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MAFIL

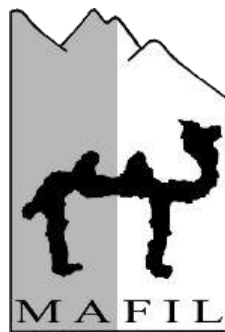
FRANCO-INDIAN ARCHAEOLOGICAL MISSION IN LADAKH

2020 ACTIVITY REPORT

Martin Vernier

with contributions from

Ani Danielyan, Philippe Pons and Laurianne Bruneau



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- Research grant for archaeological missions, Commission consultative des recherches archéologiques à l'étranger, Ministère de l'Europe et des Affaires Etrangères (MEAE);
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- City of Paris 'Emergence(s)' research support scheme via the project "Himalayan archaeology: material culture and networks of the past".

www.mafil.com

BACKGROUND AND PRESENTATION OF THE MISSION

The *Mission Archéologique Franco-Indienne au Ladakh* (MAFIL) was created in 2012 after five years of informal contacts (invitations to participate in conferences and to publish) between the two directors at the time: Laurianne Bruneau (Lecturer, EPHE / Université PSL, attached to CRCAO / UMR8155, Paris) and Simadri Bihari Ota, then one of the five regional directors (central zone, Bhopal) of the *Archaeological Survey of India* (ASI). At its inception, the four-year project (2013-2016) was supported by Dr. B. R. Mani (then Deputy Director of the ASI) and approved by the ASI committee in autumn 2012.

This was the first cooperation between the *Archaeological Survey of India* and a French team, just as it was the first archaeological mission to Ladakh. The ASI's desire to develop archaeological research in this Himalayan region was underlined by the opening of an independent local office in Leh, the cultural capital of Ladakh, in 2011.

For its second quadrennium (2017-2020), MAFIL is still directed on the French side by L. Bruneau, with the support of Martin Vernier (research associate, ArScAn/UMR7041, Archéologie de l'Asie Centrale team, Nanterre) as deputy director for the 2017-2018 period, then temporary director in 2020. On the Indian side, Prof. Vinod Nautiyal (Department of Ancient Indian History, Culture and Archaeology, Hemvati Nandan Bahuguna Garhwal University, Srinagar, Uttarakhand) and Prof. Pradeep M. Saklani from the same department were the new Director and Deputy Director respectively for 2017 and 2018. The mission also collaborates with the *Centre for Central Asian Studies* at the University of Kashmir (Srinagar, Jammu and Kashmir) via Dr M. Ajmal Shah (Senior Lecturer and Curator of the *Central Asian Museum*). Multi-year scientific cooperation agreements were signed in 2017 between the EPHE and these two Indian universities. Moreover, Prof. V. Nautiyal was guest director of studies at the EPHE in November 2016.

MAFIL in 2019

For the reasons set out below, there was no MAFIL activity report for 2019. The mission was only the subject of a short note from the mission director and submitted to the Advisory Commission on Archaeological Research Abroad of the Ministry of Europe and Foreign Affairs (MEAE).

Here are some of the highlights:

- L. Bruneau, MAFIL's French Director, will be off work from February 2019 due to a medical problem.
- In spring 2019, Prof. P. M. Saklani (*Hemvati Nandan Bahuguna Garhwal University*), who was to take over the leadership of the mission on the Indian side following the retirement of Prof. V. Nautiyal in autumn 2018, passed away suddenly.
- Mr Vernier met the Indian partners of the University of Kashmir in Ladakh in July 2019. The will to cooperate remains intact on both sides. Mr A. Shah was also a guest lecturer at the EPHE for the 2019-2020 academic year. Due to L. Bruneau's medical condition, his visit to Paris as a guest lecturer at EPHE-PSL (initially scheduled for 2019) has been postponed.
- During his visit to Ladakh in July 2019, M. Vernier visited the Leh Choskor site (excavated by MAFIL in 2016) to assess its state of conservation and the testing of wall plaster intended for the conservation project, set up by C. Sadozai (CRATERre) (see MAFIL's activity reports for 2017 and 2018). The site, although not initially subject to intentional deterioration, nevertheless shows a notable worsening of the run-off faults and cracks in the apparatus at the northern corners of the main building.
- On 5 August 2019, the State of Jammu and Kashmir (to which Ladakh, where MAFIL has been working since 2013, belonged) lost its constitutional autonomy, reshuffling the political cards in a situation that had persisted since Independence in 1947. On 31 October 2019, Jammu and Kashmir on the one hand and Ladakh on the other officially became two 'Union Territories', completely independent of each other. Each is now under the direct authority of Delhi and therefore of the central government.

