



**Trial excavations at the Triangular Fortress,
Butrint 2014**

Final Report



August 2014

***Trial excavations at the Triangular Fortress,
Butrint 2014***

This report represents the work of the Centre for Albanian Cultural Heritage (Trakult Centre) in the frame of its Triangular Fortress project, carried out with generous financial support from the Butrint Foundation.

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Centre for Albanian Cultural Heritage (Trakult Centre) – Report, July 2014.

Front-cover: View of the Triangular Fortress during Italian mission in the interwar years.

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Introduction

Between 6th and 26th July 2014 an archaeological research project was carried out at the Triangular Fortress, in collaboration with the Albanian Institute of Archaeology and was funded thanks to a generous grant from the Butrint Foundation. The overall aim of the project was to shed light on late Butrint (16th – 19th centuries) focusing on one of the most substantial monuments of this period, the Triangular Fortress (Fig. 1).



Fig. 1 West view of the Triangular Fortress, Butrint

In the frame of later Butrint research, surveys visits were carried out in the area around the site of Butrint and the castle of Borsh pointing to identify elements of this period in a wider geographical context. It is worth to remember that this coastal area of southern Albania was part of the old Byzantine province known as *Vagenetia* that appears in historical documents until the 15th century.¹

Great assistance during the project was offered by the Butrint National Park. The group of monument workers undertook vegetation cleaning on the fortress's structures and in the surrounding area for two consecutive days (Fig. 2). Further, together with the Butrint National Park authorities it was agreed in principle to explore ways of cooperating over a conservation project for the Triangular Fortress based on the results of the 2014 season. This initiative would represent one of the main objectives within the framework of an effective management plan of the monument in the future.

¹ Hodges, R. The rise and fall of Byzantine Butrint, London 2008.

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Fig. 2 Monuments maintenance workers during vegetation cleaning

Background

The Triangular Fortress was built on a small islet between the forked outlet of the Pavlass River, with one branch running around the western side, roughly following the line of the modern road and a second one similarly flowed around the eastern side. A narrow artificial channel was then cut along the south-eastern wall, effectively forming a second islet to the south east, upon which a defensive ravelin earthwork was constructed. It is believed that the fortress represents the end point of Butrint as a functioning centre and marks the final dissolution of an urban sequence reaching back as far as the 8th century BC. Previous studies on this monument have been mainly focused on the description of various architectural constructions inside and outside the fort, their division into different phases and attempts to dating being based on the wall construction techniques.

Initially, Luigi Maria Ugolini, during his expedition in Butrint, mentioned the Triangular Fortress along with other Venetian fortifications (Venetian tower and the castle on the ancient acropolis) but adding no further detail.²

Later during 1970s the Institute of Monuments undertook a restoration program for fortifications along the Vivari Channel under the direction of Gjerak Karaiskaj. The project aimed to identify the main construction phases of the Triangular Fortress and their restoration. For the first time, it was taken a step towards identification of various stages of construction, their dating and placing the monument in the context of historical events.³

² Ugolini, Luigi. M. Butrinto: Il Mito di Enea. gli scavi. Roma: Istituto grafico tiberino, 1937.

³ Karaiskaj, Gj. Fortifikimet Mesjetare pranë Kanalit të Vivarit në Butrint dhe restaurimi i tyre. *Monumentet* 11, 1976.

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Another important contribution to the assessment of fortifications of Butrint, including also Venetian constructions, was conducted during 1994-1999. The aim was to phase the late antique and medieval circuits and to draw some conclusion on their effect on the topography of Butrint. The new information derived from this study extended further the understanding of late constructions in Butrint by adding to Venetian period other constructions as well as the Triangular Fortress.⁴

In 2004 the Butrint Foundation initiated an evaluation program of medieval fortifications (Venetian) in Butrint. In this context, a geophysical survey was undertaken by Dave Bescoby on exterior area of the monument. The survey was designed to map any surviving sub-surface wall structures associated with the castle, in order to further understand the historical development of the fortification. The results were satisfactory although longstanding technology used in the survey. The area surveyed was under dense scrub vegetation of predominantly thistles, preventing a complete survey of it.⁵ As part of this program, started as an ambitious project, were archaeological research and restoration of the Triangular Fortress supervised by the Albanian institutions. However, due to the suspension for various reasons the project and its results remain unpublished and in a large quantity undocumented.

Again, thanks to the Butrint Foundation, significant studies were done later on the Venetian archives at Corfu from Sirlol Davis⁶ and a publication on Venetian Butrint by Andy Crowson⁷ that have further enriched the late Butrint history.

