

## **The Bhutan-Swiss Archaeology Project**

### **The first excavation campaign at Drapham Dzong in Central Bhutan Administrative report**

Nagtsho Dorji, Eberhard Fischer and Namgyel Tshering

The Royal Government of Bhutan is highly aware that heritage sites form an integral part of the country's rich and ancient cultural heritage. Most of these sites date back to the 17<sup>th</sup> and 18<sup>th</sup> centuries and a few may even date back far earlier. But with very little recorded history by written documents, the development of these sites is rarely researched or documented. Since they form indisputable physical records of history through the ages, archaeology provides one of the most promising ways of extending our knowledge about the medieval period of Bhutan.

As a result, Bhutan and Switzerland jointly agreed in 2008 to undertake the first major archaeological endeavor ever to take place in Bhutan on a fortification structure in Central Bhutan which undoubtedly represents a historical and archaeological monument of great importance to Bhutan. The excavation and exploration of the spatial organization, function and social dimension of the ruins of Drapham Dzong under Choekhor Gewog of Bumthang Dzongkhag (District) will be one of the components of the three year «Bhutan-Swiss Archaeology Project». While the overall goal of this three year project (see also Annual report SLSA for 2007: 29–42) is to contribute towards strengthening and institutionalization of archaeology in Bhutan, the project will also help to strengthen the technical capacity of the Department of Culture in archaeology.

The three year Bhutan-Swiss Archaeology Project is jointly executed by the Ministry of Home and Cultural Affairs of the Royal Government of Bhutan and Helvetas, the Swiss Association for International Cooperation, in collaboration with the Swiss-

Fig. 1 The hill at Drapham Dzong,  
view from NNW  
Photograph: Valeria Wyler





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**Fig. 1a** The hill at Drapham Dzong, view looking down the mountains from NE  
Photograph: Jorge Osatinsky

**Fig. 2** Drapham Dzong, view from NW  
Photograph: Urs Lütolf

**Fig. 3** Opening ceremony at the beginning of the excavation  
Photograph: Valeria Wyler

**Fig. 3a** The excavation area at the beginning; view from the Utze, south-westward  
Photograph: Werner Meyer

**Fig. 4** Excavation works, zone E  
Photograph: Werner Meyer

**Fig. 5** Extraction of a rootstock, zone G  
Photograph: Werner Meyer

Liechtenstein Foundation for Archaeological Research Abroad (SLSA). It started off in August 2008 with the Department of Culture constructing basic housing and service facilities near the excavation site for the team consisting of a collective of approx. six Swiss archaeologists, three coordinators from SLSA and Helvetas and six local technical counterparts from the Division for Conservation of Heritage Sites, Bumthang and Mongar Dzongkhags (Districts). The camp, beautifully located at the foot of the fortified hillock of Drapham dzong on a large grazing ground for cattle and ponies, consisted of a U-shaped block of 6 tin-sheet roofed rooms, a small kitchen unit and several bathroom cubes. It was designed and the construction supervised by Sangay Kinga of the Department of Culture. Very rudimentary furniture, the equipment for kitchen and dining tent and the basic food-stuff were purchased in Thimpu by Namgyel Tshering, Head of Administration Helvetas, Jorrit Britschgi and Eberhard Fischer and then transported to the camp. Later on, all rooms were furnished with small iron stoves, locally produced after an Helvetas model which proved very important since the temperature



3



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fell down to minus 6 degrees centigrade during the nights in November and even lower in December. Sleeping bags, Swiss food, all technical equipment and locally unavailable archaeological tools necessary for excavation were shipped well in advance to the Helvetas office in Thimpu by sea cargo. All this equipment had to be transported via road to Jakar, from there on a farm road up to the Choekhor suspension bridge on a truck and finally on horseback and by local helpers to the campsite. Water was tapped from a small river and all camp installations were constructed after the Swiss archaeologists and their Bhutanese counterparts had arrived after a short stop-over in Thimpu and an overnight stay at the Swiss Guest House in Jakar where they were cordially welcomed by Fritz Maurer and his family.

The first implementation phase of the archaeological excavation of the main structures of Drapham Dzong's citadel started off with an elaborate traditional ceremony performed by the local monks on 15 October 2008. The ceremony was attended by the Governor of Bumthang District, dasho Karma Tsring, the team of Swiss archaeologists led by Professor Dr. Werner Meyer, representatives from Helvetas – coincidentally the board of directors including Helvetas President Peter Arbenz, former Resident Coordinator Werner Külling and the present Resident Coordinator Dr. Walter Roder – Dr. Eberhard Fischer, representative of SLSA and Dr. Jorrit Britschgi, Museum Rietberg Zurich, the local technical team and the local community were also present. This intense ceremony was performed in order to appease the local deities to safeguard the site and to pray for the successful implementation of the project and the overall well-being of people involved in the project. Of great importance was furthermore the address of dasho Karma Tsring, Governor of Bumthang, informing the local community about the importance of the archaeology project: Historic knowledge is to be gained, and treasures not hunted!



4



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**Fig. 6** Transportation of stones at the main castle

Photograph: Werner Meyer

**Fig. 7** The primary wall in zone K

Photograph: Werner Meyer

**Fig. 8** The excavation team's camp

Photograph: Valeria Wyler

**Fig. 9** Conservation works at the Utze

Photograph: Werner Meyer

**Fig. 10** Excavation-area at the end of the excavation, view from the Utze, south-westward

Photograph: Silvia Scheuerer

Since the ruins of Drapham Dzong, which lie on a rocky hill at an altitude of approximately 3000 meters, were overgrown by dense jungle, the foremost activity that followed the ceremony was to clear the site with the assistance of the local community. Besides the technical team from Switzerland and the Royal Government of Bhutan, the project employed as many local people as possible for the first implementation phase of the excavation. Their number depended on availability of local human resources, because the harvest season was not over in the entire valley. The main objective of encouraging the participation of the local community was to raise awareness and teach a sense of ownership among them for the Drapham Dzong archaeological project. Women, men and youngsters of nearby villages worked five days a week from 8 a.m. to 5 p.m. with tea and lunch breaks. Their payment corresponded to Government regulations. Twice on Sundays, the team organised feasts for all the local helpers on the campsite, hence providing the foodstuff for the women to cook while the men held a darts competition open to mixed teams (the Swiss greatly admired their friends' throwing skills!)

While excavating the site, Professor Werner Meyer provided succinct on-site training to the local technical counterparts on the methodology of excavation and documentation of the excavated site. Right from the beginning, Prof. Meyer decided upon the areas of excavation and allotted the work sections to his crew. A small tent was erected in the center of the citadel under a tree for shade and protection against rain



8



9

(we only encountered four days of rain during the seven week work period). The equipment was stored over night in the tent that also provided space for Prof. Meyer's drawing table and where meetings took place.

On October 23, 2008 the project successfully held its first Coordination Committee Meeting at the Drapham Dzong excavation site. This meeting which was attended by all the committee members discussed at length the administrative and financial aspect of the project followed by resolving issues related to the overall work plan and budget of the project.

It proved extremely gratifying that Prof. Dr. med Urs Lütolf, accompanied by his wife Beatrice, who had joined the team as «archaeological volunteers» for a short period of time, agreed to hold regular medical consultations for our local collaborators. Thanks to the generous gift of the Zurich University Hospital's pharmacy, he was able supply the local community with the appropriate medicines, which enhanced the goodwill the Swiss received.

Under the guidance of Prof. Werner Meyer, the joint team, supported by the local community workers, worked diligently from sunrise to sunset, which eventually resulted in excavating a large area of the walls on the upper part of the hill. These excavated walls already provide a hint of an important fortification, although neither a specific reference to a verified age determination nor a secure possibility of function exists. Since the project was successful in locating and excavating several pieces of charcoal, the radiocarbon analysis of these charcoal pieces will assist in determining the approximate age of this excavated fortification. Furthermore, the project excavated several potsherds, animal bones and ceramics which will be analysed at the Institute of History and Institute of Pre- and Protohistory of the University of Basel.

The archaeology project at Drapham Dzong, besides being the first major archaeological endeavor between Bhutan and Switzerland, provides an excellent opportunity to develop a partnership in an area outside of the conventional sectors of collaboration entered until today and also to further strengthen existing ties of friendship and cooperation between the peoples of Switzerland and Bhutan.

The visit of the Hon'ble Prime Minister to the site on December 12, 2008 after the completion of the first phase of the Bhutan-Swiss Archaeology Project has been very effective in drawing the people's and the Government's attention to the importance of archaeological excavations and the urgent need of the Royal Government of Bhutan to turn archaeology into a permanent field embedded in the framework of the administration.



10



Fig. 11 Group photograph at the beginning of the excavation  
Photograph: Peter Fux

11

The Swiss team consisted of:

University of Basel:

- Prof. Dr. Werner Meyer, Head Archaeologist
- Silvia Scheuerer, lic. phil. research associate
- Valeria Wyler, research assistant
- Jorge Osantinsky, research associate
- Gaby Weber Meyer, research associate
- Giovanni Antonio Buzzi, lecturer, Politecnico di Milano
- Yvonne Kocherhans, lic. phil. research associate and lecturer, University of Applied Sciences Northwestern Switzerland

Museum Rietberg Zürich:

- Dr. Eberhard Fischer, SLISA-Project Coordinator
- Peter Fux, lic. phil., Archaeologist
- Dr. Jorrit Britschgi, Project Manager
- Barbara Fischer, Educationalist

University Hospital Zürich:

- Prof. Dr. Urs M. Lütolf, Medical Director
- Beatrice Lütolf-Keller, Physical Therapist

The Bhutanese team consisted of:

- Nagtsho Dorji, DCHS, Project Coordinator
- Namgyel Tshering, Helvetas, Head of Administration
- Kuenga Wangmo, Cambridge University, Archaeologist
- Sangay Kinga, DCHS, Project Coordinator team and Cameraman
- Kiba Wangchuk, Mongar Dzongkhag, Engineer
- Nidup Gyeltshen, Bumthang Dzongkhag, Engineer
- Sangay Wangchuk, Bumthang Dzongkhag, Cultural Officer
- Tashi Lhendup, Conservator



## **Bhutan-Swiss Archaeology Project Drapham Dzong 08** **Results of the first excavation campaign (autumn 2008)**

Werner Meyer

### **1. Situation**

Site: District of Bumthang. Mountain spur on the left flank of the Chamkhar Chu valley.

N 27° 39' 15.4"

E 090° 45' 14.9"

Altitude: approx. 2930 m above sea level

The elongated castle hill decreases steeply in all directions. In some parts the bedrock emerges. The old valley path leads across the col on the eastern side of the castle hill.

The complete system consists topographically of two parts: a fortress on the hill and a (possibly) fortified settlement down in the valley on the south-eastern side. The fortress is divided into three different levels: a main castle and two lower situated baileys on the northern and the southern side of the main castle. A steep path with steps and flanked by towers connects the southern bailey with the settlement down in the valley.

The length of the fortress measures about 200 m. It lies approximately north-south.