The total of events between February and September 2019 has pushed the MAFIL to reconsider its mode of operation (management and field) while maintaining its scientific objectives as far as possible.

Despite the situation outlined above the mission's work was supported in 2020 20 by the [City of Paris' 'Emergence\(s\)' Research Support Scheme](#) via the project 'Himalayan archaeology: material culture and networks of the past' (Winner of the 2018-2019 AAP) coordinated by Laurianne Bruneau. This multi-year project (2020-2023), hosted by the CRCAO / UMR8155 is the subject of an agreement between the City of Paris and the EPHE signed at the end of November 2019.

REVIEW OF THE 2020 SITUATION

The political changes in Ladakh in the summer of 2019 had several direct implications for the mission. From 5 August 2019 until May 2020, contact with our colleagues and partners at the University of Kashmir was initially impossible, then very sporadic, as internet access and all telephone lines were cut off. Then, from March 2020 onwards, the health situation linked to COVID-19 and the strict confinement imposed by it in Kashmir prolonged the blockade that was the situation at the end of 2019. Of course, all of this means that it will not be very effective to monitor the exchanges needed to anticipate and prepare for the next stage of the mission's field campaigns.

Since the end of May 2020, political tensions on the northern border between India, China and Pakistan have risen sharply, prompting the authorities concerned (*Indo-Tibetan Border Police*, ITBP) to review the conditions of access to the region's border areas (Nubra, Chang-Thang, Dah-Hanu) for non-Ladakhis and especially foreign nationals.

In view of the above, it was in a situation that was strategically redefined in terms of MAFIL's geographical area, complex with its partners and on hold at decision-making level due to L. Bruneau's sick leave, that the MEAE validated Martin Vernier's role as temporary director of MAFIL in spring 2020.

In this redefined context, with the means at its disposal, MAFIL has decided, in the person of Martin Vernier and with the endorsement of Laurianne Bruneau and the Advisory Commission for Archaeological Research Abroad (MEAE), to concentrate its efforts during 2020 on the Ladakh rock art database project.

MAFIL ACTIVITIES: 2020

ROCK ART IN LADAKH: RESEARCH CONTEXT

Ladakh, a high mountain desert, (now "Union Territory of India", under the direct authority of Delhi) is the northernmost region of the Republic of India. It borders Pakistan to the west (Gilgit-Baltistan province) and the People's Republic of China to the north (Xinjiang autonomous region) and east (Tibet autonomous region). Ladakh's geographical position makes it an ideal place to study cultural contacts between the Indian subcontinent and Central Asia (including the Tibetan plateau).

The Western Himalayas are home to a huge concentration of rock art, dating from prehistoric times to the beginning of the 2nd millennium BC. During this period, visitors and local inhabitants carved around 80,000 petroglyphs and 6,000 rock inscriptions into the dark patina covering the rocks of the mountainous regions of Ladakh and northern Pakistan.



Fig. 1 - Map showing the localisation of Ladakh in Asia

©MAFIL / Vernier.

