the beginning of this period, the monastery of Nyarma (Nyar-ma, also Nyer-ma), a few kilometers east of Tiksey (Khrigs-se), was founded as one of three major monastic foundations located in the main regions of the kingdom.”

Luczanits 2005, pp. 66-69.

The monumental relief in Digar proves that Buddhism was already established on the edge of the Nubra at the turn of the second millennium AD. Our stylistic and iconographic analysis of another monumental Buddhist carving located in Tirit enabled us to propose a similar dating from the 11th-12th century⁹. A similar analysis will soon be conducted on about ten other Buddhist carvings documented in Nubra (Ensa, Sumur, Deskit, Hundar Brog and Skuru).¹⁰

While the study of Buddhist reliefs and steles means that we can propose relative dates for the establishment of Buddhism in the Nubra Valley, absolute datings for the ruined *stūpa* in Tirisa are also now available.

“Erected on a rectangular platform (about 20m x 25m) and delimited on its four sides by an enclosure wall, this stūpa in an advanced state of decay, presents a base and platforms of uncertain shape (circular, rectangular or even cross shaped). Stairs of the ladder type are descending from a ruined dome to the ground on all four sides. By its size and typology, this stūpa is unique for Ladakh. However, such monuments are known in Central Asia (Adjina Tepe, Tajikistan; Rawak, Xinjiang) and in Kashmir (Ushkur and Parihasapura) where they are attributed [to] the last quarter of the first millennium AD. It is thus possible that Tirisa’s stūpa might be the most ancient testimony of Buddhism in Nubra and indeed for the whole of Ladakh. It is expected that the wooden samples taken this year on the platform and on the central pole of the stūpa will help to date the monument more precisely.”

Extract from the 2013 fieldwork report, p. 19.



Fig. 20: Ruined *stūpa*, Tirisa site. ©MAFIL



Fig. 21: Tirisa *stūpa* in 2015 ©MAFIL / R.S.

Our hypothesis, based on our field survey, was confirmed by the C14 datings we received in July 2015. The wooden sample taken on the platform has been dated to the 8th century AD.¹¹ The sample taken from the main *stūpa* pole was dated from 425 to 579 AD (calibrated date). Thus, Buddhism was present in Nubra during the second half of the first millennium AD.

⁹ See Devers / Bruneau / Vernier 2015, p. 44.

¹⁰ For a description and illustrations of each of these carvings, see: Devers / Bruneau / Vernier 2015.

¹¹ Calibrated date: from 695 to 937 AD. Dates for which the maximum probability is: from 710 to 745 AD and from 764 to 894 AD.

The results from these C14 analyses have a historical impact that goes well beyond the historical and religious context of the Nubra itself. The datings of the Tirisa *stūpa* are the first (and to this day unique) absolute dating ever obtained for a Buddhist monument in Ladakh. For the first time, we can confirm irrefutably that Buddhism was present in Ladakh well before the beginning of the second millennium AD. We now wonder if any similarly ancient sites, dating back to the second half of the first millennium exist(ed) in Central Ladakh or if Nubra was in direct contact with Kashmir and/or Central Asia, as might be suggested by the Tirisa *stūpa*'s unique ground plan (not found anywhere else in Ladakh).

In order to answer these questions, we need to focus our attention on the ancient Buddhist monuments of Central Ladakh. Access to the fortified settlements of Hundar Brog and Digar Kharpoché is landmarked by Buddhist reliefs. The sites are located on ancient routes connecting Nubra with Central Ladakh, as stated previously. Sabu and Stagmo can be reached from Digar Kharpoché and Basgo can be reached from Hundar Brog. It is important to note that there are ruins of ancient Buddhist monuments at these sites.

After the events of August 2015 in Nubra and in the light of the promising results obtained in Tirisa and Digar regarding the implantation of Buddhism in Ladakh, we decided to focus our 2015 fieldwork on the Buddhist site of Choskhor. It is located north of the Leh Valley, at the foot of the Kardong Pass leading to Nubra.



Map 2: Location of the Choskhor site in relation to the Hundar Brog and Digar Kharpoché sites.
Map: A. Pointet / M. Vernier.



Fig. 22: Choskhor site (in the foreground) and Leh Valley (in the background).
©MAFIL / R.S.

The MAFIL team reached the site of Choskhor on 26th August and worked there until 11th September.

The Choskhor site

The Choskhor site (religious enclosure, literally: religious site for circumambulating) was chosen by the French co-directors for the 2015 campaign because of the importance of its Buddhist vestiges and its location (*i.e.* close to the passes leading to the Nubra Valley) and, therefore, its potential contribution to the objectives of MAFIL's 4-year project. In addition, the working conditions at the site are good, with better safety and logistics are simpler and more economic because of its proximity with Leh.

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

The following goals were set:

- Creation of a topographic map at 1/1000 scale.
- Exhaustive survey of all built structures on the site.
- Collection of surface pottery.
- Ground plan of the three ruined temple structures (Co1, Co2, Co3).
- Stone-by-stone elevation drawing of the main temple (Co1), entrance and outside north view, inside south west, north and east views.
- Evaluation trial pitch in temple 1 (Co1), southwest corner.
- Survey and documentation of the site's rock art content.



Fig. 23: Site plan, scale 1/1000. © J. Suire / MAFIL

Topography

The Choskhor site lies 4 km north of Leh, at the foot of a large moraine. The archaeological area measures about 800 m by 300 m and is located between 3 790 m and 3 910 m above sea level. Because work at this particular site was not initially planned for MAFIL's 2015 mission, the survey operations had to be designed on the spot. Four topographical stations were set up on site: one in the lowest part and three along the crest above the site, two of which were cemented at the end of the campaign.

During the first stage of fieldwork at the site a Ladakhi operator was trained and familiarized with the whole station and the process of data transcription. Then the actual topographical work was conducted. Seven consecutive mornings were dedicated to observation and inventories. Afternoons were spent reporting measurements on a 1/1000 scale topographical map. In addition, detailed insert plans were created on a smaller scale (1/100) to meet the needs of the archaeological survey in areas where ruins were too vague to be reported with accuracy on the main map. These detailed 1/100 scale plans make it easier to read the architectural organization of the site.

More than seven hundred GPS points were taken. The ground was mapped using contour lines at 1 m intervals. In addition, 137 built structures – including three temple ruins and about fifty *stūpa* - were mapped.

