

## Reports

### German-Israeli research on the Crusader town of Arsur and its former lordship

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Some 15 km north of the centre of Tel Aviv/Jaffa lays the desolate Crusader Period town of Arsur on a cliff above the sea. Only a few visible relics indicate the long history of the place, which was already settled during Persian times. In Hellenistic to Roman times, it was called Apollonia, named after the god Apollo, while the Byzantines called it Sozousa, "town of the Redeemer". After the Arabian Conquest, the town reverted to the original Semitic name, so that it was called Arshaf or Arsuf. When the Franks conquered the town in 1101, they changed its name slightly to Arsur. The historical connections were obviously unknown to the Crusaders, as they repeatedly conflated Arsur with the classical Antipatris, Azotus or Dor, the location of which was unknown to them (Beyer 1950: 155).

Archaeological excavations in Israel are often motivated politically or religiously. This can be seen by the archaeological emphasis on particular periods. The entire Middle Ages and especially the more modern periods are, up to now, largely underrepresented in archaeological research. The main research interests for the Crusader Period have always been castles, fortifications and churches. In contrast, studies of towns and settlements in general still take a backseat. Recent publications on fortifications and towns in the eastern Mediterranean (e.g. Piana 2008; Wieczorek et al. 2005) accordingly rely primarily on results of field walking and architectural investigations of buildings that still stand.

One searches in vain for comprehensive and comparative studies on medieval towns and the urban development of the Crusader Period in all of its aspects, such as planning, construction and use of public and private areas, the typology of housing, technology and craftsmanship, facilities for water supply or infrastructure, etc. The rural hinterland of the Crusaders' castles and towns is treated only in a single large-scale perspective based on all of Israel by Ronnie Ellenblum (1998). A groundbreaking archaeological settlement study on the development of the landscape in the southwest of Caesarea, which also includes the natural resources, in addition to an exemplary archaeological survey and the analyses of written sources, was published by Denys Pringle as early as 1986, but remained largely unnoticed by later researchers. Thus, at the moment, the landscape archaeology of the medieval period is largely neglected in Israel. Studies on medieval "Arab villages" are almost completely missing.

This *desideratum* also applies to the finds material. Our knowledge of medieval ceramic in Palestine – no matter whether early Islamic, Crusader or Mamluk – is still limited. Salvage excavations in towns and research excavations in castles provide important regional insights (e.g. Avissar/Stern 2005; Stern 2012). However, the biggest problem is the absolute chronology, which usually relies on historical data. Most digs in Israel excavate in small grids following artificial layers, resulting only rarely in reliable stratigraphies.

The archaeological research in Apollonia/Arsur has so far focused mainly on the Antique and Byzantine settlement and the Crusader castle (fig. 1). During salvage excavations within the area of a military factory, which was built in the eastern part of the deserted town after 1950, and through research excavations within the archaeological park, medieval structures were also exposed. But these were not the primary aim of the research and thus have not yet been comprehensively evaluated (Roll 1996, 1999; Tal/Roll 2012). Only about 3% of the medieval town, which covered an area of approximately 8.5 ha, had been archaeologically investigated at the beginning of the current cooperation project.