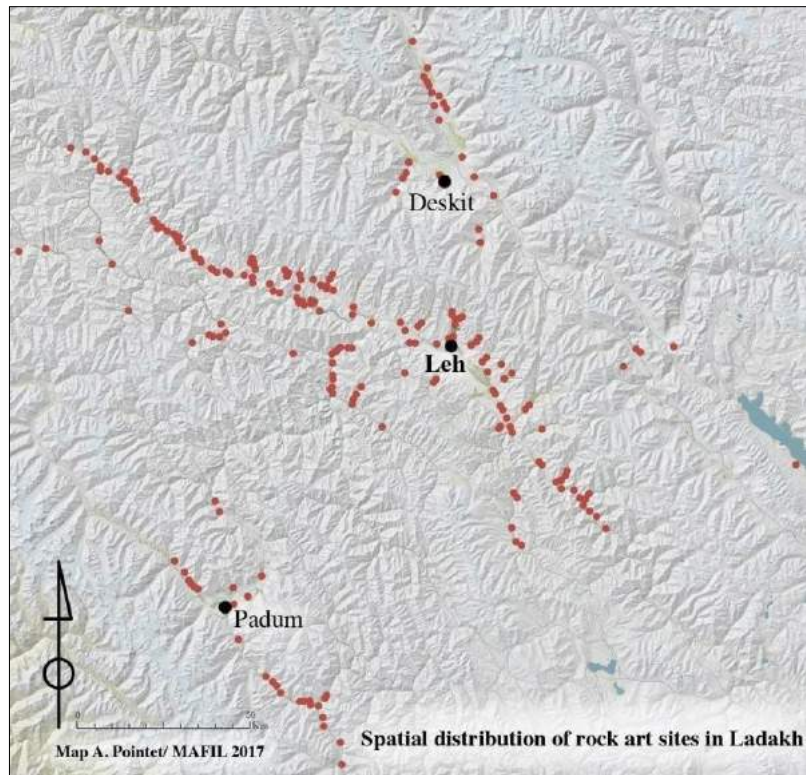


Fig. 2 - Map showing the distribution of rock art sites covered by the HiRADa project.

©MAFIL/ Vernier.

The existence of the petroglyphs of Ladakh has been known since the 1880s. It was the Moravian missionaries, who settled in Ladakh in the 19th century, who first reported on and recorded the local petroglyphs.

Their importance for ancient history has been recognised ever since, but the rock representations of anthropomorphic and zoomorphic figures and various signs, as well as the inscriptions, were only intermittently documented and published until the 1990s. In Ladakh, systematic documentation of rock art sites according to scientific criteria was not undertaken until the early 2000s.

This belated interest in rock art has gone hand in hand with a growing awareness of the need to save and enhance this unique heritage. However, it seems difficult to dissociate the saving of the Ladakhi rock art heritage from the major socio-economic changes that the country has been trying to cope with over the last few decades. The opening of the Leh road and airport in the 1970s led to a massive influx of tourists. This sudden opening to the world is now having a serious impact on the country's social, ecological and heritage balance. Against this backdrop, the local rock heritage carries little weight with the public authorities and local communities. Inexorably, Leh's area of influence is spreading throughout the country, and with it, the attacks on the protohistoric and historical rock art sites.

As a result, many sites, some of them of major importance, have already disappeared — entirely or partially — as they have been transformed into building materials, submerged by the waters of dams, covered by road embankments or tipped over into rivers when new bridges are built. Urban planning and the extension of the road network, both of which are undergoing extreme and uncontrolled development, are the main causes of the disappearance of the local rock heritage.



Fig. 3 and 4 - Destruction of engraved rocks at the Alchi site / L-AZT ©MAFIL / Vernier 2019.

It is in this context that the HiRADa (*Himalayan Rock Art Database*) project was initiated in 2017. This is an open-access collaborative database project devoted to Himalayan rock art, which is both a research and heritage preservation tool.



THE HiRADa PROJECT (*Himalayan Rock Art Database*)

1. Genesis of the project

In 1996, Martin Vernier began documenting the rock art sites in the Zaskar region, followed by Ladakh in 2000. In 2007, Laurianne Bruneau joined this work of documenting the Ladakhi rock heritage.

This corpus is still divided between two databases:

- The first ("*Ladakh rock art project*") was produced by Martin Vernier, in parallel with the publication in 2007 of the book *Exploration et documentation des pétroglyphes du Ladakh : 1996-2006* (Carlo Leone and Mariena Montandon Foundation, Nodo Libri, Como, 83 pages).