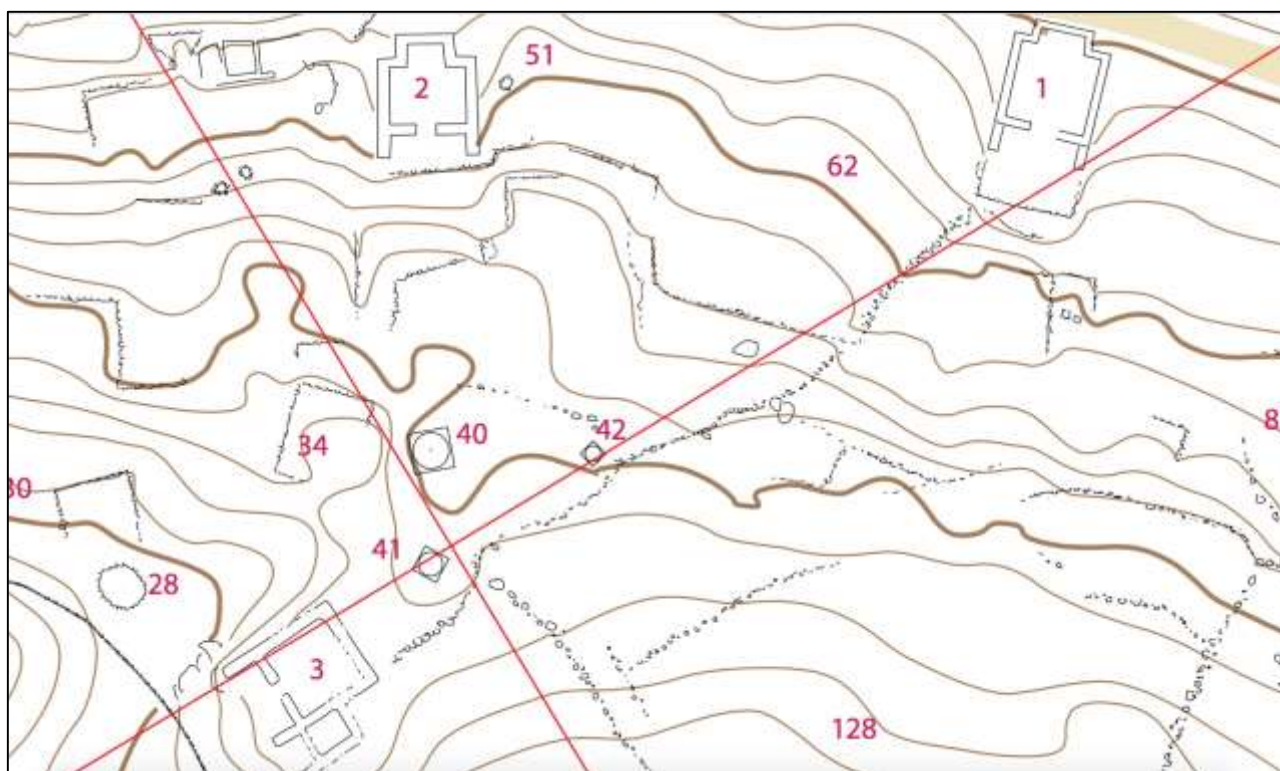


Fig. 24: 1/1000 plan of Choskhor site (detail including the three ruined temples: 1, 2, 3) © J. Suire / MAFIL

Documentation of structures

The team recorded all visible ruined structures on the site in an exhaustive inventory. The following data was included for each structure: structure number (from 001 to 137); type of structure (*stūpa*, room, terrace, temple and unidentified structure); size; subdivision (if any); building material (dry stone, mortar, mud brick and wood) and number of ceramic shards or objects collected in or near the structure. The type of documentation is also reported in the repertory: photographs, plan, elevation, stratigraphic wall unit (USM), and miscellaneous samples.

The team documented 137 structures (of which 3 are outside the site's strict limits). All are mapped on the 1/1000 and 1/100 maps. In addition to the three ruined temples, several other structures should be mentioned. These are: three *stūpa* showing the remains of mud modelled lotus petals at the top of their base (Figs. 25, 26) and about a dozen funerary structures, two of which seem to be undisturbed. In one of the opened graves, bones (some still connected anatomically) of an immature individual were visible. (Figs. 27, 28)



Fig. 26: *Stūpa with lotus petals on its dome, L-LEH-Bu2-Co17 ©MAFIL / R.S.*



Fig. 25: *Stūpa with modelled lotus petals on its base, L-LEH-Bu2-Co104 ©MAFIL / R.S.*



Figs. 27 and 28: *Opened grave with human bones, L-LEH-Bu2-Co51 ©MAFIL*

Pottery

Ceramics were collected in or around most of the 137 structures at the Choskhor site. Thus, 1 202 ceramic shards were collected across the whole site, from which 95 “sample” shards were selected. Each shard has been sorted and numbered according to the structure from which it was collected. The study of this corpus will be carried out in 2016.

Architectural drawing of the main temple (L-LEH-Bu2-Co1)

The architectural documentation of the main temple, located more or less at the centre of the site (temple 1: Co1) was conducted using a stone-by-stone elevation drawing of the two outer walls (north and east) and the four inner ones. Stratigraphic unit data sheets (USM) were filled in and facilitated our comprehension of the building’s chronological successive sequences.

Two distinctive building stages were identified:

1/A preliminary mud brick building phase, erected on stone foundations. This first stage includes nine groups of holes (north, west and south sections) on the inner walls corresponding to horizontal wooden poles used to hold up clay statues on the westernmost end of the temple.

2/Addition of a mud mortared stone masonry entrance portico, erected on a platform in front of the building (east side).

It is interesting to note that the three ruined temples at the Choskhor site all show the addition of an entrance portico. Thus, they share a similar building sequence involving two different stages.

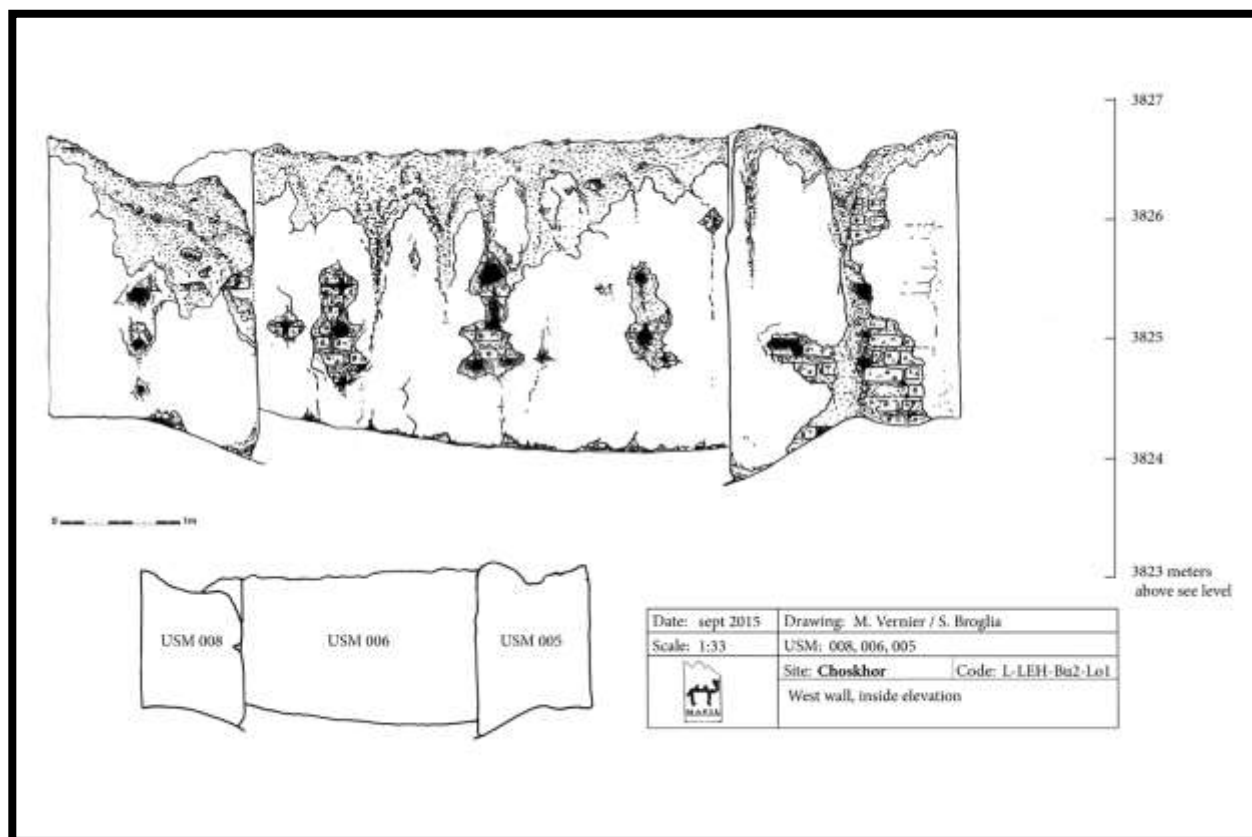


Fig. 29: Choskhor, inner elevation drawing, western wall, Co1. Drawing: M. Vernier.

➤ **APPENDIX 3:** Elevation drawings of temple 1 (L-LEH-Bu2-Co1).

A careful examination of the inner walls enabled us to document remains of ochre painting at two locations. The remains of a blue colour, as well as a white background coat, were photographed next to the traces of ochre on the wall USM008. Remains of an ochre coloured painting were also documented and samples taken, on the inner south wall of temple 2.



Fig. 30: Macro photograph of the ochre traces on USM008 wall of temple 1.
(L-LEH-Bu2-Co1-USM008) ©MAFIL



Fig. 31: Macro photograph of a sample taken on the south wall of temple 2
(L-LEH-Bu2-Co2) ©MAFIL

Trial pit

A trial pit was opened in the inner southwest corner of temple 1 (USM 006 and 007). The main aim of the trial pit was to determine the original height of the building by finding out its original floor level (first archaeological horizon). Thus, we hoped to be able to complete the elevation drawings and study the collapsing sequences of the roof. The trial pit consisted of a 1 m x 1 m square in which eighteen different stratifying levels were documented.