### **2. Aims of the excavation 2008**

The first stage of the excavation in this three-year project accomplished the following goals:

- Concentration of the excavation activities on the main castle
- Initial documentation of the two baileys
- Points of investigation in the main castle:
  - stratigraphic situation
  - condition and quality of the brickwork
  - main concept of the architecture
  - functional allocation of the building sections
  - dating of the physical structure
  - develop a basis for conservation of the ruin
  - archaeological and excavation-technical education

### **3. Progression**

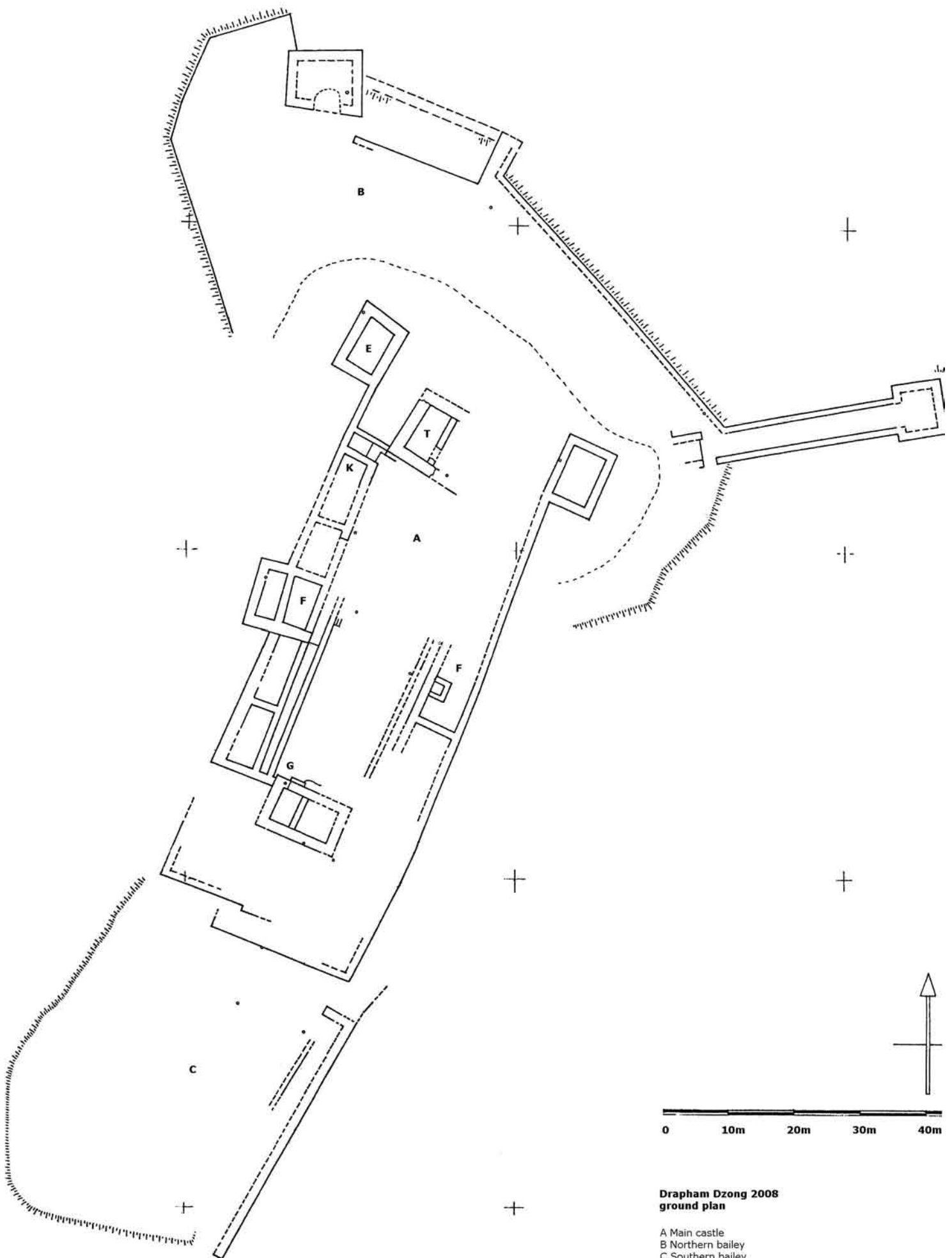
#### **3.1. Organisation**

The excavation team was accommodated in a specially built barrack-camp on the eastern slope of the castle hill.

The local workers (men and women) came from the proximity. Ten to twenty-five people were worked at the excavation site every day. It rained just once during the entire six weeks. Except for the frosty nights, the undertaking was very lucky with the weather.

The team was not afflicted by any serious illnesses or accidents. Prof. Dr. med. U. Lütolf kindly offered the locals medical consultation every evening. The state pharmacy of the canton of Zurich kindly placed the medicines at our disposal.

The excavation team had an excellent organisation base at the Swiss Guest House run by the family Maurer in Djakar.



**Drapham Dzong 2008  
ground plan**

A Main castle  
B Northern bailey  
C Southern bailey



Fig. 12 Ground plan

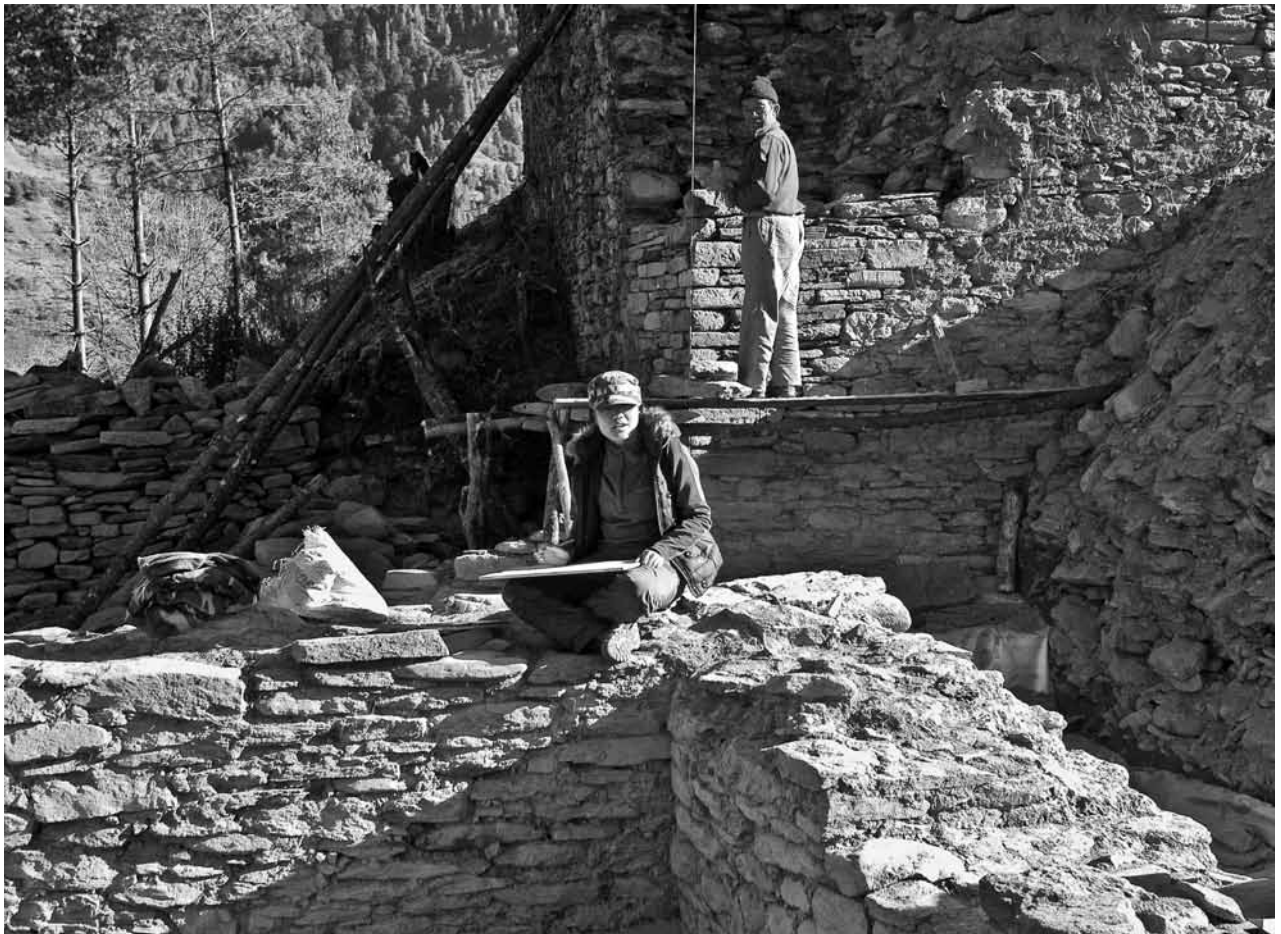
Fig. 13 Documentation works in zone K by Kuenga Wangmo, archaeologist from Bhutan  
Photograph: Silvia Scheuerer

### 3.2. Procedure of the excavation

At first, the entire hilltop (the area of the main castle) had to be cleared in order to carry out the archaeological excavation and accomplish the documentation. It made sense to start the excavation at different points spread over the whole area with regard to the uncertainty about the findings the hill would contain under the debris and the forest soil. We expected big masses of debris right from the very beginning. For that reason we didn't draw narrow search sections. Instead, we preferred to cover broad areas that could be extended if necessary. The rootstocks of big trees made the exploitation of the surface layers rather difficult particularly because these rootstocks were situated exactly on the coping of the walls where they had to be removed very carefully. Due to the rough terrain and its irregular and precipitous slopes, it was impossible to mark off the limits of the excavation in a rectangular raster system by stakes. We set up the grid of the excavation area in such a way that as many profile walls as possible were situated across the terrain and preferably joined rectangularly to the walls that were recognizable on the surface. A provisory measurement net consisting of triangles and polygons was measured and marked over the whole excavation area and the two baileys. The visible corners and angles over the entire area excavated to a small extent in order to get a better overview of the ground plan.

The different sections were named as zones using capital letters (E, F, G, L, K, T). Inside each zone the complexes of the layers were numbered (e.g. E3); the rooms were also numbered by means of lower case letters (e.g. Fb). Finally, the walls were numbered as well (e.g. W1ff).

A group of local engineers who are responsible for the preservation of the historical monuments were educated on excavation technique and documentation throughout the whole excavation.



## 4. Finds

### 4.1. Observations outside the excavation areas

#### 4.1.1. Southern bailey

Only a few remainders of the walls are visible on the plateau which measures approximately 50 × 40 m. The terrain seems to be levelled artificially. Traces of a curtain wall were detected on the south-eastern periphery. A gate construction is still visible at the southern end of this curtain wall that opens up to steps leading down to the settlement in the valley. A parallel wall to the curtain wall ranges from the periphery buildings inside the bailey. At the north-eastern corner of the plateau there are some remainders of a wall that could be part of a gate. The irregular and approx. 0.5 to 1 m deep hollows inside the plateau cannot be interpreted without excavation.

#### 4.1.2. Northern bailey

The northern bailey features an irregular plateau which is 110 m long and 40 m wide, and that is aligned in a north-south direction. Many traces of the walls can be recognised but they don't suit a coherent ground plan. The southern part of the plateau is covered by the debris that fell from the main castle.