- The second database was created by Laurianne Bruneau as part of her doctoral work: *Le Ladakh (état de Jammou et Cachemire, Inde) de l'âge du Bronze à l'introduction du Bouddhisme : une étude de l'art rupestre*, defended in 2010 (Doctoral thesis, Université Paris 1 Panthéon Sorbonne, Paris).

One of the most remarkable contributions to this corpus is the completion, in 2011, of the systematic documentation of the Murgi Tokpo site in the Nubra, which is the largest rock art site known to date in Ladakh, with more than 3,000 petroglyphs. These data have been supplemented by data collected during MAFIL's field missions between 2013 and 2017.

Since 2017, L. Bruneau and M. Vernier have been working to merge the two existing databases, in order to bring together all the information available on the subject within a single entity, according to a harmonised model. To this day, the number of petroglyphs documented is close to 20,000, spread over 131 sites, divided into 184 zones (141 systematically documented zones and 43 - surveyed only).

II. Design and operation of the HiRADa database

The HiRADa database lists the petroglyphs (engravings and rock paintings, including inscriptions) of Ladakh (including the Zaskar and Nubra regions). The corpus of the database does not include votive Buddhist works (*mani* stones, stelae and Buddhist bas-reliefs), unless these are associated with an earlier non-Buddhist or epigraphic element. Documentation of the rock art sites included in the database comes either from **surveys** (accompanied by general and specific photographic coverage, without numbering of rocks, surfaces and figures), or from **systematic surveys** (including numbered photographs for each rock, locus and figure).

The work carried out in 2020 enabled us to finalise the standardisation of raw data from the two "historical" databases (mentioned above) into two categories:

1. **visual corpus**: a collection of photos, maps, satellite images, acetate transfers, drawings and prints;
2. **raw data**: in the form of an Excel spreadsheet, consisting of 6 sheets, in the tree structure of which the 56 referencing categories are distributed.

A code system with a double tree structure, differentiating between "prospected" and "surveyed" sites, provides a link between the raw data and their visual correspondents.

