

## SETTLEMENT PATTERNS AT AVARIS: A STUDY ON TWO CASES

Irene Forstner-Müller

### INTRODUCTION

In the last 40 years urban archaeology came more and more into the focus of Egyptological research.<sup>1</sup> Sites like Buto,<sup>2</sup> Elephantine,<sup>3</sup> Aswan,<sup>4</sup> Giza<sup>5</sup> and especially Amarna<sup>6</sup> broadened our mind on how Egyptian towns looked. Although since then<sup>7</sup> a lot of work has been focused on this problem there is still a huge demand to investigate this topic.

This paper will concentrate on Tell el-Dab<sup>c</sup>a/Avaris where long term excavations by the Austrian Archaeological Institute have been undertaken for more than forty years.<sup>8</sup> (Fig. 1) At this site different settlement patterns show up at different periods. Two main types are recognizable: the strictly planned settlement and the gradually developed town.<sup>9</sup> These two types are represented by 1. two model communities of the Middle Kingdom and 2. the sprawling city of the Second Intermediate Period when Avaris was the capital of the Hyksos rulers.<sup>10</sup>

### 1. PLANNED SETTLEMENT (Fig. 2)

Model communities are a typical settlement feature of the Middle Kingdom, the most prominent and best investigated example being Illahun in the Fayum.<sup>11</sup> Their characteristic is the orthogonal architectural layout with a strict grid on base of an urban

planning concept. All examples are at the fringes of the urbanized country and were established by the king in order to colonize these parts and enlarge the land for agricultural, economical and political purposes and to increase Royal power.

### Settlement F/I

At Tell el-Dab<sup>c</sup>a the earliest settlement of this kind was found in area F/I. It can be dated to the very early Middle Kingdom (late 11<sup>th</sup> Dynasty to the first years of the reign of Senwosret I).<sup>12</sup> Only part of it has been excavated, the northern limit is formed by an enclosure wall.<sup>13</sup> The settlement covered an area of app. 1000 sqm and had an orthogonal street-grid. It was organized into two main blocks of rows of houses: the eastern part consists of 12 units per stripe; each unit consists of two houses (6 × 2 houses).<sup>14</sup> In the western part the general layout is more spacious and largely unknown.<sup>15</sup> The use of the Egyptian cubit is recognizable within the planning. The individual blocks are separated by alleys which are 5 cubits wide. The respective units are squares with sides measuring 5.5 m (app. 10 × 10 cubits).<sup>16</sup> Within this small space of app. 27 sqm five rooms are arranged.<sup>17</sup> At least 342 houses can be discerned, a hypothetical reconstruction proposes twice this size.<sup>18</sup> The narrowness of the

<sup>1</sup> One of the most influential and stimulating books on this topic should be mentioned here: KEMP 1<sup>st</sup> edition 1989, 2<sup>nd</sup> edition 2006.

<sup>2</sup> FALTINGS/KOEHLER 1996, HARTUNG 2003, HARTUNG/HERBICH 2004, in print, KOEHLER 1996, VON DER WAY 1996, VON DER WAY *et alii* 1996.

<sup>3</sup> VON PILGRIM this volume.

<sup>4</sup> W. MÜLLER this volume.

<sup>5</sup> LEHNER 2007, this volume.

<sup>6</sup> An extensive bibliography is available at the excellent Amarna-project website: <http://www.amarnaproject.com>; for the importance of Amarna for settlement archaeology s. also SHAW 1995.

<sup>7</sup> BIETAK 1979a, WILSON 1960.

<sup>8</sup> For the latest bibliography s. [www.avaris.at](http://www.avaris.at).

<sup>9</sup> The recently challenged dichotomy *planned versus organic cities* (SMITH 2007) may well be applied, however, to the archaeological evidence of Tell el-Dab<sup>c</sup>a.

<sup>10</sup> That these two antipoles can also appear in the same time is clearly seen at Amarna where the strictly planned workers town exists beside the more loosely organized parts for the King and the Nobles, for the workmen's village s. PEET/WOOLEY 1923: 51–91, KEMP 1978, fig. 2.

<sup>11</sup> Model communities are, of course, not an invention of the Middle Kingdom, but known from earlier periods. For a listing of these settlements with detailed description s. KEMP 2006: 193–244.

<sup>12</sup> Personal communication E. Czerny.

<sup>13</sup> CZERNY 1999: 18.

<sup>14</sup> CZERNY 1999: 17–19, Abb. 2.

