

Khirbet El-Nahas 2006 – Area R

Daily Journal

11.05.2006

L1803, L1804: Preliminary loci representing the uppermost fill and debris inside and outside the perimeter of the main structure excavated in this new area. L1804 seems to be a corridor or passageway that is only partly preserved and that leads to the inner chambers of the structure. L1803 is located outside the perimeter, within what seems to be a walled or fenced rectangular compound whose surface is covered with a thick layer of slag and ash. During the first day the northern wall of the structure (L1800) was partly cleared as well as a corner with a second wall on a N-S axis (L1802). L1802 seems to have had an entranceway of which the threshold, represented by a large flat stone survives. Excavation of both loci as well as the removal of the first layer of rock debris above designated L.0) yielded a large number of grinding slabs, hammerstones and dimpled hammerstones, but very few shards or pieces of slag.

11.06.2006

L1803: A stone-lined installation was discovered by the northern perimeter wall (L1800) of the structure. The installation consists of a single row of stones about 80cm from the wall itself. It is rectangular in shape and either missing its western end or never had one and the gap served as an access. Inside the installation (not yet given locus number) the soil is gray with ash and contains several stones in what seems to be debris. The installation was exposed but not yet excavated. Outside the excavation reached a similar layer of ash and slag, no doubt related to the layer of slag and ash exposed on topsoil

outside the structure but within the stone-fenced perimeter around its northern and eastern sides. Excavation today exposed the layer but did not penetrate it. That will be done under different locus number after expansion of the area to be excavated outside the wall. Finds from today include some slag and several shards, mostly originating in the clearing of the uppermost layer of the ash layer and not in the upper collapsed debris, of which the present locus consists. Also found an additional dimpled hammerstone and a piece of tuyere pipe as well as few small parts of a furnace.

L1804, L1805: Continues excavation of the narrow passageway inside the structure. No change in the material which consists of fallen debris originating in the collapse of the adjoined walls. Change of locus technical and meant to separate the finds from the uppermost debris layer and the debris deposited deeper below. Very few ceramic finds.

11.07.09.2006

L1803: End of excavation of locus with final leveling to the elevation of the industrial waste as known from the topsoil of the stone fenced yard outside the perimeter of the structure.

L1806: Represents removal of debris outside what is now clearly the main entrance to the structure, located at its northern end. The entrance is filled with debris but what seemed to have been an intentional blocking is now more likely to be a dense accumulation of fallen stones. The debris, as in other similar loci in and out of the structure, consists of scattered stones of various sizes within light colored fill with few finds, mainly dimpled hammerstones and grinding slabs, as well as a few shards and pieces of slag. End of locus

excavation with the leveling onto the layer of industrial waste as known from the outer perimeter of the structure, within the stone fenced yard.

L1807: Represents removal of debris outside and to the east of the northeastern end of the structure. The debris, as in other similar loci in and out of the structure, finds consists of scattered stones of various sizes within light colored fill. During the excavation of the locus the eastern wall of the structure has been detected. Outside the wall and adjacent to it was found a reconstructable spouted jug, carrying a frieze decoration that includes various geometric designs in black paint. Other than that very few finds, mainly dimpled hammerstones and grinding slabs, as well very few shards and pieces of slag.

11.10.2006

L1807: Continues excavation of locus concentrating on expansion towards the south, along the eastern wall. Heavy accumulation of the debris that seems characteristic of all large structures excavated at the site so far, including dense concentrations of stones and light colored fill almost devoid of finds. The eastern wall appears as the excavation progresses though as was the case with the northern wall the preservation of the upper courses is poor, with stones pushed out of course or crumbled to a point in which exposure is almost impossible. Lower courses seem better preserved. By the northern end, where the eastern and northern walls of the structure meet, what seems to be the remains of an additional wall were found stretching towards the perimeter stone fence outside the structure. If these two lines meet, they will do so at a 90 degree angle. Future excavation will clarify the point.

L1808: Represents further excavation of the narrow “corridor-like” space within the northern end of the structure. First layer clearly defined by walls on the eastern, northern and southern side. Western end stops at debris, as no wall was found yet at this side of the space. The southern wall is badly preserved at this elevation, possibly due to removal of stones for the construction of rough installation within the ruins of the adjacent chamber. Continues appearance of debris in the fill, though now the colour of the fill is slightly darker, as was the case in similar layers at the gate structure in the fort. Still very few finds, mainly dimpled hammerstones and grinding slabs.