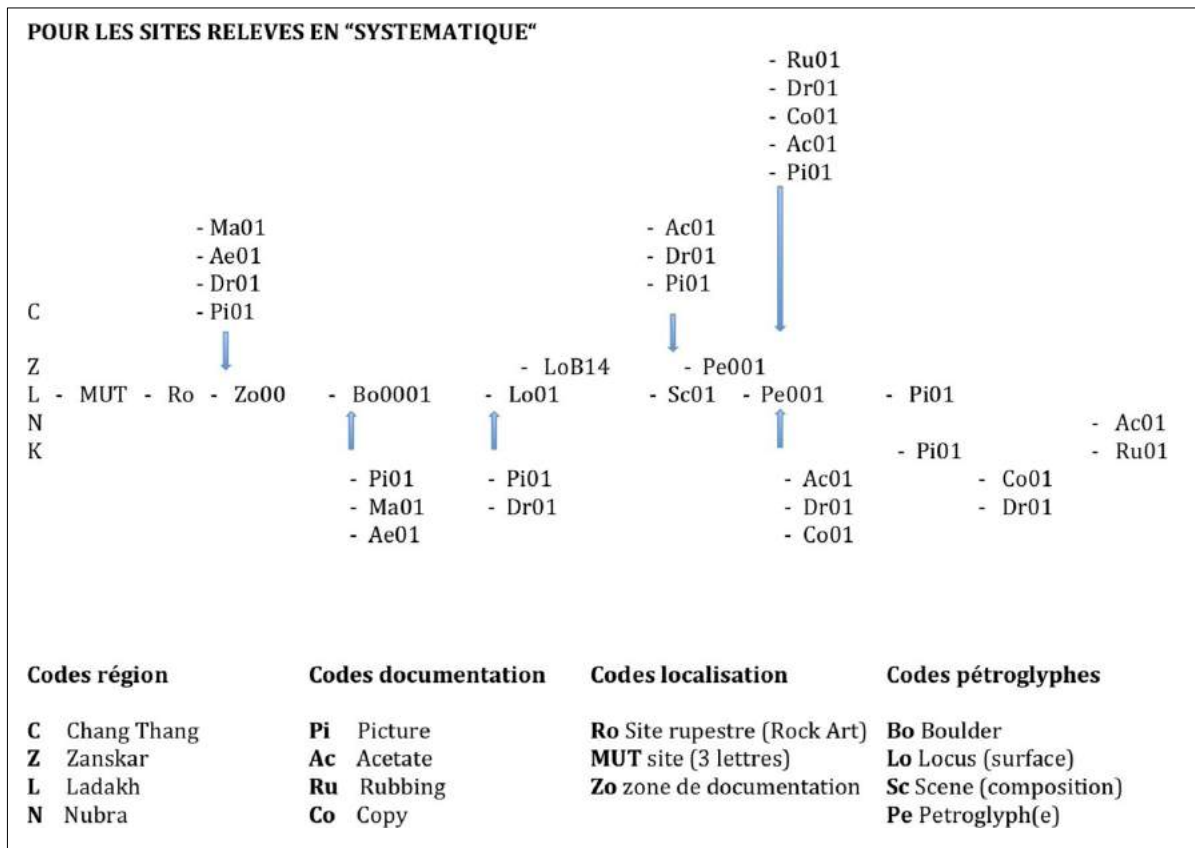


Fig. 5 - Detail of the code system developed and used in the HiRADa database for systematically surveyed sites ©MAFIL.

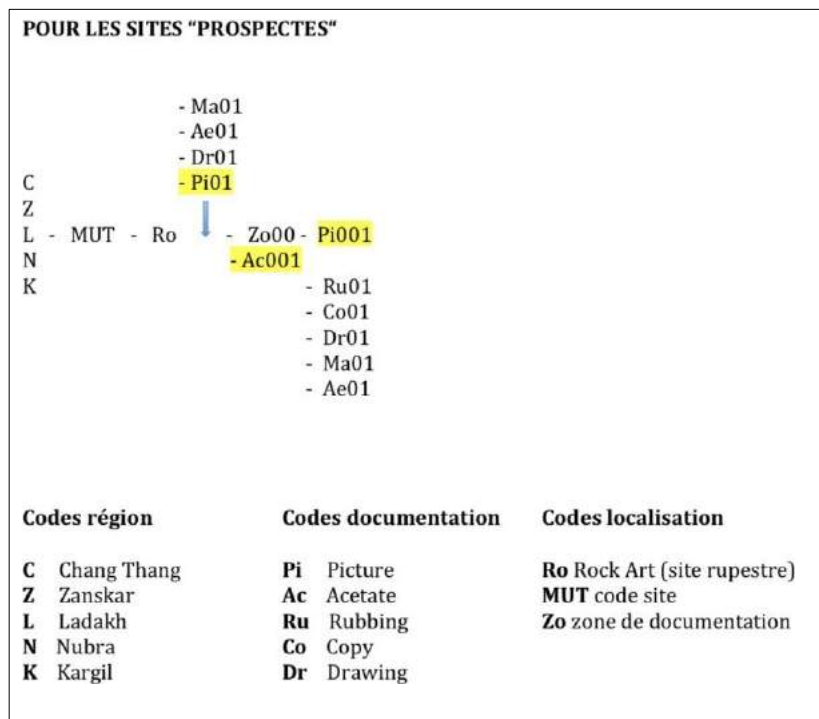


Fig. 6 - Detail of the code system developed and used in the HiRADa database for surveyed sites ©MAFIL.