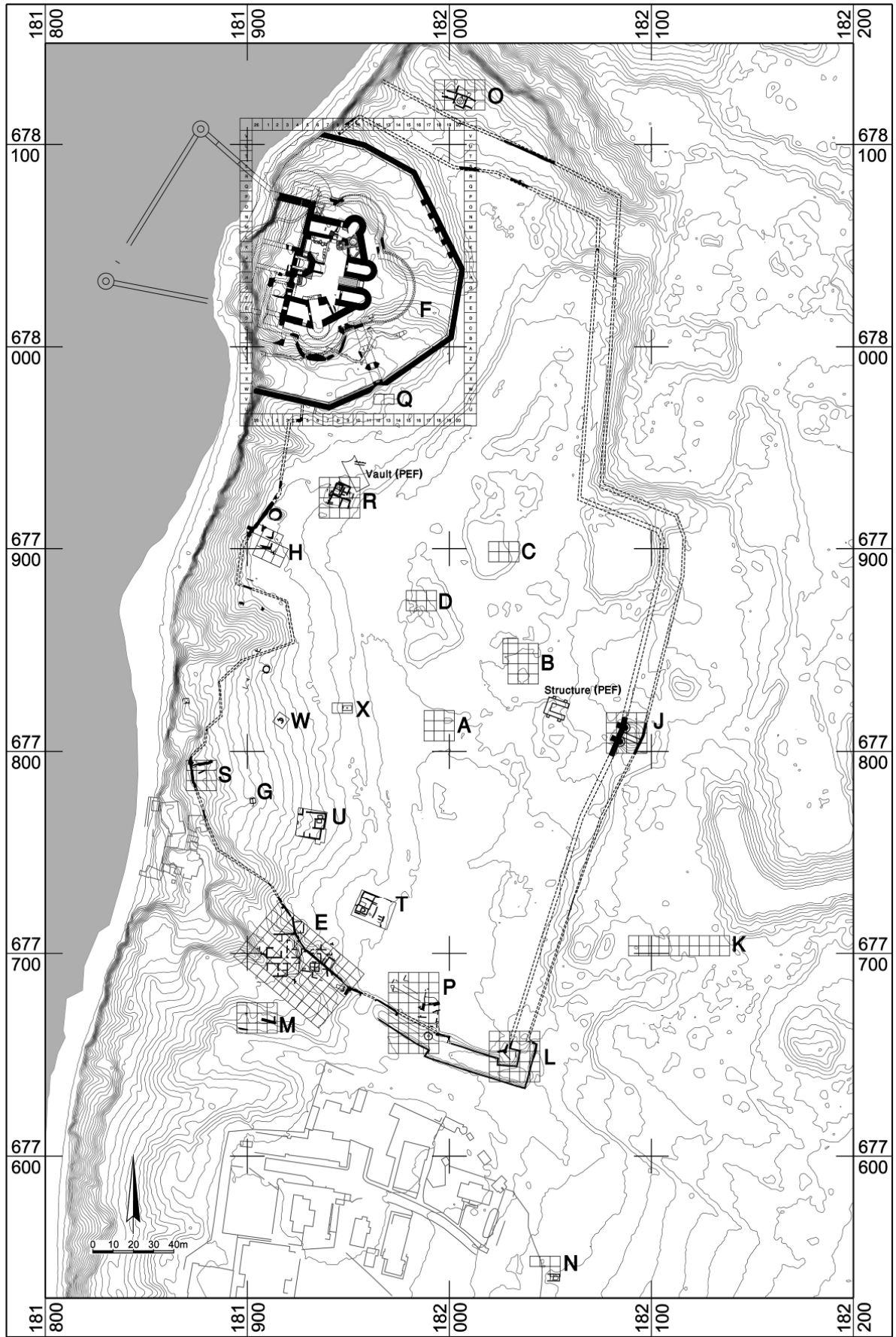


Fig. 1: Site plan of Apollonia/Arsur with excavated areas (drawing by S. Pirsky).

It was only luck for medieval studies in Israel that the town and the neighbouring castle were completely destroyed after the reconquest by the Mamluk Sultan Baibars in 1265 and never became inhabited again. The eastern part of the town was admittedly deeply disturbed during the construction of the military compound. But the factory was closed down and the buildings were dismantled a few years ago, so the entire medieval site is now accessible for archaeological research. Prof. Oren Tal of Tel Aviv University recognized the potential of the deserted town and had the idea for the collaboration with a German university with a focus on medieval settlement archaeology. Together with Prof. Barbara Scholkmann of the University of Tübingen, a research proposal was prepared, which was approved by the German Research Foundation in 2012 and funding extended in 2014 for a period of four years.

The project consists of different interrelated sub-areas:

- non-invasive survey methods
- examination of historical and archival sources
- trial trenches and larger stratigraphic excavations in selected areas
- analysis of the medieval features and findings from older excavations
- classification of the Crusader ceramics
- town-hinterland relationships

### **Surveys**

Firstly, an overview of the overall structure of the town had to be obtained. A digital terrain model of the town area inside the partially preserved fortification and of the surrounding area was created by Airborne Laser Scanning (ALS) – also called LiDAR (Light Detection and Ranging). The data obtained were also used as the basis for a new completely digitalized site plan with integration of all archaeological results achieved so far. The terrain model indeed reveals many details in the undisturbed parts, such as footpaths, old excavation trenches, erosion lines, old field margins and the shape of the steep cliff with the beach in front. The heavy damage due to the building of the factory are clearly depicted as well. On the one hand, great embankments were created to the east, while in other areas, the level was sunk significantly. To the north, a large and deep ditch was created running towards the sea, which destroyed parts of the town fortification.