The excavation started at an altitude of 3 825.76 m and reached 3 824.92 m (above sea level). The first levels consisted of mud and clay fragments, sometimes mixed with straw particles, fallen from the various wall coatings (US 014, 016, 017, 018, 019). Two sets of stones (US 022 and 025) were located at 3 825.28 m (022) and 3 825.13 m (025). It is probable that these stones were originally inserted on top of the walls to hold the roof beams in place and that they fell after the roof itself collapsed. The lowest levels presented a very compact aspect and included pieces of mud bricks and small stones, similar to the remains still visible on the top of the walls. This level is most probably made up of fragments of the fallen roof and appeared at 3 825.02 m. At this level a small pit was then opened (negative US 028a and filling 028 and 030) and revealed the only ceramic shard found during the excavation (US 028). US029 included two different destruction layers at 3 824.94 m and 3 824.92 m and contained broken pieces of painted and modelled mud (remains of polychromic clay statues: US 031 and 032). These are probably the remains of the clay statues that were once fixed to the walls with small pieces of wood. They left their imprints on the walls and fell to the floor of the temple at the time of or prior to the roof collapsing. After discovering these remains the day before the end of the fieldwork, we decided to close the trial pits. Skilled restorers are required for the proper care of these remains. In order to protect the remains and facilitate their future extraction, we indicated their position in the stratigraphy by covering them with a 3 cm layer of sand prior to refilling the pit with the original material.



Fig. 32 View of the trial pit before it was opened. ©MAFIL



Fig. 33: View of the trial pit where a first set of stone was found (level 9, US022). ©MAFIL



Fig. 34 (North-south view) and **35** (East-west view): view of painted clay remains in the trial pit (US031 and US032) ©MAFIL



Fig. 36: Detailed view of the painted remains (US032) ©MAFIL

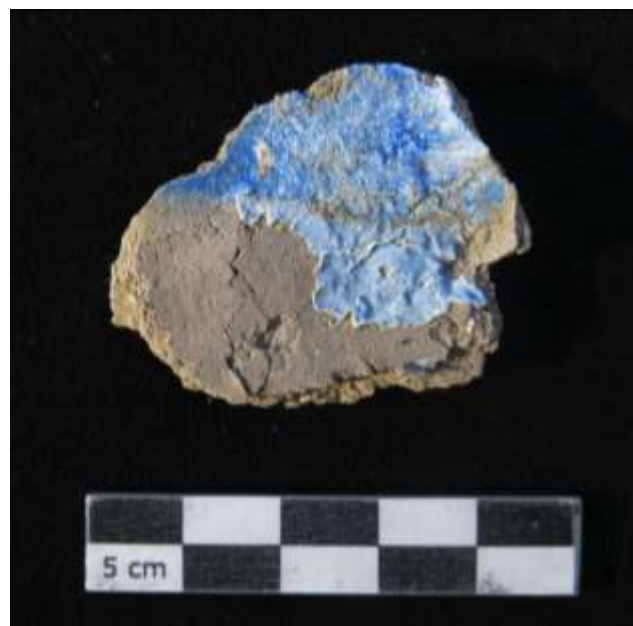


Fig. 37: Macro photograph of the painted sample taken at US032. ©MAFIL

Sampling

We took six samples containing organic material (straw and twigs) with the intention of dating the ruined temples by means of C14. The samples were given to Mr. S.B. Ota and are presently in the custody of Mr Ghose at the Swiss Embassy in New Delhi.

Several fragments of modelled and painted clay, painted wood fragments and various tiny pieces of organic debris found during the excavation of the trial pit in temple 1 were also sampled, as well as a fragment of wall coating with traces of ochre from the south wall of temple 2 (**Fig. 30**). We took samples from the mortar between the bricks in the wall of temple 1, as well as five samples of the coating traces of temples 1, 2 and 3.

Petroglyphs

Two engraved rocks were documented at the Choskhor site with a total of 10 figures: three unidentified figures, three yaks, two ibexes, one mounted horse and one unidentified animal figure.¹² Rock n°1 includes at least one hunting scene depicting a mounted horse and an ibex with the possible addition of a dog (documented as an undefined animal figure). All figures are hammered. The eight figures on rock n°1 present a dark patina while the two motifs on rock n°2 are of a lighter patina. Rock n°2 was overturned by a bulldozer during the building work on the new track, which goes through the site. Only one figure was drawn by means of a contour line. The left-right orientation of the figures is equally distributed. Although only two engraved rocks were documented on the site, it is worth mentioning the presence of other engraved rocks just on the other side of the hill above the site, at the Gompa rock art site (L-GOM-Ro1), some 300 m away as the crow flies. M. Vernier documented the site in 2003 and 2004. It includes 18 engraved surfaces distributed on 11 different rocks with a total of 91 figures.



Figs. 38 and 39: Engraved rock 1 and 2 at Choskhor site. ©MAFIL

Social interactions

When the MAFIL team had finished working at the site of Choskhor, they were visited by a delegation of villagers from the nearby village of Gompa, accompanied by three monks from Spituk Monastery. Despite a rather heated start to the visit, a telephone call between Mr S.B. Ota and the villagers' head representative established a more serene atmosphere, which made it possible to have a fruitful discussion.

On the phone, Mr. S.B. Ota made a commitment, in the name of the Government of India, to take responsibility for all expenses relating to the future conservation, protection and development of the site.

¹² A third rock shows possible engravings, which are too vague for accurate identification.

Afterwards, M. Vernier gave a detailed explanation of the team's research aims and the methods used at the site. He showed the delegation the various types of documentation in progress. During the delegation's visit, we discovered that the villagers of Gompa had recently made a donation to the Spituk Monastery of the land on which the Choskhor site is located. The monastery is planning to establish a meditation and retreat centre on the site and to restore the ancient temples.

M. Vernier invited M. Sunder Paul (director of the ASI office, Leh) to meet the monks and villagers' delegation at the MAFIL campsite so that they could discuss the potential for collaborating and the various issues relating to the Choskhor site. After the discussion, which was led by M. Paul, the monks expressed an interest in MAFIL's work, declaring that they were open to the completion of MAFIL's research (including further work on the trial pit in progress in temple 1), and expressed the wish to be kept informed about the research results and development. The positive and happy ending to this meeting marks a turning point in MAFIL's short history. We hope to strengthen this promising collaboration and take it further in the 2016 campaign.



Fig. 40: Meeting at MAFIL campsite between the Gompa villagers' delegation, monks from Spituk monastery, the director of the ASI Leh office and MAFIL team members.

Comments on the periodization and chronology of Choskhor

The diversity of the remains at the Choskhor site is remarkable, *i.e.* petroglyphs, funerary structures and built structures. At the present state of research, we are unable to state whether or not the funerary and built structures are contemporary. The funerary structures could pre-date the Buddhist remains.¹³ This has been confirmed in the Nubra at the Tirisa and Deskit sites (see MAFIL 2013 and 2014 field reports). It is expected that the excavation of one or several graves during the fieldwork in 2016 should enable us to confirm or refute this hypothesis.

¹³ As noticed by Q. Devers, all over Ladakh the renewed occupation of protohistorical funerary sites during the Buddhist period is quite frequent.

The *stūpa* and temple ruins indicate that Choskhor used to be an important religious site during the first half of the second millennium AD. Indeed, the plan of temple Co1 (rectangular with a niche at the rear facing the entrance, and the later addition of a portico) corresponds to 10th-14th century temples that have been documented in the Western Himalayas.¹⁴ The decorative clay-moulded lotus petals on some *stūpa* are remarkable. This feature is very rare in Ladakh and is found on very ancient *stūpa*, which are generally in an advanced stage of decay. Similar *stūpa* are depicted in rock art along with Tibetan rock inscriptions in Alchi, dating from 8th to 11th century AD.¹⁵

Choskhor is a site with exceptional potential for research. Apart from funerary and Buddhist remains, it includes many other structural ruins (possible water channel, for instance) and remains of housing. At the end of the 2015 campaign, it was not yet possible to state whether the remains were part of a monastic complex, contemporary to the other Buddhist remains (temples and *stūpa*) or if they were occupied at a previous and/or later phase. We hope that the study of the ceramics and further excavations will shed light on the matter.