At the northern and north-eastern end of the plateau scattered traces of walls are visible. These originate mainly from an irregular drawn curtain wall that marks the plateau circumference. In the northern part, the fundamentals of a rectangular tower are recognisable. A 25 m long rectangular building joins this tower.

At the eastern side of the plateau there are some remainders of a projected rectangular tower that is connected to the curtain wall by means of an approx. 30 m long closed corridor.

Traces from buildings inside the plateau cannot be further interpreted without excavation.

#### 4.1.3. Main castle

The north-eastern corner of the main castle is mostly covered by huge amounts of debris. The shape of the eastern part of the Utze isn't recognisable on the surface anymore, as goes for the northern end of the eastern wing of the long building.

The contour of a tower in the corner (analogue to the tower in the northern corner in zone E) is visible. The long eastern curtain wall that is visible up to the south-eastern corner branches off from this tower. Whether a connecting wall between the two towers in the northern corners and the Utze exists or not, remains unclear.

The southern wing of the main castle that slopes steeply upwards from the southern bailey is also covered by debris. The natural rock is visible there. The visible remainders of the walls belong to the partial curtain wall. Because they are built in two parallel lines, this could in fact refer to a gate construction. Only the wall copings are visible. Without any excavation the dimensions of the walls cannot be defined.

Fig. 14 View from the southern bailey towards the main castle  
Photograph: Werner Meyer

## 4.2. The findings during the excavation at the main castle

### 4.2.1. General

#### *Stratigraphy*

The whole area is covered by a forest humus layer with a dense root system. Underneath this layer, huge amounts of debris pile up to approx. 5 m. The debris can be divided into a primary and secondary classification. The secondary debris originates from the degradation of the walls and consists of original building material such as wall-stones and loam. Small pieces of carbonised wood and burnt red loam can also be found in this secondary debris here. The primary debris originates from the period shortly after the castle was deserted and mainly consists of the loam from the intermediate floors and plaster on the walls. This loam features burn marks having different dimensions. The settlement layers are very thin (approx. 2 to 10 cm) and include very few findings (ceramics and animal bones). Several settlement layers originate from collapsed floors that used to lie above the existing rooms at ground level. In the lower layers, no findings were found whatsoever. This indicates that some land fillings were carried out during construction in order to flatten the terrain. We weren't able to advance as far as the natural ground in all excavation areas. As far as we know, this natural ground consists of natural rock and yellow loam. The origin of this loam has yet to be clarified.

#### *Brickwork*

The walls consist of stones broken to different sizes. These walls are filled with a large amount of round stones. Most of the stones derive from the close surroundings (pebbles from the river and debris from the moraine). While stones were often broken off the natural rock on the hill (containing quartz), the castle hill and its rocky underground were not used as a stone pit. The quality of the stones varies to different extents. The wall stones are embedded in a yellow sandy loam. Some of the walls, especially those of Utze, were severely damaged by fire (cracks, heat damage). Because the walls in the corner are interlocked in the basement only and not connected in the upper parts, it is not possible to conclude any results about the history of the building regarding the vertical joint lines. The entire construction consists of many wooden elements (framing of the wall openings, door and window lintels, ceilings, abutments, partition walls, roof constructions). After the damage to the lintels by fire or decay, characteristic collapse damage appeared in the brickwork. The square recesses in the brickwork







Fig. 15 Window case with collapsed lintel in zone E

Photograph: Werner Meyer

15

(approx. 10 by 10 cm and approx. 30 cm deep) were used to brace the scaffolding. The remains of wood we found in these recesses are suitable for radiocarbon dating but unfortunately not large enough for a dendrochronological analyse. Some parts of the wall, mainly in the corners and on the wall copings, show clear traces of damage to the brickwork, intentionally inflicted by human activities.

#### *Floors*

Until now, we found two types of artificially built floors. The first type is a flagged floor. The flagstones are irregularly shaped but very carefully tiled with little space in between. This type was used at ground level, e.g. in the central inner courtyard. The second type is an approx. 25 cm thick and multilayered loam floor which features small round pebbles of an average diameter of 3 cm. This type of floor was found in situ or parts of it in the primary debris from broken down upper floors. The intermediate floors were supported by parallel wooden beams. Their position was defined due to the putlog holes in the brickwork.

#### *Concept of the ground plan*

The main castle is divided into different buildings located in a more or less rectangular way around an inner courtyard. So far the buildings can be distinguished: a western building wing (zone F west, G west, K) and an eastern building wing (zone F east). Both buildings had a small corridor on the side of the courtyard. Two towers are situated at the north-eastern and the northern corner (zone E), a big tower at the northern end of the long axis (Utze, zone T) and a smaller tower in the southern part (zone G). The entrance is presumably on the southern slope of the hill, where archaeological excavations weren't carried out. As the current visible putlog holes show, another one or two floors must exist under the debris.

#### 4.2.2. Zone E (tower in the northern corner)

The northern half of the tower was excavated (room Ea). In the soil we found an unexpectedly large amount of brickwork. Five arrow loops appeared with small recesses behind them. We were able to completely uncover three of them. The interior of the tower was mainly filled with secondary debris. A burnt layer with remainders of beams must originate from a demolished upper floor. For the moment being, it was impossible to approach the ground level.

