More than people and pots: identity and regionalization in Ancient Egypt during the second intermediate period, ca. 1775-1550 BC

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CONCLUSIONS

The goal of this research was to analyse the relationships between sites during the Late Middle Kingdom, the Early Second Intermediate Period, and the Late Second Intermediate Period (i.e. between ca. 1850 and 1550 BC) in order to better understand the nature of regionalization during this complex era of Egyptian history. The analysis focused on the types of objects shared by the sites. The assumption underlying the analysis is that the closer the contacts are between two or more sites, the more similar the material culture unearthed at these sites will be. The material has been examined using network analysis, which allows us to study the relationships between different elements based on what they have in common.

The groups of objects considered for the analysis include beads, scarabs, stone vessels, Tell el-Yahudiyah ware, Cypriot pottery, and weapons. These different types of objects provide insights into different aspects of the communities that manufactured and used them, as well as in the exploitation of the resources needed to produce them. In the following three sections, each dedicated to one of the three chronological phases mentioned earlier, the sites that the present analysis has detected as playing a major role will be discussed. At the end, reconstructions of the situation in each of the three phases is offered, along with a summary of the main developments in ancient Egypt between ca. 1850 and 1550 BC.

LATE MIDDLE KINGDOM

In the Delta, Tell el-Dab'a was the main site in the networks of weapons and Tell el-Yahudiyah ware, in other words it shared the higher number of objects with the higher number of sites; it could therefore be the place where the communications started or ended, and where new trends spread from. In the same mentioned networks, Tell el Dab'a was also the main intermediary, namely the site through which connections between other sites passed and it was, therefore, a passageway or (re-)distribution centre. Moreover, Tell el-Dab'a is the site where most Cypriot pottery is found for the Late Middle

Kingdom, together with only few instances in Dahshur and Kahun.[1] However, only one type is shared, between Tell el-Dab'a and Kahun.

Tell el-Yahudiyah ware was used mostly as burial gift and it is possible that some of the specimens were originally placed in temples, at least in Tell el-Dab'a. Research has shown that this ware was first produced in coastal Palestine during the Late Middle Kingdom, from where it was imported into Egypt during the transition between the Egyptian Late Middle Kingdom and Second Intermediate Period, before being locally produced and developing into a local Egyptian branch during the Second Intermediate Period (see Chapter 10). Moreover, pottery, weapons, scarabs, buildings, and grave goods similar to the ones found in the Levant, namely the area of modern-day Syria and Palestine, have been excavated especially at Tell el-Dab'a and point at the likely presence of a Levantine community (see Chapter 4).

Cypriot vessels arrived at first into Egypt because they were used to transport, store, and/or pour valuable liquids – probably oil – from Cyprus. Over time, they became locally produced, probably because the local population was by then accustomed to the consumption of these type of vessels or of the types of products that they contained. Lastly, the presence of a Cypriot community at Tell el-Dab'a has been suggested on the basis of techniques used in the production of both Tell el-Yahudiyah ware and Cypriot pottery, which are very similar to the ones attested in Cyprus itself (see Chapter 11).

The described results indicate the importance of Tell el-Dab'a in networks involving other lands, in particular Syria-Palestine, and in making products from these lands circulate in Egypt. This confirms that Tell el-Dab'a was a major hub connecting Egypt and foreign lands, as shown also by other types of pottery, such as the Canaanite jars[2] and the Levantine Painted Ware[3] (see Chapter 4), as well as by finds such as the statue depicting a man with features traditionally associated with the Levant[4] (see Chapter 2), and by the presence of objects of precious materials such as lapis lazuli, turquoise, silver, and gold (see Chapter 13). However, the results detected for Tell el-Dab'a concerning the objects produced in Egypt, especially the beads, the stone vessels, and the scarabs and seal impressions, indicate that the most common types were not produced there, but in the area of the capital. In its turn, this suggests that the site was still under the control of the main ruling dynasty.

1 As shown by the specimens discussed in: Maguire 1995; Maguire 2009.

2 Arnold, Arnold, and Allen 1995, 13–20; D.A. Aston 2002, 43–46; Cohen-Weinberger and Goren 2004; Kopetzky 2008, 213; McGovern and Harbottle 1997.

3 Arnold, Arnold, and Allen 1995, 17, 30; D.A. Aston 2002, 53; Bagh 2002; Bagh 2013; Bietak 1997, 98; Bietak 2002, 38–39; Cohen-Weinberger and Goren 2004, 81; Czerny 2002, 133.

4 Bietak 1997, 100; Schiestl 2006; Schiestl 2009, 75–89.

The Memphis-Fayyum area

The sites in the Memphis-Fayyum area, Lahun and Harageh were main sites in nearly all the networks detected, except for the Cypriot pottery. Lisht has also been detected as a main site for scarabs and Tell el-Yahudiyah ware, while Dahshur has been detected as a main site for beads and stone vessels.

Lahun and Harageh were located in the area of the capital, where the central administration was based and where objects were produced in the royal workshops, as shown by e.g. uniformly shaped scarabs and their sealing designs (see Chapter 9), and the pottery (see Chapter 3) excavated in contexts dated to this time. This idea is further supported by the results of the present analysis, which has shown that the main types, namely the types most found at the sites, characterized the range of objects in the sites in the area and were, therefore, likely produced there. The presence of imported materials, such as lapis lazuli, silver, and obsidian, and the wide range of objects, both of which characterize the settlement of Lahun and the cemeteries of Lahun and Harageh (see Chapter 13), further attest to the fact that people occupying these sites had not only the means to acquire prestige goods, but also easier access to them than other areas in Egypt.

The role of Lisht in the network of Tell el-Yahudiyah ware can be interpreted in two ways. The first assumes the presence of people from the Levant, as suggested by, among others, pottery[5] and scarabs[6] that, based on their materials and techniques, were not locally produced and were similar to the ones found in the Levant. However, we must be careful not to draw a direct link between material culture and ethnicity. The first reason for that is that ethnicity is a multi-faceted part of a person's or community's identity, which can be expressed in multiples ways, not always detectable through and not always involving material culture. The second reason is that the material culture is influenced not only by the need to express identity, but by other reasons, such as the desire or the necessity to use new techniques or to commercialize a specific product. Lastly, ethnic groups exchange elements on different levels and in different ways, i.e. just imitating or assimilating and transforming. Therefore, defining the ethnicity of objects based on specific elements can be deceiving (see Chapter 4). At the same time, the role of Lisht in the network of scarabs can be due to the fact that many officials were buried there in the cemeteries around the royal pyramids, officials which included viziers, chiefs of police, scribes, judges, chamberlains, chamber keepers, attendant of the king's table, priests, treasurers; women of the higher classes, with the title Lady of the house, were buried with scarabs as well in the cemetery of

5 Merrillees 1973.
6 Martin 2004.

Lisht.[7] Part of the scarabs was included in the grave goods because they had been used by the owners of the tombs, while another part was included as amulets; the latter can be distinguished thanks to the funerary epithets added to the owners' names and titles. Moreover, partially preserved sealings have also been excavated at Lisht, which attest the opening of sealed goods or documents (see Chapter 9).

Lastly, the rich range of beads and stone vessels found at Dahshur is no doubt due to their being used as grave goods in the burials of royal individuals.[8]

Middle Egypt

Among the sites in Middle Egypt, Rifeh was a main site in the network of stone vessels, while Matmar and Qau el-Kebir appear to have been important intermediaries respectively for the stone vessels and for the beads.

The sites located in this area were connected to the oases in the Western Desert and had access to the wadis in the Eastern Desert (see Map 1), where the resources necessary to produce beads and stone vessels, such as steatite, calcite-alabaster, and amethyst, were found (see Chapter 13). On the western bank of the river, from Beni Adi in the area of Asyut, near Rifeh, two routes crossed the Western Desert and led to the oases located in this desert. The first route, the Darb el-Tawil, led to Teneida, on the eastern side of Dakhla Oasis near Ain Asil (see Map 1).[9] Satellite images and the detection of both cairns used as route markers, the so-called alamat,[10] and animal footprints, especially camels, which were the preferred animals to travel in the desert after Pharaonic times,[11] have recently been used to reconstruct this route.[12] Though the intensity of its use cannot be determined yet, the route of Darb el-Tawil was the most convenient to cross the desert, considering the conditions of the terrain,[13] thus it can be supposed that was in use also during the Middle Kingdom and the Second Intermediate Period. The second route, the Darb el-Arbain, led to Kharga Oasis (see Map 1). A recent survey has led to believe that this route was used for a long time during Pharaonic times.[14] Even though

7 Di. Arnold 2008.
8 De Morgan, Legrain, and Jéquier 1903; De Morgan et al. 1895.
9 This route is discussed in Bubenzer and Bolte 2013. It is also mentioned in Förster 2013, 319.
10 The roles of alamat, and desert trails marked by them, are discussed in: Bubenzer and Bolte 2013; Köpp 2013; Riemer 2007; Rossi and Ikram 2013.
11 Köpp 2013.
12 Bubenzer and Bolte 2013.
13 Bubenzer and Bolte 2013, 72–74.
14 Rossi and Ikram 2013. This route is mentioned also in: Bubenzer and Bolte 2013, 61–64 and 74.

this assumption is based on preliminary results, and further archaeological research is needed to establish in which period the route was actually in use, it is possible that people travelled through this route also during the period examined in the present work.

On the eastern bank of the river, the system of wadis gave access to the resources mentioned above. Two locations stand out, which have been studied and whose occupation has been dated to the Middle Kingdom and the Second Intermediate Period. The first are the limestone quarries in the Wadi Nakhla (number 12 on Map 1), which were accessible from Deir el-Bersha, a site located on the east bank of the Nile north of Asyut and famous for the rock-cut tombs of the Middle Kingdom;[15] this site was also used for burials during the Second Intermediate Period and the New Kingdom.[16] Pottery of the Middle Kingdom and the Second Intermediate Period excavated there show that the quarries were exploited during the time, though not intensively.[17] The second location is the galena mines at Gebel el-Zeit, near the coast of the Red Sea (number 14 on Map 1), where inscribed material, especially stelae, with royal names of Middle Kingdom and the Second Intermediate Period has been found.[18] The stelae from the Middle Kingdom show also connections with Koptos, as demonstrated by the mentions of the god Min of Koptos and by the fact that one stelae is probably made of a type of stone coming from the Wadi Hammamat, while the stelae of the Second Intermediate Period mention rulers ascribed to the Sixteenth and the Seventeenth Dynasty.[19] Moreover, specimens of Tell el-Yahudiyah ware and a scarab similar to the ones found at Tell el-Dab'a during the Late Second Intermediate Period[20] indicate that the site had contact with the Hyksos too. All this shows not only how the resources in the central Eastern Desert were exploited by the central power during the Middle Kingdom, but also that rulers from different areas both in Lower and Upper Egypt had access to these resources during the Late Second Intermediate Period. This latter aspect will be elaborated in the section on the Late Second Intermediate Period.

