Landscape Study at Andarin, Syria
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During the first full season of landscape study around Andarin during September 2005, the team consisted of Dr Marlia Mango, Simon Greenslade, Dr Robert Hoyland, Sarah Leppard, Prof Cyril Mango, Dr Anne McCabe, Khalid Mohammed, Theo Papaioannou, Stuart Randall, and James Stockbridge. As in our short planning season in 2004, we relied on the preparatory GIS work of Carrie Hritz and the kite photographs of Richard Anderson, both of whom were unable to join us in the field. Our 2005 work concentrated on the eastern half of the rectangular study area, 22 x 14 km, which extends around Andarin and for 7.5 km to the west of the site. Major features there are the systems of qanats and irrigation reservoirs. The western half of the study area encompasses the 10 km long basalt north-south djebel which will be explored in 2006.

Our first goal in 2005 was to establish a basic map using coordinates provided by Carrie Hritz's remote sensing combined with our GPS readings on the ground. We verified the location of 44 sites and eight off site features. We also prepared draft site plans of six main sites (Sammaqiyya, Umm al-Jurun, Maskhhiyya, Homeh, Halibhiyya, Najam al-Zuhur) that lie between Andarin and the djebel, of two reservoirs (north and northeast of Andarin) and of four qanats previously unrecorded. The draft site plans, recorded by Robert Hoyland using a GPS unit, established the configuration of each site and the location of its natural features, buildings, and loose finds. The 19 identified buildings at the various sites were planned by Simon Greenslade and Sarah Leppard. Anne McCabe recorded 131 loose architectural and agricultural finds. Pottery collection, overseen by Stuart Randall, James Stockbridge, and Khalid Muhammed, took place within grids forming 10 x 10 m collection units plotted by GPS. James produced a detailed report on collection strategy and conditions. The 7,360 pottery sherds collected at 13 locations were sorted into fine and coarse wares, counted (but not yet weighed) and recorded by site by Theo Papaioannou who also produced a report; around 500 pieces were photographed. Four areas studied deserve longer commentary here.

1. The southeast reservoir and Sammaqiyya
The southeast reservoir inlet water emptied into a settling pool before entering the reservoir. The pool also opens into two lateral channels. In 2000-03 we traced that on the west side which bent around the south corner of the reservoir and continued northwest, parallel to the reservoir outlet. Since our current
permit allows us to complete earlier excavation, in September 2005 we uncovered the last section of this lateral channel where it terminates in a basin, only partially excavated, which now requires further investigation as to its date and function.

Related to this discovery are aerial photographs of the 1930s and satellite images of the 1960s which show a broad channel running from the area of this basin as far west as the village of Sammaqiyya. Our kite photographs of 2003 show traces of its path. Unfortunately, two trenches cut across this path at the end of our 2005 season revealed no trace of this channel. Local people then told us that the channel had been demolished 'about 10 years ago'; a clearer description of the channel and any extant remains will be sought in 2006.

While H.C. Butler who recorded buildings at Andarin in 1905 placed the southeast reservoir in the second century AD on the basis of style, a radiocarbon reading on charcoal in a cement sample from the reservoir's floor gave a dating span in the sixth-seventh century, a period contemporary with key buildings excavated in the centre of Andarin. A late Roman date for the reservoir is supported by the pottery gathered in 2005 on the outlet side where we presume, water was conveyed to a cultivated field which was manured with waste material containing broken pottery. Among the 607 sherds collected, all imported finewares correspond to Late Roman types excavated in the Byzantine bath within Andarin; none predates this period.

To the west of Andarin a north-south qanat feeds the reservoir northwest of the site. Opposite Andarin a short branch of this qanat runs west towards the modern village of Sammaqiyya where it terminates at, or apparently within, a square mud-brick and basalt enclosure or building (see CBRL Newsletter 2005, figure on p. 54). We planned this together with a nearby mound and presumed small quarry, but were unable to investigate them further because of the conditions of our study permit. No other ancient structures were noted at Sammaqiyya and the few loose finds recorded within the modern village were recently brought there from Andarin and elsewhere. It appears that this site was an activity area rather than a settlement, with the activity in question requiring a water supply.

2. The north area including Umm al-Jurun
To the east of the northwest reservoir lie two more reservoirs which are now only barely visible on the surface. We planned both of them as far as was possible and collected pottery on what we calculated were their outlet sides. Adjacent to both reservoirs are the remains (including parts of doorways and other worked stones) of a single, contemporary building of the type we had partly excavated at the northwest reservoir in 2003.