Fig. 16 NW view to the northern tower in the corner, zone E

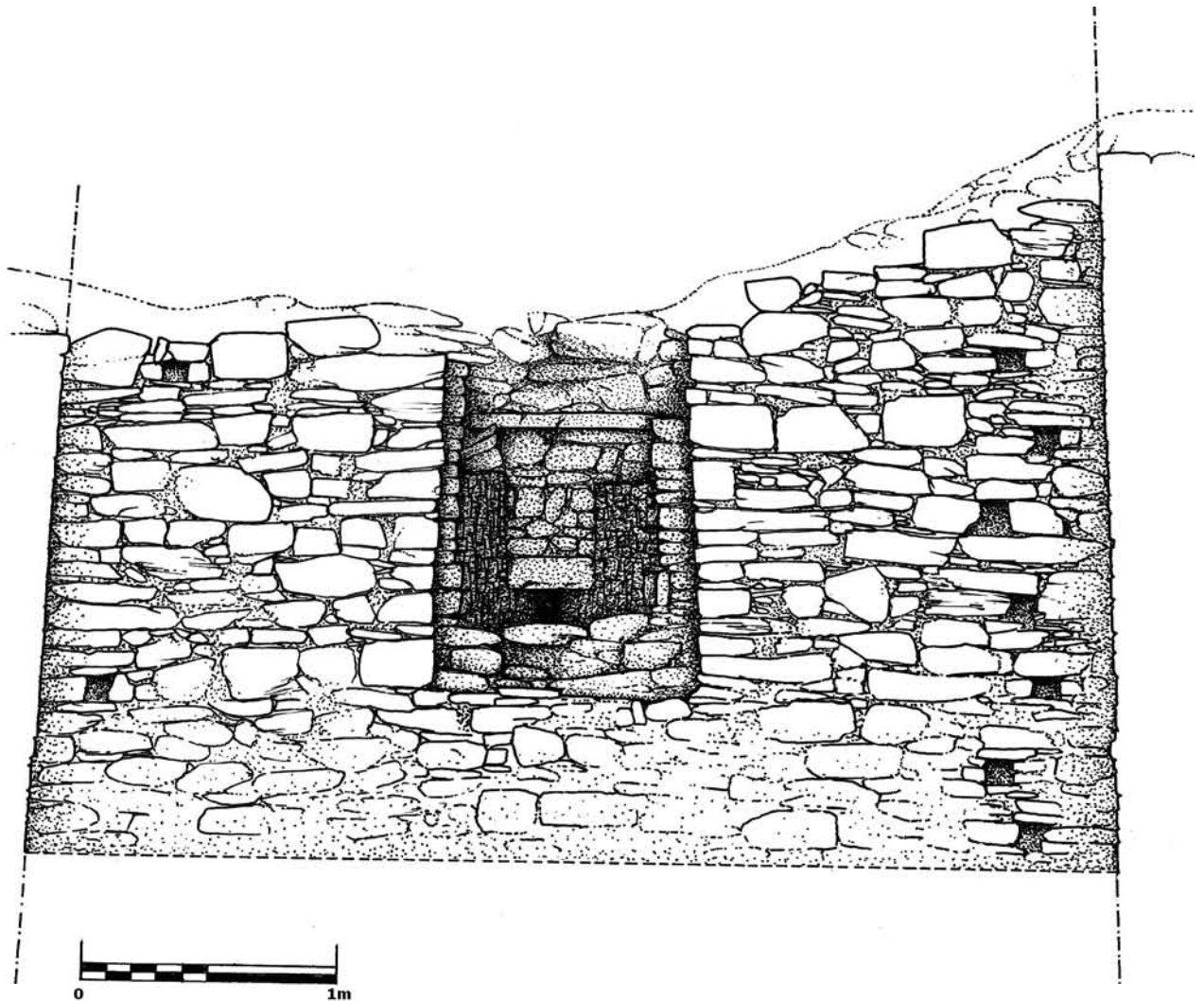
Photograph: Werner Meyer

Fig. 17 North-western tower in the corner zone E, wall W1a with arrow loop

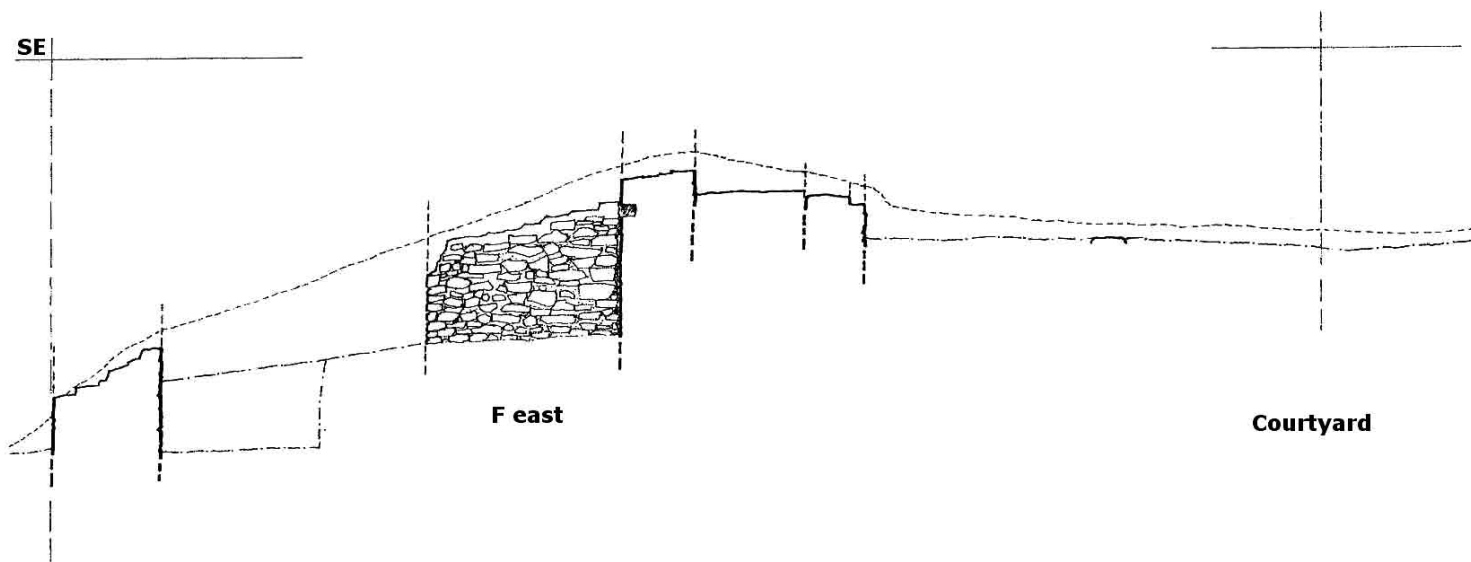
Drawing: Giovanni Buzzi



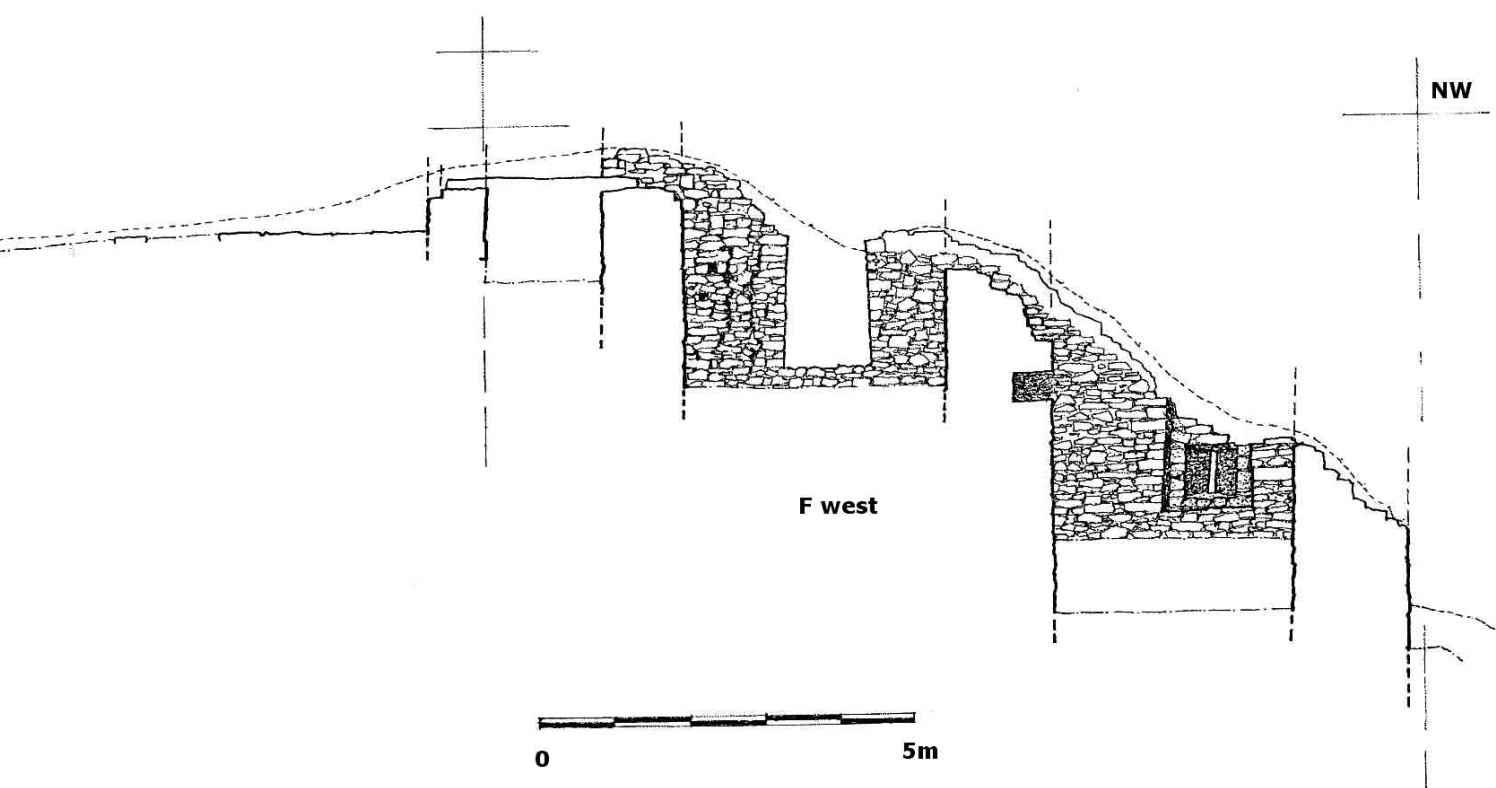
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17







**Drapham Dzong 2008  
section - zone F**

Fig. 18 Section SE-NW through the main castle  
in zone F

Drawing: Werner Meyer

#### 4.2.3. Zone F west (middle part of the western building wing)

We produced a coherent profile (2.5 m wide) across the middle section of the main castle. This section was extended to the western and eastern areas due to the large amount of findings. To extend the section also in the middle part (Fe) was not necessary because we reached directly under an about 30 cm deep forest floor the niveau of the inner courtyard. It wasn't necessary to extend the excavation to the middle part (Fe) because of the fact that we managed to get 30 cm under the surface of the inner courtyard level.

The western part of the zone F passes through different rooms that belong to the oblong western building wing. During the excavation, walls of an unexpected height appeared. The entire architectural context can only be concluded after the full excavation of this building wing has been completed. At present, a projected tower from the curtain wall with arrow loops is recognisable (room Fc).

The different rooms (Fa, Fb, Fc, Fd) were completely full of secondary debris. Under the secondary debris there was also primary debris with burnt remainders. It was impossible to reach the ground level within the whole area. The settlement layer in the rooms Fb and Fc with animal bones and ceramic findings seemed to be demolished from an upper floor.

Towards the inner courtyard, we discovered a small corridor (room Fa). The original ground level of this small corridor consisted of a dense loam packing situated on a filling or a beam construction. Three steps led from the lower inner courtyard up to the level of this corridor. The courtyard itself was flagged with no settlement layer on top.

#### 4.2.4. Zone F east (middle part of the eastern building wing)

The brickwork discovered in zone F east indicates a different ground plan concept like the western building wing. Identical to the other side, a narrow corridor with a slightly elevated loam level is located in the inner courtyard (room Fg). The inner section of the eastern building wing was rather different, though. Firstly, there was no projected tower. A small square wall (room Fi) traces the inner side of the longitudinal wall alongside the courtyard. The function of this square wall is not yet defined. It ascends into a larger room (Fh) that is confined to the east by the curtain wall of the main castle and to the south by a transverse wall. Here, the ground level was not visible. Putlog holes on the inner side of the longitudinal wall indicate that this eastern building wing must have different floors.



19



20

Fig. 19 Zone F west, inside the projected tower south-eastward with putlog holes  
Photograph: Werner Meyer

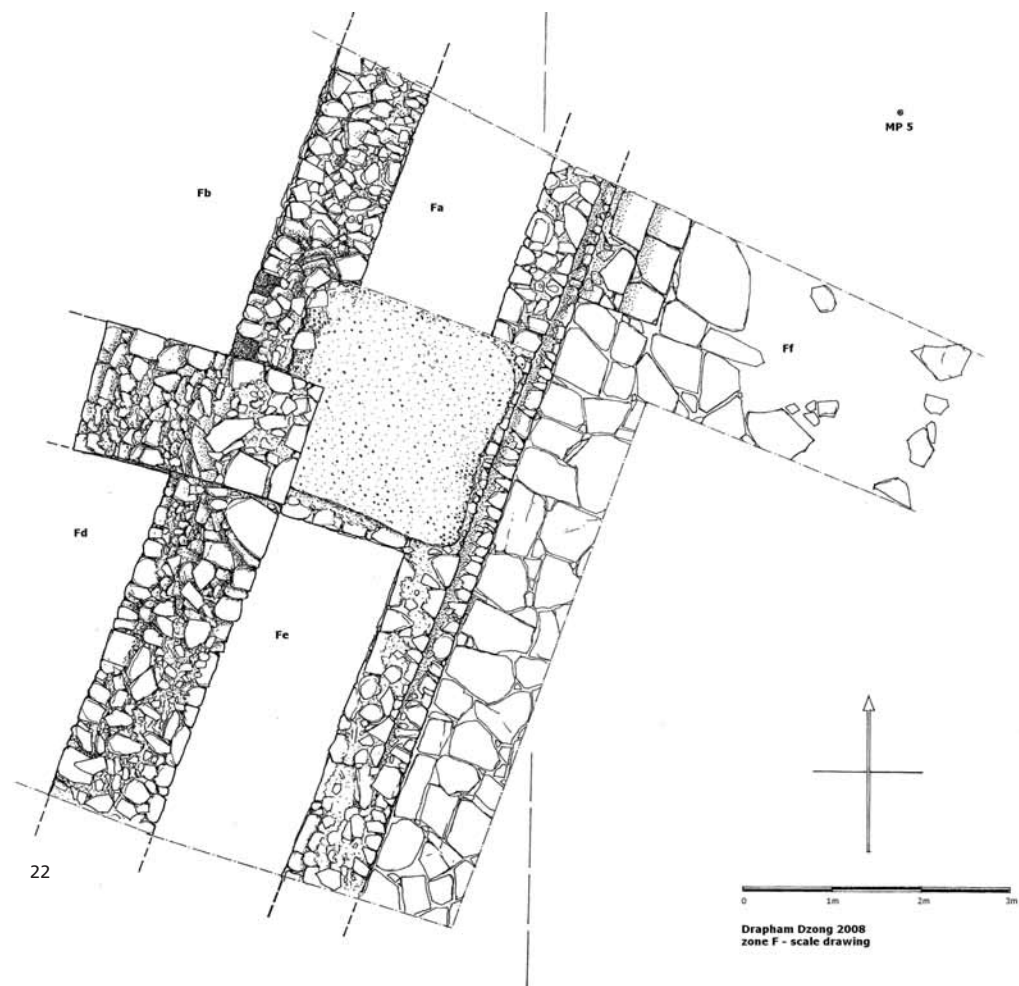
Fig. 20 Southern arrow loop in the projected tower in room Fc  
Photograph: Werner Meyer

Fig. 21 Flagged floor in the inner courtyard with steps, behind loam floor of the corridor in zone F west  
Photograph: Werner Meyer

Fig. 22 Zone F west, inner courtyard with corridor  
Drawing: Werner Meyer and Silvia Scheuerer