Lastly, Qau el-Kebir and Matmar, whose role was mostly to bridge other areas, were convenient spots for communication between the Memphis-Fayyum area and southern Upper Egypt when travelling along the Nile, because of

15 See for example: Willems and Op de Beeck 2007.
16 Bourriau et al. 2005.
17 De Laet et al. 2014.
18 Marée 2009.
19 Marée 2009.
20 Cherpion and Buchez 2007, 56–57.

their location in the middle of the Nile Valley. The importance of Rifeh and Qau el-Kebir is further shown by the rock-cut tombs of its governors.[21]

Abydos and the Qena bend

In southern Upper Egypt, around the area of the Qena bend of the Nile, Abydos was a main site in the networks of beads and stone vessels, while Nubt was a main site for scarabs, and Hu was a main site for stone vessels and weapons. At the same time, important intermediaries were Hu in the network of weapons, Denderah in the network of stone vessels, Ballas in the networks of beads and scarabs, and Tod in the network of beads.

Southern Upper Egypt was well connected with both the oases in the Western and the mineral resources in the Eastern Desert. On the west bank of the river, from near Hu it was possible to reach the oases in the Western Desert through the so-called Girga road (see Map 1),[22] which linked the site with Kharga Oasis: ostraca, seal impressions, pottery, a cistern and dry-stone structures found at Abu Ziyâr and Tundaba show that there were outposts there during both the Middle Kingdom, mostly in the first part, and in the Late Second Intermediate Period.[23] From Kharga, two main desert routes led further west to Dakhla Oasis, arriving at its eastern side around modern-day Teneida and Ain Asil. The more southern route, the Darb el-Ghubbari (see Map 1), followed the Gebel Abu Tartur, which is the mountain between the oases of Kharga and Dakhla. The more northern route, the Darb Ain Amur (see Map 1), started from 'Ain Lebekha and passed through the small oasis of Umm el-Dabadib and through Ain Amur.[24] From the oases of Kharga and Dakhla it was then possible to reach further north along the Nile Valley around Asyut, through the Darb el-Arbain and the Darb el-Tawil (see Map 1), both discussed above, and south into Nubia, through the continuation of the Darb el-Arbain and the Abu Ballas trail (see Map 1), which will be described in detail in the section about the oases. It is also worth mentioning that from the Girga road started the Darb Bitan (see Map 1), which led to Kurkur Oasis and, from there, further south into Nubia.[25]

21 For Rifeh: Petrie, Thompson, and Crum 1907, 11–13. For Qau el-Kebir: Brunton, Gardiner, and Petrie 1930, 1–9; Steckeweh, Steindorff, and Kühn 1936.

22 This route is discussed in: Deborah Darnell 2002: John C. Darnell 2002; Darnell and Darnell 2002; Darnell and Darnell 2013.

23 Deborah Darnell 2002: John C. Darnell 2002; Darnell and Darnell 2002; Darnell and Darnell 2013.

24 These two routes are discussed in Rossi and Ikram 2013.

25 For the routes between the area of Aswan and Nubia: John C. Darnell 2004; Storemyr et al. 2013a; Storemyr et al. 2013b. The Darb Bitan is mentioned in: Storemyr et al. 2013a, 400.

On the eastern bank of the Nile, two main wadis stretch from the Qena bend into the Eastern Desert: the Wadi Qena and the Wadi Hammamat (see Map 1). The first one starts around Denderah, while the second one starts around Koptos, both lead to other wadis in the desert and to the mineral resources where the material analysed in the present work can be found, such as jasper, serpentine, siltstone (see Chapter 13 and Map 1). The Wadi Hammamat further connects to the Red Sea coast, to modern-day el-Qoseyr.

In addition, more routes passing through the Theban Desert, inside the Qena bend, linked the sites located on the southern side of the river bend with the ones located on its northern side. The main one was the route connecting modern-day Luxor, on the southern side of the bend, to near modern-day Farshût, thus near Hu, on the northern side of the bend (see Map 1).[26] Its use during the Middle Kingdom is suggested by pottery found at the Gebel Antef, at the beginning of this route near Luxor, and at Wadi el-Hôl, mid-way across the route.[27] Furthermore, a chapel of the Seventeenth Dynasty at the Gebel Antef[28] and pottery, retrieved both at the Gebel Antef and at the Wadi el-Hôl, demonstrate the intense use of the route during the Late Second Intermediate Period.[29] Lastly, graffiti that could be dated to these two periods have been found as well at the mentioned locations.[30] Another route in the Theban Desert was the Darb Baʿirat (see Map 1), which started west of the main Luxor-Farshût route, to converge in it after the Gebel Antef: though used since the Second Intermediate Period, it was mostly used in the Graeco-Roman Period.[31] Thirdly, the so-called ʿAlamat Tal road (see Map 1) started east of the main Luxor-Farshût route and ran parallel to it, until it converged in it at the Gebel Qarn el-Gir. There rubble and mud-brick towers with pottery of Second Intermediate Period, as well as graffiti possibly dating to the Middle Kingdom and the Second Intermediate Period, were found.[32] The Gebel Qarn el-Gir was an important point, because also the trail connecting the Theban Desert with

26 Darnell and Darnell 1993; Darnell and Darnell 1994a; Darnell and Darnell 1994b; Darnell and Darnell 1995; Darnell and Darnell 1996; Darnell and Darnell 2002; John C. Darnell 2002.

27 Darnell and Darnell 1993; Darnell and Darnell 1994a; Darnell and Darnell 1994b; Darnell and Darnell 1995; Darnell and Darnell 1996; Darnell and Darnell 2002.

28 Darnell and Darnell 1993; Darnell and Darnell 1994a; Darnell and Darnell 1994b; Darnell and Darnell 1995.

29 Darnell and Darnell 1993; Darnell and Darnell 1994a; Darnell and Darnell 1994b; Darnell and Darnell 1995; Darnell and Darnell 1996; Darnell and Darnell 2002.

30 Darnell and Darnell 1993; Darnell and Darnell 1994a, Darnell and Darnell 1995.

31 Darnell and Darnell 1993; Darnell and Darnell 1994a; Darnell and Darnell 1994b; Darnell and Darnell 1995; John C. Darnell 2002.

32 Darnell and Darnell 1993; Darnell and Darnell 1994a; Darnell and Darnell 1994b; Darnell and Darnell 1995; Darnell and Darnell 1996; John C. Darnell 2002.

the route of the Girga road started there (see Map 1).[33] Furthermore, behind the so-called Thoth mountain a trail was detected, which features a chapel at its end and was used also in the Middle Kingdom and in the Second Intermediate Period, but probably not intensively.[34] Lastly, the route of the Darb Rayayna (see Map 1) connected Armant, on the southern side of the river bend, to Hu, on the northern side of the bend, but it seems to have been used mostly in the Old Kingdom.[35]

Apart from their connection to routes of communication, the importance of the sites for administrative activities, involving the storage and transferral of commodities and goods and the documentation of the process (see Chapter 13), as well as for practising cults for specific gods or kings, is attested by archaeological finds. For Abydos, this importance is shown by the mortuary temple of Senwosret III (and the town built in connection to it),[36] its royal tombs,[37] and the seal impressions unearthed there.[38] The importance of Hu is demonstrated by its cemetery. The tombs there contained many metal objects, including weapons, such as axes and daggers and knives, and objects of silver, such as earrings and amulets; one of the daggers unearthed there features a royal name.[39] The importance of Ballas and Denderah is mostly known for other periods. At Ballas, more specifically at the site of Deir el-Ballas, two palaces of the Late Second Intermediate Period have been excavated:[40] it was ruled by Thebes and used as military base by the kings of the Seventeenth Dynasty in the fight against the Hyksos rulers, as shown by the inscribed ostraca retrieved there.[41] Denderah is mostly known for being the centre of the cult of Hathor and for temples and a town of later periods, as well as for cemeteries of earlier periods.[42] For the Late Middle Kingdom, the contexts excavated at both Denderah and Ballas include tombs.[43] However, the results detected for these sites during this period indicate that the people buried there had access to the goods and to the relevant networks during Late Middle Kingdom. Moreover, Nubt is known for a settlement. The many

33 Darnell and Darnell 1993; Darnell and Darnell 1995.
34 Darnell and Darnell 1994a; Darnell and Darnell 1995; John C. Darnell 2002.
35 Darnell and Darnell 1994a; Darnell and Darnell 1995; John C. Darnell 2002.
36 Wegner 1998; Wegner 2001; Wegner 2010; Wegner, Smith, and Rossell 2000.
37 Ayrton et al. 1904; Wegner and Cahail 2015.
38 Wegner 1998; Wegner 2004; Wegner, Smith, and Rossell 2000.
39 Petrie and Mace 1901.
40 Bourriau 1987a; Bourriau and Lacovara 1984.
41 As explained by Peter Lacovara in his presentation at the conference "Palaces and Residences in Ancient Egypt" (London 12–14th July, 2013), available at: https://www.academia.edu/36177396/Deir_el_Ballas.
42 Petrie and Griffith 1900.
43 Petrie and Griffith 1900, 25–26; Petrie, Quibell, and Spurrell 1896, 2 and 8.

scarabs from the site[44] and the results of the analysis suggests that, during the Late Middle Kingdom, it was a site where goods were stored and (re-)distributed from. Lastly, Tod is known for the temple dedicated to the god Montu, whose use in the Middle Kingdom is indicated by a long inscription of a king Senwosret, probably Senwosret I.[45] Furthermore, hidden below the stone foundations of the same temple, a treasure has been unearthed, which consists of four chests, containing objects of gold, silver, copper, lapis lazuli and other gemstones.[46] While, based on the archaeological context, this treasure could be dated to a later date, up to the New Kingdom, the objects themselves indicate a date during the reign of Amenemhat II.[47]

Southern Upper Egypt: south of the Qena bend

South of the Qena bend, Esna was a main site in the networks of stone vessels and scarabs, while Edfu was a main site in the network of stone vessels and an intermediary in the network of scarabs, and Elephantine was a main site in the network of scarabs.

