

## **North-East Church Complex (NEC)**

**(Supervisor: Prof. Mark Schuler; with an anthropological report by Esti Deusch)**

In 2007, excavation work continued on areas surrounding the *domus* of the North-East Church complex, exposed the west street south to the Decumanus Maximus, continued conservation, cleaning, and documentation of the nave mosaic carpets (F544 and F589), and concluded study of the human remains from the masonry tomb. This report will address work done in the following areas (Figures 1-2):

- The Masonry Tomb
- The South Hall and Related Chambers
- The Chambers West of the Portico
- The Western Street (“Via Sacra”) and Related Buildings
- The Eastern Street and Related Buildings
- The Nave Mosaics
- Conservation

### **The Masonry Tomb**

Previous reports have detailed the discovery<sup>1</sup> and excavation of the upper<sup>2</sup> and lower<sup>3</sup> sections of the masonry tomb, abutting the central axis of the nave to the north.

Anthropological work on the human remains from the tomb was concluded in 2007 by Esti Deusch of the Hebrew University, Jerusalem. Her report reads in part:

#### Methods

*The bones and teeth were cleaned, measured, photographed (Plates 1 and 2) and examined for gross pathology. The age estimation of the infant was based on dental development.<sup>4</sup> The age estimates for the adult individuals were based on the final stages of the skeletal maturation,<sup>5</sup> the stage of the cranial suture closure, and the degree of the*

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<sup>1</sup> A. Segal et al., *Hippos-Sussita: Fourth Season of Excavations June-July 2003* (University of Haifa: Zinman Institute of Archaeology, 2003) 44-46.

<sup>2</sup> A. Segal et al., *Hippos-Sussita: Fifth Season of Excavations September-October 2004* (University of Haifa: Zinman Institute of Archaeology, 2004) 83-86.

<sup>3</sup> A. Segal et al., *Hippos-Sussita: Seventh Season of Excavations July 2006* (University of Haifa: Zinman Institute of Archaeology, 2006) 72-75.

<sup>4</sup> D. Whittaker, “Ageing from the Dentition,” *Human Osteology in Archaeology and Forensic Science*, eds. M. Cox and S. Mays (London: Greenwich Medical Media, London, 2000), 83-99.

<sup>5</sup> Which includes the fusion stage of the Ilaic crest, the ventral rings of the vertebrae, and limb bones.

dental.<sup>6</sup> The gender was determined morphologically.<sup>7</sup> The metric analysis of the skeletal remains was based on the Standards for Data Collection from Human Skeletal Remains.<sup>8</sup> The pathological examination and analysis was made according to White and Folkens and Lovell.<sup>9</sup>

Description of the remains

The human remains were found in two main areas: the first area (Locus 537) housed the remains of at least nine individuals, while the second area (Loci 543 and 590) yielded three individuals (see table 1). The skeletal remains were fragmentary and incomplete. All the individuals found at these areas were adults, except one infant age 0-1 years which was found in locus 537, and was represented only by teeth and pelvis fragments. As can be seen in table 1, the age estimation of most individuals was partial, mainly due to the fragmentary state of the remains. As for the gender, Locus 537 yielded the remains of at least three men, three women and one infant and three adults whom gender was undetermined (see table 1).

Discussion

The number of individuals reported here is far too small for any estimates of paleodemography or rigorous evaluation of mortuary practices. As mentioned, the disarticulated remains of at least 12 individuals were found in two areas. The inventory of the human remains is provided in table 1.

<i>Ind'</i>	<i>Locus</i>	<i>Basket</i>	<i>age</i>	<i>sex</i>
1	537	1911, 1933	Adult	Female
2	537	1911, 1933	older adult	Male
3	537	1933	Adult	Female
4	537	1930	Adult	

<sup>6</sup> M. Cox, "Aging Adults from the Skeleton," *Human Osteology in Archaeology and Forensic Science*, eds. M. Cox and S. Mays (London: Greenwich Medical Media, London, 2000) 61-82. M. Y. İşcan and S. R. Loth, "Osteological Manifestations of Age in the Adult," *Reconstruction of Life from the Skeleton*, eds. M. Y. İşcan and K. A. R. Kennedy (New York: Wiley-Liss, 1994) 23-40.