Working perspectives at Choskhor

Although Choskhor could potentially be the focus of several excavation campaigns, during the next fieldwork mission (2016) our objective is to clear the inner ground of temple 1. This excavation work should enable us to complete the plan of the building so that we can periodize the temple more precisely. We also hope to find further remains of polychromic statuary, which could help identify the original iconography, and to reassemble some of their components.

In the light of the events that took place during MAFIL's first three campaigns in Nubra, the Choskhor site seems better suited for pioneering excavation work in Ladakh. The site's proximity to Leh city, the historical and administrative capital of Ladakh, will mean that we can work in closer contact with the governmental and state administration. We hope that the proximity of the ASI branch office and LADHC's administrative headquarters will prevent obstructions and guarantee a more successful resolution to the potential conflicts linked to local issues and sensitivity.

Excavations and study of the Choskhor site will be integrated into a larger research programme, which includes the ancient Buddhist remains in Ladakh, temples and *stūpa*, especially those in ruins.

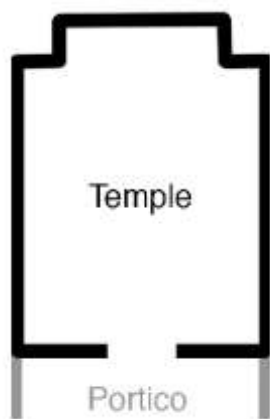


Fig. 41: Schematic plan of temple 1 in Choskhor. Drawing: M. Vernier.
Parts in grey indicate a later addition.

« While Nyarma has already received some scholarly attention, the numerous other ruins have not been reconsidered since the time of Francke. Further, all work done so far is simply based on observations of what is apparent from the ruins without any excavation. A comprehensive recording and documentation of the ruins, along with a detailed recording of technical details such as brick sizes and wall construction, would enable us to extrapolate a history of these structures, and make it possible to estimate the extent of early Buddhism in the area. Ideally, these observations need to be supplemented by selected excavations according to modern standards at some of the sites. »

Luczanits 2005, pp. 72-73.

¹⁴ For a preliminary typology of western temples from the 10th to 14th century AD, see: FWF-FSP- University of Vienna et al. 2006.

¹⁵ For *stūpa* representations and Tibetan inscriptions in Alchi, see: Bruneau 2014a.

During the last 15 years, M. Vernier has already surveyed and documented ancient Ladakhi temples. About 30 temple ruins, with a similar ground plan presenting modulations and declinations, have been recorded in the whole of Ladakh. L. Bruneau initiated research on ancient *stūpa* in Ladakh, by examining rock art and vestiges. This was the topic of her weekly lectures at the EPHE during the academic year 2012-2013.¹⁶ She presented the results of her study at the 16th conference of the International Association for Ladakh Studies held in Heidelberg in April 2013.

➤ **APPENDIX 4:** Table listing the ruined temples in Ladakh (pre-15th century AD).

The diagram below shows the location of the Buddhist site in Choskhor in relation to the ancient Buddhist remains from Nubra (ruined temples and *stūpa*, steles and Buddhist reliefs) and Central Ladakh (on the west bank of the Indus only). The ancient routes between the two areas via Digar and Hundar Brog are indicated and show the potential of the Choskhor site for a better understanding of Buddhism in Ladakh.

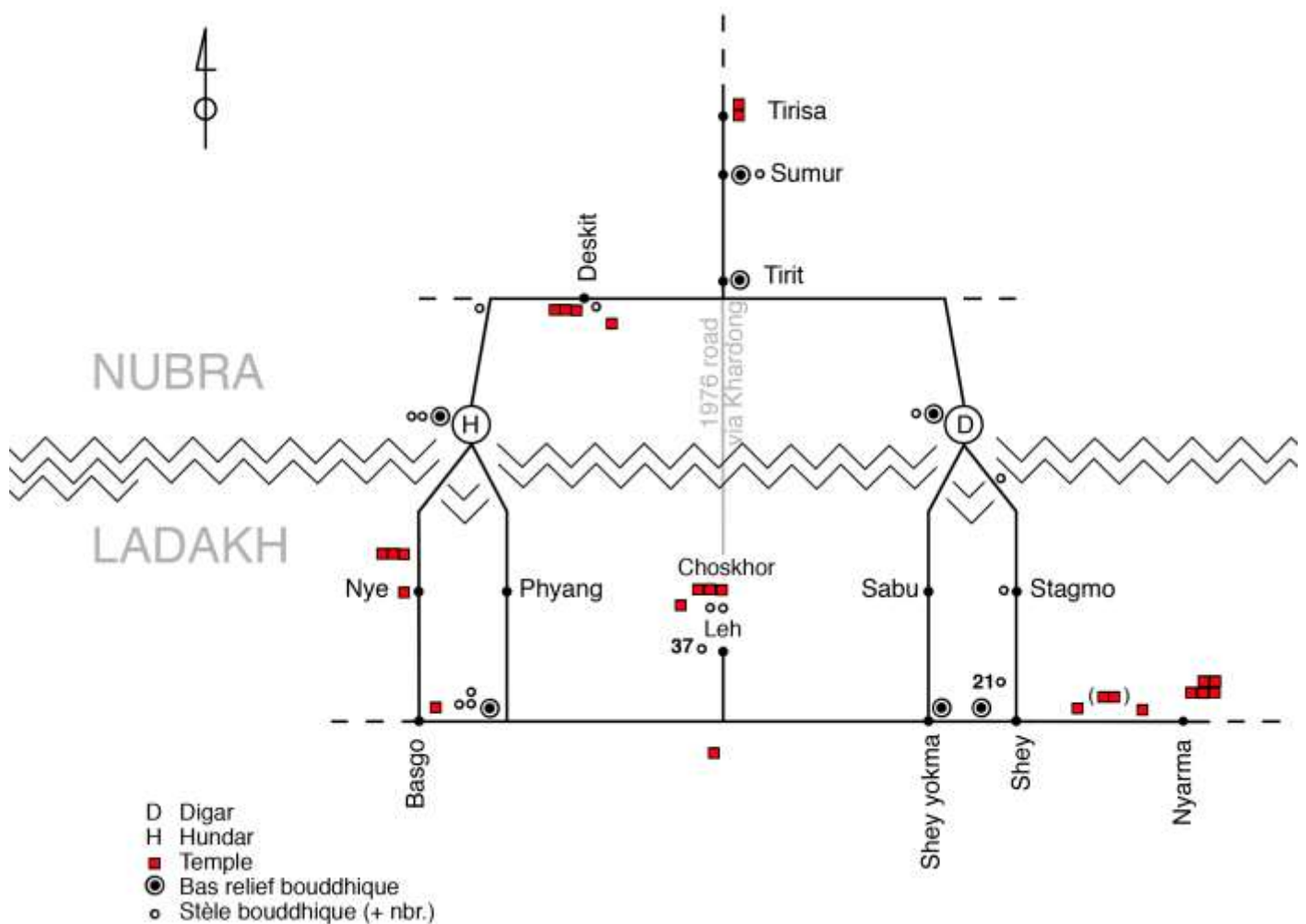


Fig. 42: Location of the Choskhor site and other ancient Buddhist remains in Nubra and Central Ladakh.
Diagram: M. Vernier

¹⁶ For a summary of these lectures see Bruneau 2014a.

We consider that it is essential to conduct at least one excavation campaign at the Choskhor site because since 2010, it has been plundered (construction of a road suitable for vehicles immediately behind temple 1, graffiti sprayed on its inner and outer south walls, the installation of an underground water pipe in the lowest part of the site, etc.). A local religious society is planning to build a meditation and retreat centre on the site. Thus, in our view, it is essential to raise awareness among the representatives of the Spituk monastery, which currently owns the site, about the importance of the Choskhor site for the history of Buddhism in Ladakh. M. S.B. Ota, co-director of the project, talked about proposing the site to the ASI for national protection (National Protected Monuments).