The above researches are an important contribution to the study of later Butrint and its monuments. These studies, however, have provided solutions to many issues, but had raised several others relating to chronology, phasing and the context in which these monuments were built. For these reasons, the study conducted during the summer of 2014 at the Triangular Fortress was designed to answer questions arising by pursuing the following goals:

- Establishing a secure chronology for the life-span of the monument. When was the fort built and how is it related with the other late constructions in Butrint?
- To prove if there is a medieval or ancient predecessor and if so can its construction date be determined archaeologically? Were the current curtain walls constructed over an earlier foundation or was it a completely new settlement that witnessed the last years of life in Butrint?
- Identification of construction phases in and around the fort through archaeological excavation, defining the physical relations between them and attempting to link with historical events.
- Linking the phasing of the Triangular Fortress to the well-known studies of Venetian castles at Corfu (and elsewhere in Greece) as well as in the eastern Adriatic (cf. the World Heritage Site of Kotor, Montenegro).
- Preparing a basis for a potential conservation plan of the Triangular Fortress based on the project results of 2014.

⁴ Andrews, R., Bowden, W., Gilkes, O., & Martin, S. (2004). The late antique and medieval fortification of Butrint. In R. Hodges, W. Bowden, & K. Lako, *Byzantine Butrint: Excavations and Surveys 1994-1999*. Oxford: Oxbow

⁵ Bescoby, D. *Geophysical investigation of the triangular Venetian castle at Butrint*, 2004.

⁶ Sirlol Davies, *Late Venetian Butrint C 16-18*. Report prepared for the Butrint Foundation, 2006.

⁷ Crowson, A. *Venetian Butrint*. London: Butrint Foundation, 2007.

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Methodology

In achieving the above goals, it was thought to undertake initially a documentary research on the typology of the fortress in order to improve its understanding; consulting geophysics study done earlier by the Butrint Foundation and other previous studies on this topic. Referring to these, the field research methodology was applied through:

- A new structural survey of the fort to better understand construction techniques and their phases.
- Excavations of four test pits in and outside the Triangular Fortress aiming to reach the earliest phase of the perimeter wall and defining relationships it could have had with other constructions (Fig. 3).
- Re-examining the previous excavated trench at the junction between the north-eastern curtain and tower III by cleaning the old sections and making limited interventions for documenting and understating previous excavation.
- Documenting the foundation walls that are visible on the interior and exterior of the fortress.