<sup>7</sup> S. Mays and M. Cox, "Sex Determination in Skeletal Remains," *Human Osteology in Archaeology and Forensic Science*, eds. M. Cox and S. Mays (London: Greenwich Medical Media, London, 2000) 117-130.

<sup>8</sup> J. E. Buikstra and D. Uberlaker, eds., *Standards for Data Collection from Human Skeletal Remains* (Fayetteville, AR: Arkansas Archaeological Survey Research Series 44, 1994).

<sup>9</sup> T. D. White and P. A. Folkens, *Human Osteology* (London, Academic Press, 1991). N. C. Lovell, "Paleopathological Description and Diagnosis," *Biological Anthropology of the Human Skeleton*, eds. S. R. Saunders and M. A. Katzenberg (New York: Wiley-Liss, 2000), 217-248.

5	537	1903	Adult	Male
6	537	1914	55+	
7	537	1914	0-1	
8	537	1923	Adult	Male
9	537	1923	Adult	Female
10	543	2039	Adult	
11	590	2047	Young Adult	
12	590	2051	Adult	

Table 1

The inventory of the human remains found in the masonry tomb at the North-East church complex

### Morphometrical Analysis

The morphometrical analysis included the cranial and post-cranial measurements of only three adult individuals whose remains were found in Locus 537, since the individuals buried in Loci 543 and 590 were represented only by tarsals, vertebra and one left patella. The details of these measurements are provided in table 2 (for the cranial measurements), table 3 (for the mandible measurements) and table 4 (for the post - cranial measurements). Stature could only be calculated for three of the nine adults found in Locus 537. The stature was calculated for individual 2 (168 cm), individual 3 (153 cm) and individual 4 (175 cm).<sup>10</sup>

Measurement	ind' 1(older adult male)	ind' 2 (adult female)
Cranial Length		178
Cranial Breadth		140.3
Nasal Height	52	48.2
Nasal Breadth	26	22
Minimum Frontal Width	99.3	96
Basion-Bregma		126
Basion-Nasion		93.7
Porion-Bregma		109

<sup>10</sup> W. M. Bass, *Human Osteology: A Laboratory and Field Manual*, third edition (Columbia, MO: Missouri Archaeological Society, 1987) 22-23.

<i>Foramen Magnum length</i>		32.5
<i>Foramen Magnum breadth</i>		29
<i>Mastoid Process breadth</i>	109.2	106.1

Table 2  
Cranial Measurements

<i>Ind</i>	<i>Age</i>	<i>Sex</i>	<i>Mandible length</i>	<i>Ramus breadth</i>	<i>Ramus height</i>	<i>Mandible height</i>	<i>Height at M1-M2</i>	<i>Chin height</i>
8	<i>Adult</i>	<i>Male</i>	96	37.5	66	63.5	29.5	32.9
2	<i>older adult</i>	<i>Male</i>	89.1	33	61			
9	<i>Adult</i>	<i>Female</i>	101.1	36.1	53	70	27	28

Table 3  
Mandible Measurements

<i>Femur</i>						
<i>Ind</i>	<i>Age</i>	<i>Sex</i>	<i>Max Length</i>	<i>Phy Length</i>	<i>Min Circ.</i>	<i>Max. Diam. Head</i>
2	<i>Older adult</i>	<i>Male</i>	449		91.8	43.7
4	<i>Adult</i>	<i>Male?</i>			92.3	44
3	<i>Adult</i>	<i>Female</i>	402	396.8	87	42.3
<i>Tibia</i>						
<i>ind</i>	<i>Age</i>	<i>Sex</i>	<i>Max Length</i>	<i>Min Circ.</i>		
2	<i>Older adult</i>	<i>Male</i>	362	88		
3	<i>Adult</i>	<i>Female</i>	328	78		
<i>Humerus</i>						
<i>ind</i>	<i>Age</i>	<i>Sex</i>	<i>Max Length</i>	<i>Min Circ.</i>	<i>Max. Diam. Head</i>	
2	<i>Older adult</i>	<i>Male</i>	341	60	46	
4	<i>Adult</i>	<i>Male?</i>	339	58.7	46.4	
3	<i>Adult</i>	<i>Female</i>	281	59.8	38.7	
<i>Radius</i>						
<i>ind</i>	<i>Age</i>	<i>Sex</i>	<i>Max Length</i>	<i>Phy Length</i>	<i>Min Circ.</i>	<i>Max. Diam. Head</i>

