

# An introduction: the Swat Valley and Florence

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*opposite page*

**Fig. 1**  
Amluk-dara (Swat),  
main Stupa.  
Photo By  
Luca M. Olivieri

It was Roberto Sabelli who conceived — exactly three years ago — the idea of publishing in the Florentine journal «Restauro Archeologico» the various contributions produced by the second ISCR project on Gandhara directed by Simona Pannuzi (the report on the first ISCR project was published in Pannuzi (ed.) 2015).

I liked the idea, also to acknowledge the contributions that teams from Florence (see also Di Giulio et al. 2018) and Florence University have been giving to the research of the Italian Archaeological Mission in the Swat valley. On the other side, the Mission, that had just contributed to the first issue of «Restauro Archeologico» (Olivieri 2014), have had already collaborated twenty years earlier with Luigi Marino and *Restauro Architettonico* (Olivieri 1996), and with the Cooperativa Archeologia of Florence.

Roberto Sabelli and his team (with his wife Rita Galanti, Anna Mannari, and other members of the Cooperativa) started working in Swat in 1992. In that year, all together, we carried out the topographical and archaeological survey of the area of the ancient city of Barikot (Olivieri 2003) and the first fieldwork on fortified structures and settlements of late ancient and early-Medieval Swat (c. 7th-10th century CE) (published in Olivieri 1996).

In the following three years, Roberto and his team continued working at a steady pace in Swat in a project directed by Domenico Faccenna (the unforgettable 'Direttore' of the Mission) focusing on the survey and documentation of the major Buddhist monuments (stupas and viharas/shrines) of the valley. These majestic structures, true architectural landmarks of the region, are all dated to the golden age of Gandharan art and architecture, i.e. the first four centuries of the current era (with the exception of Butkara I, whose Main Stupa was founded c. 250 BCE). The work was eventually published by Domenico Faccenna in a posthumous monography (Faccenna and Spagnesi 2014).

In 1993 literally Roberto 'fell in love' with the Main Stupa of one Buddhist sanctuary, 5 Km from Barikot: Amluk-dara. In following years we talked at length about that site and its problematics. Therefore, in 2012 — I was busy



**Fig. 2**  
A view of the Swat valley  
(view from SW). In the  
centre the Barikot hill.  
Photo by Luca M. Olivieri.



in the excavation of Amluk-dara — I asked him to join me in Swat. A specific Memorandum of Understanding was drafted and signed by our Mission and Roberto's Department at the University of Florence. On that year we studied together a possible conservation project for the site. Meanwhile he helped us to find the right methodological approach for the conservation of another stupa at Saidu Sharif I, and other sites in Swat, including the restoration of the missing volumes at the colossal rock-carving of the Buddha of Jahanabad (see Olivieri 2014). Eventually, the conservation project at Amluk-dara became the topic of a thesis entrusted by Roberto Sabelli to Gaia Di Pierro (*Conservazione e valorizzazione dell'architettura devozionale del Buddismo nella Valle dello Swat (Pakistan): una proposta progettuale*).

One issue particularly attracted both of us. The topic was production and processing of the so-called 'stucco' (calcite-based), and its association to



*kanjur* (an organogenic limestone) which are both extensively utilized in the late (post-3rd century AD) decoration of the Buddhist stupas in Swat, including Amluk-dara. The results of our discussion and studies should have been elaborated — on the basis of the results of the petrographic and chemical analysis — in a joint contribution for this issue of «*Restauro Archeologico*». Unfortunately our study was not completed in time.

We were both intrigued by the presence of these new materials in a region where schist is widely available, and where the latter was the only material utilized for sculpture and decoration especially in the first two centuries AD (when stucco was randomly used only for the finishing).

*Kanjur*, or *kankar*, is not local in Swat, and it is quarried and imported from the South-eastern regions of Taxila, Swabi, and Salt Range, closer to the wide alluvial plateau of the Indus basin. This soft stone, that can be easily cut and carved, totally replaced schist, and was largely utilized for archi-

tectural parts (e.g. false brackets, capitals, pillars and semi-columns, modillions, mouldings, friezes, etc.) notwithstanding its texture does not allow the carving to catch the accuracy and finesse standards that Gandharan artists were used to.

Actually, the *kanjur* elements were just the 'skeleton' of the decoration, as they were completed by heavy layers of stucco plasters, which were adding to them volumes, details, and polichromy.

Not only lime based stucco is the natural complement of *kanjur*, but it is also the best one for its cost-effectiveness. J. Marshall, Director General of the Archaeological Survey of India, described carefully the local production system of lime in contemporary British India.

For making lime, stone or kankar is burned in kilns [and then] slaked  
(Marshall 1923: 48).

In fact, not only lime-based stucco can be obtained from *kanjur*, but, it might have been even the natural by-product of *kanjur* stone quarrying, cutting and carving. It was evident to Roberto and me — we were together in 2012 at the dig — that what Marshall had pointed out for contemporary lime production might have been tested for ancient times at Amluk-dara.

In 2012 I had managed to obtain from the Pakistani archaeological authorities the permit for the export of several samples for destructive analysis. Therefore, Roberto carried out on that year a series of dedicated samplings, especially at Amluk-dara. Other samples were taken at Barikot and other sites. Once the samples were exported, they were handed-over to various Institutions, including the University of Florence, ISCR, and the University of Pisa. The reports on some of these analysis are presented in the following pages (Rosa, Theye, Pannuzi; Bonaduce, et al.).

(LMO)

While these analysis and studies were in progress, Roberto Sabelli (then the Chief Editor of *RA*) proposed the idea to publish together all the reports in a issue of *Restaurazione Archeologica*. The idea was immediately accepted with enthusiasm at our Institute (ISCR). ISCR had already started an important research on Gandharan sculptures, focusing on polichromy and technology (both on schist sculpture and stucco architectural decoration) (Pannuzi (ed.) 2015).

Gandharan art has been so far considered, with important exceptions of course, especially from the point of view of fine arts and religious studies. Its intrinsic elements of interest can be instead various and unexpected. They can also capture the appeal of the general public especially for their links and their implications, which are reflected in a crucial historical period (the first half of the 1st millennium) from the Mediterranean to East Asia.

To all of us the possibility of sharing and exchanging ideas with Roberto's team appeared stimulating since the beginning. While we were carrying out together several meetings aimed at creating a suitable table of

contents for the volume, we were aware that we were potentially laying the path for a future development of the study. The field — up to a certain extent — is new, as demonstrated by the attention dedicated to our preliminary results in International Conferences and Workshops.

Roberto's idea is now real, but we hope that such collaboration will not end up with the publication of this issue. We hope that all the specialists involved in this research will have the possibility to keep on collaborating, and contributing on a new phase of the research: from the study of the materials, possibly to restoration projects.

(SP)

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