Esna and Edfu are at the two extremities of a wadi basin where feldspar, steatite, and serpentine are found (number 27 on Map 1), while Elephantine was near the amethyst quarry of Wadi el-Hudi (number 36 on Map 1), which was intensively used during the Middle Kingdom, as shown by a hilltop settlement and a small fortress, as well as graffiti, few stelae, and pottery, all dated to the Middle Kingdom.[48]

Moreover, from Edfu and Elephantine two routes led further south into Nubia.[49] Pottery imported from Nubia, and its local imitations, excavated at Edfu,[50] at Elephantine,[51] and in the area around Elephantine[52] attest to contacts with Nubian communities and even their presence at the sites during both the Late Middle Kingdom and the Second intermediate Period. In addition, inscribed material such as stelae and rock inscriptions further indicate that the mentioned routes to Nubia were in use already from the early part of the

44 Ben-Tor 2007, 10–31 and 78–97; Martin 1971; Petrie, Quibell, and Spurrell 1896, 65–67 and pls. LXXX–LXXXI.
45 Barbotin and Clère 1991; Redford 1987.
46 Bisson de la Roque 1937; Bisson de la Roque 1950; Bisson de la Roque, Contenau, and Chapouthier 1953; Marcus 2007.
47 Bisson de la Roque, Contenau, and Chapouthier 1953, 15-13; Kemp and Merrillees 1980, 290-96; Lilyquist 1993, 35-36; Pierrat 1994, 20-23.
48 Shaw 1994; Shaw and Jameson 1993.
49 For general discussion on these routes: John C. Darnell 2004; Storemyr et al. 2013a; Storemyr et al. 2013b.
50 Ayers and Moeller 2012.
51 Näser 2013; Raue 2018, 208–262.
52 Gatto, Curci, and Urcia 2014; Giuliani 2013; Näser 2013.

Middle Kingdom.[53] The first route joined the Darb Bitan with two points in the area of Edfu, so that it became bifurcated at the Nile Valley and, as visible on the map, one of the tracks of the bifurcation is known as Schatt el-Rigal (see Map 1).[54] The second route, the Sikket el-Agamiya, had its terminus in the Nile Valley in the area of Aswan and Elephantine (see Map 1). Both these routes led to Kurkur Oasis, from where other routes would lead further south to Dunqul Oasis and, ultimately, into Nubia (see Map 1),[55] where other important resources such as the carnelian at Stela Ridge were located (number 38 on Map 1). Hawk statues, stelae, pyramidia, offering tables, as well as possible dwelling structures unearthed at Stela Ridge, all dated to the Middle Kingdom, demonstrate an intense use of the site during the time. A finished carnelian earring found there suggests the possibility that part of the material could be worked into finished products in situ, though no findings that could be interpreted as workshops were excavated at the site.[56]

Scarabs were used in administrative tasks, which included the opening and closing of commodities such as wooden boxes, baskets, and ceramic jars, as well as the documentation of the commodities and their movements on papyri and ostraca (see Chapter 9). Moreover, scarabs were used as amulets, for example when they were used as grave goods (see Chapter 9). Therefore, the role detected by the present analysis for Esna, Edfu, and Elephantine in the networks of scarabs further suggests that people there were involved in the administrative activities mentioned above, or that these people were actively participating in common burial customs and a common material culture. The role detected for Esna and Edfu in the network of stone vessels indicate that the people buried in the cemeteries at the sites were wealthy enough to acquire them and were part of the networks needed to access them. This is further confirmed by archaeological finds. At Edfu a large building with many sealings of the Middle Kingdom, including several naming the king Amenemhat III, and of the Second Intermediate Period (see Chapter 2) has been unearthed.[57] This building has two halls with wooden columns, which have parallels in Elephantine and Lahun and which could be used for the reception and supply of commodities, as suggested by a representation of a columned hall in a wall painting in a tomb in Beni Hasan.[58] The importance of Esna is attested by the large cemetery, where tombs are accompanied by stelae, and

53 For these written sources: John C. Darnell 2004.
54 For the Schatt el-Rigal: John C. Darnell 2004.
55 For the Sikket el-Agamiya: John C. Darnell 2004; Storemyr et al. 2013a; Storemyr et al. 2013b.
56 For the finds at Stela Ridge: Shaw et al. 2010.
57 Moeller 2009; Moeller 2010; Moeller 2012; Moeller, Marouard, and Ayers 2011.
58 As discussed in Moeller 2010.

the chapel of Senwosret I uncovered there.[59] At Elephantine, a large settlement and many seal impressions have been discovered, which again suggest it was important in the administrative tasks mentioned above.[60]

The oases

In the oases, Ain Asil served as an intermediary site in the network of beads. This suggests that Dakhla Oasis, where both settlement and tombs from this period have been excavated,[61] had contacts with the sites in the Nile Valley. In detail, the oasis of Dakhla had the possibility of being in contact with three different areas of the Nile Valley, through the routes crossing the Western Desert. The first one is southern Upper Egypt, around Abydos–Hu and the Qena bend: communication between this area and Dakhla Oasis would pass by Kharga Oasis, thus using the route of the Girga Road, the Darb Ain Amur, and the Darb el-Ghubbari (see Map 1), all described above. The second area is near Asyut, through the Darb el-Tawil (see Map 1), which has been described above and was the more direct route to the Nile Valley, cutting directly through the Western Desert without passing by any other oasis. The third area is the Fayyum, which could be reached from Dakhla Oasis by passing through Bahariya Oasis. The route connecting Bahariya to the Fayyum was the Darb el-Rayyan (see Map 1), which has recently been detected through the analysis of satellite images.[62] This route started at Ain Bahariya and possibly reached the southern-western side of the Fayyum, at the Middle Kingdom site of Medinet Madi, where a temple for the goddess Renenutet has been discovered.[63] From there, the route of the Darb el-Wahat (see Map 1) followed the southern side of the Fayyum and led to its southern-eastern part, in the area of Gurob.[64] Further south, parts of other parallel routes have been detected between Bahariya and the Nile Valley up to Minya (see Map 1), especially the Darb el-As'as (starting from the Darb el-Rayyan towards the Nile at Maghaga); the Darb el Masudi (from Ayn el-Bahariya and Ayn el-Harrah to el- Sheikh Masud north of el-Bahnasa in the Nile valley), the Darb el-Bahnasawi (from Ayn el-Harrah to el-Bahnasa in the Nile valley), and the Darb el-Rubi (from the south end of the Ayn el-Harrah depression to the Nile valley at el-Rubi).[65] The fact that Late

59 Downes 1974; El-Saghir 1999; Liszka 2012b.
60 Von Pilgrim 1996.
61 Aufrère and Ballet 1990; Ballet 1987; Ballet 1988; Ballet 1990; Hope 1980; Hope 1983; Hope 1987a; Hope 1987b; Hope 1987c; Hope 1999; Marchand, Soukiassian, and Bourriau 2010.
62 For this route: Gasperini and Pethers 2018.
63 Bresciani and Giammarusti 2015.
64 This route is discussed in: Gasperini and Pethers 2018.
65 These routes are discussed in: Gasperini and Pethers 2018.

Middle Kingdom pottery found at Qaret el-Tub, near Ain Bahariya,[66] further shows that the oasis was inhabited at the time, therefore it is possible that the Darb el-Rayyan was also in use.

From Dakhla Oasis it was possible to reach further south into Nubia. The Abu Ballas trail (see Map 1) connected the oasis with Gilf Kebir and the Gebel Ouenat. Outposts for provisions of water and barley, and even for keeping watch and making bread, as well as camping sites were found along the trail.[67] However, the pottery retrieved indicates that this route was not much used during the period under examination, given that no pottery of the Middle Kingdom has been found.[68] Even though an inscription dating to the early part of the Middle Kingdom demonstrates that there was an interest in the route,[69] it is possible that the Nile was preferred to reach Nubia, thanks to the presence of the Nubian fortresses,[70] though this cannot be said with certainty, as the traces visible on the desert routes are not always indicative of their actual use.[71]

Also from Kharga Oasis it was possible to reach further south into Nubia, through the continuation of the Darb el-Arbain (see Map 1).[72] Concerning Kharga Oasis, at Umm Mawagir a site dating both to the Late Middle Kingdom and the Second Intermediate Period was discovered, which, as hypothesized by the excavators, probably formed an independent territory with Dakhla Oasis during that time. This is suggested firstly by the similarity in the characteristic local pottery found at the two sites, which mixes shapes and decorations from pottery of the Late Middle Kingdom and pottery produced in the Theban area during the Seventeenth Dynasty (see Chapter 3). Secondly, at Umm Mawagir communal baking activities were intensively conducted, as shown not only by a communal bakery area, with structures of communal use where fires would be lit, but also by the grinding stones, used to grind wheat into flour, and the pottery moulds, where the dough of the bread would be baked in, excavated there. This shows the presence of an administration that for a short span of time, suggested by the dating of the finds, was organized enough to arrange the production of surplus food, thus engaging in trading activities that would make at least part of the population self-sufficient.[73] Based on the fact that a similar bakery area has been excavated at Ain Asil, in-

66 Colin, Laisney, and Marchand 2000.
67 The Abu Ballas trail is discussed in: Förster 2007; Förster 2013; Riemer 2007; Hendrickx, Förster, and Eyckerman 2013.
68 Förster 2007; Förster 2013; Hendrickx, Förster, and Eyckerman 2013.
69 The inscription is discussed in: Förster 2013.
70 Förster 2013, 320.
71 Förster 2013, 331; Hendrickx, Förster, and Eyckerman 2013, 374.
72 Bubenzer and Bolte 2013, 61–64 and 74; Rossi and Ikram 2013.
73 Darnell and Manassa Darnell 2016; Darnell and Manassa Darnell 2019; Manassa 2012.

dicating that similar activities were conducted in Dakhla Oasis, the excavators of Umm Mawagir have suggested the possibility that the two oases belonged to a territory that was (semi-)independent from the central power.[74]

Even though the described hypothesis needs further research to be confirmed, it is in line with the findings of the present work because, all in all, contacts between different areas of Egypt were still going mostly through the Nile and not through the desert. Even though Ain Asil had contacts with several areas in the Nile Valley, these contacts are weak and created only by a few types of beads, which come from foundation deposits or pottery. This means that these beads were considered special enough to be offered and that, consequently, also the contacts bringing the beads there were rare. In addition, other objects, such as stone vessels, which are more difficult to transport, do not create connections between Dakhla Oasis and the Nile Valley. This means that only small and easily movable objects such as beads, which could easily be carried even by one single person, reached Dakhla Oasis, while objects whose transport required more effort did not.

Uniform material culture

As far as beads, scarabs, and stone vessels are concerned, many sites appear more important in the networks when their full range of types is considered. The main types of objects – that is, the more common objects – have more weight in the analysis when only the types shared between sites are considered. However, this weight decreases when the full range of types – even the ones found only at a single site – is examined. As a result, sites that appear less important in the first analysis can acquire more importance in the second one when they share a large part of their types, even though the more common types form a minority. This implies, first, that these sites were not centres for the production and distribution of the more common types of objects and, second, that they had a similar range of objects and shared a similar material culture. This applies specifically to the sites of the Late Middle Kingdom, suggesting that they shared a mostly uniform material culture.