2	<i>older adult</i>	<i>Male</i>			44.8	23
3	<i>Adult</i>	<i>Female</i>	215.2	208	39	20.1

*Table 4  
Post-cranial Measurements*

### Summary

*The North-East church complex at Hippos (Sussita) housed the remains of at least 12 individuals in two areas (Locus 537 and Loci 590, 543). All the individuals found at these areas were adults, except one infant age 0-1 years which was represented only by teeth and pelvis fragments. The number of individuals reported here is far too small for any estimates of paleodemography or rigorous evaluation of mortuary practices; therefore, the data shown here can be combined in future research, when the sample size will enable it.*

### Further Discussion

The North-East Church project has hypothesized that the church was part of a larger urban monastic complex and that the tombs in its chancel were places of veneration and invention of relics. A previous report offered evidence for the extraction of relics from the sarcophagus holding remains of the elderly woman.<sup>11</sup> This anthropological report on the human remains from the masonry tomb adds supporting evidence to the hypothesis. All the skeletons are disarticulated with some individuals represented by only a few pieces. Even assuming significant decomposition over the centuries due to the low and wet location of the tomb in the ruins of the complex, the partial skeletal remains suggest that relics were extracted from the masonry tomb. The tomb was originally plastered and painted with at least one human figure<sup>12</sup> and held a coffin (Loci 543 and 590).<sup>13</sup> A sarcophagus was crudely placed on stones to hold it above the level of the coffin. The coffin was covered with assorted slabs in secondary use. The diminishing quality of the burials over time supports the hypothesis of relic extraction, as the sale of relics could fund a declining community and complex. Relics were important to the Christians at

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<sup>11</sup> Segal, *Fourth Season* 47.

<sup>12</sup> 45.

<sup>13</sup> Segal, *Fifth Season* 85.

Hippos, for even after the North-East Church was abandoned, the veneration of relics continued in the North-West church until the destruction of the city.<sup>14</sup>

The presence of both males, females, and a child furthers the hypothesis that the church was part of an urban monastery. The some 15,000 bones in repository 6 of the St. Stephens monastery in Jerusalem contained both males and females<sup>15</sup> of which about a third were sub-adult.<sup>16</sup> At the Kyria Maria monastery at Bet Shean, the skeletal remains in the sarcophagus from Room E belonged to two males, a female, and one child.<sup>17</sup>

The stature of two of the individuals may also be of note: a male at 168 cm and an undetermined adult at 175 cm. These seem tall for the typical averages from other Byzantine sites: 162 cm at Kursi,<sup>18</sup> 163 cm at Ein Gedi and Lavav,<sup>19</sup> 166.5 at St. Stephen's,<sup>20</sup> 167 cm at Khan el-Ahmar,<sup>21</sup> and 170 cm at Rehovot-in-the-Negev.<sup>22</sup> The variance may not be terribly significant since Lawrence Angel reports an average stature for males in the eastern Mediterranean during this period as 169.3 cm.<sup>23</sup> An interesting literary note comes from D. Chitty about a group of monks called the Tall Brothers who led the Origenist movement in Egypt at the end of the fourth century CE. They fled Nitria when Origenism was condemned in synod in 400 CE and about 300 monks went with them, many to Jerusalem and others on to Scythopolis.<sup>24</sup>

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<sup>14</sup> Segal, *Fourth Season* 26.

