-1-

Forts of Swat
Military Architecture at the Time of the Mianguls
Domenico Faccenna dicatum

Francesco Martore
Luca M. Olivieri

Abstract
This brief essay presents a preliminary assessment of the available data on the military architecture (c. 1920-1960) of the former Yusufzai State of Swat. The research material is formed by original notes and photographs by Domenico Faccenna, unpublished photos from the Miangul Archive, and field notes and original drawings by the authors. The essay is also meant to pay tribute to the memory of Domenico Faccenna († 2008), leader of the Italian Archaeological Mission from 1956 to 1995. The authors cooperated to the examination of this material which, although incomplete, may represent the initial step of a new theme of research on the military and civil architecture of the Swat State.

Introduction
By means of this brief essay the authors intend to partly fill a gap in the knowledge of Swat’s history and culture ante-1969\(^1\), as well as to pay a minimal tribute to the memory of Domenico Faccenna, the unforgettable leader of the Italian Archaeological Mission from 1956 to 1995 (Olivieri 2006: 38) as the tenth anniversary of his demise (2008) is drawing near. Faccenna loved the Swat forts, at a time when their remains were still a remarkable spectacle. Together with his colleague Ashraf Khan (former Director of TIAC), curator of the Swat Museum at the time, he hoped to save Kotah Fort from the destruction that it was doomed to suffer by the end of the 1990s. This paper stems from the rediscovery of a small dossier that Faccenna had handed over to one of the authors (Olivieri). In this

\(^1\) In 1969 the Yusufzai State of Swat was annexed to Pakistan (Sultan-i-Rome 2008). The Yusufzai State of Swat was founded by Abdul Wadud Miangul (the Wali or Badshah) in 1917. From 1949 to 1969 the State was wisely governed by his son, Miangul Jahanzeb, the last Wali of Swat. For the remarkable and successful political experiment of the Swat State, see Olivieri (2006, 2015).
dossier Domenico had attentively collected a few written notes and photographs; later Olivieri added, besides his own field notes, more photos – courtesy of the Miangul family whom we wish to sincerely thank here².

**The Forts³**

Being under the command of officials (Subedar/Jamadar/Hawaldar⁴) – the guards were called *qalawals* – the forts were meant to provide extensive control of the State territory. Their estimated number amounts to 80 forts⁵, each equipped with a telephone⁶. Every fort had a scribe whose duty was to write daily reports, whereas the *qalawals’* task was to collect taxes and guarantee security. The officers and guards used to live in the forts (or in the barracks outside the forts) together with their families. Archival photographs provide clear evidence of their family life (see Figs. 19, 21 and 24). The forts were under the jurisdiction of the Sipah Salar, the chief of Swat State’s militia until 1958, when they were detached from that authority and assigned to the police Commander (who generally remained in charge for three years), and four Majors (each overseeing many forts). Photographic records prove that the downgrading of their roles corresponded to the formal and structural reshaping of the forts after 1956-1958. The forts were downgraded to *thanas* (i.e. police stations) and controlled by a Thanadar.

---

² The authors cooperated in the examination of this material, which over time became more sizeable, though remaining incomplete. However, only one (Martore) has the merit of providing the most important technical data coupled with the unique skills of his illustrations. Thanks to his mastery and his complex and detailed architectural surveys on the Swat Buddhist sacred areas, Francesco Martore became the favourite draftsman (practically the “right-hand” man) of Domenico Faccenna (note by L.M.O.).

³ The role of the Swat forts of the Miangul era has already been discussed by the most eminent expert of this historical period, Prof. Sultan-i-Rome who has dedicated fundamental pages to the functions of the forts, or *qalas* (Sultan-i-Rome 2008: 187-189).

⁴ Presumably the rank varied according to the size and importance of the fort.

⁵ Depending on the source, their number may vary from 60 to 80 (Sultan-i-Rome 2008: 187, notes 107-109).

⁶ Certainly after 1933, when we know that the telephone line only worked sporadically and only reached Saidu Sharif from Malakand (Olivieri 2015: 166, 210). About the post-1947 situation, see Sultan-i-Rome (2008: 241).
Fig. 1. General map of the Swat State
(with indication of forts [and typologies] and bridges)
The Kotah fort offers a vivid image of this downgrading: back in 1933 Kotah was a large *qala*; then it was demolished and built anew in 1956 in the smaller size of a *thana* (see Catalogue; these dates are obtained from the original captions of the pictures). In our catalogue and in the map (Fig. 1) we see: large forts (Sardar, Kotah, Besham, Miandam, Saidu) and small forts (Kotah again, Qala, and Churrai); evidence of a formal change of status (Kotah); mountain and village forts (Lilonai, Owlan-dheri); forts located on a settlement plain (Saidu) and along the communication routes (Churrai, Khwazakhela, Daggar); forts that were heavily restored or built in a British military architecture fashion (Ghazikot). Some forts are in the sources (and in our memory) but not in our documentation (Besham and Sardar, Lilonai, Arkot Qala, Paitai, and maybe Nall). This paper is, as one can see, an incomplete and undoubtedly preliminary work that aims to promote further study, possibly including also other kinds of civil buildings from the Miangul period, such as bridges, schools, dispensaries and guesthouses.