Concerning the imported pottery (i.e. the Cypriot and the Tell el-Yahudiyah vessels) and the local imitations, the picture is different. For these groups of objects, the results of the analyses of the shared types and of the full range do not differ significantly. This means that the sites do not share their range of objects, apart from the sites mostly involved in the circulation of the more common types. Therefore, these objects differ between sites, and are consequently indicative of more local variation or regionalization. The same applies

74 Darnell and Manassa Darnell 2016; Darnell and Manassa Darnell 2019; Manassa 2012.

also to the weapons unearthed for this period, which especially at sites such as Tell le-Dab'a imitated examples from the Levant.

Preliminary conclusions

For the Late Middle Kingdom, main sites have been detected all along the Nile Valley and especially in southern Upper Egypt. Their importance is likely due to their access to both the material resources and the major communication routes through the desert. The sites in Upper Egypt were important also in performing both administrative tasks, as shown by the architectural structures and sealings excavated there and discussed above, and cultic activities, as shown by the temples there. Nevertheless, the networks and the circulation of objects were controlled by the capital in the Memphis-Fayyum area, where the administration and the production of objects were centred. Contacts were present also with Dakhla Oasis, as shown by the results for Ain Asil, though these contacts were all in all weak and Dakhla Oasis probably belonged to an independent territory together with Kharga Oasis. In the Delta, the only site examined for the period is Tell el-Dab'a, which was involved mostly in the networks of objects imported from, or imitating objects found in, Cyprus and the Levant: the site was a hub where objects from other lands found their way to other sites in Egypt, especially in the area of the capital, but it was still under the control of the central administration.

The material culture was overall uniform as far as the objects made of stone are concerned. While the circulation of goods focused on the area of the capital, the raw materials and the objects still circulated through the country. Nevertheless, objects imported or imitating objects found outside Egypt (i.e. Tell el-Yahudiyah ware, Cypriot pottery, metal weapons, and beads of shell and bone), as well as imported materials (i.e. lapis lazuli, obsidian, and silver), created differences between the sites as far as their range of objects is concerned, causing local variations. To what extent these differences are due to contacts with foreigners, or even the presence of foreign communities is not easy to say, because of the difficulty in linking material culture and ethnicity, as explained above.

All in all, even if differences are visible and the more remote territories, such as the oases, had only looser contacts with the other areas, no such divisions are detected to hypothesize a strong regionalization such as in the Second Intermediate Period. The different sites and areas still appear to belong to a mostly uniform system and network, and to share a similar identity. Objects that can be connected to traditions other than the Egyptian one emphasize a different identity in sites located along borders, such as Tell el-Dab'a and Elephantine.

EARLY SECOND INTERMEDIATE PERIOD

In the Eastern Delta, Tell el-Dab'a was a main site in the networks of beads, stone vessels, scarabs, and weapons, as well as a main site and an intermediary site in the networks of Tell el-Yahudiyah pottery. Furthermore, it is the only site where Cypriot pottery has been retrieved. During both the Early and Late Second Intermediate Period, the site had access to material resources in the Sinai and the central part of Egypt, such as turquoise, rock crystal, steatite, haematite, and amethyst (see Chapter 13). Because of the political fragmentation, the mentioned resources were probably transported less often to Tell el-Dab'a than in the Late Middle Kingdom. Nevertheless, the objects excavated at the site attest to the presence of these materials there more than at other sites (see Chapter 13).

In addition, the fact that the more common types characterized the range of objects at Tell el-Dab'a suggests that they were produced there. This means that the circulation of materials and the production of types were not controlled by the capital in the Memphis-Fayyum area anymore. Tell el-Dab'a was an independent and thriving site at the time; cartouches on scarabs and on architectural elements suggest that it was ruled by the Fourteenth Dynasty (see Chapter 2). Furthermore, excavation has shown that the settlement areas became larger, and both the types of houses and the grave goods attest to an increasing social complexity and stratification.[75]

The Memphis-Fayyum, Middle Egypt, and the Western Desert

Harageh, Ain Asil, and Qau el-Kebir have been detected as main sites in the circulation of beads respectively in the Memphis-Fayyum area, in the Western Desert, and in Middle Egypt. Concerning Ain Asil, the archaeological finds show both that the settlement was small during the Second Intermediate Period, and that its ties to the Nile Valley were weak.[76] Furthermore, the site probably belonged to an independent territory at the time, which included the oases of Dakhla and Kharga, as suggested by the similarities in pottery and in the activities attested by the finds excavated at Ain Asil and Umm Mawagir, as discussed above. The similarities detected by the present analysis, in the range of beads between Ain Asil and the sites in the Nile Valley, indicate the existence of connections, which could involve the use of the Darb el-Arbain (see Map 1), described above and connecting Dakhla Oasis with the area of Asyut. However, as discussed above, the fact that the contacts are created by

75 Bietak 1996.

76 Aufrère and Ballet 1990; Ballet 1987; Ballet 1988; Ballet 1990; Hope 1980; Hope 1983; Hope 1987a; Hope 1987b; Hope 1987c; Hope 1999; Marchand 2003; Marchand, Soukiassian, and Bourriau 2010.

beads, and that the beads examined from Ain Asil were mostly found inside pottery and in foundation deposits, suggests a special role attributed to these beads, and that no investment was made in exchanging objects other than easily movable ones. All in all, this shows that contacts between Dakhla Oasis and the Nile Valley existed, but they were not strong, and there was no investment in them. This is the same attitude visible in the Abu trail (see Map 1), described above and connecting Dakhla Oasis with Nubia, during the Second Intermediate Period. While pottery dated to the time has been retrieved from the trail, demonstrating its use, the small quantity of vessels shows that this use was not intensive, mostly for small-scale operations such as hunting or patrolling, and concerned only the part closer to Dakhla Oasis.[77]

The role detected for Harageh shows that it had contacts with the other Egyptian sites both in the Nile Delta and in the Nile Valley, which could happen via the river, as well as with Dakhla Oasis, whose contacts with other sites have just been discussed. Given that pottery of the Second Intermediate Period has been found at Bahariya, in Qaret el-Tub, it is possible that the Darb el-Rayyan (see Map 1), described above and connecting Ain Bahariya with the western part of the Fayyum, was in use, as well as the Darb el-Wahat (see Map 1), described above and connecting the western and the eastern parts of the Fayyum. Moreover, if we accept the hypothesis that the Thirteenth Dynasty still reigned in the Memphis-Fayyum area,[78] the presence of a ruling class in the area explains not only the role detected for Harageh, but also the presence of objects of precious and imported stones such as turquoise or lapis lazuli, which for the period are further found only at Tell el-Dab'a (see Chapter 13).

The importance of Qau el-Kebir is demonstrated not only by the present analysis, but also by the many more beads, stone vessels, and scarabs discovered at the site, which were not included in the analysis because, though at least part of them could be dated to the Early Second Intermediate Period, their dating is not secure.[79] The role of Qau el-Kebir can be due to the fact that the wadi basins accessible from the area led to the mineral resources necessary to produce the objects examined in the present work (see Map 1), as discussed above about the sites in Middle Egypt during the Late Middle Kingdom. However, the role of the site can also be due to its being occupied by people of the Pan-grave culture.

These people are believed to be of Nubian origins, because of the similarities between their burial customs and grave goods and the ones found in Nubia (see Chapter 4). These similarities, especially as far as the pottery is concerned, particularly point to contacts with pastoralists cultures from Nu-

77 Förster 2007; Förster 2013; Hendrickx, Förster, and Eyckerman 2013.
78 Discussed in: Ilin-Tomich 2014.
79 Brunton, Gardiner, and Petrie 1930, 3–12.

bia.[80] People of the Pan-grave culture probably moved to Egypt from Nubia when the weakness of the central power made it easier to cross the boarders between the two lands,[81] even though it cannot be excluded that they had already relocated to Egypt and decided to prominently show their identity, leaving traces detectable in archaeological research, during times of political fragmentation.[82] They appear to consist mostly of small groups, formed by families, and to be mainly pastoralists, but to be engaged also in other activities such as mercenaries,[83] which they performed for the Egyptian population to obtain resources.[84] This is indicated by the objects used as grave goods – e.g. bucrania, animal skin and weapons, but also flints and tools made of bone and stone – and by the usually small size of the cemeteries, as well as by the demographics of the deceased.[85]

Pan-grave pottery of the time was found at Ain Asil[86] and at Qaret el-Tub,[87] as well as at the routes in the Theban Desert,[88] at Umm Mawagir,[89] at Elephantine and in the area around it,[90] where several stone quarries are located,[91] at the quarries at Wadi el-Hudi, and at the harbour of Mersa Gawasis,[92] which was active during the Middle Kingdom and was located on the Red Sea coast in Upper Egypt.[93] Even though it does not necessarily indicate the presence of groups of Pan-grave culture or their direct involvement with the mentioned sites, nonetheless indicates direct or indirect contacts with them. This suggests that groups of Pan-grave culture could, among other activities that they performed, be involved in a more direct or indirect way in the acquisition and circulation of resources. If this is the case, it can be expected that this function became more important in the Second Intermediate Period, when the political fragmentation made the circulation of resources more difficult and the use of middlemen more necessary. This seems confirmed by the role detected by

80 As argued in: De Souza 2019, 148-49; Liszka 2012a; Liszka 2015.
81 As argued in: Gatto 2014; Näser 2012; Näser 2013; Weschenfelder 2014.
82 As argued in: Liszka 2015.
83 De Souza 2013; De Souza 2019, 149-50; Liszka 2012a.
84 As argued in: Gatto 2014; Näser 2012; Näser 2013; Weschenfelder 2014.
85 De Souza 2013; De Souza 2019, 148-50; Liszka 2012a.
86 Baud 1997; De Souza 2019, 111-112; Hope 1980; Hope 1999; Marchand 2003, 120; Marchand, Soukiassian, and Bourriau 2010, 206–7.
87 Colin 2005.
88 Deborah Darnell 2002; Darnell and Darnell 1993; Darnell and Darnell 1994a; Darnell and Darnell 1994b; Darnell and Darnell 1995; Darnell and Darnell 1996.
89 Manassa 2012.
90 Gatto, Curci, and Urcia 2014; Giuliani 2013; Näser 2013; Raue 2018, 208–262.
91 Storemy et al. 2013a; Storemyr et al. 2013b.
92 Manzo 2012.
93 For the Pan-grave pottery from these sites see also: Gatto, Curci, and Urcia 2014; Weschenfelder 2014.

the present analysis for Qau el-Kebir, which becomes more important than in the Late Middle Kingdom.