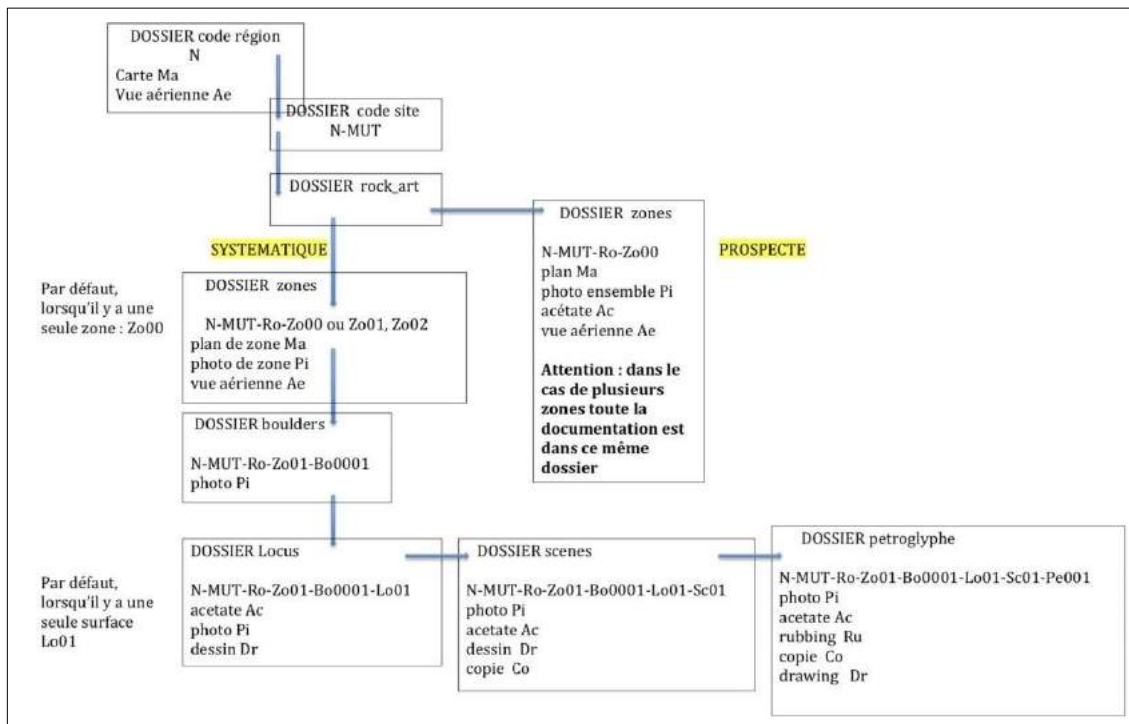


Fig. 7 - Diagram of the visual archive classification tree in the HiRADa database

©MAFIL.