Fig. 43: View of the south wall of temple 1 showing the graffiti painted in 2013. ©MAFIL / R.S

THE END OF THE MISSION

The team returned from Leh on 12th September. The material was inventoried and handed to the local ASI office in Leh on 14th September 2015.

Once in Delhi, the head of the 2015 mission met Mr. Indraneel Ghose (SERI through the Swiss Embassy, New Delhi), Mr. Jean-Yves Coquelin (assistant director of the Institut Français en Inde) and Mr. Philippe Arhets (science and technology adviser). They all reiterated their support for MAFIL's future projects and offered to help, on a diplomatic level, if necessary. Mr. Coquelin and Mr. Arhets were particularly sensitive of the problems that MAFIL encountered in the Nubra and the objections from Leh. Mr. Coquelin wanted M. Vernier to meet Mr. Vandeville, the director of the institute. If the Ministry of Foreign Affairs and International Development in Paris confirms its support and interest in MAFIL's project, Mr. Vandeville is ready to consider organizing different administrative measures with ASI. An official visit to the Choskhor site was also mentioned in order to ensure that research during the 2016 campaign could progress satisfactorily, as well as to meet local authority representatives. The French co-directors appreciated the generous offer. They hope the project will be realized and that it will help to obtain formal recognition for and raising awareness of archaeological matters among the different cultural stakeholders in Ladakh.

Training operations

Miss Samara Broglia, a PhD student at the EPHE (Ecole Pratique des Hautes Etudes, Paris, France) took part in the 2015 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 gathered over the years by Q. Devers (member of the MAFIL in 2013 and 2014) and includes areas of Central Ladakh, Zaskar, Changthang and the Markha Valley.

S. Broglia spent an initial period studying Ladakhi ceramics, prior to MAFIL's fieldwork (25th June to 20th August 2015), thanks to support from a grant awarded by the NExT programme of the PRES héSam "*Dynamiques asiatiques. Échanges, réseaux, mobilités*".

The aim of the preliminary ceramic study campaign was to conduct morphological, technical and stylistic analyses. S. Broglia was able to study 39 sites in Ladakh: 143 "sample shards" from a total of 653 were studied. The documentation includes 2 399 photographs (including 427 microscopic photographs of paste and 200 photographs that focus on physical aspects and painted designs), 130 drawings, 143 precise descriptions of the selected "sample shards" and 18 data sheets detailing the various groups of paste. Simultaneously, S. Broglia spent time re-surveying eight sites in Central Ladakh (Basgo, Saspol, Wanla, Nyerma, Takkar, Phyang, Balumkhar and Sakti). The aim was to improve understanding of the environment where the MAFIL team members collected the shards and to collect further samples: 459 new ceramic shards were collected, from which 147 "sample shards" were selected and studied in detail. In addition, as a result of her participation in the MAFIL campaign (20th August to 18th September 2015), S. Broglia was able to familiarize herself with the sites located in the Nubra Region (where Aurore Didier conducted a ceramic study in 2013 and 2014), as well as take part in the survey work at the Choskhor site. In this context, S. Broglia not only collected ceramics on the site but also took part in the architectural survey of the various buildings and supervised the opening of the trial pit in temple 1.

OUTCOME

Despite the various repeated efforts made by the Franco-Indian mission, it is clear from the third MAFIL campaign that interacting and cooperating with the different local social, organizational and institutional actors remain problematic. The disparity between approaches, in scientific, methodological, human and logistical terms is inherent to an intercultural cooperative project like MAFIL's. Ladakh's geographical remoteness and complex social framework mean that the French team has to plan in advance between campaigns. This includes budget applications, fundraising, in addition to the busy schedules that the different researchers involved in the project have to manage. Our Indian partners have their own administrative framework, which is governed by different rules that are more flexible and adaptable. The result is a range of dynamics, combined with a multitude of socio-cultural contexts. Although politically Ladakh has been part of India since 1947, it distinguishes itself on many levels: a region of Tibetan culture, independent local government, Buddhist culture, etc.

Regardless of these differences and the obstacles that MAFIL had to deal with in the Nubra, it is very encouraging to see that the mission's board of directors is still keen to cooperate and that both partners are motivated to work together to overcome the local obstacles. Thus, S.B. Ota has entrusted his French counterpart to choose a site to substitute Murgu. When he later visited the site chosen, he was very enthusiastic about its potential.

The repeated opposition to archaeological research in the Nubra, demonstrated by Murgi's inhabitants at the beginning of the 2015 campaign, seems to have put an end to work in the region. It represents a turning point for MAFIL. Regardless of these events, MAFIL's third campaign results are more than satisfactory: an assessment survey was carried out in agreement with landowners for the first time (and member of the Buddhist clergy) on a site with religious and funerary vestiges. The work achieved in Choskhor, therefore, means that MAFIL's projects and archaeological research in Ladakh may have a promising future (albeit in a different framework).

As far as institutional support for its projects and their promotion in India is concerned, MAFIL is very pleased with the relationships it has maintained for the last three years with the Swiss and French government representatives in Delhi. MAFIL is delighted that both institutions have demonstrated a real commitment and interest in the project, which is an asset.

PROSPECTS

Given the project's progress in 2015, the objectives of the 2016 campaign (the last year of MAFIL's 4-year project) will be adapted to the new research perspectives presented by the Choskhor site. The 2016 campaign, therefore, plans to completely clear the ground in temple Co1 in order to document the unfired clay polychrome statuary vestiges, discovered during the 2015 assessment survey. A team of two restorers from Dehradun, specialists in this type of vestige exhumation and conservation, will join the mission.

A second team is also due to work on the site's funerary structures. Excavating of two tombs is planned for the 2016 campaign: one tomb that is open and has visible human remains and another one intact, indicated by alignments on the surface.

Lastly, the Indian co-director suggested setting up a permanent exhibition on archaeological research, which was approved by ASI's local office. It will be organized in the palace in Leh (national monument under ASI's protection) from the summer of 2016. The specific terms for designing and organizing the exhibition have yet to be clearly defined. However, the co-directors have agreed on a preliminary museographic space dedicated to rock art in Ladakh. The opening of the exhibition will provide the opportunity to present MAFIL's projects to all the local actors (religious and governmental). It is only with their support – which they shall communicate to the villagers - that archaeological research can be successfully carried out in Ladakh in future.

PROMOTING / DIFFUSING MAFIL'S RESULTS

MAFIL directors are planning to release the following publications and organize events to promote the mission's activities and results:

- Online publication of the detailed report of 2015 in French and English, winter 2015-2016: <http://www.crao.fr/spip.php?article464>
- Setting up an exhibition room dedicated to the rock art heritage of Ladakh, Leh Palace, spring 2016.
- Presentation of the site of Tirisa at the 14th Seminar of the International Association of Tibetan Studies to be hosted by the University of Bergen (Norway), June 2016.
- Lecture to present MAFIL's activities to the French Institute in Delhi, India, Summer 2016.
- Lecture to present MAFIL's activities to IGNCA, on the request of the Swiss consular services, Delhi, Summer 2016.
- Two articles to be published in *Current science* by the end of 2016: one focusing on the C14 results and the other on the lithic site of Tirisa.

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Acknowledgments

Martin Vernier would like to express his sincere thanks to Laurianne Bruneau who entrusted him with the supervision of the 2015 mission. He would also like to thank all 2015 MAFIL members for their professional dedication, their adaptability and flexibility. 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. Last but not least, we would like to thank Tsetan Spalzing (our cook and much more!) and Rigzin Phalgon for his help in the field. Year after year, it has been and continues to be a pleasure to work with him. We would like to mention the dedication of our Ladakhi friends for their support to our archaeological cause and their personal involvement, which goes way beyond their initial contractual functions.



Fig. 44: Members of the 2015 MAFIL team. ©MAFIL / R.S.

APPENDIX 1: Guidelines for Viraf Mehta, Indian anthropologist and Ladakh specialist, regarding his trip to Nubra and the related mandate for MAFIL.