Southern Upper Egypt

In southern Upper Egypt, Abydos was a main site in the network of scarabs, Hu was a main site in the network of weapons, Tod was an intermediary site in the network of beads, Edfu was a main site in the network of stone vessels and a bridging site in the network of beads. Furthermore, the importance of Abydos in the network of beads and stone vessels, and the importance of Tod in the network of stone vessels, both increase when the full range of types is examined.

This shows that the sites in southern Upper Egypt were, like in the Late Middle Kingdom, mostly involved in the circulation of beads, scarabs, and stone vessels. This is no doubt because the natural resources located in the southern part of Egypt, especially in the Eastern Desert, namely steatite, feldspar, serpentine, siltstone (numbers 19, 23, 27, 29, 31, 33 on Map 1) remained in use and were accessible from the Wadi Qena and the Wadi Hammamat, as well as from the wadi basins accessible from the area of Edfu (see Map 1) as described above. Moreover, it is possible that the desert routes described above, especially the routes connecting Edfu with Nubia through the Darb Bitan, the Luxor-Farshût road, and the other smaller routes in the Theban Desert (see Map 1), described above, were still in use. Connections between Edfu and Nubia are further demonstrated by the Nubian pottery, imported or locally imitated, excavated at Edfu.[94]

The role of Abydos in the network of scarabs further suggests its importance as a site where goods were sealed, and therefore, stored and (re-)distributed from. Considering how scarabs were used also as grave god, it also suggests the participation of the people buried there in the common burial customs. Part of the objects excavated there were not included in the analysis, because their dating cannot be pinpointed to the Early or the Late Second Intermediate Period, so that it cannot be excluded that the importance of the site would appear even more clearly if those objects could be examined in closer detail.[95]

The results for Edfu show that the site played a special role at the time. Its importance as a site where administrative tasks were performed, including the storage and (re-)distribution of goods, is shown by the large number of sealings, unearthed inside the columned halls of a large structure, as described above. However, these sealings could not be examined because their features

94 Ayers and Moeller 2012.
95 Moeller 2010.

have not been published in sufficient detail for the present research.[96] These sealings are also at the centre of the debate about the internal chronology of the Second Intermediate Period because they include sealings of the kings Sobekhotep IV, traditionally ascribed to the Early Second Intermediate Period, and Khayan, traditionally ascribed to the Late Second Intermediate Period, unearthed together in one of the two columned halls of the building (see Chapter 2). According to the excavators, the building with columned halls appears to still be used for administrative tasks during the earlier part of the Second Intermediate Period, before becoming a space for silos in the later part of the period.[97] Archaeological finds, including pottery and stelae, further indicate that Edfu was important in the communications between Lower and Upper Egypt in the Early Second Intermediate Period.[98]

At the same time, the roles of Tod and Hu could be explained by the role played by communities of the Pan-grave culture, whose people were buried in the cemeteries at these sites. The importance of people of Pan-grave culture has been discussed above and can explain the contacts detected between these sites and Tell el-Dab'a, where the pottery unearthed is similar to those found in Nubia and indicates contacts with, or the presence of, Nubian people.[99] This lends further credence to the idea that people of Pan-grave culture and people from Nubia were involved, in a more direct or indirect way, in the communications between different sites in Egypt at this time.

Preliminary conclusions

During the Early Second Intermediate Period, the site with the higher number of connections is Tell el-Dab'a in the Eastern Delta. At the same time, Harageh in the Memphis-Fayyum area, Qau el-Kebir in Middle Egypt, and Ain Asil in the Western Desert show contacts mostly through the types of beads shared. After attaining its independence from the central administration in the Memphis-Fayyum area, Tell el-Dab'a – probably under the rule of the Fourteenth Dynasty – flourished and was not merely a hub for importing products into Egypt and distributing them, especially to the capital area in the Memphis-Fayyum, as described above for the Late Middle Kingdom. Instead, it became a nodal point for the networks involving products locally made. As shown by the present analysis, the site was able to obtain the necessary resources and to produce and distribute the more common types of objects. Considering the political fragmentation, it is possible that Tell el-Dab'a could

96 Moeller 2012; Moeller, Marouard, and Ayers 2011.
97 Ayers 2018; Moeller 2010.
98 Ayers 2018; El-Sayed 1979; Moeller 2010; Moeller, Marouard, and Ayers 2011.
99 Aston and Bietak 2017; De Souza 2019, 109-111; Forstner-Müller and Rose 2012.

acquire these resources in smaller amounts and less frequently than in the Middle Kingdom, but the objects found at the site show that acquisition was nonetheless still happening.

There were still contacts between Lower Egypt, Middle Egypt, the Memphis-Fayyum area, and Dakhla Oasis. However, the latter probably belonged to a separate territory, and the mentioned contacts between the different areas were not necessarily strong. These contacts could even have been created by only few people, considering that they are shown mostly by beads, thus objects whose transport did not require any effort and could be easily carried by a single person. In southern Upper Egypt, the role detected for Abydos and Edfu further demonstrates that connections between Lower and southern Upper Egypt still existed during this period. However, the analysis of materials (Chapter 13) has shown that materials from the southern part of Egypt, especially from the Eastern Desert, were only partially exploited and at most reached Harageh. This also demonstrates that the use of communication routes was more difficult.

At the same time, Tod and Hu were active in relations involving people from Nubia and, through them, had contacts with Tell el-Dab'a. This, together with the role detected for Qau el-Kebir, confirms the role played by people from Nubia in Egypt during the Early Second Intermediate Period. This role could concern an involvement in the communications between different areas, in the circulation of resources, and in the desert routes, even though only part of these desert routes seems to have been in use, and not in an intensive way.

To conclude, the present analysis has revealed that, during the Early Second Intermediate Period, communications and connections existed between different areas of Egypt, and goods still circulated, and that people of the Pangrave culture acquired some importance. It should be mentioned that the number of contexts included in the analysis of the Early Second Intermediate Period is considerably smaller than the number of contexts included in the analysis of the other two periods and that, therefore, the results should be taken with caution. However, contextualizing the described results in the general archaeological framework helps gaining more nuance and a better perspective on the Early Second Intermediate Period and on the contacts happening then, which were active but not intensive.

All in all, the material culture appears more differentiated than during the Late Middle Kingdom, because of the types of objects in common between the sites are proportionally fewer, compared to the overall amount of types of objects examined. This indicates that a regionalization process is visible through the small finds. The main contacts detected between Tell el-Dab'a, Harageh, Qau-el Kabir, Abydos, and Ain Asil could suggest that these were

main sites of different territories, through which these territories were in contact. While archaeological and literary evidence indicate that Tell el-Dab'a and Dakhla Oasis did belong to different territories, as previously discussed, this cannot be said with certainty for the other sites. Only if one accept Ilin-Tomich's hypothesis,[100] then Haragheh would also belong to a different territory.

LATE SECOND INTERMEDIATE PERIOD

In the Delta, Tell el-Dab'a has been detected as a main site in all the networks but the ones of stone vessels; in the network of Tell el-Yahudiyah ware, Tell el-Dab'a has been detected also as an intermediary. Among the other sites of the Delta (all located in the eastern part of the Delta), Tell el-Maskhuta was a main site in the network of weapons, Tell el-Yahudiyah was a main site in the network of scarabs and Tell el-Yahudiyah ware, and Tell Hebua was a main site and an intermediary in the network of stone vessels, as well as an intermediary in the network of beads. When the full range of types is considered, Tell Hebua becomes only an intermediary in the network of stone vessels, while Tell el-Yahudiyah appears as a main site in the network of weapons, Tell el-Retaba becomes an intermediary in the network of scarabs, and Tell el-Maskhuta becomes a main site in the networks of beads and scarabs.

The role detected for Tell el-Dab'a in the different networks is related to two factors. The first one is the access to the materials, especially the ones found in the Sinai and the central part of Egypt (i.e. turquoise, rock crystal, steatite, calcite-alabaster, haematite, and amethyst, numbers 1–16 on Map 1), which is shown by the objects excavated at the site (see Chapter 13). Moreover, at Serabit el-Khadim, in the Sinai, sherds of Tell el-Yahudiyah ware[101] and scarabs similar to the ones from at Tell el-Dab'a[102] have been found, which attest to contacts between Tell el-Dab'a and the Sinai. The second factor is the range of objects characterized by the most common types, more than any site in the Delta, which suggests that these types were produced at Tell el-Dab'a itself. These factors can be ascribed to the role of the site as a capital at the time, under the rule of the Hyksos Dynasty.[103] Tell el-Maskhuta and Tell el-Yahudiyah were the other main sites. Given that the objects found at those sites resemble the ones found at Tell el-Dab'a, it has been suggested that they were all part of an area that shared a similar material culture (see Chapter 3). Tell el-Maskhuta, conveniently located along a canal connecting Egypt with the Si-

100 Ilin-Tomich 2014.
101 Giveon 1978, 61; Mumford and Parcak 2003, 87–88.
102 Mumford and Parcak 2003, 87–88.
103 Bietak 1996.

nai[104] and the mines there (numbers 1–3 on Map 1),[105] was a settlement where goods exchanged between Egypt and the Levant were traded.[106] The richly furbished tombs excavated at the site attest to the presence of a wealthier class at the site;[107] the scarabs and beads found there, which puts the site among the main sites when the full range of types is considered, reinforce this interpretation and suggest that the deceased were involved in administrative tasks, involving the storage and (re-)distribution of goods and documenting the related processes. There is also evidence at the site for metalworking,[108] which no doubt explains why the site is a focal point for weapons, which were found in the richest tombs. Tell el-Yahudiyah, where both a settlement and burials have been excavated, was characterized by earthen embankments, which were parts of walls,[109] as well as by weapons, especially from the richer tombs,[110] and scarabs, both from tomb and settlement contexts.[111] The role of the site in the network of scarabs shows that goods were sealed and, therefore, stored and (re-)distributed from there, and how the people buried there were participating in burial customs similar to the ones found at other sites, while the role in the networks of Tell el-Yahudiyah ware, which was originally of Levantine origin before being locally produced in Egypt (see Chapter 10) and weapons, which are similar to the ones found in the Levant (see Chapter 12), show that the site had rich burials whose burial goods remind one of those in the Levant. Nevertheless, the weapons were likely not produced here, which is why the most common types do not form most of the range of types.

The two intermediary sites detected in the Delta are Tell Hebua and Tell el-Retaba. Tell Hebua is believed to be a site where goods moved between Egypt and the Levant, mostly food, were stored, as shown by the presence of silos and granaries.[112] At Tell el-Retaba, tombs and a settlement have been excavated.[113] The material culture unearthed there has a style similar to the one found at Tell el-Dab'a. Not sufficient archaeological data have been published to understand the role of the site, though its geographical position, in the Wadi Tumilat near Tell el-Maskhuta, allows us to postulate a role in the trade leading from the Sinai to Tell el-Maskhuta and, from there, further into Egypt.