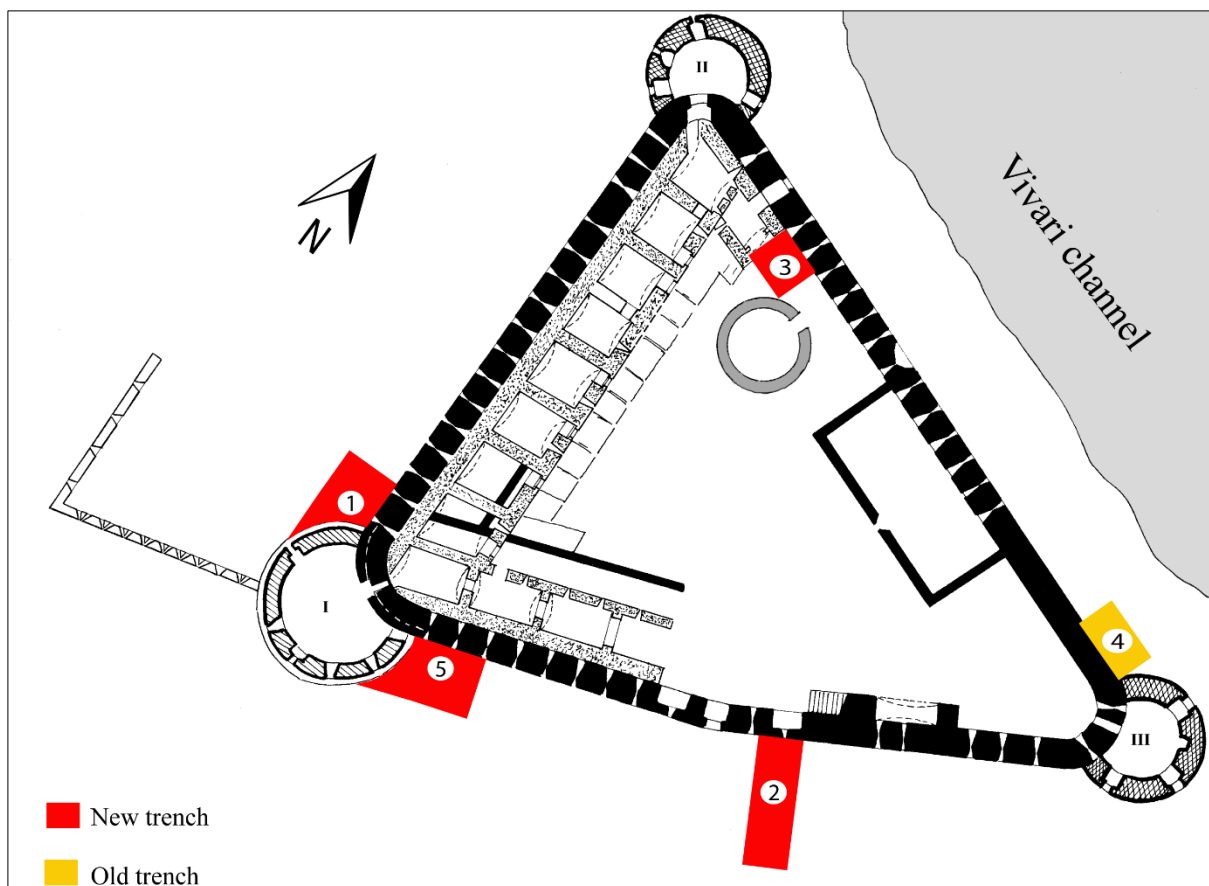


Fig. 3 Plan of the Triangular Fortress, showing the 2014 excavated pits and the re-examined trench to the northeast

Excavation Report

Trench 1

Trench 1 measured 2 x 2 m and was opened at the junction between western curtain and southern tower (Fig. 4). Opening a trench in this part intended to record the physical relations between the two structures and to test whether the western curtain wall and south tower belong to the same construction phase. Clarifying the physical relation between two structures would shed light to debate on the initial shape of the Triangular Fortress. There were two hypothesis: First, according to Gjerak Karaiskaj the first phase was a triangular fort without towers, with the south tower and two other towers belonging to a second phase.⁸ Second, Richard Andrews proposed a revision of Karaiskaj's phasing.⁹ According to him the south tower was keyed in to the western wall suggesting that these two constructions belonged to the original build of the fortification.



Fig. 4 View of junction between the western curtain wall and the southern tower

During excavation at the trench 1 significant archaeological features were identified. Not far below the topsoil level (about 5-8 cm) in Context 1001 was found a large quantity of metal objects like nails of different shapes, many fragments of tiles and medium sized stones. After removal of this layer, below the South Tower a medium offset or step which seems to form its foundation was found. After a depth of c 60 cm two other tiered rows of the foundation were discovered.

⁸ Gjerak Karaiskaj, 148-149.

⁹ Richard Andrews, et. al, 144.

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After cleaning the foundation stones it was noted that the construction techniques did not differ much from that of the overlying tower and that of western curtain wall. The foundation offsets were built with small and medium cut limestone blocks regularly laid. The stones were bonded with strong mortar and followed the rounded shape of the tower. In total three offsets of the south tower foundation were recorded. However, it is thought that the foundation of the southern tower continued below but due to limitation of level ground water at a depth of 55 cm, the continuation of excavation was not possible. This also prevented reaching the bottom of the western curtain wall. In these circumstances it was decided to open another trench on the other junction between the southern tower and southern wall (for more see trench 5).

Concerning the physical relations between southern tower and western curtain wall, it was observed that their structural connection was not bonded. From a careful cleaning at the junction point between the two structures it was noted that the tower foundation abuts the western curtain wall, suggesting a later date for the construction of the southern tower in comparison with western curtain wall (Fig. 5).



Fig. 5 showing the joint point between the southern tower foundation and western wall, trench 1

To the north-west of trench 1, at a depth of approximately 30 cm from the actual level, the remains of a probable cesspit were found (Fig. 6). It measured 75 cm in height and about 50 cm in width. The upper part of it, circular in shape, was constructed with small stones creating a small basin around 25 cm deep. The lower part was constructed with slate and tile fragments. The cesspit was dug into a brown yellowish deposit not far below the surface of the current level suggesting a late construction of it in this part of the fort.

At the bottom of the basin a dark red colour pipe was found suggesting a *terminus ante quem* to the use of this structure.

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Fig. 6 Western section of trench 1, showing to the right a possible cesspit dating to the ottoman period, in the centre a block of yellow 'natural' deposit and its relation with the tower foundation.

Trench 2

Trench 2 was opened outside perimeter wall on the right side of the southern gateway. The opening of this trench aimed to clarify the relationship between the southern curtain wall and a possible construction of an advanced earthen bastion, *ravelin*, to the south of the main gateway which is observed on several early plans of the fortress. It was judged that trench 2 would stretch southwards measuring 1 x 3 m (Fig. 7). During the excavation of this trench it was noticed that the first layer was the same as the first layer of trench 1. Besides pieces of tiles and medium-sized stones, numerous metal objects like nails, horseshoe and tile were found but with absence of ceramic fragments.



Fig. 7 Trench 2 measuring 1x3m, opened to the south near the main gateway

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At a depth of about 90 cm to the north-east side of the trench and adjacent to the outer wall was found a flat concretion of iron. It measured 4 cm in thickness and length 50 cm (Fig. 8). This probably iron panning deposit abuts the southern curtain wall suggesting a late date of this object in relation to the southern wall. Given the archival records and maps of the time we would think that the iron object might mark the position of the ditch preceding the gateway to the fort. But the very low level of metal object in relation to the current level of the south gate, about 60 cm, suggests the contrary.