The construction of the factory also had negative effects on the geomagnetic survey of the eastern area, caused by ferrous objects and an outer fence with a broad road in front of it affecting magnetism in the ground. These disturbances cover up the possibly present weaker deflections of archaeological objects. In early summer 2012, all accessible areas, which means areas not covered by modern embankments or overgrown with shrubs or small trees, were investigated with the help of geomagnetic survey. In this way, a reliable overview of the final building phase finally was achieved for the western part of the town. Areas particularly important for the development of the medieval town were also surveyed with ground penetrating radar (GPR). The greater depth of penetration in combination with the insensitivity to contamination with iron objects achieves an extremely differentiated insight into the subsoil in smaller areas.

Further information taken into account came from older archaeological surveys and aerial photographs from the British Mandate period that ended in 1947/1948.

### **Excavations**

Mainly on the basis of the results of the geomagnetic survey, three areas with noticeably different archaeological structures were selected for excavation in the summer. The excavation team for each campaign is composed of students from Tübingen and Tel Aviv, as well as numerous volunteers from around the world (for volunteering see: [http://archaeology.tau.ac.il/?page\\_id=2103](http://archaeology.tau.ac.il/?page_id=2103)). In total, approximately 520 m<sup>2</sup> have been investigated stratigraphically so far.

In 2012, a small trench (Area W; fig. 1) was opened to investigate a suspected oven discovered by geomagnetic survey. In fact, a round late Byzantine structure was found with clear marks of heating, which has to be interpreted as an oven or a silo for incineration of waste. Several similar anomalies in the near vicinity can now be explained as corresponding



structures. Furthermore, it was found that this north-western slope of the town was obviously not settled in the Middle Ages.

In the geomagnetic measurement, the two extensive trenches showed on the one hand a large building complex on the steep slope towards the sea (Area U) and, on the other hand, structures that were divided into smaller rooms, situated in the highest parts of the former town near the southern fortification (Area T).

In the more than 14 x 14 m Area U, the well-preserved masonry of a building and an economically used area with a courtyard were excavated. Uphill was a residential building whose slope side was secured by a supporting wall. Via a staircase, one could enter the subjacent economical area with a stone-built cesspit and a small lodge or stable. Adjacent to this area were a roofed room and a corridor, which lead into the inner yard paved with stone slabs. Here the remains of a Byzantine mosaic was found. Another entrance was to the north.

In all archaeological features in the northern half of the excavated area, one can observe several periods. This means that Byzantine and early Islamic structures were integrated into those of the Crusader time. In the most recent phase, probably after a fire, the south-eastern part of the excavated area was filled with debris more than 1 m high. Thereon a large building with a ground plan divided into small sections was built. The entrance was probably in the south or west.

Especially noteworthy is the necessary terracing of the terrain due to the heavy downhill gradient of 18%. Despite two gullies and emplacements from World War I, structures from the Byzantine to the Crusader times are well preserved. The find material predominantly dates to the 12<sup>th</sup> and the beginning of the 13<sup>th</sup> century. However, objects from the time right before the destruction of the town, around the middle of the 13<sup>th</sup> century, are generally missing, which is an indication that this slope area was not settled at the time when the family of Ibelin and, later, the Hospitallers took over the town.

The classification of the stratified pottery finds is always undertaken on site during each excavation campaign (fig. 2). Therefore, Dr Lisa Yehuda has created a completely new database, into which finds from older excavations are already incorporated.



Fig. 2: A small Crusader period lamp, Beirut ware, 12<sup>th</sup>/13<sup>th</sup> century (photo by N. Walzer).



*Fig. 3: Complete view of Area T, seen from the west.*

The recent past is also an important part of the history of Arsur. In an aerial photograph of the British armed forces from 1923, numerous emplacements and trenches from the First World War are visible. One of these emplacements was excavated in Area U. Besides many cartridge cases, artifacts such as uniform buttons and different types of tins were also found in situ.

The small-scale structures in Area T (fig. 3) turned out not only to be in very good condition, but also very complex. Up until the end of the last campaign in 2014, the trench was extended repeatedly, until it reached 300 m<sup>2</sup>. Two complete house plans with entrances and elaborated ground plans, a kitchen and economic area, including a tabun (a mud oven) and a vaulted rubbish pit, were discovered. Multi-phase pavements, pillars, further rooms with screed floors, square pools, sewers – among them a channel covered by stone slabs – and obviously a cistern, reflect the diversity of this densely-occupied area at the southern border of the town. The excavation work will continue here in 2015.