<sup>15</sup> "Sex Determination," *Byzantine St. Stephens: A Biocultural Reconstruction of Urban Monastic Life*, University of Notre Dame: Department of Anthropology: Laboratory of Biocultural Studies, 10 October 2007, <http://www.nd.edu/~stephens/sex.html>.

<sup>16</sup> Sue Sheridan, "Biocultural Reconstruction of Byzantine St. Stephen's," *ASOR Newsletter* 50.1 (2000): 14.

<sup>17</sup> E. Braun, "Soundings under a Sixth Century Monastery at Beth Shean," *Antiqot* 17 (1985): 203. The author notes that the sarcophagus comes from an earlier period and may have been reused by the monastery, although an interment pre-dating the monastery is also possible.

<sup>18</sup> B. Arenburg, "A Short Review of Paleopathology in the Middle East," *Journal of the Israel Prehistoric Society* 18 (1985), 21-30.

<sup>19</sup> B. Arenburg, *The People in the Land of Israel from the Epipaleolithic to Present Times* (Ph.D. dissertation, Tel Aviv University, 1973), 22.

<sup>20</sup> "Stature Reconstruction," *Byzantine St. Stephens: A Biocultural Reconstruction of Urban Monastic Life*, University of Notre Dame: Department of Anthropology: Laboratory of Biocultural Studies, 10 October 2007, <http://www.nd.edu/~stephens/stature.html>.

<sup>21</sup> I. Herschkovitz et al., "The Human Remains from the Byzantine Monastery at Khan el-Ahmar," *Liber Annus* 43 (1993), 374.

<sup>22</sup> I. Herschkovitz et al., "Skeletal Remains From the Northern Church," *Excavations at Rehovot-in-the-Negev*, volume 1: The Northern Church, by Y. Tsafir et al. (Jerusalem: Hebrew University, 1988), 203.

<sup>23</sup> L. Angel, "Health as a Crucial Factor in the Changes from Hunting to Developed Farming in the Eastern Mediterranean." *Paleopathology at the Origins of Agriculture*, eds. M. Cohen and G. Armelagos (Orlando: Academic Press, 1984), 51-73.

<sup>24</sup> D. J. Chitty, *The Desert a City* (Crestwood, NY: St. Vladimir's Seminary Press, 1966), 58.

### **The South Hall and Related Chambers**

In the 2006 season, an antechamber, two chambers, and a hall were exposed south of the *domus* and west of the *diakonikon*. Rains over the winter clarified that the previously identified “low wall” separating the outer and inner sections of the antechamber (W1219) is in fact a doorway as traces of the pivots and threshold are now visible (Figure 3).

In 2007, the opening of squares C5 and D5 revealed the southerly wall (W1231) of the large hall south of and accessible from the antechamber (Plate 3). The wall abuts W559 to the east, but is not a continuation of W554 as it is positioned about 10 cm to the south.

The internal dimensions of the south hall are 3.23 m by 5.30 m. 2.6 m from the southwest corner of the hall is a .9 m doorway to the south that closed from inside the room. The doorway is blocked by destruction fill. The floor is packed mud and plaster. Next to W1231 at approximately floor level was a substantial deposit of shards. No partial or complete vessels could be reconstructed. The bulk of the shards were cooking pots and casseroles of similar types, along with Late Roman, Cypriot, and ARS shards. No Umayyad shards were recovered. Similar deposits are at approximate floor levels in both small chambers. From the small chamber between W1201 and W510, many of the recovered potsherds were burnt, although no ash pits or cooking areas have been revealed. A blue loom weight was recovered from the fill.

About a meter to the south of W554 and W1231 is a parallel wall (W1224). The foundation of which seems to be at a higher elevation than the walls of the church complex. From its western end another wall (W1229) proceeds in a southerly direction. These walls may have been part of later agricultural use of the ruins of the church complex, as will be discussed below.