21



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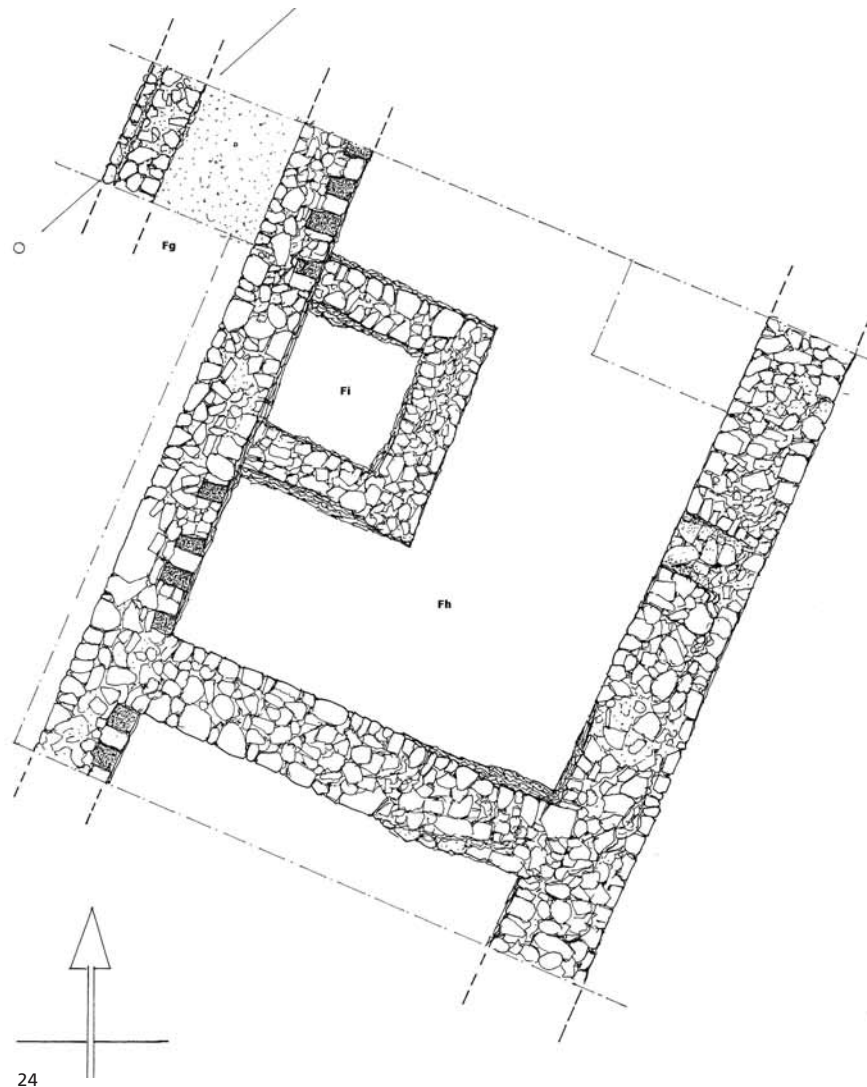




Fig. 23 Zone F west, view northward  
Photograph: Werner Meyer

Fig. 24 Zone F west  
Photograph: Werner Meyer

23



24

Fig. 25 Overview zone G north-westward  
Photograph: Werner Meyer

#### 4.2.5. Zone G east (southern tower and inner courtyard)

The excavation area G is situated at the southern end of the plateau. Here, the shapes of a rectangular building were visible before excavation. We were able to measure the entire outline of this building. It is a massive spiral construction ( $8 \times 12.5$  m) featuring wall dimensions of approx. 1.5 m. The building is divided by a transverse wall. The western section (room Gd) contains a lower cellar that is covered by a beam ceiling. It was impossible to reach the ground level of the cellar at this point. The eastern part (room Ge) had a loosely flagged ground level at the same height as the beams of the cellar in room Gd. On top of this ground level there was a thin humus settlement layer including a broken fireplace. In this settlement layer (complex G3) we found some ceramic findings.

Underneath the ground level of room Ge there was a heterogenic filling composed of humus and white quartz layers. This filling covered a small flagged canal that led through the southern wall of the tower.

To the north, the building was bounded by a wooden construction. A round stone plate is preserved in situ, acting as a table for a wooden pillar.

The southern section of the inner courtyard (room Ga) traces this tower. The loosely flagged ground level is visible. We didn't discover a settlement layer in this part of the area.

#### 4.2.6. Zone G west (southern part of the western building wing)

Some walls were detected in the north-western corner of the tower Gd/Ge. These walls may well be attributed to the western building wing in zone F west and K. A narrow corridor alongside the courtyard (room Gb, identical to room Fa) and a room tracing the western side (room Gc) were verified. This room was built into the hillside. A line of putlog holes at the excavation level indicates an additional floor hidden deep beneath the debris.

A small fragment of loam plaster with traces of paintings might indicate that the upper floors were decorated in a descriptive manner.





Fig. 26 Overview zone G  
Drawing: Werner Meyer, Kuenga Wangmo  
and Silvia Scheuerer

Fig. 27 Ending of the canal zone G in wall  
W10c  
Photograph: Werner Meyer

Fig. 28 Canal in Ge with layer profile  
Photograph: Werner Meyer





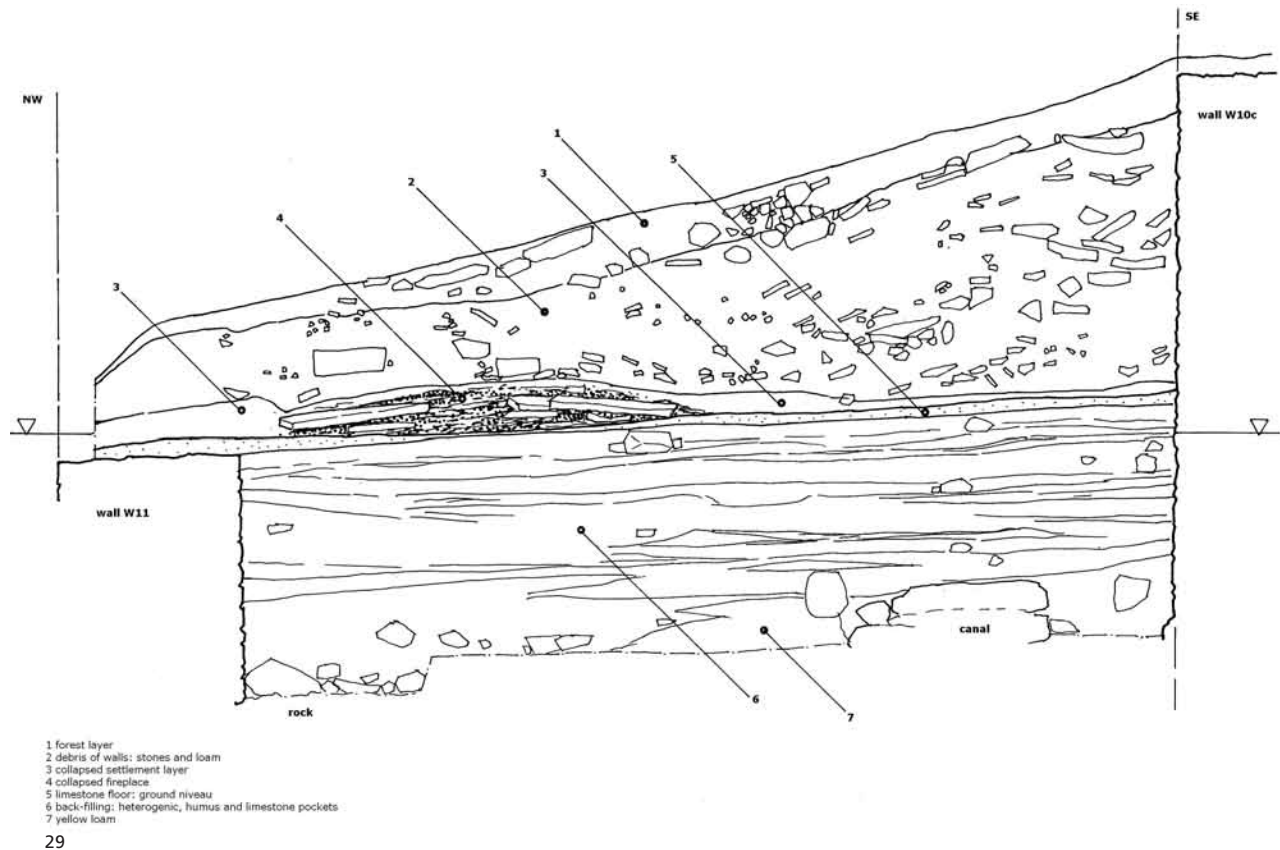


Fig. 29 Layer profile WE in room Ge  
Drawing: Kuenga Wangmo

Fig. 30 Overview zone K north-westward  
Photograph: Werner Meyer

#### 4.2.7. Zone K (northern part of the western building wing)

The excavation zone K is situated between the southern corner of the Utze (zone T) and the western curtain wall that separates the western building wing.

Underneath the debris we found the walls that divide the western part of the building. The northern part of a rectangular room (Kb) was cut off. This room was entirely covered by debris. Underneath a thin humus settlement layer that contained ceramic and bone findings (complex K3) there was a tamped ground level of loam with pebble gravel.





31

To the north of room Kb, a small and carefully flagged building (Ka) encompassing two levels was found. This building was bordered by a wall that connects the southern corner of the Utze with the western curtain wall.

In the angle between the rooms Ka/Kb and the southern wall of the Utze, part of the inner courtyard was excavated. The ground level consisted of tamped loam and was covered by a thin burnt layer. At that point it was impossible to identify the functionality of a wall fragment leaning against the southern corner of the Utze.

#### 4.2.8. Zone T (inside the Utze)

The main tower of the castle, the Utze, was built along the longitudinal axis at the northern end of the plateau. The ground plan of the Utze is a rectangle, approx. 11 m wide and 20 m long. The dimensions of the walls are approx. 1.8 m. On the inside, the Utze is divided by two cross walls. The western part (room Ta) and the middle part (room Tb, only on the surface) were excavated. We didn't touch the eastern part because the walls were covered by masses of debris.

At the beginning of the excavation the masses of debris in room Ta were amassed in a heap up to the irregular degraded wall copings. In the western and southern walls, two large window cases with broken lintels were visible. We excavated this room down to the ground level of the floor where these two windows are located. A line of put-log holes in the southern wall of the Utze indicates that there must be another floor beneath the debris. Due to security reasons the excavation had to be stopped at this level. The brickwork of the Utze is seriously damaged. It is marked by vertical cracks

Fig.32 Inside the Utze zone T south-eastward  
Photograph: Werner Meyer

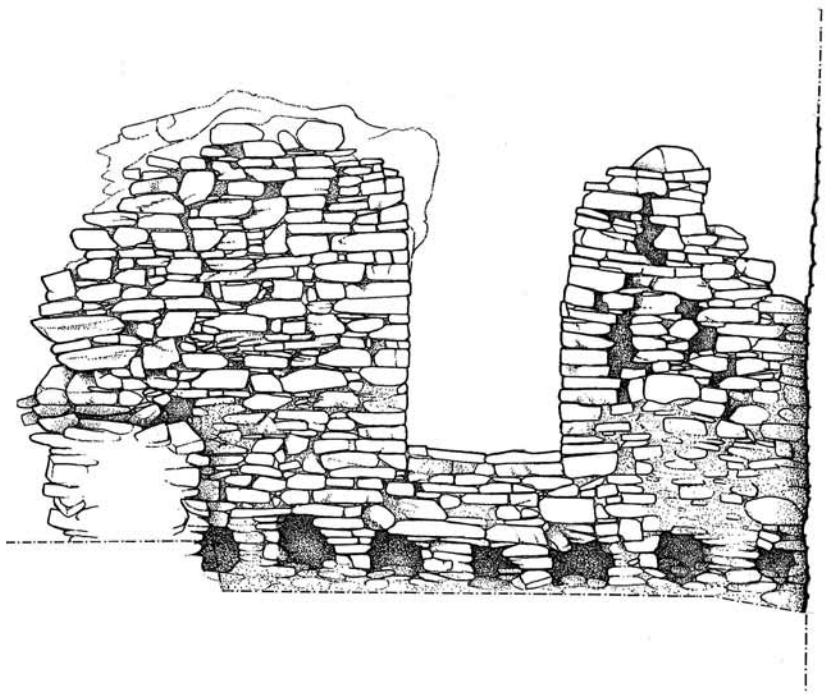
Fig.33 Utze zone T, wall W16c inside  
Drawing: Giovanni Buzzi



32

and, on the inner side of the wall coping, severe damages due to fire caused the stones to decompose. The northern wall of the Utze could hardly be found except for a few outwardly tilted or slumped wall fragments.