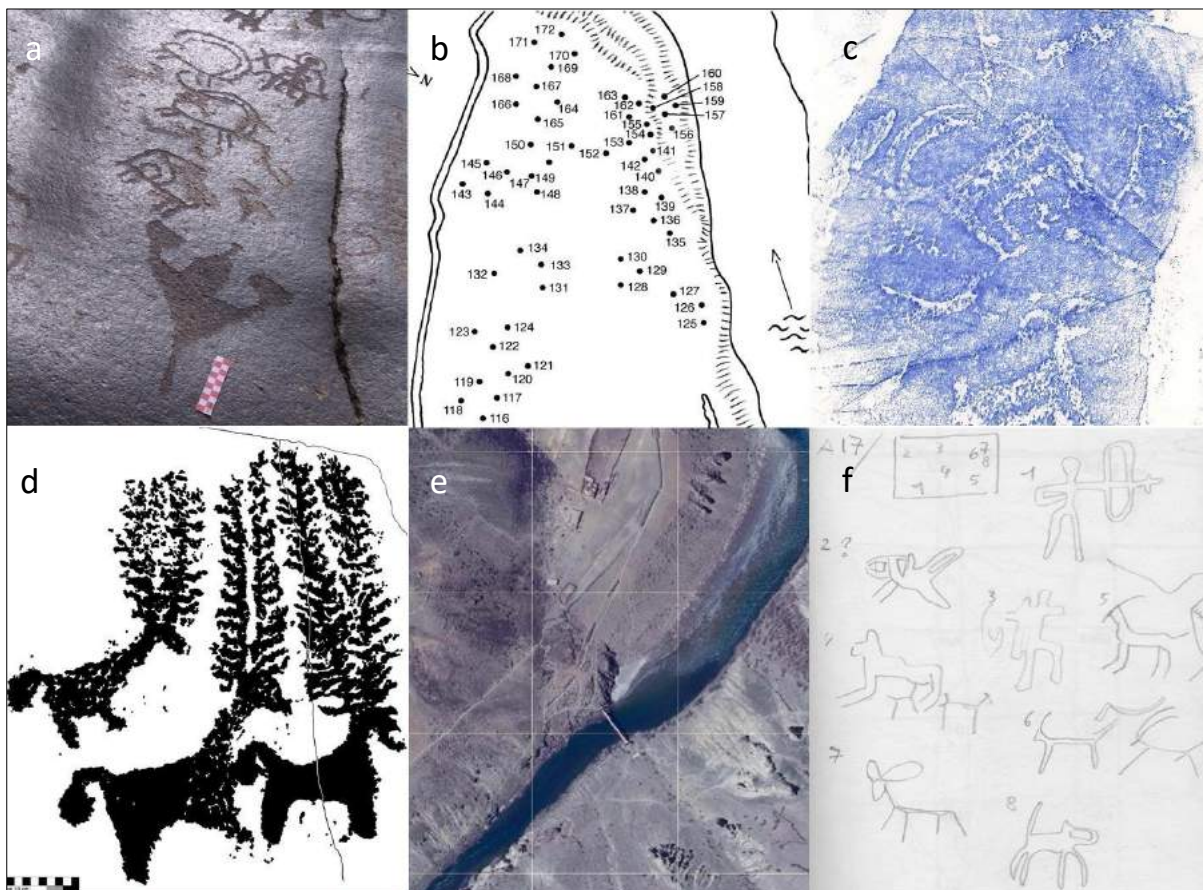


Fig. 8 - Different types of visual archive in the HiRADa database: a - digital photograph, b – plan, c - embossing, d - acetate transfer, e - satellite images, f - drawings ©MAFIL.

III. Project development in 2020

Since February 2019, as Laurianne Bruneau is no longer able to work on this project, Martin Vernier has been coordinating it, working in collaboration with Ani Danielyan, archaeologist and rock art specialist (associate researcher, ArScAn / UMR 7041, "Archaeology of Central Asia" team, Nanterre)¹.

In order to complete the merger of the two databases, the work of the two researchers consisted firstly of entering and processing the data from the "*Ladakh Rock Art Project: 1996-2006*" database:

- A total of 131 sites were considered. During the 2020 work sessions, data from 80 sites was processed and entered into the database in Excel (the other 51 sites had been processed by 1st January 2020). Each site has 20 referencing fields;
- A total of 191 areas were considered, 143 of which had been systematically surveyed and 48 of which had only been prospected. During the 2020 work sessions, data from 143 areas was entered into the database in Excel (the other 48 areas had been processed by 1st January 2020). Each zone has 5 reference fields;
- A total of 3156 *loci* (areas) were considered. Data from 1,644 locations was processed and entered into the database in Excel (the other 1,512 locations had been processed by 1st January 2020). Each locus has 7 referencing fields;
- A total of 14,862 petroglyphs were considered. The data relating to 6090 petroglyphs was processed and entered into the database in Excel (the other 8772 petroglyphs had been processed by 1st January 2020). Each petroglyph has 19 reference fields;
- 899 new images have been added to the visual corpus. These are photos of engraved surfaces, with each petroglyph numbered using a computer graphics tool.

In addition, the levels and information fields in the HiRADa database spreadsheets have been harmonised and completed.

Health conditions linked to COVID-19 prevented face-to-face work as in previous years. From March 2020 onwards, the sessions devoted to the database were therefore carried out from home. It is interesting to note that this new way of working, in addition to its economic appeal, has significantly increased the productivity rate (number of weekly entries).

¹ Title of her doctoral thesis at the University of Paris 1 Panthéon-Sorbonne (École Doctorale d'Archéologie / ED 112; part of the "Archéologie de l'Asie centrale" team, ArScAn / UMR 7041) defended in February 2020: "L'art rupestre protohistorique de l'Arménie : étude du site d'Ughtasar (région de Syunik)".

IV. Rock art survey manual

In parallel with the development of the database, the petroglyph thesaurus, established by L. Bruneau and M. Vernier in 2017, has been refined and completed. The controlled vocabulary, with 312 entries to date, forms the central corpus of the database's thesaurus.