Byzantine structures could not be definitely identified here. However, extensive settlement remains of the 9<sup>th</sup> and 11<sup>th</sup> century, which were rebuilt several times during the Crusader Period, were excavated. Some buildings showed significant marks of destruction by fire; a ballista stone and an arrowhead were among the findings.

### **Town and hinterland**

For its supplies, the town did not rely solely on the small harbour, but also on a developed rural hinterland. The borders of the Crusader lordship of Arsur presumably go back to early Islamic times (fig. 4). Already in that period, the town was the principal town of a district (called kura or kuwar) (Khalilieh 2008: 159-160; Taragan 2004: 85). The adoption of the Muslim administrative organization made it possible for the Franks to execute their manorial rights in villages and towns and to collect taxes from harbours, markets and trade routes. For even after the Crusader conquest, the local population remained mostly in their homeland. In spite of this, the change of leadership had consequences for the settlement pattern.

The foundations of any agricultural use of an area are the natural conditions. Thus, the reconstruction of the historical conditions is an important aim of the project, because the landscape changed dramatically after the foundation of the state of Israel. Previously, parts of the extensive plain between the coast and mountain range were marshes, where water buffalos



grazed. The water coming from the mountains found only a few natural drains into the sea. The way to the sea was blocked by several lines of old cliffs of fossilized dune sand (*kurkar*). Out of the plains rise large isolated areas consisting of a reddish sandy soil (*hamra*), which are dry, but less fertile without artificial fertilization. Forests grew here until the end of the 19<sup>th</sup> century. In the Crusader period, a particularly large forest was located north of Arsur, which played an important role in the course of the famous battle of Arsur, a turning point during the third Crusade (Röhrich 1898: 585). Later, Baibars gathered his army here under the pretence of a lion hunt. The land in the Yarkon basin and at the foot of the Samaritan mountains, where alluvial soils predominate, was fertile. In addition, the river powered many flour mills. The mountainous regions were particularly used for livestock farming and olive groves.

In order to understand the settlement development during the medieval period, all available archaeological, historical and geographical information sources are collected and processed in a geographic information system (GIS). Most important is information from the time before and during the British mandate. Back then, many areas were surveyed systematically, so sites that are completely destroyed today are still preserved in photographs, written records and through finds. Up to now, more than 200 sites or single finds from the early Islamic, Crusader and Mamluk period have been assembled, which allow a first insight into the settlement process.

The preliminary results show that the coastal plain was densely populated and occupied by small rural settlements until the second half of the 10<sup>th</sup> century (Umayyads and Abbasids). Since the Roman period, the area has been artificially drained, and the most favourable soils were used for agriculture. Obviously, the necessary installations were not maintained with enough care towards the end of the early Islamic period (Fatimids). Before the arrival of the Crusaders, the population seems to have decreased, the settlement thinned out and was concentrated in fewer places. Only some time after the establishment of the Kingdom of Jerusalem a new increase of population and settlements became apparent. In contrast, in the mountains, the settlement pattern persisted largely unchanged over the centuries.