104 Redmount 1995b.
105 The involvement of the site in the routes to the mines in the Sinai is discussed in Mumford and Parcak 2003.
106 Holladay Jr. 1980; Holladay Jr. 1997.
107 Redmount 1989.
108 Holladay Jr. 1997, 195–96.
109 Petrie and Duncan 1906, 1–10.
110 Petrie and Duncan 1906.
111 Adam 1958; Griffith 1890; Petrie and Duncan 1906.
112 Maksoud 1998.
113 Holladay Jr. 1997; Rzepka et al. 2009; Rzepka et al. 2014.

The Memphis-Fayyum area

In the Memphis-Fayyum area, Sedment was a main site in the networks of beads, stone vessels, and scarabs. When the full range of types is analysed, Tarkhan and Sedment become main sites in the network of Cypriot pottery, while Harageh becomes a main site in the network of Tell el-Yahudiyah ware.

The role detected for Sedment can be due to its location at the south-eastern entrance to the Fayyum, which gave access to the desert routes.[114] In detail, the Darb el-Wahat and the Darb el-Rayyan (see Map 1), both described above, could be used. The first route connected the south-eastern part of the Fayyum, from the area of Gurob, which is near Sedment, to the south-western part of the Fayyum, while the second route connected the western part of the Fayyum to the area of Ain Bahariya in Bahariya Oasis. Bahariya Oasis was inhabited at the time and in close contacts with the Hyksos, as suggested by pottery excavated at Qaret el-Tub, near Ain Bahariya, which is similar to the pottery found at Tell el-Dab'a.[115] The suggested hypothesis regarding Sedment is further supported by the fact that the site was in contact with southern Upper Egypt too, as demonstrated by the presence of obsidian, which for the Late Second Intermediate Period is found only in southern Egypt (see Chapter 13). Moreover, both the types of Cypriot pottery from Tarkhan, in the north-eastern part of the Fayyum, and the types of Tell el-Yahudiyah ware from Harageh, in the south-eastern part of the Fayyum near Sedment, have similarities mostly with Tell el-Dab'a, and partially with Sedment. This suggests contacts between this group of sites in the Fayyum and Tell el-Dab'a. Lastly, the present analysis has detected connections, though not strong, between Sedment and Ain Asil, which suggests that both Sedment and Dakhla Oasis could be part of the route used to reach south.

Middle Egypt

In Middle Egypt, Mostagedda and Qau el-Kebir were main sites in the network of beads, stone vessels, and weapons. Furthermore, Mostagedda was an intermediary in the network of weapons. When the full range of types is considered, Rifeh becomes a main site in the networks of scarabs and Tell el-Yahudiyah ware, while Mostagedda becomes a main site in the network of scarabs, and Matmar become a main site in the networks of beads and stone vessels.

Mostagedda and Qau el-Kebir are known for their Pan-grave cemeteries and belonged to the same cultural area, as shown by the similar objects retrieved from there (see Chapter 3). It is also believed that the members of the

114 Agut and Moreno-García 2016, 293.
115 Colin 2005; Colin, Laisney, and Marchand 2000.

Pan-grave culture from the cemetery at Mostagedda served the kings ruling from Thebes, strengthening their connections to the area, as suggested by the similarity in pottery between Mostagedda and Thebes.[116] This is confirmed by the present analysis, which has detected contacts between Thebes and Mostagedda; the results also demonstrate the importance of the Pan-grave people buried at this cemetery during this period. Nevertheless, the analysis also shows that the people from both Qau el-Kebir and Mostagedda had strong contacts with Tell el-Dab'a. Qau el-Kebir and Mostagedda were located in an area with access to wadi basins that led to the stone sources found in the central part of the Eastern Desert, such as steatite, calcite-alabaster, haematite, and amethyst (number 13–16 on Map 1), which are used for most of the stone objects of the time unearthed in Lower Egypt (see Chapter 13). The pottery and the scarab,[117] and the royal stelae of the Late Second Intermediate Period at the galena mines at Gebel el-Zeit (number 14 on Map 1),[118] all mentioned above, further indicate that resources in the central Eastern Desert were still exploited at the time, by rulers of both Lower and Upper Egypt. Considering what has been said about Mostagedda, it is possible that the people whose tombs are at this site were involved in the related operations. Moreover, Mostagedda, Tell el-Dab'a, and Balabish are the only sites connected through similar objects when materials found in the southern Eastern Desert are considered (see Chapter 13). Therefore, it is possible that the people of Pan-grave culture living there were at least partially involved, in a direct or indirect way, in the acquisition and circulation of the aforementioned resources. The military importance of the communities buried at these sites is further demonstrated by the role they played in the network of weapons, as already discussed about Tell el-Dab'a and Mostagedda and will be discussed about Balabish in the next section.

Of the other two sites located in Middle Egypt, Matmar is believed to be a cemetery for people of lower class, on the basis of the grave goods excavated at the site.[119] This is confirmed also by the results of the analysis, which show that the site shared part of its types, but not the main ones: this means that the main types were not produced and distributed from there, but received from somewhere else. Considering that Matmar shares most types with Qau el-Kebir and Mostagedda, it can be suggested that the community buried there

116 Bourriau 1997, 167-68; Bourriau 2010, 22-23; De Souza 2019, 49-50.

117 Cherpion and Buchez 2007, 56–57.

118 Marée 2009. Marée attributes the royal names to kings of the Sixteenth and Seventeenth Dynasties. While the exact attribution of these kings (especially the ones of the Sixteenth Dynasty) is beyond the scope of the present work, it is however relevant that the stelae are dated to the Late Second Intermediate Period.

119 Brunton 1948.

was controlled by these other Pan-grave communities. Nevertheless, the fact that the site shares many scarabs and seal designs with the Eastern Delta (see Chapter 9) demonstrates that there were links between Matmar and the Hyksos kingdom. One possibility is that these contacts implied the exchange of goods, given that scarabs and seals were used to seal goods and commodities during their transportation and storage, as described earlier. At the same time, Rifeh is believed to be occupied by people of the Pan-grave culture working for the Hyksos.[120] The shared types of Tell el-Yahudiyah ware and scarabs confirm contacts between Rifeh and the Eastern Delta, especially Tell el-Dab'a and Tell el-Yahudiyah. The other objects shared by the site show weaker links with the other major sites occupied by communities of the Pan-grave culture, namely Mostagedda and Qau el-Kebir. In general, Rifeh shares most types of objects with sites in the Eastern Delta. The range of types found at Rifeh is not characterized by the more common types, which suggest that the community using the cemeteries at the site, like in the case of Matmar, was not engaged in producing and distributing the main types of objects. Along with its connections to the Eastern Delta, this seems to confirm that the site was controlled by the Hyksos.

Southern Upper Egypt

Among the sites in southern Upper Egypt, Balabish was a main site in the network of weapons, while Abydos was an intermediary site in the networks of scarabs and Cypriot pottery, and Thebes was a main site in the networks of beads and stone vessels. When the full range of types is examined, Abydos becomes a main site in the networks of beads and Tell el-Yahudiyah ware, while Hu becomes a main site in the networks of beads and stone vessels, and Balabish becomes a main site in the network of beads.

Remarkable is the isolation of Elephantine, which does not establish any contact during the Late Second Intermediate Period. This isolation can be due to a bias in the data published and analysed in the present work, given that only the settlement could be considered, and that pottery was not examined. Nevertheless, the described results can also reflect reality and show that Elephantine, from which Nubia could be accessed both via desert routes starting from the area of Aswan, as discussed above,[121] and via the Nile, was a separate territory, or that at least it had closer contacts with Nubia than with the rest of Egypt. Strong contacts with Nubia and the presence of Nubian groups are suggested by the pottery imported from Nubia and its local

120 Bourriau 1997, 167-68; Bourriau 2010, 22-23.
121 For these routes: John C. Darnell 2004; Storemyr et al. 2013a.

imitation retrieved from Elephantine and the area around it.[122] Moreover, an inscribed seal, made of fired clay and featuring a raised relief, mentioning a "Ruler of Kush" has been found at Elephantine, in the stratum corresponding to the Late Second Intermediate Period.[123] The Kerman origins of this seal are indicated by the unusual material, orthography and technique, and attest to diplomatic relations with Nubia,[124] or at least that a Nubian ruler was influent enough to have a seal there.[125] In addition, written sources, especially the so-called Second stela of Kamose,[126] mention that contacts between the Hyksos rulers and Nubia went via the oases during this time, as confirmed also by previous archaeological research at Bahariya.[127] Therefore, Elephantine had contacts with Nubia, but was not mediating between the latter and Egypt. While suggesting a Nubian influence can be too far-fetched given the available material, Elephantine should be at least acknowledged as a place where a mixed Egyptian and Nubian community lived, at the frontier between Egypt and the Kingdom of Kerma (mentioned in Chapter 10).[128]

Balabish is known for its cemetery of people of the Pan-grave culture.[129] The types of objects it shared connect it mostly to other sites with communities of the Pan-grave culture and with Tell el-Dab'a. Therefore, it is possible that the community buried at the cemetery at Balabish was probably controlled by the Hyksos, or at least that it established close contacts with Tell el-Dab'a. Furthermore, the absence of scarabs, the range of beads not characterized by the main types, and the role in the network of weapons suggest that the community of Pan-grave culture occupying Balabish was probably mostly playing a military role.[130] Moreover, the types of weapons found at Balabish are in common with other sites where communities of Pan-grave culture were present. This suggests that the weapons are indicators both Pan-grave identity of this community and of the role that this community played. Furthermore, as already mentioned, the fact that Balabish, Mostagedda, and Tell el-Dab'a are the only sites connected when objects of materials found in the southern Eastern Desert are examined, suggests that the people of Pan-grave culture

122 Gatto, Curci, and Urcia 2014; Giuliani 2013; Näser 2013; Raue 2018, 208–262.
123 Cooper 2018; Fitzenreiter 2012; Von Pilgrim 2015.
124 Von Pilgrim 2015.
125 Fitzenreiter 2012.
126 Discussed in: Dirminti 2014, 242-243; Enmarch 2013, 56-63; Flammini 2012; Ḥabašī 1972; O'Connor 1997; Redford 1997, 68–69; Säve-Söderbergh 1956; Smith and Smith 1976.
127 Colin 2005.
128 As discussed in Fitzenreiter 2012; O'Connor 1984; Raue 2018, 208–262.
129 Wainwright and Whittemore 1920.
130 De Souza 2019, 149-50.

occupying these sites were at least partially involved, in a direct or indirect way, in the acquisition and circulation of the resources.