**Building Features**

The forts had a mixed structure combining dry stone sequences that were about 70-75 cm high and with a variable depth (ranging from 1 m for the walls, to 35-40 cm for the towers’ terminal) (Fig. 2). On top of the stones there was a wooden framework; it ran horizontally over the entire surface and was wedged into the corners.

The beams were approximately 12-15 cm high and 20-25 cm thick. Crosspieces were placed at more or less regular intervals over these features and beams.

---

7 In 1995 the Sardar Fort was still entirely visible and functioning; in 2006 the ruins of the Besham Fort were still visible (Olivieri, pers. comm.).
8 Arkot Qala was described by Giuseppe Tucci (as “Arkot Qila” in Tucci 1958: 320). Concerning the fort at Nall, we take this occasion to correct an omission in Olivieri 2015: Document 286 (Olivieri 2015: 140, 228), a letter from the Badshah of Swat to the Political Agent of Malakand (dated May 27, 1926) was written at “Upper Swat, Camp at Nall (fort)”. Map 1 annexed to Stein 1930 locates the fort just in front of Khwazakhela on the right hand side of the Swat River. This fort is probably the one that in the Catalogue, following the caption on the original photo, is called “Upper Swat”.
9 There are no studies on this subject; a short note about the post-1947 buildings is in Marati and Vassallo (2013: 17-26, 52).
10 As a measurement parameter, I took from a photograph the height of a young boy (about 1 m) standing in front of the Kotah Fort gate (note by F.M.).
elements, tying together both the internal and the external framework. This provided a sort of flat level area serving both to support the weight of the wall and to function as a joint that took up any thrusts caused by seismic tremors – a very frequent event in this area (Figs. 3 and 4).

The forts shared a common design: a square plan equipped with four corner towers. In some cases they had an outer fortified perimeter that reached a much lower height than the fort itself, although with an identical outline.

It is interesting to compare the forts with the building design of bridges from the same period. These structures were made of the same kind of materials as those utilized to build the forts. The bridge’s parapets consisted of alternating dry stones and wooden beams into which three sequences of coupled square beams with growing (or progressively projecting) height were inserted (Figs. 5 and 6).

Between the tied beams, robust crosspieces protruded from the beams’ profile. These crossbeams had holes allowing the insertion of blocking elements such as solid wooden wedges. Crosspieces and vertical poles were placed upon the last beams in order to take the bridge to the access level\textsuperscript{11}.

\textsuperscript{11} The planking level of the bridge consisted of coupled beams that ran parallel from one side of the passage to the other; upon these beams a series of thick planks were laid to build the floor. Railings were set on this planking and maintained in a vertical position via crosspieces (the planks holding these crosspieces protruded laterally, thus allowing a solid support).
Another model of a timber bridge practically copied the framework of the iron bridges: two parallel beams fixed onto a solid structure that was regularly fixed to the bottom of the stream (Figs. 7 and 8). The poles composing the piers were located at regular intervals and a complex structure of iron joints tied the poles to the wooden framework. Moreover, planking level and railing were placed upon the beams.
Descriptive Catalogue

*Kotah Fort* (post-1933) (Figs. 9-12)

Originally the fort had a massive structure. An additional defensive wall, 2 m high, stood on the main entrance side; an opening in the wall led to a sort of courtyard. This wall, built with the same technique as the fort, had a protective clay cap. On the other sides the steep terrain apparently worked as a deterrent. The off-center entrance was made of some kind of protruding “trilith” consisting of a wooden frame supporting a roof of big
planks covered with a 40 cm thick clay layer (Fig. 12). There were two turrets placed at each end of the wall, each 6.50 m high, composed of a quadrangular body (about 4.30 m high) and a protruding terrace (about 2.20 m high). Each wall of the terrace was provided with four loopholes affording a 360-degree view (Fig. 11). Each side of the fort measured 30 m in length, that is to say a 21 m long wall plus 4.5 m for each corner tower. The towers were about 18 m high and the walls about 7 m. The terraces of the towers were partly roofed with big planks coated with a thick layer of soil; each wall of the terrace was provided with four loopholes.

The walls were topped by a solid covering and have loopholes over the whole length; presumably some kind of corridor aimed to shelter soldiers from the elements as they accessed and used the loopholes (Fig. 10).