### **The Chambers West of the Portico**

Squares F0 and F2 were excavated to the level of the mud and plaster floor (F1214). The previously identified W533 transects the north part of F0 and continues to the west. A 2.1 m bench abuts the south side of the wall on the east end of the square. To the north is a perpendicular wall (W1232) the base of which floats about 25 cm above the stylobate. W594 floats at a similar height. Three fragments of basalt acanthus leaf (Items 216, 218, 219) were recovered from north of the wall. Two coins were in the fill to the south of the wall (one is from the third century, see Cat. No. 13). But that fill was

disturbed and contained modern intrusions, including burlap and a 2.86 m iron rake frame.

Square F2 was also excavated to the level of a mud and plaster floor. We tentatively identify it with F1214 from F3 (see discussion in 2006 report). It seems to be consistent with a general layer of mud/plaster west of the stylobate, perhaps some sort of courtyard. At floor level we recovered part of a copper chain of a polycandelon. The medallion had four l-shaped slots cut in it forming a cross (Figure 4). Numerous other metals were recovered from the floor, including a nail bent over to 8cm length (wood thickness is 7 cm) and a coin. Many loose tesserae were recovered including some elongated pieces of limestone from which small cubes were being broken off or cut.<sup>25</sup> Two column drums were in the fill. The position of their fall suggests that they came from a missing column base on the stylobate. Both are 52 cm in diameter. The lower one is 90 cm in length; the upper one is 58 cm.

With the removal of the balk between F2 and F3, the line of W1216 was clarified. Consequent to this clarification, L1212 is now classified as a staircase rising from the north on the east side of the room formed by W1216, W1207, W574, and W1208. Three steps are *in situ* (Plate 4). The average tread depth is 28 cm and the average rise is 24cm. Since 2.9m of steps have been robbed out, the staircase could have contained an addition ten stairs, rising to about 2.9m above the first step and 3.4 m above the threshold of the small room. Such a height suggests that the stair gave access to a second story or roof over the large room to the south.

As W1216 extends to the west beyond the boundary of F2, the western extent of the North-East Church compound has yet to be identified.

### **The Western Street (*Via Sacra*) and Related Buildings**

The remaining 25 m of the street, the line of which formed the western boundary of the church hall, were excavated in 2007. Designated as *Cardo Two North* (2N) on the master site plan, this street may have functioned as a *via sacra* for visitors to the venerated tombs in the North-East Church complex (Plate 5).<sup>26</sup> Its full length of 34.3 m

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<sup>25</sup> Ruth Ovadiah, *Mosaic Pavements in Israel* (Rome: L'Erma di Bretschneider, 1987), 146-150. For a fragmentary grave stele showing mosaicists preparing tesserae (probably early fourth century CE), see *Museo Ostiense*, inv. nr. 132.

<sup>26</sup> In a Roman context, one would expect a *via sacra* to follow a route through the necropolis to a central shrine. The practice continued in Christianity. For example, the tomb of St. Crispine of Thebeste is approached by a *via sacra* entered through triumphal arches. J. Christern and E. Müller, *Das frühchristliche Pilgerheiligtum von Tebessa* (Wiesbaden: Steiner, 1976).



slopes down 2.17 m from the main gate of the church complex to the Decumanus Maximus (elevation 130.83 to 128.66; Figure 5). The street narrows over its length from an approximate width of 2.4 m at the gate of the church to approximately 1.75 m at the junction with the Decumanus Maximus (Plate 6).<sup>27</sup> As pavers abut the walls of buildings on both sides of the street, the pavers may have been laid later. The structure of the drain channel 4.2 m south of the gate of the church suggests secondary usage, although the drain does lead to cistern C.

18.65 m south of the gate, several large blocks sat on about 20cm of packed soil on a perpendicular line bisecting the street. Their alignment suggests a crude wall blocking the roadway. Of significance is the intact nature of the street north of the “blockage” and its poor condition (most pavers robbed out) south of the blockage. The blockage came quite late in the occupation of Hippos relatively speaking. The blockage suggests a significant shrinkage in the size of the town, and yet may attest to a memory of the sacred nature of the North-East Church complex that necessitated some protection.