The results detected for Abydos show that it mainly had the role of connecting the sites in Lower and Middle Egypt to the sites in southern Upper Egypt (see Chapter 13). The types of objects that the site shared, especially the Tell el-Yahudiyah ware and the Cypriot pottery, show that it was in contact mostly with Lower Egypt and the Memphis-Fayyum area, while the types of beads and scarabs shared show that it was in contact with sites in Middle Egypt. Hu, like Abydos, shared more objects with Tell el-Dab'a and with the sites in Middle Egypt, especially Qau el-Kebir and Mostagedda, than with Thebes, though Thebes shared more objects with Hu that with Abydos. The described situation, and the fact that Abydos and Tell el-Dab'a are linked mostly through shared types of Cypriot pottery and Tell el-Yahudiyah ware, which are more common in Lower Egypt, both suggest that Abydos had close contacts with Tell el-Dab'a, or that it was even under Hyksos influence. At the same time, the links created by the shared objects between Abydos and Hu are not strong. While on one side this can be due to the fact that part of the data for Hu are missing in the analysis because the publications provide limited details on the objects unearthed at the site, it also shows that the two sites were more in contact with Tell el-Dab'a and Middle Egypt than with each other. All in all, the sites seem to have established separate networks, through separate communication routes.

From Abydos, Rifeh could be reached via the river, which seems to be suggested also by connections revealed by the present analysis between the two sites. As discussed above, Rifeh was under Hyksos influence, therefore Abydos, whose contacts with Thebes have been detected by the present analysis, could have bridged the area under the Theban rulers and the area under the Hyksos rulers. From Hu, Kharga Oasis could be reached through the Girga road (see Map 1), described above. Excavations at Abu Ziyâr and Tundaba have found outposts with ostraca, seal impressions, pottery, a cistern, and dry-stone structures of the Late Second Intermediate Period, as mentioned above. These finds have also stylistic affinities with the Seventeenth Dynasty, which shows that the route was intensively used by the Theban rulers.[131] From Kharga, Dakhla Oasis could be reached in its eastern part, between Ain Asil and Teneida, through the Darb el-Ghubbari and the Darb Ain Amur (see Map 1), described above. Connections, though weak, detected between Hu and both the Theban area and Ain Asil, further suggest that the community buried at Hu could be a part of the communication network between the Theban area and the oases of the Western Desert. However, it is interesting that

131 Deborah Darnell 2002: John C. Darnell 2002; Darnell and Darnell 2002; Darnell and Darnell 2013.

no direct contacts between Thebes and Ain Asil have been detected. This will be discussed below. All in all, Abydos and Hu could belong not only to two different networks, but also to different territories. The fact that the range of types, from both Abydos and Hu, is not characterized by the more common types implies that the communities occupying these sites did not produce and distribute them and, therefore, that they probably received them from other places.

In the case of Hu, the shared objects, as explained above, suggest that people buried there had close contacts with, or was even under the influence of, the communities of Pan-grave culture found at Qau el-Kebir and Mostagedda; at the same time, the shared objects show that the site was in contact with Thebes. Abydos is known to be a part of the Theban kingdom during the Seventeenth Dynasty, as shown by royal stelae, and by stelae from officials working for the Theban rulers, unearthed at the site,[132] and to be located at the frontier.[133] Regarding the earlier part of the Late Second Intermediate Period, stelae that can be dated to this phase have been found at Abydos, but have been interpreted in different ways, especially the stela belonging to King Sekhemraneferkhau Wepwawetemsaf. While Ryholt has ascribed the mentioned king, not attested in the Turin Canon, and his stelae to the Abydos Dynasty,[134] Marée has found stylistic similarities with stelae of what are considered early rulers of the Seventeenth Dynasty. Therefore, he has ascribed the mentioned king and his stelae to the late Sixteenth–early Seventeenth Dynasty, and placed Abydos under Theban influence, rejecting Ryholt's idea of an independent territory in Abydos.[135] Nevertheless, the results of the present analysis suggest that Abydos was in close contacts with the Hyksos. These results are in agreement with Ryholt's theory that, during the first part of the Late Second Intermediate Period, Abydos belonged to the kingdom of the so-called Abydos Dynasty and was soon conquered by the Hyksos, and ultimately taken over by the Seventeenth Dynasty, while Hu belonged to the kingdom of the Sixteenth Dynasty.[136]

Moreover, the routes passing through the Theban Desert and connecting the southern side of the bend with the northern side (see Map 1), all described above, were mostly in use during the Late Second Intermediate Period. A chapel of the Seventeenth Dynasty at the Gebel Antef[137] and pottery from both

132 These are discussed in: Franke 1985; Ilin-Tomich 2014; Kubisch 2008; Marée 2010; Ryholt 1997, 171–74.
133 Ryholt 1997, 171–74.
134 Ryholt 1997, 163–166.
135 Marée 2010.
136 Ryholt 1997, 301–310.
137 Darnell and Darnell 1993; Darnell and Darnell 1994a; Darnell and Darnell 1994b; Darnell and Darnell 1995; Darnell and Darnell 1996; Darnell and Darnell 2002.

the Gebel Antef and the Wadi el-Hôl demonstrate the intense use of the main Luxor-Farshût route (see Map 1) by the Seventeenth Dynasty; graffiti datable to the same period have also been found.[138] The Darb Ba'irat (see Map 1) and the trail behind the Thoth mountain were also used by the Seventeenth Dynasty, though not intensively,[139] while the mud-brick towers with pottery of Second Intermediate Period, as well as graffiti possibly dating to the same period, discovered on the ʿAlamat Tal road (see Map 1) show an intensive use by the same rulers.[140]

The roles detected for Thebes are probably due to the fact that the territory of the Seventeenth Dynasty was centred in the Theban area, as suggested by royal names attested on stelae and architectural elements.[141] The Sixteenth Dynasty was probably also centred at Thebes, but there is still discussion on which kings to ascribe to this dynasty (see Chapter 2), therefore also their capital is not certain yet. The present analysis shows that Thebes shared the highest number of objects with Mostagedda, which can be expected based on what has been discussed above about the situation in Middle Egypt. To a lesser degree, Thebes shared objects with Sedment and Tell el-Dab'a, as well as Hu. It can be noticed that Thebes had contacts mostly along the Nile Valley, and even a few with the Eastern Delta. The only activities in the Western Desert attested for the Seventeenth Dynasty concern Kharga Oasis, at Umm Mawagir, and the Girga road (see Map 1), namely the road between Hu and Kharga Oasis, at Tundaba and Abu Ziyar, as discussed above. The described situation shows that, though the Theban rulers invested in activities in the southern part of the Western Desert, they mostly used the Nile to reach sites under their influence, such as Mostagedda. The fact that no connections have been detected between Thebes and Ain Asil, while a weak connection existed between this latter and Hu, as mentioned above, further suggests this hypothesis. In the Eastern Desert, activities by these rulers in the central part are attested by the royal stelae at the mines at Gebel el-Zeit (number 14 on Map 1), mentioned above. Considering the connections between Thebes and Mostagedda, it is possible that the site was involved in these activities. Lastly, the objects shared by Thebes are mostly beads and stone vessels. While these objects indicate exchanges of objects and goods, they do not imply common burial customs, as in the case of the scarabs and the weapons used as burial equipment (see Chapter 12), nor that goods were stored and (re-)distributed

138 Darnell and Darnell 1993; Darnell and Darnell 1994a, Darnell and Darnell 1995.
139 Darnell and Darnell 1993; Darnell and Darnell 1994a; Darnell and Darnell 1994b; Darnell and Darnell 1995; John C. Darnell 2002.
140 Darnell and Darnell 1993; Darnell and Darnell 1994a; Darnell and Darnell 1994b; Darnell and Darnell 1995; Darnell and Darnell 1996; John C. Darnell 2002.
141 Ryholt 1997, 388–391.

from there, as in the case of scarab and seal impressions (see Chapter 9). The objects mostly shared by Thebes neither include Tell el-Yahudiyah ware and Cypriot pottery, hence they do not indicate contacts with Levantine or Cypriot communities, nor the presence of these communities, nor that their products, and especially their pottery, was valued and (re-)used (see Chapters 10 and 11). Therefore, the connections established by Thebes with Lower Egypt further support that the two areas belonged to different territories and attest to different material cultures.

The oases

In the northern part of the Western Desert, the oasis of Bahariya shows connections with the Hyksos, as suggested for example by the pottery excavated at Qaret el-Tub.[142] At the same time, the oases of the southern part of the Western Desert, namely Dakhla and Kharga, were probably part of an independent territory, as suggested by the similar pottery and settlement structure, and by the production activities conducted at Umm Mawagir, as discussed in the previous sections. It can also be noticed that Ain Asil shares mostly scarabs and imitated Cypriot pottery with the sites in the Eastern Delta. Though the links are few and, therefore, the contacts are weak, they still are present and focus on the territory controlled by the Hyksos.

Considering the connections, mentioned above, between Ain Asil and Sedment, and between Sedment and the sites in the Eastern Delta, the described situation suggests the influence on the desert by the Hyksos. Moreover, the connections detected by the present analysis between Ain Asil and the sites in Middle Egypt, though weak, suggest that contacts could have passed through Darb el-Tawil (see Map 1), linking the eastern part of Dakhla Oasis and the area around Asyut, as described above.

Preliminary conclusions

During the Late Second Intermediate Period, Tell el-Dab'a is the most important site detected for the Delta, where other sites playing a major role are Tell el-Maskhuta and Tell el-Yahudiyah. Tell el-Dab'a was the capital of the Hyksos, while at Tell el-Maskhuta and Tell el-Yahudiyah, the upper echelons of society included the presence of, or contacts with, people of Levantine origins, who were dependent on the rulers at Tell el-Dab'a, as shown by their similar material culture. These sites gained importance in the trading, storage and (re-) distribution of goods under Hyksos rule. Other sites, such as Tell Hebua and

142 Colin 2005; Colin, Laisney, and Marchand 2000.

Tell el-Retaba, became important as intermediary places for communications between Egypt and the Levant.

The use of the desert routes is shown by the sites in the Memphis-Fayyum area, especially Sedment, whose contacts, though weak, with Dakhla Oasis have been detected by the present analysis. The result of the present analysis show that the community buried at Sedment played a role on these routes and was in contact with both Lower and southern Upper Egypt. The similarities between Tarkhan, and Harageh and Tell el-Dab'a also show that the Fayyum was especially in contact with the Eastern Delta, thus with the territory controlled by the Hyksos. Bahariya Oasis, in the northern part of the Western Desert, also seems to be under Hyksos influence, while the oases in the southern part of the Western Desert appear to belong to a separate territory.