Although the purpose of placing flat iron in this part of fortress cannot be precisely defined, it is clear that that object overlay a compact layer, swampy at first glance, which press the southern foundation wall below it. Fill of foundation Context 2009 was an alluvial deposit of dark blue-green colour. In this layer chips of stones, a few ceramic fragments and an oxide iron cannon-ball were found (Fig. 9). At a depth of approximately 1.50 cm further excavations were severely limited by the groundwater.



Fig. 8 flat iron object, trench 2



Fig. 9 iron oxide cannon-ball, trench 2

The foundation of southern wall, context 2008, was constructed with the same technique as the rest of the upper wall. The stones are placed in random courses and most of them are small in size. The mortar used in the construction is strong and often prevents accurate determination of stone shapes. At a depth of 1.7 m foundation overlay two wooden beam placed in crossed position that seems to form the foundation of southern curtain wall (Fig. 10). The first beam followed the line of wall in horizontal course. Beneath the horizontal beam another beam was placed in cross position creating a possible horizontal plate on to which the masonry walls probably had been erected. The timber beneath the masonry supports further the idea that the fortress was constructed on a marshy environment. Regarding the type of wood that was used for the base of erecting the masonry, it is believed to be oak tree that grows around Butrint. However, for a more exact result on the type, the wood was sampled for further analysis.

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Fig. 10 showing beam cross placed on to which the southern curtain wall rises, trench 2

Trench 3

Trench 3 measuring 1.5 x 2.5 m was opened inside the fortification at the junction between the north-east perimeter wall and the gateway with the Lion of St. Mark head's relief above it. (Fig. 11). The opening of Trench 3 aimed firstly to reach to the early stage of wall construction in the interior determining whether or not this wall was built over beams base as it was found in Trench 2 and second to define the physical relation between the gate and northeast wall as well as a possible dating of two structures. The first layer context 3001 as it was seen in trenches 1 and 2 had pieces of tiles, small stones and numerous iron nails. Unlike the outside trenches, here two stone cannon-balls were found while the deposit was thicker.



Fig. 11 View of the St. Mark's gateway

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Below context 3001 was a brown yellowish deposit into which the foundation of the gateway of St. Mark has been found. Foundation of the gateway with a carved head of the Lion of St. Mark was built with limestone in a fair course. Its depth measured approximately 50 cm and the construction technique was similar to the upper part of gateway and that of the northeast wall (Fig. 12). The upper structure of the gateway of St. Mark has no physical relation with the northeast curtain wall and it is clearly by a 2-5 cm space that continued down to the foundation. This clear division between these two structures, observed also in the foundation, proved a later construction date of the gateway.



Fig.12 View of St. Mark gateway foundation and its relations with the northeast curtain wall, trench 3

Beneath the north-eastern wall context 3003, at a depth of 1.25 m a wooden beam was found. It was placed in crossed position with foundation of south-east curtain wall orientating north-south (Fig. 13). Wood beam foundation was found at a depth of 1.2 m from the actual surface level. Further excavations were severely limited by the level of groundwater. This also restricted searching for other wooden beam but this does not excluded their presence along the curtain wall. The deposit that fills the foundation north-eastern wall context 3006, was similar in composition and colour with the filling of southern foundation wall in Trench 2. It was an alluvial deposit of dark blue-green colour with a presence of glazed yellow ochre colour pottery. At the moment it is a little difficult to gain any precise date from the ceramic but it will form a significant find for the post excavation phase.

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*Fig. 13 View of foundation of the northeast curtain wall showing the wooden beam beneath the wall,
Trench 3*

Trench 4

Trench 4 was located at the junction between the north-eastern wall and tower III. It was initially excavated in 2004 by the Albanian Institute of Monuments, in the frame of conservation of the Triangular Fortress. The trench was opened here, probably to follow down the fissure at the north-eastern wall and to gain information about of the physical relation between the structure and tower III. After a search of the Institute of Monuments archive it was clear that there was no documentation. This could have happened because the project was interrupted soon after it started. Consequently, as part of this investigation of the Triangular Fortress it was necessary to clean documenting and examine the old area of the old excavated trench. It was thought that through a combination of cleaning the old sections and making new limited interventions it would be possible to record and understand the earlier unpublished excavation. Moreover, by cleaning trench 4 was aimed to obtain information about potential conservation issues on this part of the fortress composed by north-eastern wall, Tower III and the construction of a possible dwelling further north.

During cleaning trench 4 it was observed that excavation of 2004 did not reach the foundation of north-eastern wall. However, it did make possible the identification of a physical relation between the north-eastern wall and tower III where clearly there was no physical integration even in the foundations. Sections of trench 4 were cleaned recording the stratification and the relations between structures. The bottom of trench 4 was not reached because the wall fissure was not conserved and reinforced after a depth of approximately 1 m. However, ceramics and other findings were collected from this trench. Although they were not in context, it is still worth having some indication of chronology in this part of the fortress.