About 11 meters south of the church gate, the east side of the street is no longer bordered by ashlar. Crude stone walls and destruction tumble form a boundary to the Decumanus Maximus. On the corner north-east corner of the junction with the Decumanus Maximus, there seems to be a building wall of 4.9 m. But the construction is quite crude.

On the west side of the newly excavated portions of the street are two block buildings. The northern building has a westerly face of 10.9 meters that is preserved to a height of four to five courses in places. It is located 9.75 m from the gate of the church complex. A 1.2 m protrusion of stones approximately 1.4 m from the north corner of the wall seems to be a blocked doorway, as the gap is spanned at its base by a single stone (threshold?) at street level (Plate 7).

The southern building sits on the northwest corner of the junction of cardo 2N and the Decumanus Maximus. 12.9 m to the west of the cardo is the south west corner of the building. The south wall is constructed of ashlar that are three to five courses high, as the Decumanus slopes down to the west (Plate 8). The easterly face of the building is 11.9 m. Remaining ashlar were tipped dangerously to the east and had to be removed and reset in place (Plate 9).

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<sup>27</sup> A street of this size might be more properly called a *semita* or an *angipontus*. Daniel Sperber, *The City in Roman Palestine* (Oxford: Oxford University Press, 1998), 103.

Between the two buildings is a gap of 1.75m. That gap coupled with possible changes in the patterns of the paving of the street may indicate that an alley or ante-chamber separated the two buildings (Plate 10). The relationship of these two buildings to the North-East Church complex is uncertain. The later blockage of the street and the blocked doorway in the northerly building are reminiscent of doorway blockages noted in other parts of the complex.

### **The Eastern Street and Related Buildings**

Previous work clearing the Decumanus Maximus had revealed a small northerly cardo (Cardo Three North [3N]) approximately fifteen meters to the east of cardo 2N (Plate 11). Survey data suggested that the eastern wall of the *domus* would bound that cardo even as the western wall aligned with cardo 2N. Cardo 2N would be a perpendicular of  $88.5^\circ$  to the Decumanus Maximus; cardo 3N forms an  $88^\circ$  perpendicular (Figure 6). The *domus* of the North-East Church complex would be positioned between these two cardines, with the east-west dimensions of the church hall limited by the previously existing city plan. The apse would overlay cardo 3N. Excavation of squares A3, A4, and A5 confirmed this projection.

W1230 aligns with the eastern edge of cardo 3N. It is the eastern side of a building consisting of at least two rooms. About 10 m of the wall were exposed from its southern corner to the point of contact with the external curve of the apse. 3.2 m from the southern corner is a blocked doorway that gives access to a larger room 6.6 m from north to south. W1235 separates this southern room from a northerly room. A doorway in W1235 closes from within this room. The northern extent of this room and the precise relationship of W1230 to the wall of the apse (W512) will be clarified in subsequent seasons with the excavation of square A2. Some remains of a later wall (W1234) float above W1230 on the southern edge of A2.

Although W1230 of this building on the east side of cardo 3N and W512 of the church form the approximate boundaries for the cardo, the walls are not parallel. At the southern end of the easterly building, the cardo is 1.08 m wide. At the northern end of W512, the cardo is 1.4 m wide.<sup>28</sup>

Further complicating the picture is a clear seam in W512 on the exact line of the southern edge of W510 (Plate 12). The northerly section of the wall (W512a) must be distinguished from the southerly section (W512b). On closer examination W512b has a

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<sup>28</sup> A small *semita* such as this one may have branched off the decumanus between the portico's columns. Sperber 104.

carefully blocked doorway providing access to the street level of cardo 3N (Plate 13). The doorway begins 2.93 m from the south line of W510 and it about 90cm wide. Plaster on the west side of W512b concealed this doorway from the diakonikon. Of note, the thresholds in W1230 and W512b are 3 to 6 cm above the level of cardo 3N exposed so far (elevation 131.49). The elevation of the plaster floor in the diakonikon is 130.88, requiring a step down of 65 cm from the threshold in W512 to the floor of the diakonikon. An additional step or two would have been necessary, for which there is no surviving evidence.