The northwest reservoir, partly excavated in 2002-03, resembles in many respects (size, layout, masonry, elaborate decoration) the southeast reservoir. We traced its main outlet channel 700 m to the north.
In 2005, we uncovered another 272 m, bringing it to within 550 m of Umm al-Jurun, the site of an ancient complex 2.8 km northwest of Andarim. The boundary stone set up (527–548) there in the names of the Emperor Justinian and his wife, Theodora, to mark the property 'of the martyr Jacob', had been lost after we photographed it in 1999, but was happily rediscovered in a new location in 2005 and removed to Qasr Ibn Wardan for eventual deposit in the Ham央 Museum. The stone was first discovered 500 m north of a mound area (c. 120 × 120 m) which may contain a building such as a martiyrium. Decorative architectural members strewn across the area include a column, an elaborately decorated capital, two column bases, three thresholds, three door jambs, and part of a Proconnesian marble slab carved with a cross. What may be a sarcophagus lies to the north of the mound and the body of a reliquary, possibly related to Jacob the Martyr, which may come from this site, was discovered by us in 2004 (see CBRL Newsletter 2005, figure on p. 55). We planned the mound and traces of several structures to the west of it. Numerous loose finds such as nine large troughs and vats (up to 1.88 m long), two mills, and one well head, suggest agricultural activity. However, the site of Umm al-Jurun, today occupied by a newly built farming complex, appears much larger in satellite images which show an overall extent of 800 × 800 m, of which the mound area and adjacent remains occupy only the 200 × 200 m, southeast quadrant. The pottery collected at Umm al-Jurun (1808 sherds) included Late Roman fine wares, coarse wares and a few pieces of Islamic glazed wares.

The evident connection between the northwest reservoir with its qanats and the signs of ancient agricultural activities at the Martyr Jacob's site, links the latter with initiatives originating at Andarim, namely the installation of the extensive irrigation system. The question of other links between the Martyr Jacob and the anonymous styli te positioned 300 m outside the north wall of Andarim was briefly discussed elsewhere, including the possibility that Jacob was himself the stylist. An olive mill found by the fallen stylist's column suggests oil production, possibly at a hermitage founded by the column. An extension of our limited 1999 excavation there may help to determine the character of this site, perhaps another agricultural property.

3. The central south area near Homeh
A low hill separates Sammaqiya and the two north-south qanats and their east-west branches from another group of qanats further west that converge at Homeh. There we recorded a north-south qanat south of Halibiyya and three others that adjoin Homeh itself (two north-south qanats crossed by one east-west). Further study of their configuration could indicate land use in the vicinity. One assumes that each qanat terminated in a reservoir that irrigated a cultivated field; furthermore, many qanats are excavated only in limestone on which olives thrive, there may also have been plantations in this central area.

Our work at Homeh, a modern hamlet settled in recent decades, was again guided by the use of satellite images provided by Carrie Heitz. The raised area thus identified proved to be partly settled and partly rock. The pottery collected (1955 sherds) corresponds to types found at the other sites. The traces of three mudbrick and stone buildings and seven of stone, all of uncertain date, were planned; the loose architectural pieces recorded, all of late Roman/Byzantine date, included two lintels (both with Greek inscriptions), parts of four door jambs, four columns, six column capitals, and one column base, many of them elaborately ornamented. Agricultural equipment, namely troughs, mills, two well heads, etc., recalled those recorded at Umm al-Jurun.

4. The western area of Najam al-Zuhur
Najam al-Zuhur lies directly west of Homeh, set against the east flank of the djebel which we regard as the area of vine cultivation. The pottery collected there (694 sherds) resembles that found at the other sites. Najam al-Zuhur is a sparsely settled modern village which preserves the largest number of loose agricultural remains recorded during our season. These include 14 mills and 16 troughs and other containers.

The troughs found here and at the other sites may have served several purposes. Some excavated at Andarim were found in situ used in different settings. Two mounted on bases inside the entrance to a house (built 583/4) were probably used for watering donkeys or other transport animals. A third stood on a small platform and was used to quench worked metal produced in a workshop later installed in the Byzantine bath, probably during the Umayyad period. At Najam al-Zuhur, Umm al-Jurun, Homeh and elsewhere, the troughs may have been used to feed and/or water animals, as today, or they may have been used for some form of agricultural processing. It is also possible that the 11 colonnettes (diameter 22–30, 36 cm) recorded at Najam al-Zuhur may have served an agricultural rather than architectural purpose, namely as rollers used to loosen olive pits at the start of oil production. The large recesses (diameter 5–8 cm) at the end of most of the colonnettes here exceed the usual size of dowel holes used for attaching a capital or base, and may have been used instead to manipulate the stones for rolling, as observed at other Syrian sites. One circular vat (diameter 1.12 m) has a draining channel on its inner base. An unfinished cylindrical vat or olive mill found at Najam al-Zuhur raises the possibility that it, and perhaps other containers and equipment, may have been manufactured here from basalt quarried in the adjacent djebel, which may also have provided stone for other uses such as building.

In addition to agricultural items, the few architectural pieces recorded at Najam al-Zuhur include a pier capital, a threshold and three lintels, one with a Greek inscription. To the north of the site we found another lintel with a Syriac inscription. Given the nature of the finds at Najam al-Zuhur, it may well have been a processing centre between the presumed vine terracing on the djebel and the postulated field cultivation and olive plantations of the limestone plain extending east to Andarim.