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Fig. 14 View of western section, Trench 4

Trench 5

Trench 5 was opened after consultations with project consultants and the Butrint National Park authorities as a result of stopping the excavation in trench 1 due to groundwater. Trench 5 measured 1.5 x 2 m and was opened at the joint between the south tower and southern curtain wall (Fig. 15). The excavation in Trench 1 aimed first to pursue the physical relation between the tower and southern wall (thus reinforcing the idea of a later construction for the southern tower); second to identify whether the basement of the tower continued with the same construction in stairs as proved in Trench 1 and last to see if both foundations of the wall and tower were built were on wooden beams.



Fig. 15 View of joint between south tower and curtain wall, Trench 5

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During the excavation in trench 5 it was observed, as in trench 1, that the southern tower abuts the south curtain wall. The juncture of the two structures was formed by small stones and very strong mortar. Construction techniques of southern wall foundation and tower foundation appear to be similar. Both foundations were built in medium sized limestone blocks well set. Interestingly, it appeared that the foundation of the southern tower (Fig. 16), unlike the foundation in Trench 1 which had three offsets, in Trench 5 only a high elegant single step. However, there is a possibility for a another offset lower down but this was unfortunately not found due to groundwater at a depth of nearly 2 m from the surface. It is important to note the higher level of the current surface in this part in comparison with the rest of the fort. This could presumably be the make-up for the *ravelin* interior removed by the reclamation works during 1960-1970s.

Regarding the deposits in trench 5, the first layer (context 5001) was the same as the initial layers in trenches 1, 2 and 3. The deposit 5003 that was found below a depth of 1 m from the actual surface, contained considerable archaeological material. This deposit, in terms of physical relations, abuts the south tower and curtain wall suggesting a later date on both structures. The height of context 5003 was around 40 cm and was located throughout the trench. Below, in a depth of 2.2 m from the actual surface, there were indications for another deposit, ochre in colour but groundwater level limited further excavation.



Fig. 16 View of junction between the southern wall and the south tower, trench 5

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Foundations inside and outside the fort

In order to complete documentation of architectural elements of the Triangular Fortress, it was thought to clean the surface vegetation inside and outside the fort making visible traces of early foundations mentioned by Karaiskaj and Bescoby (Fig. 17).