<sup>15</sup> The excavators assume a number of double blocks of 24 houses, personal communication ERNST CZERNY.

<sup>16</sup> CZERNY 1999: 18.

<sup>17</sup> CZERNY 1999: 20–21, Abb. 3.

<sup>18</sup> D. Eigner personal communication to E. Czerny

<sup>19</sup> E. Czerny personal communication.

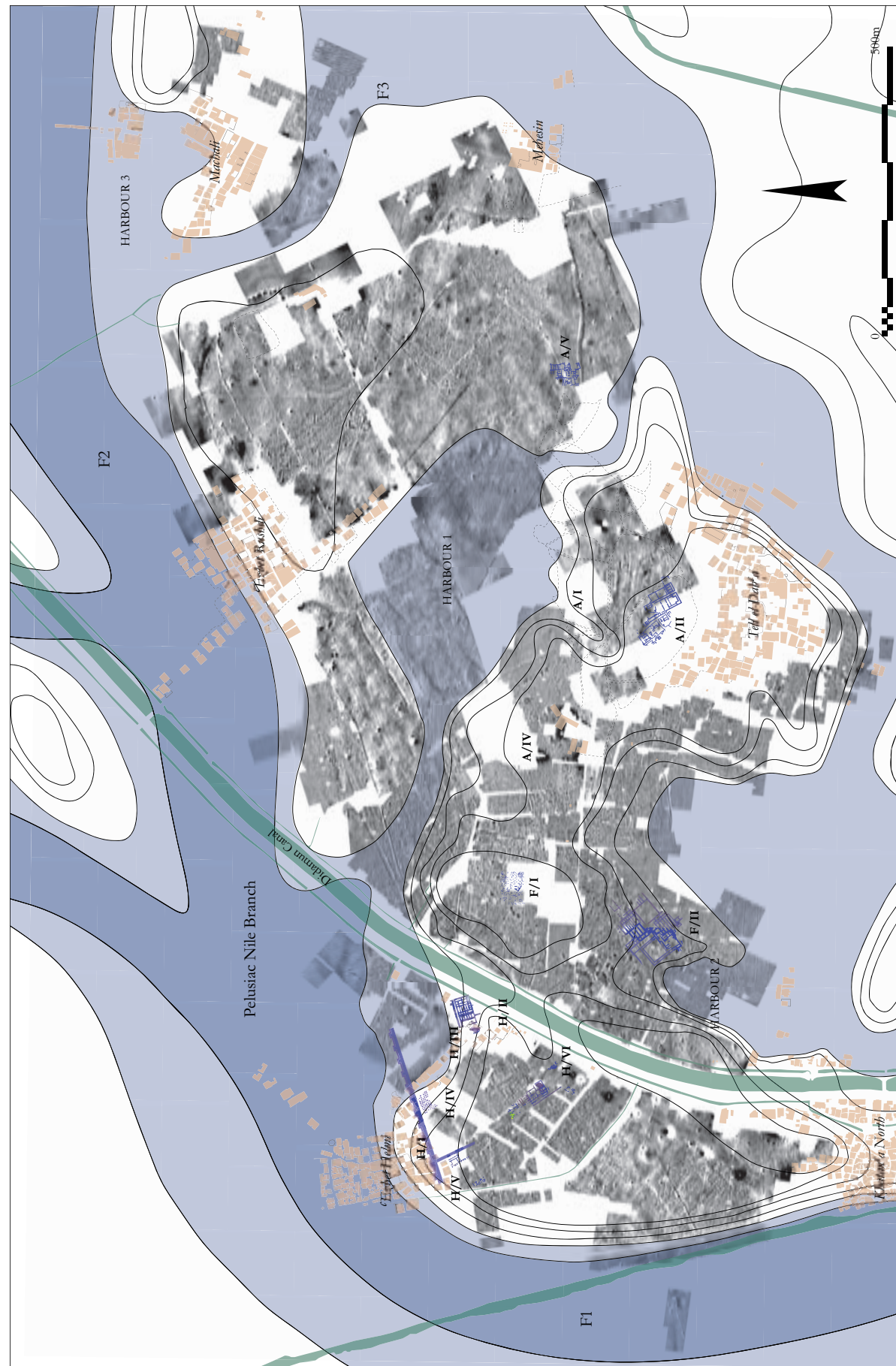


Fig. 1 Overall map of Tell el-Dab'a / Avaris

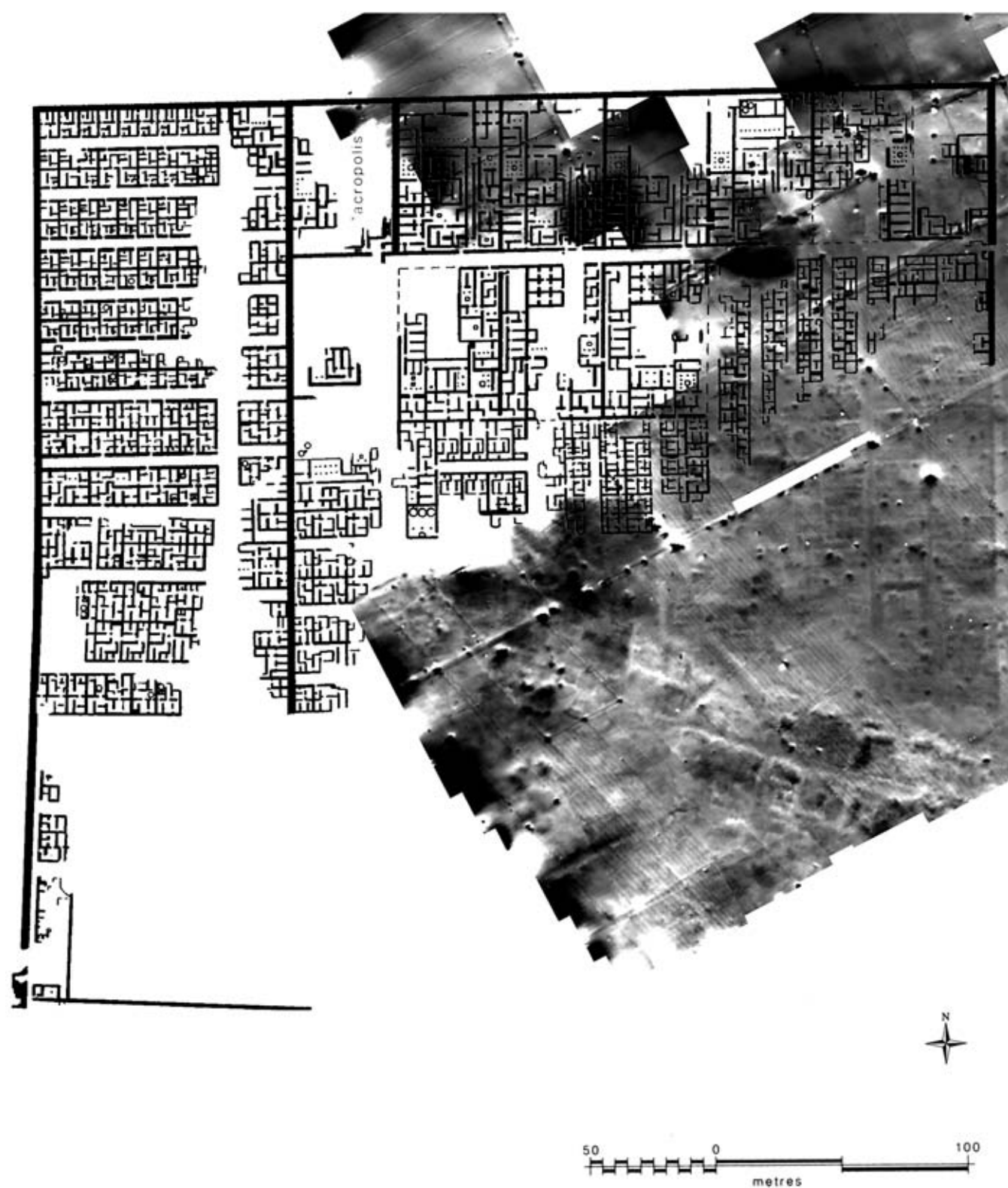


Fig. 2a Planned settlements of the Middle Kingdom: 'Ezbet Rushdi and Illahun

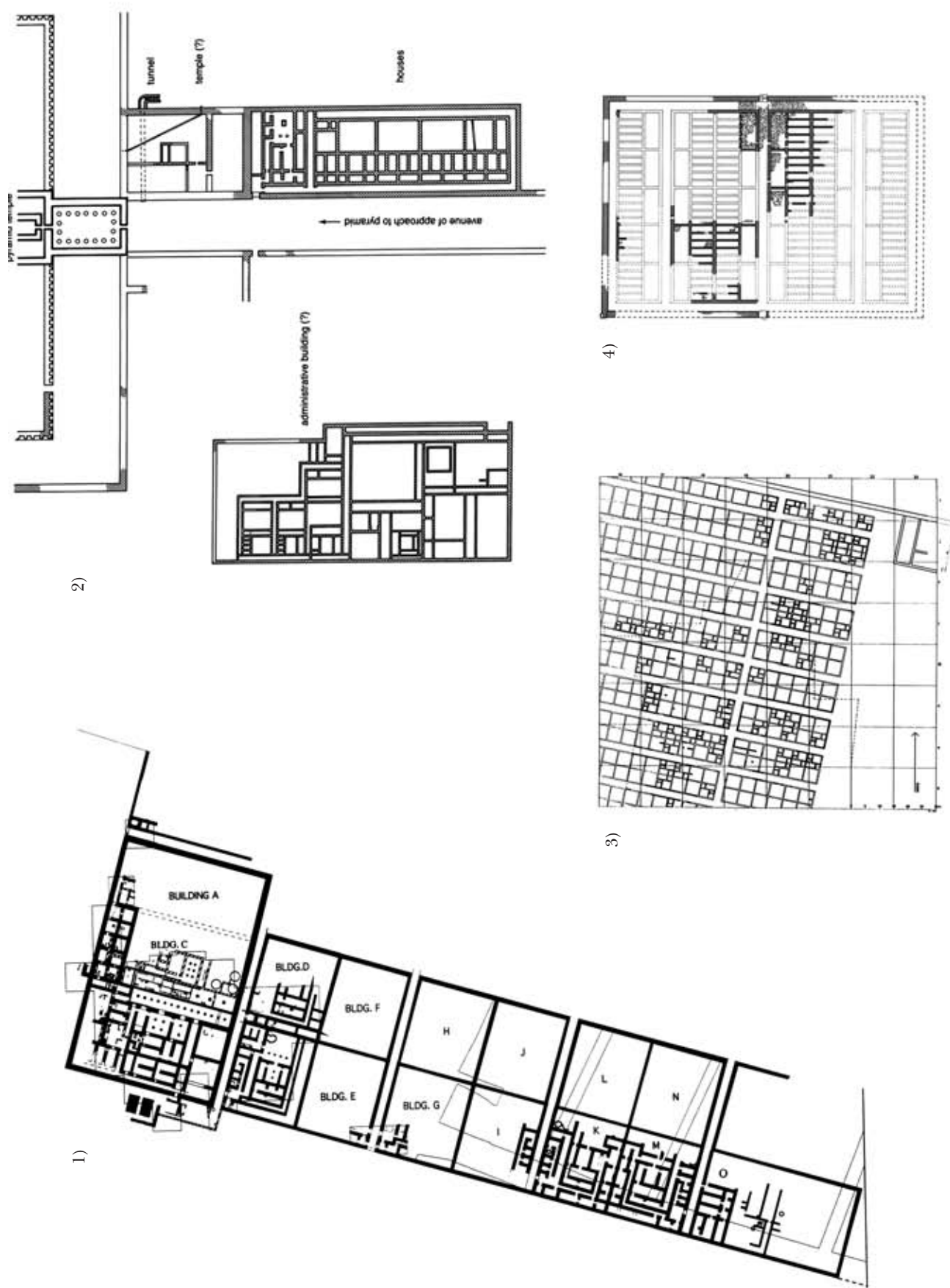


Fig. 2b Planned settlements of the Middle Kingdom: Abydos, Dahschur, F/I and Qasr es-Sagha; 1) WEGNER 2001: fig. 2 (courtesy DAI); 2) ARNOLD 1987: pl. 36 (courtesy DAI) 3) CZERNY 1999: 18, fig. 2; 4) ŚLIWA 1992: fig. 1 (courtesy DAI)

wall makes a second floor unlikely. It is not clear whether these houses were intended for single workers like in Qasr es-Sagha<sup>19</sup> or, more likely, for families.