Since 2019, MAFIL has undertaken the preparation of a rock art survey manual, associated with the database. Designed and developed from the database's thesaurus, this didactic work tool is intended to enable local third parties to document petroglyphs in the field in a format that can be directly integrated into the database. It is envisaged that it will be enriched by an abundance of iconography, illustrating the different aspects of the petroglyphs in the corpus studied (identification of motifs, styles, stylistic features, attributes, etc.), which will enable it to be used by as many people as possible.

V. Technical support

The CRCAO (UMR 8155) is providing technical support for the creation of the database. MAFIL is delighted to have the IT engineering support of Philippe Pons (research engineer at the CNRS, responsible for editing digital corpora, attached to the CRCAO / UMR 8155), thanks to whose skills the sustainability and optimisation of the work carried out are greatly enhanced.

Technical support from the CRCAO is also planned, via the skills of C. Thionois, a research engineer at the EPHE specialising in publishing issues, to produce the rock art survey manual.

Finally, it is envisaged that Abram Pointet (specialist in geographic information science EPFL, spatial analysis and cartographic representation, Microgis), a MAFIL collaborator, will contribute to the management of the interactive cartography of the database, the implementation of which will begin in 2021.

VI. Further developments

In the medium term, there are plans to integrate several datasets into the *Himalayan Rock Art Database*, in particular rock art data from the Spiti region (MoU being drawn up with the *Rock Art and Historical Society of Spiti*) and northern Afghanistan (Bourgeois legacy). The integration of rock art data from northern Pakistan is also envisaged, and steps have already been taken in this direction. In 2017, Laurianne Bruneau, Jason Neelis (Wilfrid Laurier University, Canada) and Murtaza Taj (Lahore University of Management Sciences, Pakistan) co-directed the *Upper Indus Petroglyphs and Inscriptions in Northern Pakistan - A*

*Partnership for Cultural Heritage Preservation and Promotion*² project as well as the *Rupestrian Landscapes* sub-project (IRIS-PSL Scripta) mentioned above. In this context of international collaboration, a dialogue was underway before L. Bruneau's accident, following which matters are on hold.



Fig. 9 - Map showing the areas under consideration for adding to the HiRADa database corpus: northern Pakistan (Gilgit, Baltistan, Swat, Chilas region) and Spiti in Himachal Pradesh.

©MAFIL / Vernier 2020.

OUTLOOK

The work underway to put the rock art database (HiRADa) online and then expand it will form an important part of the mission's future activities. Despite a largely redefined context, MAFIL wishes to continue its field activities in the Himalayas as soon as political and health conditions allow. In this context, it is hoped that field campaigns will be carried out in Ladakh and/or Spiti to add to the database.

² Project funded by a Partnership Development Grant from the Social Sciences and Humanities Research Council, Government of Canada for the period 2017-2020.

RESEARCH DISSEMINATION

The situation described above means that MAFIL has not made any public statements in 2019 and 2020. MAFIL's internet platform (www.mafil.org) was also unable to be updated. However, the fees for the hosting and domain name of the site were paid, in order to maintain visibility.

Three publications are to the credit of MAFIL members for 2019 and 2020:

- Bruneau L. 2018: " À la mémoire du Prof. Dr. Harald Hauptmann", *Journal of Asian Civilizations*, vol. 41 no 2, December 2018, p. 189-191.
- Bruneau L. 2020: "In between Kashmir and Xinjiang: Buddhist remains of the Nubra region. Results of the Franco-Indian Archaeological Mission in Ladakh (Abstract)", in: *The visual culture of Tibet and the Himalayas, Studies in Tibetan art, archaeology, architecture, cinema, and photography from pre-history to the 21st century*, Proceedings of the Fourteenth Seminar of the International Association for Tibetan Studies PIATS 2016, Bergen, 2016.
- Vernier M. 2020: "Fertilissimi sunt auri Dardae, setae vero et argenti, notes on some ancient open-air gold mining sites in Ladakh", *EMSCAT - Études mongoles et sibériennes, centrasiatiques et tibétaines*, n° 51, online since 09 December 2020. URL: <http://journals.openedition.org/emscat/4647>; DOI : <https://doi.org/10.4000/emscat.4647>