The excavation within the area of the Utze can only be continued if the brickwork is at least provisorily secured against collapse.



33



### 4.3. Findings and samples

#### 4.3.1. Artefacts

The final amount of findings was indeed rather low. In four complexes (F5, F6, G3 and K3) some fragments of ceramics were found. In F6 we found several flat stones that were used to smooth the loam plaster on the walls. Artefacts consisting of other materials, especially iron, were not found at this point.

Two small fragments of porcelain (complex F6) cannot be classified more precisely. The ceramic fragments of all complexes are typologically quite uniform. All fragments of different sizes descend from cooking pots. These pots were directly exposed to the fire as a soot layer of about 1 mm on the outside of the fragments shows. The pots were all made on turntables and were fired either by oxidation or reduction. The surface often reveals a metallic lustre. Its origin must also be specifically analysed. The compound consisting of mica and edgy grains of sand is currently being analysed at the Institute of Mineralogy and Petrography at the University of Basel.

All pot fragments belong to the same profile type: convex base, globular body, curved, projecting funnel rim, rounded or wiped off edges. The diameter of the orifice is 20 to 25 cm. Presently, this type of ceramic cannot be classified either chronologically or regionally.

#### 4.3.2. Animal bones

A small amount of animal bones was found mainly in the complexes F5, F6 and K3. The different pieces are highly fragmented. The archaeozoological analysis is currently in progress at the «Institut für Prähistorische und Naturwissenschaftliche Archäologie» at the University of Basel.

#### 4.3.3. Samples

Radiocarbon samples:

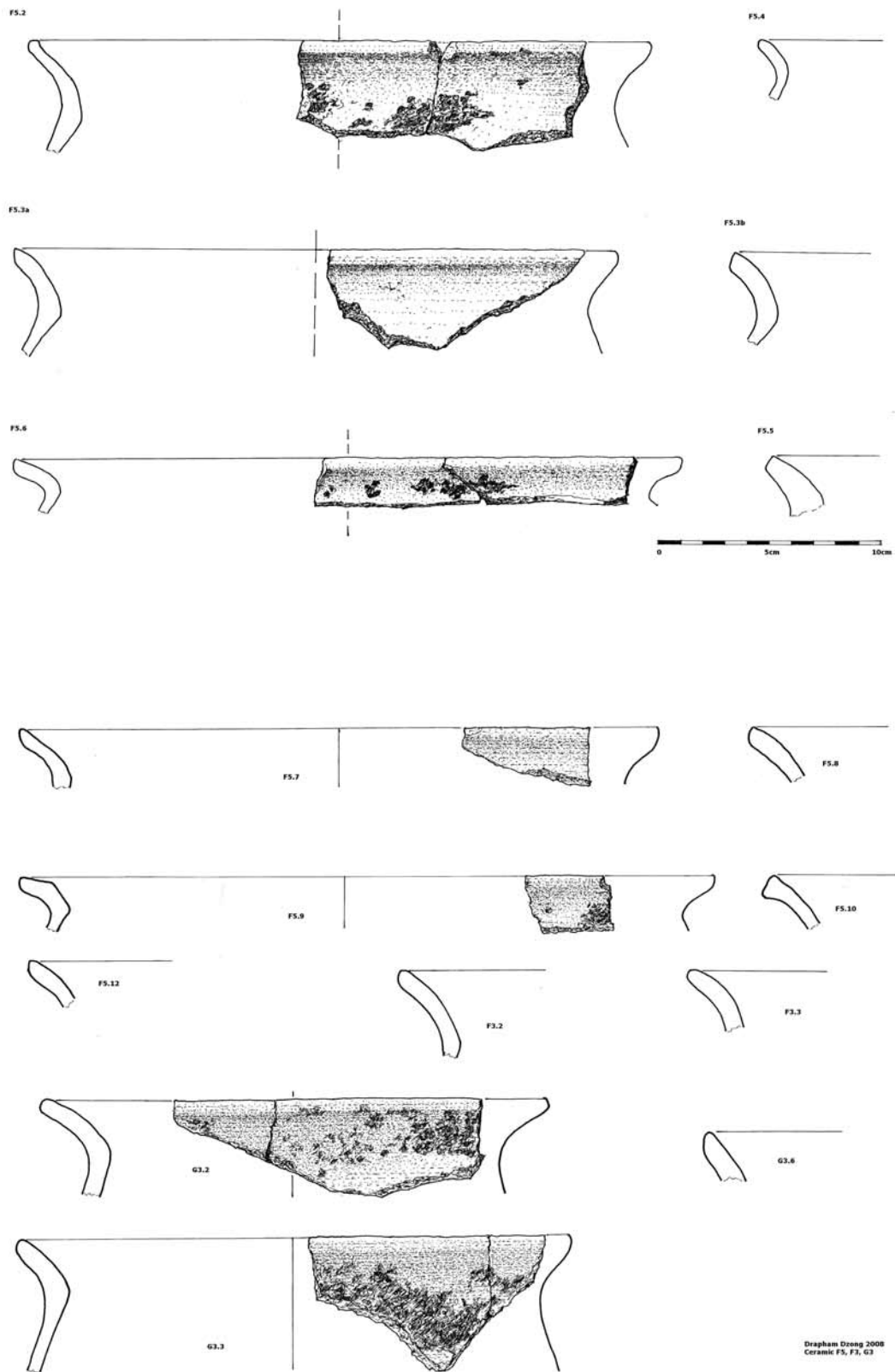
We then took samples of the carbonised construction wood. The  $^{14}\text{C}$ -analyse is currently in progress at the «Centrum voor Isotopen Onderzoek» at the University of Groningen, NL. The results are expected in summer 2009.

*Wood samples:*

We found several large pieces of carbonised wood in the burnt layer. They were recovered for an archaeobotanical analysis at the «Institut für Prähistorische und Naturwissenschaftliche Archäologie» at the University of Basel.

**Fig. 34** Office for inventory and documentation of the findings  
Photograph: Silvia Scheuerer





## **5. Current results**

### **5.1. Dating**

The ceramics cannot be used for dating because comparable ceramic findings were not found. Conclusive information about the construction period is expected from the results of the radiocarbon analyses. The thin settlement layers point to a short period of use.

Different architectural elements (e.g. arrow holes, projected towers, conically re-generated door- and window cases, round flagstones as a base for wooden pillars) are similar to still preserved Dzongs from the early 17<sup>th</sup> century. The origin time of these elements and how long they were used still remain uncertain.

Several direct comparative examples for the entire physical structure, particularly for the three-parted ground plan concept, are yet to be found. Therefore, all assumptions concerning the age of the Drapham Dzong remain idle speculations until the results of the radiocarbon dating have been obtained.

### **5.2. Functional analysis**

At present, it is difficult to assume anything about the function of the physical structure because the ground level has been only been excavated in a few areas (and settlement layers with findings). On the one hand, a vital function, and on the other hand a defence function – especially in the periphery – have both been verified. How far the defence function served as a practical defence construction or more as a representative sign for power is not yet clear. Clear traces of a sacral function were not discovered.

It remains undeniable that the entire physical structure was used as a military fortress. Some tangible clues for the economic base of the fortress remain missing within the excavated construction findings. At present, there are no traces of workshops, stables, storage rooms or other agricultural or economic buildings. Whether or not the remainders of the walls that are visible on the south-eastern col of the hill did contain accommodation facilities for the crew (one of the buildings seems to be a mill), is not clear for the time being.

Due to a vague projection we are able to assume that the maintenance and guard of the fortress might require a permanent crew of about 100 men. A defence troop during wartime must have comprised at least 2000 soldiers.

The question about the political or dominion power that led to the construction of this huge fortress cannot be discussed until a binding dating has been conducted. Therefore, the historical context of the Drapham Dzong still remains vague.

### **5.3. Assessment**

The Drapham Dzon is an extremely important fortress. Its construction and destruction must be consigned to the ranks of an historical context of large dimensions. This historical context cannot be defined until the results of the radiocarbon dating are revealed.

The findings of the excavation reveal that a large part of the fortress had to be burnt down. The reasons of the fire are not yet clear. The background information and the concurrent circumstances of the closing down of the fortress also remain unknown at this point in time.

The entire research of the Drapham Dzong, as planned in this three-year project, will most certainly provide some very important and so far unknown information about Bhutan's old-age history.

If the research succeeds to properly conserve the excavated remainders of the fortress and to permanently provide the relevant information, the district of Bumthang will receive an historical and highly valuable monument, especially regarding sightseeing.