Guidelines to Viraf Mehta, Indian anthropologist specialist of Ladakh, regarding his trip to Nubra and his related mandate for the MAFIL.

MURGI SITE 2015

- **2014**, summary of the events of last year, regarding Murgi:

Last September, after the refusal from Deskit villagers to let us work and excavate the site at Ting gang, Deskit, we pay a short visit to Murgi village to anticipate 2015 mission. (Working at Murgi was originally planed as part of the quadrennial MAFIL mission for year 3, approved by our ASI partner budgeted accordingly and so on). We met a delegation of villagers (Laurianne, Martin, Lobsang, ASI Phuntsok), present them our plans for an hour, then went back to Deskit. Few days after their answer came to us, while we were ready to leave Ladakh from Leh : they refuse to let us work on the site in 2015. (See the extract of the report from the meeting attached).

- **2015.**

This year we are nevertheless planning to go to Murgi and complete the mapping work. This is a crucial element to enable us to publish the planed monograph dedicated to the site and covering almost 10 years of field work there.

The 2015 team will be composed of:

Martin Vernier, MAFIL joint director and 2015 director.

Rachel Silveston, professional photographer (hired for this specific mission)

Joel Suire, professional topographer

Samara Broglia, ceramic specialist (doctorate candidate), short stay on site.

Jigmet Namgyal, Ladakhi archaeologist student (accompanying us for a training course).

The team will of course have all necessary official documents at hand, like survey permit, Nubra permit and other official documents from ASI Delhi and LAHDC.

Its usual logistic partners of locals will accompany our team.

Tsetan Spalzin and **Tsering Spaldon** as cook; **Rigzin Spalgon** as helper and logistic supervisor.

The whole team will arrive at Murgi on August 24th, and camp there (we already have good contact with DSPT M. Tashi (at the entrance of the village, next to the water pump) and we used to camp several times on his field in the past)

The ceramist will remain till 27th only.

The photographer will depart on 31st.

Joel, Jigmet and Martin will stay up to September 14th to complete the topography.

This means 4 people (including a ladakhi student) and the logistic team staying at Murgi site for 3 weeks to map the site by means of GPS station and laser telemeters. (Cotton strings will be stretched across the site's various zones and temporary used to part the different areas for working convenience). Some more acetate drawings will be executed, and technical study of impacts, patina and overlays will be done with magnifying glass. Nothing more.

The topographic objective is to end with a scale map of the site indicating every engraved rock position.

This will of course enable several major scientific and academic studies such as a study of the precise distribution on the site of specific motifs, identifying various stylistic or thematic zones/groups and mapping them, study of the engravings' distribution according to the topography and so on.

As proposed and already conducted in the past, we intend to present our work, means and objective to the villagers. Villagers' representative will be of course welcome everyday on site to "check" our work and the means involved.

During our 3 weeks stay, several meetings could be organised with those interested to discuss the long-term run of the site and possible involvement of local community or individuals (training, protection and conservation issues, touristic promotion and monitoring). Leaflets about Murgi in Ladakhi dialect are still available to whoever wishes to.

- V. Mheta's April 2015 visit to Murgi:

The aims and objectives are:

- To convince the villagers to let us complete our surface and topographic/mapping work.
- To explain them that nothing intrusive will be undertaken, nothing will be taken away, reports of the accomplished work kept at their disposal and the site will be left after our work exactly as it was before.
- To try to motivate the village community to collaborate and to be part of the site's development and monitoring in the future.

We are deeply convinced that our researches are potentially much beneficial for local identity issues and for a better knowledge of the local ancient history (especially for the links between Ladakh

and Central Asia and the crossroad aspect of Nubra valley).

Despite our governmental and official status legitimating in itself our work and the well-founded of our initiative, it is crucial for us to match the acceptance and the understanding of the local communities.

As Murgi has been declared as National Protected Monument, the local community, from Murgi but also globally from whole of Nubra, will sooner or later have to acknowledge this new matter of fact. We are convinced that referring to our long term trust based and friendly relation (we start working at Murgi on 2007), and starting from this human oriented base towards an understanding of the situation as it presents itself today, can help the local community to be active actors of the situation instead of passive "victims" of it.

For us, Murgi people are the best able to protect the site, take ownership of it for its heritage aspect (instead of a "at hand stone quarry") and pass it to generations as well as to other villages.

- People locally aware of the MAFIL work in Leh:

- ASI staff at Leh: M Sunder Paul (local in charge, conservator) and Phuntsok Dorje (archaeologist and past MAFIL member), ASI mini circle, leh.
- Dr Tundup, LBA president.
- H.H. Tiktse Rimpoche, head of the Tiktse affiliated monasteries (Laurianne, Martin and S. Paul met him 3 times and he officially gave us his "non opposition" status)
- Dr Sonam Wangchuk (from Hundar), executive councillor, LAHDC.

Martin Vernier, March 2015

APPENDIX 2: Report from V. Mehta on his return from Nubra.

The Prehistoric Rock Art of Ladakh: a brief visit report on Murgi, Nubra.

The undersigned, Mr. Viraf Mehta is an anthropologist by training, and an independent researcher who has visited almost all regions of Ladakh in every season over three dozen times over the past two decades. Since 2009, he has been researching Ladakh's prehistory through the petroglyphs that remain from that period. He has lectured and published his initial findings in The Himalayan Club Journal, IMF Journal and other reputable media, as well as participated in various local initiatives focused on awareness about this cultural heritage and the need for its preservation.

Report: During the course of my visits to Ladakh I got to know several other rock art researchers, notably, Tashi Ldawa, Martin Vernier and Laurianne Bruneau. It was through Martin that I learnt in detail about the four year-long (2013-16) Franco-Indian Archaeological Mission (MAFIL) in the Nubra region of Ladakh, and within this, the objective of further researching Ladakh's most prolific rock art site at Murgi. I also learnt that villagers and other members of the local community at Nubra had opposed MAFIL's intent last September (2014) to excavate and explore sites, particularly at Tirisa and Deskit due to religious and other local sentiments. I agreed with Martin that I would personally visit Nubra prior to the visit of the research team in August 2015, and I would use my visit to enquire into local views and to try to facilitate this season's work at Murgi rock art site. Accordingly, I visited Ladakh between the 14th of July and 4th of August, and had a detailed initial conversation with Mr Tsewang Gombo Domkarpa and Mr. Lobzang Angchok Baku (experienced tour and logistics associates who are knowledgeable about MAFIL): I was accompanied at this meeting (at Lungta Travels office in Chubi, Leh) by my driver Rigzen (he has accompanied me to most rock art sites in Ladakh

since 2010 and was also recently the Goba of Basgo village). Tsewang and Lobzang felt that the atmosphere in Nubra had been vitiated last year, but that since this year's focus was now on Murgi alone (and not on sensitive items such as *chortens* and graves), the local should be more amenable to the project objectives. They were of the opinion that there was a feeling among some scholars in Leh that the project failed in organizing comprehensive stakeholder consultations in Leh, both in taking input in project design and in implementation, even if there were several innovative project communications at the local level in Nubra.

I then proceeded to Nubra on the 22nd of July and returned to Leh on the 25th of July. At Nubra, I camped at the Nebula GH at Panamik. The owner of the GH is Stanzin) and he is a school teacher at Sasoma. I have known him for several years and he is fully aware about the rock art work I do; he has also previously met Tashi Ldawa along with me. One evening I invited Jigmat for dinner to discuss the project at Murgi: Jigmat is the Police Officer in charge of the key Hargam junction, and is a local of the Nubra area. Both Stanzin and Jigmat are good friends, and are aware of Rock Art: they have both accompanied me to local sites in the past, and are familiar with the support that HH the 14th Dalai Lama and HH Chetsang Rimpoche have given the rock art of Ladakh, through appeals for their protection. During my visit to Nubra, I also visited the Yarp/Tirisa Tso site and several sites along the Murgi-Charasa-Barma road. It is noteworthy, and as examples of local heightened awareness about local heritage, (sorely lacking in so many other parts of Ladakh) that a "No Excavation" sign on the road to Panamik, the recent painting/whitewashing of the ruined Tirisa chorten opposite the Tso, and prayer flags adorn the Murgi rock art site.