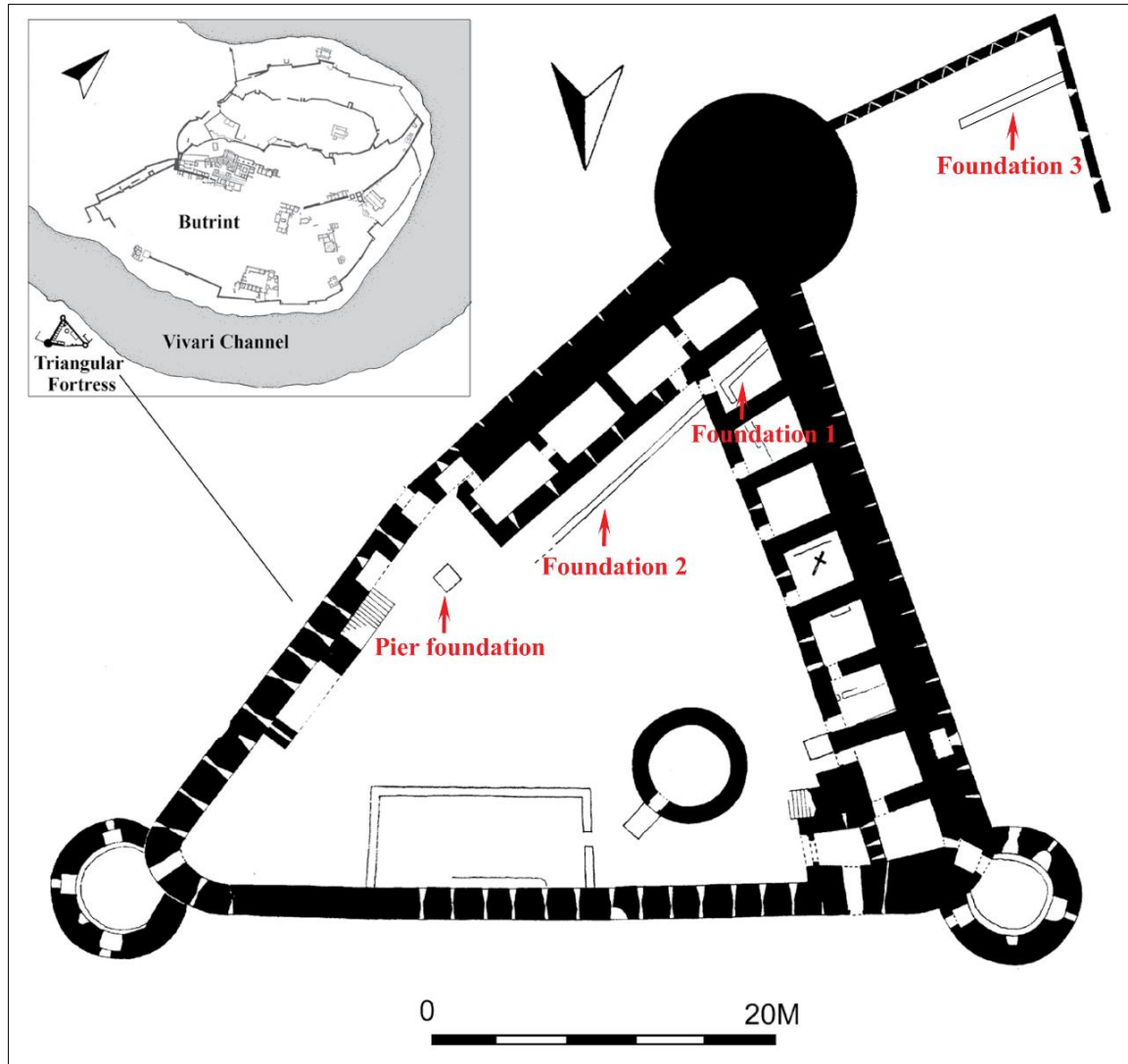


Fig. 17 Location of foundations 1, 2, 3 and the pier foundation

After cleaning inside the western vaulted rooms, it was noticed that foundation 1 seems to have formed a closed space in its original form which went probably out of use with the erection of rooms to the west (Fig. 18). It is possible that this foundation would have physically related to the western curtain wall as the wall of the rooms cut the continuity of Foundation 1 further west. It was further noted that the base of this foundation was wider at the bottom forming thus a solid foundation for a heavy structure.

Foundation 2 is located inside the courtyard of the fortress extending east-west (Fig. 19). Construction was of limestone with the same orientation and more or less same alignment as foundation 1. Both foundations could have had a physical relation that was later interrupted by the building of the western vaulted rooms. Foundation 2 is also interrupted by the rooms with firing loops to the south. It seems that Foundation 2 formed an enclosed space with the southern curtain wall that was interrupted by the construction of rooms to the south.

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Fig. 18
Foundation 1 inside the western rooms

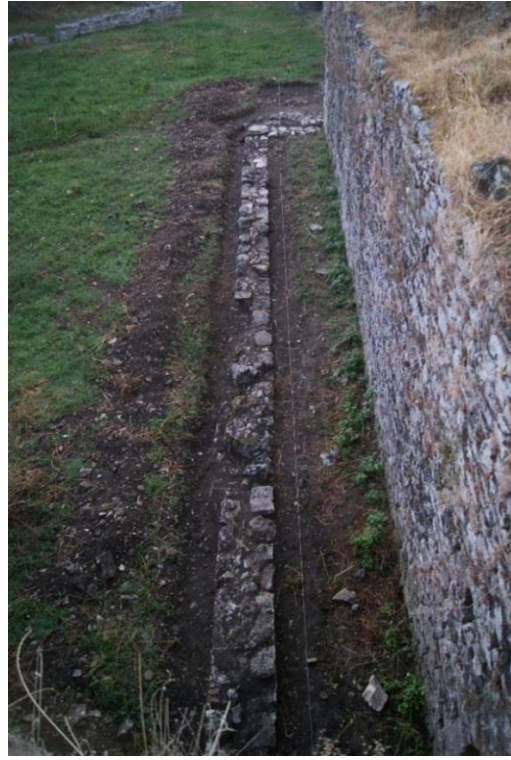


Fig. 19
Foundation 2 outside the southern rooms

It is difficult to conclude whether there was originally physical connectivity between foundation 1 and 2. The construction of vaulted rooms to the west could have destroyed any probable relation between the two structures. However, further excavations in this area could elucidate this dispute. To the east of foundation 2 the foundation of a pier was identified with dimensions 1.20 x 1.20 m not mentioned earlier neither by Karaiskaj nor by Bescoby (Fig. 20). It was noted that the base of column and foundation 2 had no physical connection between, although their construction techniques seemed to be the same.



Fig. 20 View of a foundation pier near the south main entrance into the fort

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For a probable dating of two foundations and column base, it is hard to say and further researches are required. With the exception of the base of column, Karaiskaj dates two foundations 1 and 2 to late antiquity, taking into account the construction technique and the level of getting them under actual construction. By cleaning the foundation 1 in the western rooms few ceramic fragments were found thought to be Venetian. However, further excavations could better explain the relations and chronology of their construction. On the western side outside the fort a further foundation wall was cleaned (Fig. 21). The foundation had an extension east-west and alignment with two rows of stone. It was noted that foundation 3 was of the same build as the courtyard surrounding wall which Karaiskaj dates as the last phase of construction. Initially an open space with two columns, foundation 3 was used to create an enclosed area in a later date by blocking space between the two columns. This could have been the time when the courtyard surrounding wall lost its original purpose and was probably used for other activities. The exact date and usage is unclear for the moment but further archaeological research would shed light on this area of the fort.