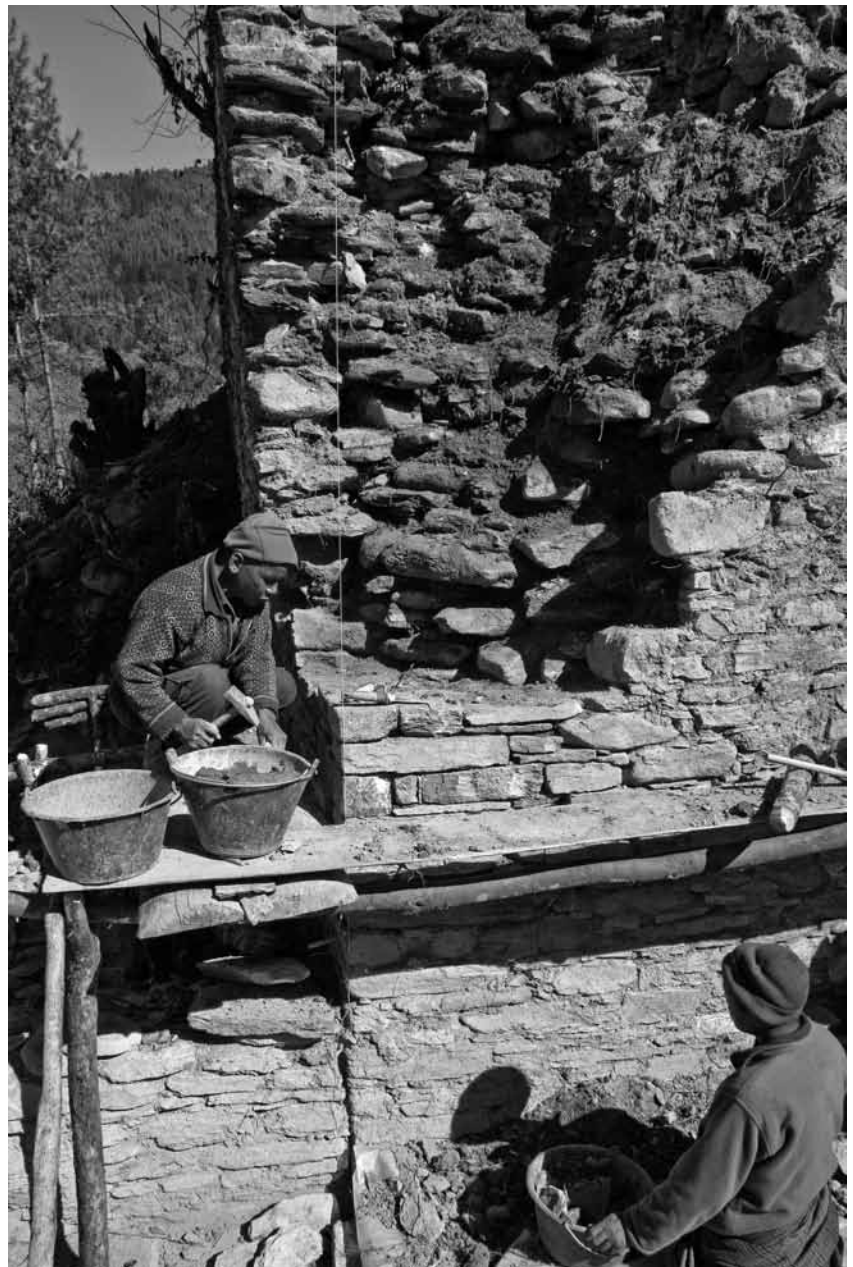
Fig.35 Table of findings, ceramic fragments of the complexes F5, F3 and G3  
Drawing: Werner Meyer

Fig.36 Conservation works of the southern corner of the Utze  
Photograph: Silvia Scheuerer

## 6. Further approach

The present results prove that it is important to continue the excavation (with subsequent conservation measures). The following steps of the three-year project must be carried out immediately:

- Concentration on the excavation of the main castle
- Specific sections in key positions within the baileys are useful but not high priority.
- The masses of debris in the main castle must be reduced on a large scale. The archaeological work begins by reducing the primary debris.
- The collection of samples for scientific analysis (sediment, wood, stones and sand) must be intensified and extended.
- The amount of debris outside the curtain wall can be reduced without intensive archaeological support.
- The reduction of the debris implies collecting the wall stones and depositing of them separately (e.g. in the baileys) – in order that they don't impede any further excavations.





37

- A topographical measurement according to the international standards for archaeological plans (contoured map with an equidistance of 1 to 2 m and differentiated terrain structures) of the terrain (including the settlement in the valley) is highly important. Therefore, it is necessary to continue the specific clearing of the hill.
- The excavated brickwork must be conserved (cover with grass bricks). Particular precautions must be taken for the highly threatened brickwork of the Utze.

Fig. 37 Group photograph at the end of the excavation  
(Photograph: Silvia Scheuerer)

## **Clay pots in Bumthang dzongkhak (Central Bhutan)**

Eberhard and Barbara Fischer

in collaboration with Sangay Wangchuk and Tashi Lhendup

Due to the fact that very little information is available on clay pots in ethnographic literature about material equipment of the villages in Bhutan, and considering that clay fragments appeared on several occasions during the excavation of the citadel of Drapham dzong, it made sense to look for pottery in the surrounding area of the fortress ruin. Furthermore, we decided to take photographs of the shapes of all available pots and enquire their function, origin and local description. Hereto we stayed in the villages Naspe, Nagtshang, Ogyen Choling, Ura and Shingkar for several days and visited a number of households, asking the local women to show us as many pots as possible. We were accompanied in Naspe by Mr. Sangay Wangchuk, the representative for Cultural Affairs in Bumthang dzongkhak, resp. by Mr. Tashi Lhendup, the curator for painting conservation and restoration at the Department of Culture. It was terrific working with them! In addition, we would like to thank Mr. Namgyel Tshering, the administrator of Helvetas Bhutan, for his guidance and help.

To our amazement, at the beginning of our endeavours to learn more about the local central Buthanese pottery, we heard that there are no (female) potters in the entire Bumthang district – and that none existed either in the 20<sup>th</sup> century and probably also in the past centuries. We were told that all clay pots were «imported» over many generations – from neighbouring valleys in the West (Punakha) and the East (Luentse) respectively from the adjacent Tibet region in the North. It was difficult to find out why local pottery workshops do not exist in this part of Bhutan: questionable is whether or not the clay from these valleys is suitable for making pots; or if clay digging offended the local religious beliefs; or even if the reputation of the pottery craft itself was of such marginal importance or the status of a potter so low that it wasn't recommended for peasant women to learn or practise this craft.

It turned out that the (female) owners of the households we visited do not use the earthen pots anymore, but instead keep them as valuables from the past – either displayed as decorations on kitchen shelves or stowed away in the attic together with discarded junk. In this connection, it might be worth mentioning that «pots» play a role in the legends of Central Bhutan (s. Lham Dorji, 2005, pg. 456) – however, it is not always clear whether these are «golden» pans, brass vessels or clay pots that brought wealth and fame to aristocratic families. J. Sangay Wangchuk, (2006, pg. 34) speaks of clay pots used in his grandmother's household.

The range of different types of pots we were able to observe during this survey was quite narrow: round-bottomed earthenware pots in different sizes, egg-shaped, narrow-necked jars with simple lips as well as flasks in different shapes which clearly differed from the previously mentioned plain and everyday pottery. We hardly encountered any handle pots for kitchen use. The ornaments of these pots were also quite simple. We were told by the locals on a couple of occasions – this source of information might however originate from text books and not from local tradition passed on by word of mouth – that handle pots weren't made until the age of the great Shabdrung (Zhabdrung Ngawang Namgyal), hence after 1616 A.D. It is said that they were made and utilised at his behest, and that no such pots existed prior to this point in time. Originally from Tibet, the «unifier of kingdoms» apparently heralded a new era by promoting this innovation («the pot now has a handle»). In addition to these cooking pots, we found a number of decorated tee-pots with snout and handle, some of which were highly decorated and even glazed, obviously import products from Tibet.



It is remarkable just how few types of (ceramic) pots are found in Bhutanese households today. In the past they were used for cooking food, distilling *ara* alcohol, manufacturing mustard oil, preserving oil and distillates as well as serving beverages for children and salty tea to guests. (We did not encounter any clay pots for carrying water or storage of drinking water or other supplies). Cooking pots and even flasks have long been replaced by similarly shaped vessels made of aluminium and other metals, various alloys and glass. We also managed to observe turned wooden containers (which were most probably used for pressing oil) that bear a striking resemblance to clay pots but were far more durable. All in all, the proportion of pottery used for crockery in Bhutanese households was presumably small in former times: for example, no plates or bowls for serving food were found in villages. Even nowadays, the rural Bhutanese still sit on the floor and eat rice from basket dishes and supplementary food from beautifully turned wooden bowls that the owners individually possess and carry in their garments. The butter lamps in the shrines and temples are also primarily made of metal and not of clay. Grain and other foods are stored in woven baskets, trays and containers made of wood or bark as well as in cloth or leather bags; beverages are stored in copper vessels, gourds, buffalo horns and special metal-reinforced and braided wooden vessels. Ladles and stirring spoons are made of wood, metal or gourd. Most informative pictures of a typical kitchen inventory of an upper class Central Bhutan household can be found in the guide book of the Ogyen Choling Palace Museum.

In the following, we itemise the clay pots that we found in the upper Jakor valley (Naspe and Nagtshang), in the Tang valley (Ogyen Choling Palace Museum) and the Ura valley (Ura and Shingkar). In addition, a large amount of recently manufactured and even of older pottery – especially an astonishingly large quantity of magnificent teapots from the past as well as a superb very large bowl which had possibly been used to mix dough on festive occasions – are on display at the Folk Heritage Museum in Thimpu. Their provenience is unfortunately not documented. Here, the works of contemporary craft were fabricated by female potters from Luentse at a seminar held in the capital city a few years ago.

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## Catalogue of clay pots photographed in the neighbourhood of Drapham dzong

(Quotations are usually information provided by the owners)



**Fig. 1** Village: Naspe  
Owner: Mrs. Pem Choeden  
*bar pi(t)*, Pot used to collect the distilled *ara* alcohol  
black clay, H. 16 cm, D. 18 cm  
«The pot was bought in Lhuentse dzongkak, more than 30 years ago»



**Fig. 2** Village: Naspe  
Owner: Mrs. Pem Choeden  
*pit*, Handle pot for *ara* distillation from rice.  
H. 22 cm  
«It wasn't placed on a fire, it is sooty because it was stored in the attic.» – «My brother bought this pot in Lhuentse. In the past, men from here always went to Lhuentse to buy pottery. Previous to departure, the pots were ordered there. Many (female) potters used to work there (a generation ago). We haven't bought a single clay pot for more than 30 years.»



**Fig. 3** Village: Naspe  
Owner: Mrs. Dorji Lhamo  
*pit*, Pot for serving butter tea  
Red clay (sooted only on the outside) seems to be originally varnished.  
H. 17 cm, D. 13,5 cm



**Fig. 4** Village: Naspe  
Owner: Mrs. Dorji Lhamo  
*pit*, Pot for cooking vegetables  
H. 10,5 cm, D. 15,5 cm  
Ornamented with wavy lines and strings moulded into the neck. («Curry cooked in this pot was especially delicious!»)



**Fig. 5** Village: Naspe  
Owner: Mrs. Dorji Lhamo  
*pergamachu*, clay flask for oil  
Stopper made of wood. With a flat base, it resembles copper vessels.  
H. 20 cm, D. 4 cm (underside: D. 17 cm)



**Fig. 6** Village: Naspe  
Owner: Mrs. Pema Doma  
*chamji*, Spouted vessel, for serving tea  
Red clay, wave pattern on the top rim  
H. 24 cm



**Fig. 7** Village: Naspe  
Owner: Mrs. Pema Dema  
*jazi*, large pot for *ara* alcohol distillation  
H. 42 cm, D. 20 cm  
Retracted lip, two oblique dashed patterns on the neck, black-grey clay  
«In this pot we boiled buckwheat, then covered it with leaves and sealed it with cow dung. After some weeks the fermentation was finished.»



**Fig. 8** Ogyen Choling Palace Museum  
Handle pot  
H. 18 cm, D. 18,5 cm  
On the shoulder two grooves, lacquered (?), lip partly broken.



**Fig. 9** Ogyen Choling Palace Museum  
pot with a foot and a short pivot inside, on the bottom  
H. 16,5 cm, D. 18 cm  
High lip, black surface, red clay, lacquered (?)  
Usage unknown, possibly for *ara* alcohol distillation



**Fig. 10** Ogyen Choling Palace Museum  
large vessel for the fermentation of cereals for the *ara* distillation  
D. 22 cm  
Inside reddish, outside black, thick coat of lacquer on the shoulder.