In any event, I sensed that the local atmosphere, although vitiated by last year's abortive effort, is receptive to the project's rock-art related objectives this year in Aug/Sept.

Accordingly, it is suggested that:

- 1) Project officials (domestic and foreign) take some time out to explain current fieldwork plans, and to record and respond to any concerns expressed, to concerned persons at Leh and to locals. Advance e-mails can be sent to Leh persons, and informal meetings conducted at Murgi.
- 2) Locals at Nubra are given access to the site during research at Murgi, and are made aware of other sites in Nubra (such as Sasoma, where we

hope the Army will help in conservation) and their importance to Ladakhi heritage.

- 3) A full inventory of any items (pottery, stone tools, etc) being removed from Nubra (to Leh or elsewhere) be shared with concerned villagers.

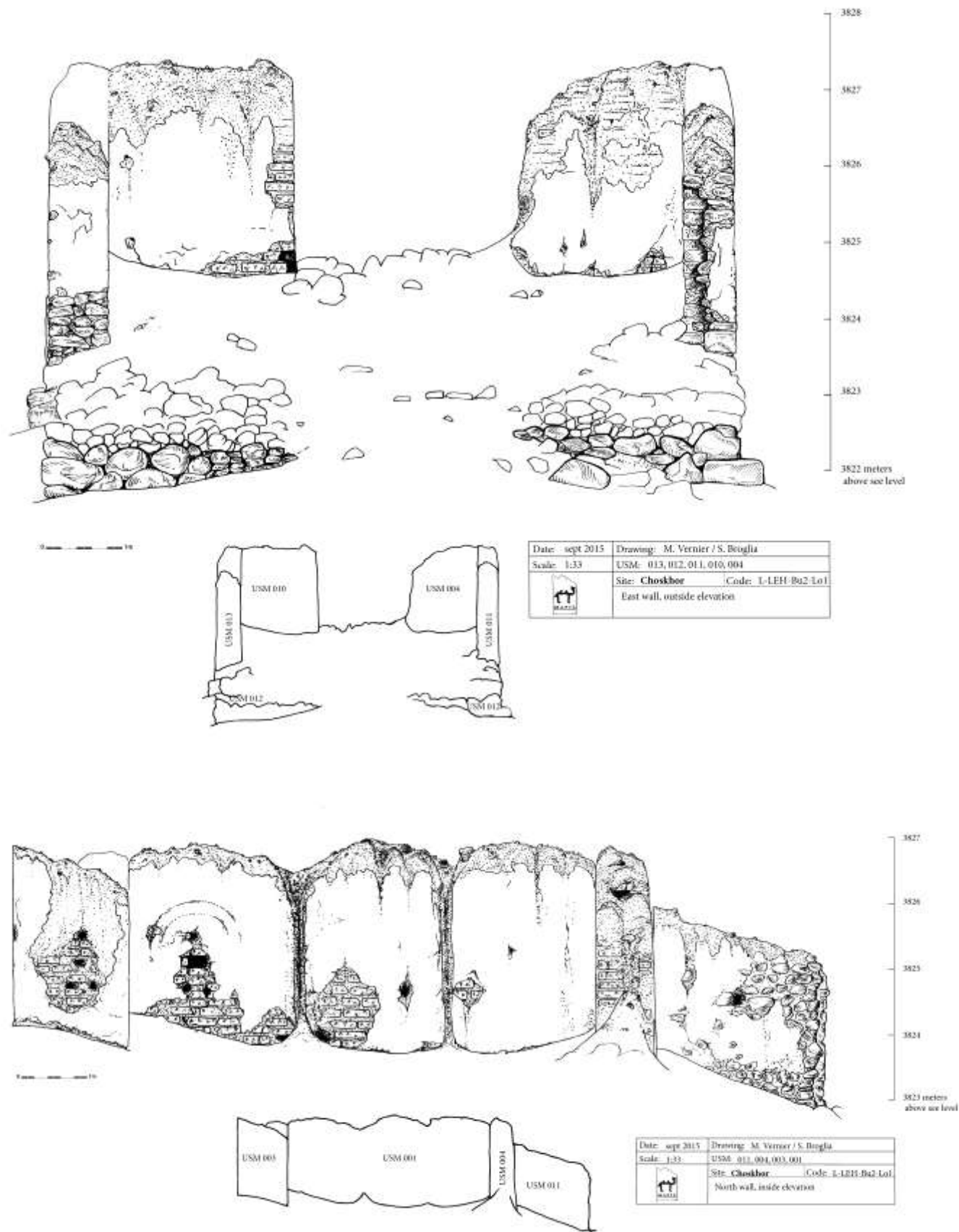
- 4) A blueprint for protection of the site at Murgi/ and the role of villagers be shared with locals.

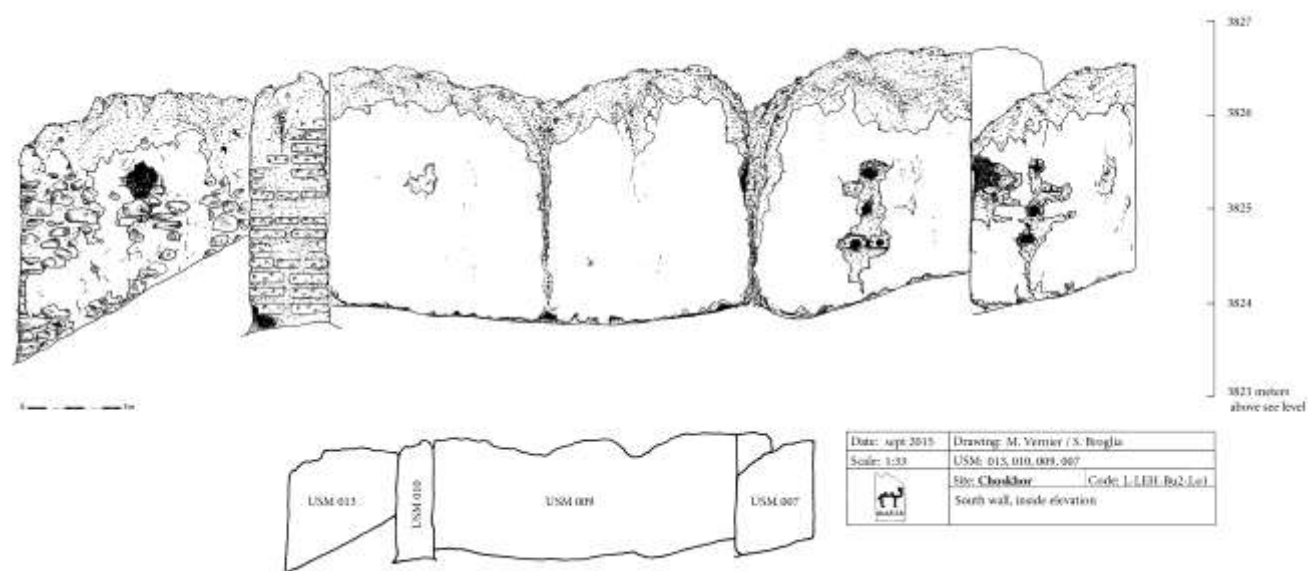
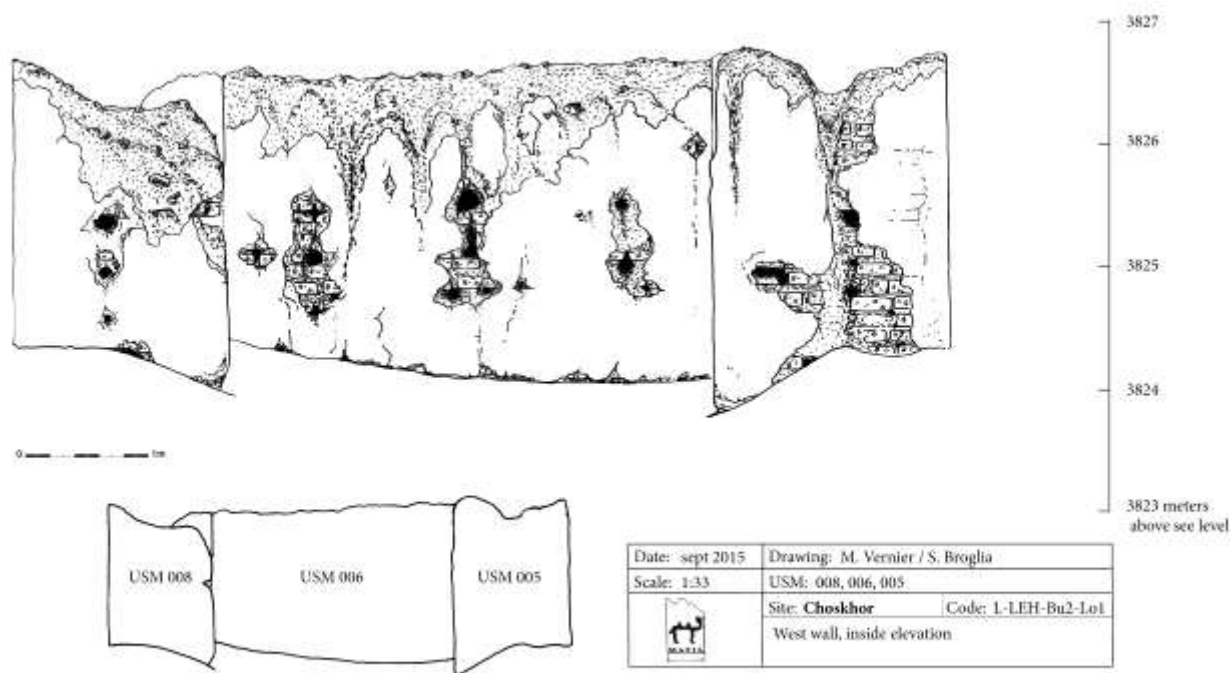
As mentioned, I plan to visit Ladakh between the 4th-19th of September, and will be happy to meet with you in Nubra for a few days during this time.