Fig. 21 View of Foundation 3 on the west outer part of the fort

Pottery

The trial excavation at the Triangular Fortress in 2014 yielded a considerable fragments of maiolica ware. From a preliminary analysis of pottery finds it was possible to gain information on dates, contacts and relations of Butrint during the late period. They include, amongst others, fragments of maioliche policrome spirali verdi from Montelupo of the 17th century (Fig. 22).¹⁰ These fragments were found especially in Trench 4 an area that is believed was divided into separated territories under license of different families.¹¹

¹⁰ Joanita Vromm, Corfu's right eyes, Venetian pottery in Butrint (Albania). In *The Heritage of the Serrenissima* The presentation of the architectural and archeological remains of the venetian republic. Venecia 2005. 7

¹¹ Sally Martin. The topography of Butrint. In R. Hodges, W. Bowden, & K. Lako, *Byzantine Butrint: Excavations and surveys 1994-99* (pp. 76-103). Oxford: Oxbow 2004.

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Fig 22 Fragments of maioliche a spirali verdi and glazed ware

In addition, many pieces of monochrome white glazed wares (monochrome bianche) from North Italy of the 18th century and various types of later and coarser maiolica (also known as mezzamaiolica) from Central Italy of the 17th-18th centuries were found in Trench 5 (Fig. 23).



Fig 23 Fragments of monochrome bianche

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Finally, the pottery finds include polychrome maiolica and painted are from Grottaglie or Corfu (Fig 24) of the 18th-end of the 19th centuries.



Fig. 24 painted ware from Grottaglie or Corfu

Conclusion

Trial excavations at the Triangular Fortress during season 2014 have added important information relating to the constructions, phases and understating of this monument in Butrint. Results were able to respond some of the questions raised at the beginning of the research, while raising other issues that will form the basis for future research. Generally, the main conclusions of this season can be summarised as the follow:

The early phase of construction of the Triangular Fortress seems to have been built on swampy environment which had oriented the construction of curtain walls. As it was proved in Trenches 2 and 3, the curtain walls of the triangular enclosure were erected on wooden beams providing a base that was both flexible and solid enough to support a substantial structure above ground, which would not sink into the swamp.

From excavations of four trenches no evidence was recovered that would show that the Triangular Fortress was built on an early foundation. Foundations 1 and 2 located inside the bailey and dated to the late antiquity by Karaiskaj, are undoubtedly later than the vaulted rooms but we cannot said with certainty whether they are earlier than the curtain walls. Not unless other excavations of foundations, early identified from geophysics studies, will prove the contrary.

Another significant outcome of this season was the clarification of physical relations between the southern tower and the curtain walls. As it was seen in the trenches 1 and 5 the foundation of southern tower abuts the curtain walls both of its parts. As results, it can be suggested that the initial phase of the fortress, as Karaiskaj rightly identified early, could have been a triangular shape without towers on the edges. Construction of the southern tower seems to belong to another phase, which referring to the wall's construction technique and material used in both structures, suggests that the southern tower would have been erected not too much later than that of the curtain wall.

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Concerning the architectural features outside the southern gate, it can be say that during excavation in Trench 2 it was not possible to find any clue of a possible ditch along the southern wall and main entrance as the maps of the time show. Reclamation works carried out in the Vrina plain during 1960-70s may have destroyed what could have been an advanced triangular bastion, ravelin, defending the southern entrance. Finding of a communist-era iron cable in trench 5 to a depth of about 90 cm from the surface further supports this idea.

Finally, to west-northeast outside the fort were found architectural elements and other finds showing, as the engravings of the time (Fig. 25), for erection of a small village around the Triangular Fortress which served mainly as a point of embarkation for goods (timbers, olive and fish). The continuous presence of imported wares dating to 16th-19th centuries from Italy and painted ware of Grottaglie/Corfu found during excavation, suggested that exchanges of the Late Butrint/Triangular Fortress were still active with north and central Italy, the region of Apulia and Corfu until the end of 19th century despite its political administration under the ottomans.



Fig. 25 View of the Triangular Fortress in mid-19th century, Cook.

Post excavation

During the archaeological excavations at the Triangular Fortress glazed and coarse ceramics were found dating to the 16th century and later. Glass and iron objects were also found in almost every trench sometimes associated with iron and stone cannon-ball of different size. All finds compose significant evidence for dating spot and further study of Triangular Fortress character at different stages. They are being processed and the results will be forwarded to the Butrint Foundation in the future.

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Publication of the Triangular Fortress results is planned to be published in an article to *Illyria*. It will cover most of the studies carried out so far on the fort and will be accompanied by reports on the ceramics and principal dating evidence for this site. This is intended to be ready by the end of 2016. Moreover, articles will be submitted for publication to the *British School of at Athens* and *Archaeologia Medievale* by 2017.