At the same time, Middle Egypt was also an important node in contacts and trade, especially through routes through Qau el-Kebir and Mostagedda, which had strong contacts with both Lower and southern Upper Egypt. The location of these sites, with access to mineral resources, and the fact that these sites are characterized by the presence of communities of the Pan-grave culture shows the involvement of these communities, in a more direct or indirect way, in the acquisition and circulation of these resources. The communities buried at Matmar and Rifeh were also important and had contacts with both Lower and southern Upper Egypt, but they were respectively controlled by the Hyksos and by the communities of Pan-grave culture occupying Qau el-Kebir and Mostagedda.

In southern Upper Egypt, the Theban area was of great importance, due to its being the area of the capital of the Seventeenth Dynasty, and possibly of the Sixteenth Dynasty. As visible in the pottery and in the burial goods, these dynasties, and especially the Seventeenth Dynasty, ascended to power in the area and needed to legitimize themselves, to promote unity in their own territory and set themselves apart from other territories (see Chapter 3). Other important sites were Hu and Abydos, which maintained contacts with both Lower and southern Upper Egypt and through which the resources from the main wadis of the southern Eastern Desert were probably channelled. Hu was probably under the control of, or at least had close contacts with, the Theban rulers and played an important role as a hub on the desert routes connecting with the oases in the southern part of the Western Desert, especially through the Girga Road (see Map 1), in which the Theban rulers had an interest, the Darb el-Ghubbari, and the Darb Ain Amur (see Map 1). At the same time, Theban rulers were able to organize expeditions in the central Eastern Desert, probably involving the Pan-grave community whose cemetery is located at Mostagedda. Abydos had stronger contacts with the Hyksos, as shown by the Tell el-Yahudiyah ware and the Cypriot pottery. A possible explanation is

that the results give an image of the political situation at the beginning of the Late Second Intermediate Period, when the site was likely controlled by the Hyksos.

Lastly, the isolation of Elephantine can be due to archaeological bias or reflect an actual situation. On one side, the analysis of pottery suggests that the island could be a separate territory[143] and show strong contacts with Nubian groups or even their presence there;[144] these strong contacts are further shown by the seal of possible Kerman origins mentioning the "Ruler of Kush".[145] On the other side, textual sources, such as the Kamose stela, indicate that the desert was used as a corridor between the Hyksos territory and Nubia,[146] and that Elephantine was not involved in the contacts between Egypt and Nubia during the Late Second Intermediate Period. All this suggests that Elephantine was a place inhabited by a mixed Egyptian and Nubian population, at the frontier between Egypt and the Kingdom of Kerma, with close contacts with Nubia but not with other regions in Egypt.[147]

To conclude, the analysis has detected the following areas, associated by the material culture: the Eastern Delta, the oases in the southern part of the Western Desert (Dakhla and Kharga), Upper Egypt, and the area of Elephantine. The sites in the Memphis-Fayyum area and Bahariya Oasis were mostly in contact with the Hyksos, possibly under their influence, and gave access to the desert routes. The sites in Middle Egypt, from Rifeh to Abydos, were acting as border and were in contact with both Lower Egypt and the rest of Upper Egypt.

GENERAL CONCLUSIONS

During the Late Middle Kingdom, the results of the present analysis and the distribution of materials (see Chapter 13) show the activity of a centralized administration located in the capital area in the Memphis-Fayyum area, which controlled the circulation of materials. It was also a key production and distribution centre for the main types of objects, which were moved mostly through the Nile Valley and partially through the Western Desert. The material culture was generally uniform, and materials reached also areas located further away from their sources. The small variations do not suggest a regionalization process as during the Late second Intermediate Period. However, differences are visible in groups of objects that suggest the presence of or contacts with for-

143 Bourriau 1997, 159; Bourriau 2010, 12.
144 Gatto, Curci, and Urcia 2014; Giuliani 2013; Näser 2013; Raue 2018, 208–262.
145 Cooper 2018; Fitzenreiter 2012; Von Pilgrim 2015
146 As discussed in: Dirminti 2014, 242-243; O'Connor 1997; Redford 1997, 68–69; Säve-Söderbergh 1956; Smith and Smith 1976, 50-74.
147 As discussed in Fitzenreiter 2012; O'Connor 1984; Raue 2018, 208–262.

eign communities. These include the objects imported, their imitations, or the objects inspired by the ones found in the Levant (i.e. the metal weapons and the Tell el-Yahudiyah ware), Nubia, (i.e. the beads of shell and bone), and Cyprus (i.e. the Cypriot pottery), as well as imported materials, such as lapis lazuli, obsidian, and silver.

During the Early Second Intermediate Period, the major sites were Tell el-Dab'a in the Eastern Delta, Harageh in the Memphis-Fayyum area, Qau el-Kebir in Middle Egypt, and Ain Asil in Dakhla Oasis in the Western Desert. Tell el-Dab'a achieved independence and, consequently, became able to produce and distribute the main types of objects surveyed in the present research, while still acquiring material resources, even though in a smaller amount and less frequently that in the previous period. The material culture is more differentiated than during the Late Middle Kingdom, but the territories were not isolated. Contacts, even though weak, still continued between Lower Egypt, the Memphis-Fayyum area, and Dakhla Oasis, as well as with southern Upper Egypt, involving in a small part the desert routes in the Western Desert. The role detected for Qau el-Kebir and its geographical position suggests that communities of the Pan-grave culture became more important, probably because they played a role in the access to material resources and in their circulation. In southern Upper Egypt, Abydos and Edfu were main sites and still maintained connections with Lower Egypt. The fact that Tod and Hu were engaged in relations involving people of the Pan-grave culture and, through them, Tell el-Dab'a suggests a role played by these people in the communications during the Early Second Intermediate Period. There is the possibility that Tell el-Dab'a, Ain Asil, Harageh, Qau el-Kebir, and Abydos belonged to different territories, but this can be said with certainty only for the first two.

During the Late Second Intermediate Period, Tell el-Dab'a was an important site, under Hyksos rule, controlling the other sites in the Eastern Delta, which also oversaw the flow of goods between Egypt and the Levant. The use of the desert routes is shown by the contacts detected between the sites in the Memphis-Fayyum area, especially Sedment, the Eastern Delta, and Dakhla Oasis, though the contacts with Dakhla Oasis do not appear to have been strong. All in all, Dakhla Oasis, which had weak contacts also with the sites in Middle Egypt probably through the desert route of the Darb el-Tawil (see Map 1), could be part of a separate territory with Kharga Oasis, while Bahariya Oasis, in the northern part of the Western Desert, was under Hyksos influence. In Middle Egypt, Qau el-Kebir and Mostagedda were main sites and had strong contacts with both Lower and southern Upper Egypt, which shows that communities of the Pan-Grave culture were still involved, directly or indirectly, in the communications between different areas of Egypt. Matmar and Rifeh were also part of the routes between Lower and southern Upper Egypt,

even though they were respectively under control of the Hyksos and of other communities of Pan-grave culture such as the ones of Qau el-Kebir and Mostagedda. In southern Upper Egypt, the Theban area was a main site, because it was the centre of the kingdom of the Seventeenth Dynasty and possibly of the Sixteenth Dynasty.

Communications between the Theban area and the other sites in Egypt went mostly via the river, though the rulers of at least the Seventeenth Dynasty invested in the routes leading to the northern part of the Qena bend and to Kharga Oasis. These rulers were also able to organize activities in the central Eastern Desert, probably also involving the Pan-grave community present at Mostagedda. At the same time, Hu and Abydos had contacts with both the Eastern Delta and Middle Egypt. Hu had close contacts, or was even under the influence of, sites with communities of Pan-grave culture such as Qau el-Kebir and Mostagedda. It also had contacts with the Theban rulers and with the oases of the southern part of the Western Desert, through the Girga road, the Darb el-Ghubbari and the Darb Ain Amur (see Map 1). The strong contacts detected between Abydos and the Hyksos could indicate that it was under the influence of, or even controlled by, the Hyksos at the beginning of the Late Second Intermediate Period. Lastly, Elephantine could also be a separate territory, in close contacts with Nubia but not with other regions in Egypt, which reached Nubia through the Western Desert.

All in all, the analysis has detected four areas: the sites in the Eastern Delta, the oases in the southern part of the Western Desert (Dakhla and Kharga), Upper Egypt, and the area of Elephantine. The sites in the Memphis-Fayyum area and Bahariya Oasis were under the influence of the Hyksos and gave them access to the desert routes. Middle Egypt was a border area in contact with both Lower Egypt and the rest of Upper Egypt.

In general, the results of the present study have confirmed what is know about the period examined, giving at the same time more nuance and shedding more light on particular aspects. These concern firstly the role of the groups of Pan-grave culture. The present study has demonstrated how these communities played a central part in the communications between the different areas and in the access to the sources of stones and metals, located mostly in the desert. The second aspect is the changing role of Tell el-Dab'a and of the eastern Nile Delta. During the Late Middle Kingdom, when Egypt was united, the area was the place where goods coming from outside, through the Mediterranean Sea and through the Sinai Peninsula, entered Egypt and found their way to the capital. With the political fragmentation of the Second Intermediate Period, the eastern Nile Delta, and especially Tell el-Dab'a, was able to produce consumption goods and distribute them to other areas of Egypt. Thirdly, the present work has shown the particular role of Abydos during the

Second Intermediate Period. This site played a role in the networks during the Early Second Intermediate Period, and during the Late Second Intermediate Period it had stronger contacts with Lower Egypt, which could suggest that it was under Hyksos influence. Despite this, Abydos has material culture in common with both Lower and Upper Egypt. Therefore, the present study has also demonstrated how a mixed material culture is present there, probably because it was along the border of the Theban reign. Lastly, Elephantine has also been revealed to be an interesting site, whose material culture has little in common with the rest of Egypt, either because it was on the border with Nubia, either because it belonged to a separate territory.

FURTHER POSSIBILITIES

The present research has shown that network analysis can be of great help when it comes to examining material culture, especially when it comes to understanding historical periods about which much is still unknown or subject to scholarly debate. Network analysis is especially useful when it comes to studying relationships, between either places or groups of people. It is also useful in getting to grips with regionalization. Drawbacks of this methodology, which concern mostly the range of available data and the interpretations, can be overcome by considering carefully which data to analyse, and by contextualizing the results of the analysis in the light of what is known of the period in question.

Further possibilities are offered by this methodology, even for the period examined in the present work. Analysing other groups of objects, such as pottery, can give further confirmation or lead to new insights. Moreover, new excavations and new publications, as well as the revision of older archaeological work, will offer in the future the possibility of including more data in the analysis. The field of Egyptology can benefit from applying network analysis to the study of ancient Egyptian material culture, and it is my wish that the potential of this methodology is used to also study other periods of ancient Egyptian history through material culture.