**Fig. 11** Ogyen Choling Palace Museum  
Large vessel  
H. 34,5 cm, D. 17 cm  
lacquered, no decorations for the *ara* distillation



**Fig. 12**  
Ogyen Choling Palace Museum  
*ara* bottle, but possibly also for oil, to be carried in the folds of the *go*-coat  
H. 17 cm, D. 15 cm, spout 5 cm



**Fig. 13** Ogyen Choling Palace Museum  
Teapot, richly ornamented  
H. 20 cm, opening D. 9 cm  
Fine earthenware, upper half red, lower part black. Probably imported from Tibet



**Fig. 14** Ogyen Choling Palace Museum  
Glazed teapot  
H. 22 cm, D. opening 11 cm  
Handle covered with cloth, wooden cover, imported from Tibet



**Fig. 15** Village: Ura  
Owner: Mrs. Sonam Kiba  
Large clay pot  
H. unrecorded  
«This vessel was formerly used for boiling bones for soups, now we store indigo dye stuff in it.»  
«Once, this pot fell down from a high shelf but did not break. My own house was built about 75 years ago; but this pot is from my parents' home and was used by them long before I was born».







Fig. 16 Village: Ura  
Pots on a shelf



Fig. 17 Village: Ura  
Owner: Phuntsho Namgyel  
*cha-phis*, teapot with handle  
H. 25 cm, opening D. 18,5 cm  
Decorated on the shoulder with u-shaped lotos petals, handle and neck ornamented with three grooves. «We imported the teapot from Tibet ourselves»



Fig. 18 Village: Ura  
Owner: Phuntsho Namgyel  
*cha-phis*, teapot with handle  
H. 26 cm, opening D. 18 cm  
Simple pot, not ornamented, thick soot cover.  
«The pot comes from Tibet. We have owned it ever since our grandfather was very young (i.e. approx. 70 years ago).»



Fig. 19 Village: Ura  
Owner: Phuntsho Namgyel  
Two fragments of a pot for cooking vegetables  
black ware, rather thin ware (max. 3 mm thick)



Fig. 20 Village: Ura  
Owner: Pomba family  
for the distillation of *ara* alcohol  
H. not recorded  
burned black, simple, is said to come from Punakha  
(photographed in sunshine on a stone)



Fig. 21 Village: Ura  
Owner: Pomba family  
Large cooking vessel, ornamented on the neck  
size not recorded  
*ruk phis*, pot for cooking vegetables



Fig. 22a Village: Shingkhar  
Owner: Mrs. Jigme Choden  
*Saoli*, pot with broad handle, was used to feed a baby  
H. 14,5 cm, D. 13,5 cm  
Inside red, outside black, traces of lacquer  
«The pot was bought approx. 40 years ago. At that time, our grandfather went to Gangzur in Lhuenzi and bought pots there.»



Fig. 22b



Fig. 23 a Village: Naghtshang (below Drapham dzong)

Owner: Mrs. Yangtsong

Pot with a handle and a spout, heavily decorated with grooves, 6 shaped spirals, lens-shaped forms on the handle, flat base, rough surface.

H. 14,5 cm, D. 11,5 cm

«The pot was used to fill molten butter in lamps»



Fig. 23 b



Fig. 23 c



Fig. 24 Village: Naghtshang (below Drapham dzong)

Owner: Mrs. Yangtsong

Black pot with simple lip, no ornaments

H. 17 cm, D. 13,5 cm



Fig. 25 a Village: Naghtshang (below Drapham dzong)

Owner: Mrs. Yangtsong

Teapot with handle and spout, fired red, in parts lacquered black, rim repaired. On the shoulder lotus petals, engraved leaf shapes, spout and handle heavily decorated, patterns slightly raised.



Fig. 25 b



Fig. 26 a Village: Naghtshang (below Drapham dzong)

Owner: Mrs. Yangtsong

Green-brown glazed teapot pressed in moulds, decoration forms like the beautiful dragon heads affixed

H. 28 cm, D. 11,3 cm

«A long time ago, this pot was imported from Tibet. It was used for serving (salty) tea to our honoured guests»



Fig. 26 b



Fig. 26 c

## **Medizinische Begleitung des archäologischen Teams beim Drapham Dzong, Bhutan**

Prof. Dr. Urs M. Lütolf

Bhutan hat ein gut ausgedachtes Grundkonzept für die medizinische Versorgung der Bevölkerung. An der Basis und in der Nähe der Bevölkerung sind die Basic Health Units (BHU), von denen 200 Einheiten im ganzen Land verteilt sind. Diese Einheiten werden durch Pflegekräfte entschieden, die in Thimpuh eine zweijährige Ausbildung haben und in der Lage sind, einfache Medikamente selber zu verordnen und auch bei Geburten beizustehen. Spitäler mit regionalem Charakter und ein Schwerpunktspital in Thimpuh bilden das Rückgrad der medizinischen Versorgung. Der Gang ins Ausland (v.a. Indien) und Abklärungen sind jedoch für spezialisierte Eingriffe notwendig.

Die nächstgelegene medizinische Versorgungseinheit zum archäologischen Basislager von Drapham Dzong ist die neu errichtete Basic Health Unit am Ende der Fahrstrasse bei der Hängebrücke. Diese «Sanitätshilfsstelle» wurde im Jahre 2008 an diesen neuen Standort gebracht, anfangs Oktober wurde die bauliche Übergabe kontrolliert vom lokalen Verantwortlichen für das Gesundheitswesen. Die Inbetriebnahme stand jedoch noch aus.

Eine Fahrstunde talwärts liegt das Regionalspital Wangdichoeling Hospital. Mit Hilfe von Helvetas konnte dieses Spital in den 80er-Jahren des letzten Jahrhunderts gebaut und durch die Städte St. Gallen, Winterthur und Schaffhausen finanziert werden. Es wurde als 40-Betten-Spital mit Röntgenmöglichkeit und Labor, Physiotherapie sowie traditioneller Medizin konzipiert. Während mehrerer Jahre haben Schweizer Ärzte die Versorgung sichergestellt, seit Mitte der 90er-Jahre ist der Betrieb an das bhutanische Gesundheitswesen übergegangen. Damit hat sich das medizinische Angebot stark reduziert. Derzeit werden knapp 20 Betten betrieben, die diagnostischen Einheiten sind marginal nutzbar, und die ärztliche Verfügbarkeit lässt eine kontinuierliche Versorgung der Talschaft nicht zu.

Vor diesem Hintergrund war eine medizinische Versorgung im Basiscamp von Drapham Dzong wünschbar. Aufgrund von Informationen durch Verantwortliche von Helvetas, den Reisemediziner Prof. Dr. med. Robert Steffen, Universität Zürich, und Prof. Franz Hubert Rhomberg, einen langjährigen Bekannten der bhutanischen Königsfamilie, sowie einem Kontakt mit Frau Dr. med. Gepke Hingst, der Repräsentantin von Unicef in Bhutan, konnten Informationen über den aktuellen Bedarf zur Ausrüstung erhoben werden.

Dank der Unterstützung von Dr. Werner Pletscher, Kantonsapotheker des Kantons Zürich, und der Mithilfe von Frau Jeannette Adank von der Kantonsapothek Zürich wurde ein Medikamentensortiment zusammengestellt und verdankenswerterweise für das archäologische Unternehmen und die lokale Bevölkerung zur Verfügung gestellt.

Während der Zeit vom 20. Oktober bis 1. November konnte für die einheimischen Mitarbeitenden sowie das archäologische Team eine Arztvisite durchgeführt werden. Die medizinische Versorgung, v.a. bei der einheimischen Bevölkerung, zeigte auch einen grossen Bedarf an Beratung, da die Schwelle zur Nutzung der bhutanischen Gesundheitsversorgung sehr hoch scheint. Übereinstimmend mit den vom Gesundheitsministerium veröffentlichten Daten waren Magenbeschwerden eine sehr häufige Angabe. Inwieweit Essgewohnheiten (scharfe Gewürze) oder Infektionen mit *Helicobacter pylori* ursächlich sind, liess sich auch bei Rückfragen im Spital Thimpuh nicht klären.

An Besonderheiten sei eine Kiefersperre einer jungen Patientin bei einer Tonsillitis, vermutlich ein Tonsillarabszess, zu vermerken, die durch Antibiotikagabe sehr schnell kupert werden konnte. Die bereits im Spital von einem Bhutaner vorgebrachte



Beschwerde einer Lymphknotenschwellung am Hals wurde nach weiteren Wochen der Progredienz zum Grund eines Besuchs im Camp. Der Verdacht auf ein Non-Hodgkin-Lymphom von niedrigem Malignitätsgrad lag nahe. Eine entsprechende Abklärung wäre mit einem Transport (acht Stunden Autofahrt) ins Spital Thimpuh möglich gewesen (Feinnadelpunktion und Histologie nur in diesem Spital verfügbar). Für einfache Leute ist eine solche Reise von der Logistik her nicht möglich. Ein Behandlungsversuch mit Dexamethasone, das verfügbar war, wurde unternommen.

Über die Visiten und die Therapien wurde eine minimale Dokumentation erstellt und diese nach der Abreise dem Arzt im Wangdichoeling Hospital zur Verfügung gestellt, um bei weiteren Kontakten eine Dokumentation zu haben. Leider ist im Wangdichoeling Hospital die früher eingeführte Führung einer Krankengeschichte aufgegeben worden, sodass trotz solchen Unterlagen die Kontinuität der Behandlung und die Überprüfung der Behandlungserfolge kaum möglich sind.

Da die Grabungen im nächsten Jahr fortgeführt werden, wurde ein Teil der Medikamente im Camp von Drapham Dzong belassen und ein Teil gemäss einer Liste dem Spital Wangdichoeling zur Verfügung gestellt. Dies betrifft insbesondere die Infusionslösungen, die von grosser Bedeutung sind, da bei Unfällen und Blutverlusten mit mehrstündigen Transporten zum Spital (Mongar oder Thimpuh) gerechnet werden muss, wo Operationen vorgenommen werden können.

Zusammenfassend konnte mit der temporären ersten Versorgung etwas zum Vertrauen der Bevölkerung in die «fremde Archäologiemannschaft» aufgebaut werden. Glücklicherweise waren keine schweren Unfälle oder Krankheiten zu verzeichnen. Der Kontakt mit den Mitarbeitenden der lokalen Bevölkerung gab einen wertvollen Einblick in den Zustand des Gesundheitswesens von Bumthang und Buthan.

Diese Einblicke, Kontakte zu den Verantwortlichen von Helvetas (Walter Roder, Werner Külling), die Erfahrung und persönlichen Erlebnisse von Fritz Maurer haben auch zu einer Bestandesaufnahme zuhanden von Helvetas und den bhutanesischen Gesundheitsbehörden geführt. Eine Kontaktnahme mit dem Gesundheitsminister in Thimpuh anfangs November und weiterführende Gespräche in der Schweiz können hilfreich sein für Verbesserungen im Gesundheitswesen respektive den weiteren Aufbau der medizinischen Grundversorgung.