#### The Settlement of 'Ezbet Rushdi

During excavations conducted by the Egyptian Antiquities Organization in the 1940s near the modern village of 'Ezbet Rushdi a temple dating to the Middle Kingdom was unearthed.<sup>20</sup> A reinvestigation of the site in 1996 by the Austrian Archaeological Institute did not only give a more precise picture of its date and architecture but also brought to light that this temple was surrounded by satellite buildings (houses) and erected on top of an older settlement.<sup>21</sup>

The temple was built by Senwosret III, probably as a ka-temple for the king. The older settlement dates to the Middle Kingdom (Amenemhet II?).<sup>22</sup> Only parts of these lower levels were excavated. Although the older structures had been damaged by the building activity of the temple it was possible to reconstruct house plans. The average size of a house unit is 50 sqm,<sup>23</sup> thus significantly more spacious than in area F/I.

In 2004 a geophysical survey (Caesium and Fluxgate Magnetometer) was conducted in this area in order to investigate the yet unexcavated surroundings of the temple of R/I<sup>24</sup> resulting in the discovery of a large settlement which covers an area of at least 30 ha.

The eastern limit of the settlement is defined by an anomaly running exactly north-south. This border seems to consist of a rather small and narrow wall and a street – up to 3.5 m wide – that is clearly discernible for 240 meters. The western part of the settlement is covered by the modern village. To the south it is obscured by a more recent but most probably still ancient structure.

The settlement layout is "hippodamic", i. e. with an orthogonal street-grid. The first two stripes, from the boundary – wall to 52 metres to the East, running exactly parallel to the boundary wall, consist of square *insulae* (a block of houses), measuring approximately 26 × 26 m.<sup>25</sup> In the second stripe, next to the

southern boundary of the visible settlement, a structure with thick walls (app. 6 m wide), possibly a temple, is clearly visible. The square structure fits exactly into one *insula*. The next *insula* to the North might comprise a courtyard with a pylon.

The *insulae* seem to be defined by small enclosure walls with streets between them. Further west, the *insulae* seem to be larger, the structure not so regular any more. The last visible north-south street of the settlement is 129 metres to the west of the eastern boundary wall. This structure is very prominent and could therefore be the western limit of the settlement.

Like with the planned settlement of F/I its size is not known, its extension is limited to the North by the Nile branch and to the East by an enclosure wall, its west is destroyed by the modern village and its South overbuilt by later structures, most probably belonging to the town of the Second Intermediate Period.

The pivotal question is whether the newly discovered planned settlement belongs to the temple of Senwosret III or to the older settlement of the earlier MK.<sup>26</sup>

If the settlement is contemporaneous with the temple 38 *insulae*, if the settlement is earlier than the temple 48 *insulae* can be reconstructed. They are more spacious than the units of the settlement of F/I<sup>27</sup> most probably due to the fact that in this case the houses were family-dwellings.

## 2. THE "ORGANICLY DEVELOPED" CITY OF THE 15<sup>th</sup> DYNASTY (STRATUM E/1–D/2) (Fig.1)

With the end of the 12<sup>th</sup> Dynasty the town began to expand. Areas which until then had been free of buildings were settled. During the early 13<sup>th</sup> Dynasty a large mansion<sup>28</sup> with a cemetery<sup>29</sup> covered the area of F/I. In the later 13<sup>th</sup> Dynasty this mansion was abandoned abruptly and built over by large villas<sup>30</sup> and tombs. In other parts, A/IV<sup>31</sup> and A/II,<sup>32</sup> more modest dwellings like houses and huts were erected during the late Middle Kingdom. Within the 13<sup>th</sup> Dynasty (Stratum F) Area A/II became a sacral space,

<sup>20</sup> ADAM 1958.

<sup>21</sup> BAGH 1998, BIETAK/DORNER 1998, CZERNY 1998, this volume.

<sup>22</sup> Personal communication E. Czerny.

<sup>23</sup> Personal communication E. Czerny.

<sup>24</sup> FORSTNER-MÜLLER/MÜLLER/SCHWEITZER/WEISSL 2004.

<sup>25</sup> In the East the size seems to be more standardized, to the west the system becomes less rigid. Another interesting feature is that the buildings become narrower from the North to the South, in the South we find also *insulae* sizes of 21 × 21m.

<sup>26</sup> This has to be verified by archaeological excavation.

<sup>27</sup> Cf. above.

<sup>28</sup> BIETAK 1991, EIGNER 1985, 1996. Whether this building can be addressed as a palace or more likely as an elite house was discussed by Wegner (WEGNER 1998: 25).

<sup>29</sup> SCHIESTL 2002, 2003.

<sup>30</sup> BIETAK 1986: 31.

<sup>31</sup> I. HEIN, www.auaris.at.

<sup>32</sup> BIETAK 1979b: 238–241; 1986: 32, fig. 27.