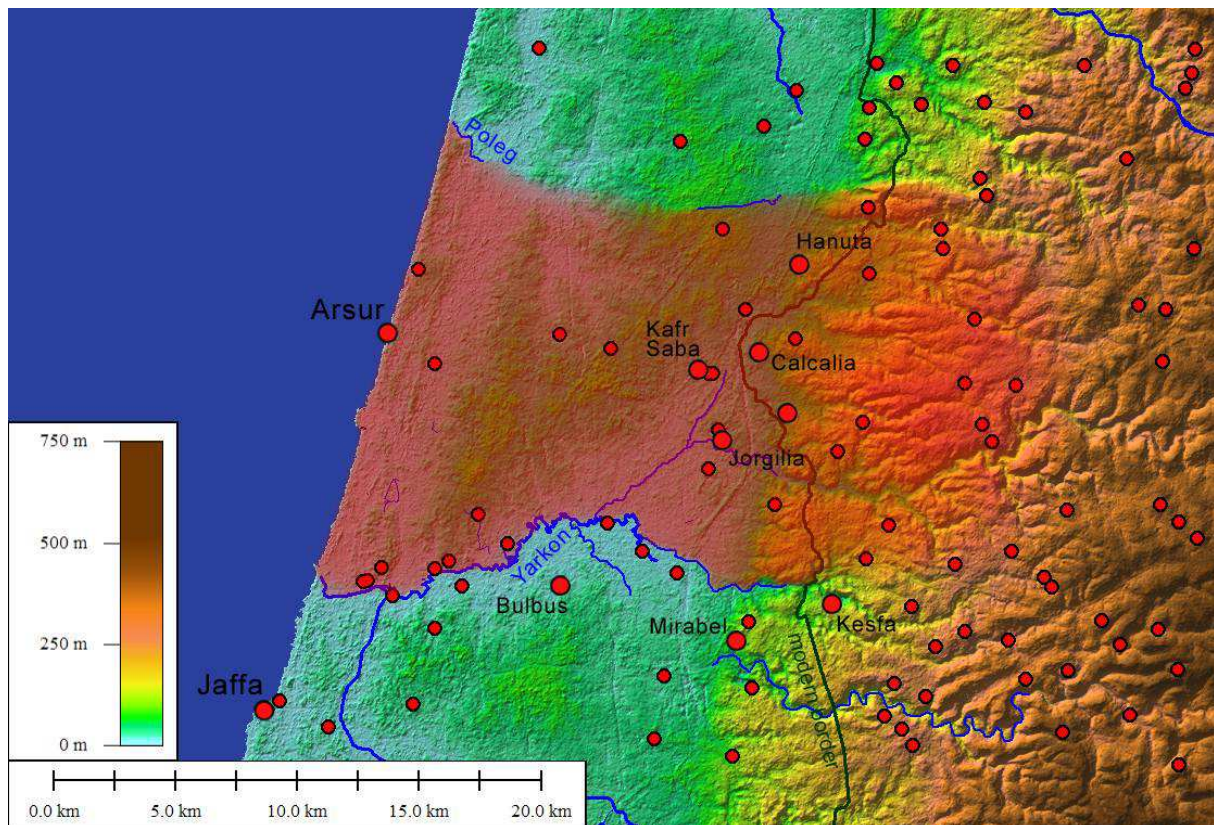


Fig. 4: All find spots of the Crusader period in the investigated area. The former lordship of Arsur is highlighted in red.





Fig. 5: Excavation work in Area T.

Town and castle formed the sole centre in the comparatively small dominion of Arsur. All other settlement remained far behind in size and importance. The rural environment was characterized by small villages or farmsteads. Of special importance were probably the revenues from the water mills.

As a result of the Mamluk conquest, the coastal plain became almost abandoned, without noteworthy settlements. Baibars made it the homeland of nomadic tribes. During this time, the country served as pasture ground. Permanent settlements were moved further eastward to the foot of the mountain range, where the population along the old caravan route from Cairo to Damascus increased considerably. Central functions of the major coastal towns Arsur and Caesarea, both having been destroyed by Baibars, were transferred to the inland town Caco (Qagun), halfway between the former capitals. The only remaining settlement near Arsur was a small village to the south, near the tomb of Sayyidna 'Ali, a holy Muslim man.

### **Archaeology in a conflict area**

Originally, extensive excavations in Area U and archaeological surveys along the borders and inside the West Bank were planned for 2014, but had to be cancelled due to the political situation. While Israel can be described as a very safe country, the situation can change quite abruptly, as occurred in July and August 2014. It was no easy decision to continue the project during the Gaza war, especially since many foreign colleagues interrupted their research in Israel this year. Reliable project partners and colleagues in Israel, alongside our close contact with both the Federal Foreign Office the German embassy in Tel Aviv helped us to make our decision.

In the end, the excavation was continued as it has every summer, but, understandably, very few volunteers or Israeli students participated (fig. 5). As a result, the small team had to work even harder and was also subject to constant psychological pressure due to the political situation, the media and those who stayed at home. Luckily, the team was spared from rocket attacks, despite three alarms. But the sirens of neighbouring villages could be heard more often than not and army helicopters flew frequently along the coast to the south. It

should be mentioned here, as an interesting and important experience, how extremely different the various countries and their media reported on the ongoing conflict. This led from time to time to discussions and misunderstandings with friends and family members at home, as well as with participants and partners in Israel. It would certainly be desirable for archaeological research to focus on the scientific issues, stay out of current conflicts in a country, and try not to be exploited for one or the other side. We are nevertheless aware that this is not always possible and the mere execution of a project can sometimes be regarded as a political statement.

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