Further updated notes on the fabric of the fortress will be submitted to the Butrint National Park as well as the Institute of Monuments in order to be recorded on the digital Condition Survey that the Butrint Foundation gave to both these institutions for future updating.

It was previously agreed in principle with the Butrint National Park for cooperation opportunities in a conservation programme for the Triangular Fortress based on the 2014 results. A programme for possible conservation project will be submitted to the Butrint Foundation in the future.

Acknowledgement

We would like to express our deep gratitude to the Butrint Foundation who has generously funded the research project at the Triangular Fortress in 2014.

Thanks go to Prof. Luan Përzhita (Director of the Institute of Archaeology) for his help and decisions taken during the fieldwork phase as well as Prof. Dhimitër Condi (County Archaeologist) for his assistance.

A special thanks goes to Mr. Brian Ayers for his professional consultation about medieval castles and fortifications in the preliminary phase of research.

We wish to extend our thanks to the former director of the Butrint National Park Mr. Raimond Kola for his collaboration and assistance that he provided with his team during the project of the Triangular Fortress.

The process of research and field study phase would not be possible without the help of assistants who participated in this project thanks goes to all of them:

The excavation would not have been possible without the hard work of the following site and finds assistants, and technicians – thanks are extended to them all: Eriona Qilla (Archaeologist at the Butrint National Park), Mirgen Shahmetaj (archaeologist/designer), Andy Crowson, Oliver Gilkes Joanita Vroom, Samantha Garwood and to all of our friends for their help.

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Fig. 4 View of junction between the western curtain wall and the southern tower

Fig. 5 showing the joint point between the southern tower foundation and western wall, trench 1

Fig. 6 Western section of trench 1, showing to the right a possible cesspit dating to the ottoman period, in the centre a block of yellow 'natural' deposit and its relation with the tower foundation.

Fig. 7 Trench 2 measuring 1x3m, opened to the south near the main gateway

Fig. 8 Flat iron object, trench 2

Fig. 9 Oxide cannon-ball made of iron, trench 2

Fig. 10 showing beam cross placed on to which the southern curtain wall rises, trench 2

Fig. 11 View of the St. Mark's gateway

Fig. 12 View of St. Mark's gateway foundation and its relations with the northeast curtain wall, trench 3

Fig. 13 View of foundation of the northeast curtain wall showing the wooden beam beneath the wall, trench 3

Fig. 14 View of western section, trench 4

Fig. 15 View of joint between south tower and curtain wall, trench 5

Fig. 16 View of junction between the southern wall and the south tower, trench 5

Fig. 17 Location of foundations 1, 2, 3 and the pier foundation

Fig. 18 Foundation 1 inside the western rooms

Fig. 19 Foundation 2 outside the southern rooms

Fig. 20 View of a foundation pier near the south main entrance into the fort

Fig. 21 View of foundation 3 on the west outer part of the fort

Fig. 22 Fragments of maioliche a spirali verdi and glazed ware

Fig. 23 Fragments of monochrome bianche

Fig. 24 painted ware from Grottaglie or Corfu

Fig. 25 View of the Triangular Fortress in mid-19th century, Cook.

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Bibliography

- Andrews, R., Bowden, W., Gilkes, O., & Martin, S. (2004). The late antique and medieval fortification of Butrint. In R. Hodges, W. Bowden, & K. Lako, *Byzantine Butrint: Excavations and Surveys 1994-1999* (pp. 126-150). Oxford: Oxbow
- Bescoby, D. *Geophysical investigation of the triangular Venetian castle at Butrint, 2004*. Unpublished report.
- Crowson, A. (2007). *Venetian Butrint*. London: Butrint Foundation.
- Davies, S. (2012). Late Venetian Butrint: 16-18 centuries. In I. L. Hansen, R. Hodges, & S. Leppard, *Butrint 4: The Archaeology and Histories of an Ionian Town* (pp. 280-288). Oxford: Oxbow.
- Davies, S. (2006). Late Venetian Butrint 16-18, unpublished report, The Butrint Foundation.
- Hodges, R. (2008). The rise and fall of Byzantine Butrint. London: Butrint Foundation
- Karaiskaj, G. (1976). Fortifikimet Mesjetare pranë Kanalit të Vivarit në Butrint dhe restaurimi i tyre. *Monumentet 11*, 147-158.
- Martin, S. (2004). The topography of Butrint. In R. Hodges, W. Bowden, & K. Lako, *Byzantine Butrint: Excavations and surveys 1994-99* (pp. 76-103). Oxford: Oxbow.
- Ugolini, L. M. (1937). *Butrinto: Il Mito d'Enea Gli Scavi* . Rome: Istituto Grafico Tiberino.

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Appendix

(Stratigraphic matrix of Triangular fortress, 2014)