*Kotah Fort* (post-1956) (Figs. 13-15)

Its structure consisted of a square plan with just two quadrangular towers positioned at opposite corners of the fortification; the walls were about 5, 6 m high, and the towers exceeded 10 m. The front wall was approximately 13-25 m long. The entrance door was made of two heavy wooden shutters embedded in a thick framework; its opening (1.5 x 1.8-1.9 m high) was situated halfway between the corners on the front side.
The front tower was to the right of the entrance and measured 3.25 m circa on each side, protruding beyond the wall surface by about 1 m.

The lines of beams alternated every 70 cm with the squared stone parts. Between the 7th and 8th beams, every 1.5-2 m, the wall had a series of slits each about 10-12 cm wide; these spread over the whole height between the two beams and even for few centimeters beyond the 8th beam. Most likely the slits were defensive-offensive features and the wall decreased in thickness to 35-40 cm in order to create a walkable path all along its perimeter. Thus the perimeter wall was supposedly about 1 m thick. The slit alignment also extended over the towers and its sequence
was half of what it was on the walls: about 75 cm. The towers had multiple stories, three at least, and were topped by a partially roofed terrace (Fig. 15). The so-called parade ground was completely empty and the courtyard was small enough to allow the construction of compartments placed against the walls: primarily porticos as shelter for the soldiers.

Figs. 11-12. Loophole windows and main gate at Kotah Fort (1933)
Churrai Fort (Figs. 16, 17)
This building had a more complex defensive system due to the fact that there was an additional wall with corner towers surrounding the main body of the fort. The outer wall was about 2.5 m high and had a strong protruding protective clay cap; there was a door right in the middle of the wall.
Figs. 16-17. Churrai Fort (1930?) (Photo Courtesy Miangul Archive)

An external rung ladder allowed access to the unterraced roof, on top of the turrets. The walls of the fort’s internal body were about 13-15 m long and 9-10 m high. The towers measured 4-4.5 m on each side and were 17 m high. The ratio of the structural rows seems to have been much denser here, with a spacing of about 35-40 cm between the rows, whereas in
Kotah Fort it was about 70 cm. Also the crossbeam sequence was so much denser and the walls were probably made of stones mixed with a mortar made of clay and straw, a frequently used building material.

_Khwazakhela Fort (Fig. 18)_
This fort was located near the Swat River and consisted of a single quadrangular body with four corner towers. It was not easy to obtain useful data from just one photo, as the fort is barely visible because of the vegetation. The fort seems to have been built by using the common technique of alternating dry stone and wooden beams. The towers supposedly measured 4-5.5 m on each side with a height of about 14 m. Each wall was approximately 29 m long and 7-8 m high.

_Miandam Fort (Figs. 19, 20)_
The fort was located on the edge of an escarpment and had an asymmetrical vertical profile (e.g., the rear towers were 22.4 m high, whereas the front towers were 16.8 m reaching the same height from the ground). Also the walls had an asymmetrical profile and their plan view
measured 7-7.5 m; the corner towers measured 4.5 m on each side, and protruded about 1.5 m from the wall. Due to the small size of the fort, the parade ground was located outside of it over leveled ground where also the cantonment lay. The roof of the tower terraces appears complete and the towers had a single embrasure on each side.

*Owlan-dheri Fort* (Fig. 21)
The corner towers measured about 7 m on each side and were 26 m high. The walls were approximately 14 m high and 16 m long.
Fig. 21. Owlan-dheri Fort, Kana (1926)  
(Courtesy Miangul Archive)

Fig. 22. Qala Fort
Qala Fort (Gharai Fort?) (Fig. 22)
It is a small construction set on a rise near a river meander. The ground has been leveled by means of a structure made of stones and wooden beams. In plain view the towers were approximately 5.5 m long with a height of about 17.5 m; the walls between the towers were 13 m long and about 9.5 m high. The main door was about 1.3 m wide and 2.3 m high.

Wainai Fort (Fig. 23)
The fort was situated at the foot of a hill facing the plain. The rock spur on which it was built had been leveled by means of stones and soil. In plain view the towers measured approximately 4 x 4 m, with a height of about 16 m; the walls were about 18 m long and 10 m high.
Daggar Fort (Buner) (Fig. 24)
The towers measured about 4.50 x 4.50 m with a height of 14 m. The walls were approximately 12 m long and 8.50 high.

Upper Swat Fort (Nall?)\(^{12}\) (Fig. 25)
This fort built on a plain seems to have had a low body in front of the main side. On plan view the towers were supposedly 4-4.5 m long. The walls were approximately 16-18 m long and 12-14 m high.

Saidu Fort (Fig. 26)
The fort was located on the Swat River plain (at the same location where the Wadudia Hall was later built); its towers measured approximately 3.50 x 3.50 m with a height of 14.50 m. The walls were about 30 m long with a height of 8 m.

\(^{12}\) See fn. 8 above.
Fig. 25. Nall (?) Fort (1930?)
(Courtesy Miangul Archive)

Fig. 26. Saidu Fort (1930)
(Courtesy Miangul Archive)
References