Viraf Mehta

*Report sent my e-mail to Martin Vernier on 12th
of August 2015*

APPENDIX 3: Architectural drawings: elevation of temple 1 (Co1).

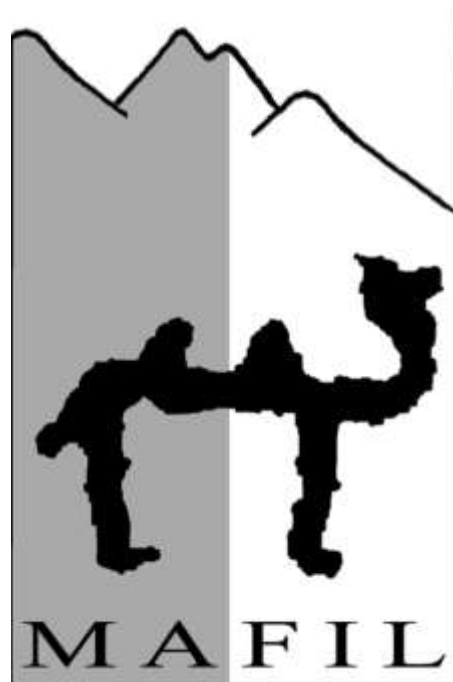




APPENDIX 4: list of ruined temples from Ladakh (pre-15th century AD).

Région	Location	Name	Remains	Number of buildings	Documentation date (by default M.V.)
L	Digur	Choskhor	Stone platform, mud bricks, mud mortared stone masonry, portico, statues fixing pole holes in walls, remains of polychromic wall paintings (red, blue, white, black).	3	2003, 2004, 2006, 2008, (MAFIL) 2014, (MAFIL) 2015
L	Gyamsa	Lhakhang	Stone platform, mud bricks, statues fixing pole holes in walls.	1	2003, 2004, 2007
L	Nye gongma	- -	Mud mortared stone masonry, portico.	3	2015
L	Nye yokma	Lotsawa lhakang	Mud mortared stone masonry, portico.	1	2015
L	Basgo	Byarje thang Gonpa gog	Stone platform, rammed earth, remains of mud modelled halos on walls, portico, statues fixing pole holes in walls, remains of polychromic wall paintings (red, blue, white).	1	2003, 2004, 2007, 2009, 2010, 2012
L	Bodhkarbu	Mundig	Stone platform, rammed earth, remains of mud modelled halos on walls, statues fixing pole holes in walls (3 sections of wall standing up to 2011, rebuilt on its original spot).	1	2003, 2004 (TEDAHL) 2007, 2009, 2013
L	Tiktse	- -	Stone platform, mud bricks, portico, one statue fixing pole hole in wall.	1	2003, 2004, (TEDAHL) 2007
L	Tiktse	Kikil hakang	Mud brick, mud mortared stone masonry, portico.	1	2003, 2004, 2006, (TEDAHL) 2007
L	Tiktse	- -	Stone platform, mud bricks, remains of polychromic wall paintings (red), doorframe.	2	2003, 2004, (TEDAHL) 2007
L	Nyerma	Choskhor	Stone platform, mud bricks, remains of mud modelled halos on walls, portico, statues fixing pole holes in walls.	5	1996, 1998, 2003, 2004, 2006, 2009, 2012
N	Tirisa	Choskor	Stone platform, mud bricks (melted).	1+	(TEDAHL) 2011, (M.V.) 2011, (MAFIL) 2013, 2014, 2015
L	Stok	- -	Mud mortared stone masonry, rammed earth, 3 sections of wall standing.	1	2003, 2004, 2006
L	Stok	- -	Stone platform, mud bricks, 1 section of wall still standing	1	2003, 2004

L	Stok	Chenrezig gongog	Mud mortared stone masonry, portico, remains of polychromic wall paintings.	1+	2003, 2004, 2006
L	Stok	- -	Rammed earth, mud bricks (melted), stone, 1 section of wall still standing.	1	(TEDAHL) 2011
L	Stok	Ramoshong	Rammed earth on stone platform, mud bricks, portico, statues fixing pole holes in walls.	1	(TEDAHL) 2011, 2012
Z	Saido	Gombo che lhakhang	Mud mortared stone masonry, remains of red ochre paintings (outer wall).	1+	2011, 2014
Z	Karcha	- -	Mud mortared stone masonry, remains of red ochre paintings (outer wall), remains of polychromic paintings (inner walls), portico.	1+	2004, 2011, 2014
L	Sumda chen	Yogma lhakhang / lhakhang nyingpa	Mud mortared stone masonry, remains of polychromic paintings (mandalas and figures), remains of corbelled painted roof, 2 lion sculpted beam supports.	1	2004, 2009, 2012
L	Sumda Chen	Chamba lhakhang	Mud mortared stone masonry, stone platform, sculpted wooden doorframe, wooden statues and miscellaneous wooden pieces.	1	2003, 2004, 2009, 2012
M	Kaya	Lotsawa lhakhang	Mud mortared stone masonry (3 sections of wall still standing).	1	2004, 2005, 2007, 2009
M	Nagling	Gongog	Dry stone, mud bricks, trilobate wall niche.	1	2004, 2005, 2007, 2009
M	Chalak	- -	Stone and mud bricks, remains of red ochre paintings (outer wall), remains of mud modelled halos on walls, statues fixing pole holes in walls (1 wall still standing).	1	2004, 2005, 2007, 2009, 2010
L	Zgang	Lotsawa lhakhang	Stone and mud bricks, remains of polychromic paintings (inner wall), remains of mandala mud modelled parting lines on walls (incrustations), (1 wall still standing).	1	(TEDAH) 2007, 2009
L	Henaskut	- -	Mud mortared stone masonry, remains of polychromic paintings (inner walls, mandalas and figures), elements of roof, 2 lion sculpted beam supports.	1	2010, 2013
L	Saspochey	Lotsawa lhakhang gogpo	Stone and mud bricks, remains of polychromic paintings (inner walls), stupa.	1+	2010
L	Sakti	Skit phug gongog	Mud mortared stone masonry and mud bricks, rammed earth (rebuilt on its original spot).	1+	2003, 2004, 2010, 2012



March 2016.

*Translation of the report from French to English:
Martin Vernier, Laurianne Bruneau, Camille Vourch and Isis Olivier.*

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