Conclusion
Andarim, epigraphically identified as the late Roman/Byzantine village (kome) of Androma, is of massive size (256 ha). Deliberately expanded by large-scale
irrigation, it did not evolve as a larger settlement among other villages. The sites that lie near Andarin may have developed as satellites as a consequence of its own expansion. Of those examined in 2005, each with a different occupation profile, Sammaqiyya (an activity area) and Umm al-Jurun (site of a martyrrial shrine, 527–48) were directly linked by water supply to Andarin; further west Homeh stands at the centre...
of another irrigation network, and Najam al-Zuhur at the base of the djebel was probably a processing centre, possibly of the wine known under the name of Andarin. None was densely settled; all appear contemporary with Andarin. Only Site 29, 1500 m west of Andarin produced earlier (Bronze Age?) pottery.

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Landscape Study of Dar es-Salaam and the Basalt region west of Homs, Syria
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This report reflects on fieldwork undertaken in August and September 2005 to understand settlement and landscape development of part of the basalt region, or māʾar as it is known locally, to the north-west of Homs. It builds upon initial work undertaken in the basalt region by the author as part of the Settlement and Landscape of the Homs Region Project (SHR project) directed by Graham Philip (Durham University) and Maamoun Abdulkarim (University of Damascus) (see CBRL Newsletter 2005, pp. 56–57). In many periods the māʾar has been considered a marginal area. Access and sedentary development is limited due to its inherent stoniness and limited water resources. Large-scale development has only occurred under certain conditions during specific periods. The nature of this rocky environment, as well as the effort required to undertake new developments, has resulted in repeated reuse and adaptation of past development. Consequently, the region has a dense, complicated settlement history. Inevitably, much of this evidence is being destroyed in an escalating programme of modern agricultural expansion.

Whilst the original SHR project continues to investigate the long term changes in settlement and landscape development within the basalt region, the landscape study of Dar es-Salaam (Site 358) and its environs has more specific aims. The main focus is whether the expansion of agricultural production during the Graeco-Roman period was due to state or individual control of the rural landscape. Three seasons of fieldwork are planned primarily focussing on a detailed examination of a 2 km² area around the deserted village of Dar es-Salaam. This village was occupied during Graeco-Roman and early Islamic periods, with earlier and later elements present. Beyond the village, up to a distance of 500 m, are a number of small isolated sites and a few site complexes. Dar es-Salaam potentially provides a good prototype for the development of sedentary settlement within the basalt, and the way in which the land was used and cultivated.

Fieldwork 2005
The main aim of our first season of fieldwork in 2005 was to plan in detail a range structures within the village and its environs, and to collect surface pottery to enable more accurate dating. Although all the structures have been reduced to low rubble mounds, it is possible to identify the lower foundation courses of many structures, and this allows for quick planning. While satellite imagery is useful for the identification of sites, this type imagery is limited when more detailed information is required. Digital photography can help to understand the structures clearly amidst a sea of boulders, detailed site planning is the best approach. In order to plan the sites as rapidly as possible the team utilised a dual-band GPS, a Leica GPS 1200 system.

Dominating the village site is a mound known as the qalaʿ by neighbouring villagers, c. 70 × 40 m in dimension, rising c. 8 m above the surrounding rubble. Most of the village itself lies a gentle south-facing slope to the south of the qalaʿ and is bordered by the course of a small east-west wadi and two large partially natural reservoirs or birkēh. The whole area of the village, including the qalaʿ, is c. 6 ha, some 200 m north to south and 300 m east to west. While no structure stands today, the village is known from published sources to have been occupied at the turn of the twentieth century, and to have had partially standing ancient buildings. Furthermore, local people recall residual habitation in some parts of the site until the early 1930s. However, time, lack of maintenance and the salvaging of good worked stone for use in the surrounding villages has quickly reduced any surviving structures to rubble and obscured much of the evidence mentioned by past visitors.

The 2005 season was successful in planning the extensive suite of sites on the periphery of Dar es-Salaam, and also around half the structures within the village itself. In addition, a number of comparative structures were planned in the vicinity of two other villages and digital terrain models were constructed for all these sites from the manipulation of mass spotheight collections. A large corpus of surface material was collected from the planned sites and detailed site records made. Together with the information present on the satellite imagery, the results of all this work have been inputted into a basic Geographical Information System (GIS) model of the region and initial analyses of the material culture and its inter-relationships have been undertaken. The variously-sized structures planned on the west side of Dar es-Salaam range along the sides of two streets that cross at right angles to each other just below the south-west corner of the qalaʿ. This area was chosen for planning first as the structures were the clearest and the presence of straight streets is unusual.

A number of sites on the village periphery were also planned, the most interesting of which is site 673. This extensive site comprises a large complex of walls, structures and birkēh/quarries sitting on a bluff which strikes out to the immediate north-east of Dar es-Salaam. Most, if not all, of the sub-sites of 673 proved to be various forms of funerary structure associated with burials and a number appear to have been grand