At this stage of exposure, it is not possible to state with certainty whether parts of W512 came from a previously existing structure or simply displays phases in the expansion or repair of the church. Similarly, more excavation is necessary to clarify whether the building represented by W1230 and W1235 antedated, is contemporaneous with, or postdated the church.

A second building sits atop the southeastern corner of W1230 (Plate 14). Its northwesterly corner is the junction of W1221 and W1236. The building also has at least two rooms for the portion exposed to date is bisected by W1220. Perpendicular to W1221 is W1224. It proceeds to the west through square B5 and forms a corner with W1229 is square C5. The similar elevations of these and other floating walls around the church complex (Figure 1) suggest poor village or agrarian usage of the area after the decline of the North-East Church. A pottery reading of the material from inside the later structure (L1225 and L1223) shows Umayyad shards. The latest pottery from the fill in the earlier building and the last levels of cardo 3N (L1226) is Byzantine. Consequently, we identify the building created by W1221 and W1236 as a Umayyad structure (farmhouse?) and suggest that the many poorly constructed floating walls in the area of the NEC may be part of its agricultural complex built employing the ruins of the site after its abandonment and after the earthquake of C.E. 748.

### **The Nave Mosaics**

In last year's report, a photo mosaic of the lower floor (F544) was published. This year, as part of the conservation and documentation of the floors of the nave, we are publishing a color drawing of the upper mosaic floor (F589, Figure 7). While only fragments of this floor remain, the floor seems to be entirely geometric.<sup>29</sup> While the lower F544 shows a density of 62 tesserae/dm<sup>2</sup> in the field with the swastikas, the density increases to 115 tesserae/dm<sup>2</sup> in the decorative banding to 196 tesserae/dm<sup>2</sup> in

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<sup>29</sup>Segal, *Seventh Season* 75.

the medallions and in the spaces between the medallions that are decorated with crosses and birds. The upper floor has a density of 72 tesserae/dm<sup>2</sup>. Claudette Dauphin distinguishes three types of Byzantine floors: course pavements (20-60 tesserae/dm<sup>2</sup>), intermediated pavements (60-110 tesserae/dm<sup>2</sup>), and fine pavements (more than 110 tesserae/dm<sup>2</sup>), with some pavements displaying of mixture of intermediate and fine carpets.<sup>30</sup> Most of the fifth and sixth century pavements of the Middle East show an intermediate or mixed density.<sup>31</sup> The mosaics of the nave of the North-East Church are consistent with this trend.

### **Conservation**

Conservation efforts during the 2007 season focused on the stabilization and cleaning of the floors in the nave of the North-East Church complex. The work was supervised by Ewe Radziejowska.

Several structural items were also addressed. A collapse in W559 at the junction with W1201 was repaired (Plate 15). Courses of stones were reset from the precariously tilting eastern wall of the southern building on cardo 2N (Plate 16). And the southeast corner of the same building was also stabilized (Plate 17).

### **Conclusion**

The 2007 season had the goal of placing the North-East Church complex in the context of the urban plan of Hippos. Identification of surrounding buildings and of two streets provides that context. The North-East Church complex was situated between two pre-existing streets, interrupting the eastern street (cardo 3N) with its apse. The western street (cardo 2N) was apparently repaved to serve the church. Subsequent to the abandonment of the church, its ruins may have been employed for agrarian purposes.

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<sup>30</sup> Claudette Dauphine, "Carpets of Stone: The Graeco-Roman Legacy in the Levant," *Classics Ireland* 4 (1997): 23.

<sup>31</sup> Karen Christian Britt, *Mosaics in the Byzantine Churches of Palestine: Innovation or Replication?* (Bloomington, IN: unpublished PhD dissertation at Indiana University, 2003) 143.