11.11.2006

L1808: Begins excavation of another layer within the corridor. No changes compared with previous days except some increase in the number of shards. Now it seems clear that the southern wall, while badly preserved, may still remain behind thick layers of rubble and debris accumulated mainly at the eastern section. Possible entrance there to chamber. Work planned for tomorrow should clear out the debris and trace, if possible, the remains of the wall.

L1807: Excavation reached planned limit to the south. Section created there shows the accumulation of debris outside the eastern perimeter of the structure. No finds in the fill and debris cleared today. By the eastern limit appeared the remains of what seems to be a rough wall improvised out of building stones possibly dismantled from the structure. The nature of the wall and its connections still unclear and to be determined during the next

days. The face of the eastern perimeter wall of the structure has been cleared to the limit of the excavation.

L1809, L1810: Probe excavated to the north of the northern perimeter wall of the structure (L1800) reveals a very thick and dense accumulation of ash and slag, along with scattered bones and ceramics. The probe is excavated under L1810. L1809 represents the rectangular stone lined installation discovered a few days before abutting the wall. For the time being no excavation is taking place within the installation itself.

11.12.2006

L1810: Continues excavation of thick industrial waste layer of slag and ash. No developments since yesterday.

L1812: Represents a part of the eastern perimeter wall of the stone fenced courtyard surrounding the structure. Today's work consisted of the removal of the upper debris over the remains of the wall and the exposure of the western face of it in its northern end. Possible exposure also of the eastern face though preservation demands further cleaning.

L1811, L1813: L1811 Represents a crudely constructed installation over the debris inside the northeastern chamber of the main structure. The installation builders made use of the debris themselves. Similar structure can also be seen in the southwestern chamber of the main gate of area A, but it has not been excavated. There was no need to excavate

the debris as the installation was exposed on topsoil. Within a fill (L1813) consisting of light colored sediment can be seen before excavation with no rocks immersed. The installation will have to be excavated and removed so that the chamber can be excavated. Planned operation tomorrow.

L1807: Excavation at the southern side by the eastern perimeter stone fence exposed a structure that resembles a channel. It is built of stones, has two parallel lines with a space of ca. 15 cm in between. Function unknown, nor is the relation to the stone fence or the main structure. Structure continues southwards but disappears into the inner section. Not preserved to the north. Excavation of remaining part of the locus shows no differences or developments from previous days.

L1808: Excavation of the “corridor” continues into a deeper layer with no developments compared with previous day. Among the finds on the western extreme of the excavation (by the main entrance) a shard of a Phoenician-Cypriot juglet decorated with concentric lines. Shards of such vessel also discovered today in Area T and in 2002 in Area S. Continues appearance of reddish fill and scattered rocks. The fill is distinctly darker than that of the debris outside the structure. No ash or slag in significant quantity discovered. Excavation of the corridor to be postponed until removal of installation L1811 and adjacent debris of the northeastern chamber for safety reasons.

11.13.2006

L1807, L1814: End of excavation of L1807 with leveling on what seems to be the floor layer related to the later structures. Excavation below (L1814) reveals a layer of scattered stones. Limited excavation today, few ceramic finds.

L1815: Represents excavation of layer below mass of debris outside the main structure, ca. 2 meters to the north-east of its northeaster outer corner. Excavation reveals mixed layer of scattered stones and light colored fill. Within the fill a large quantity of pottery and animal bones. Among the shards also the torso, part preserved arms and upper part of the dress of a female (?) figurine, ca. 6cm in height. The “skirt” widens at the hip and is decorated with perforation. A large necklace around the neck. Arms over chest and belly. Near the figurine was found a fragment of a small fenestrated stand (?). Section shows that ca. 3 cm below this layer continues the slag layer of L1810.

L1810: Continues excavation of slag layer. Large fragments of furnaces among the finds as well as several pieces of slag with embedded carbonated material and tuyere pipes. Few ceramic shards and bones.

L1811, L1813: Post-industrial installation built upon the debris inside the northeastern chamber dismantled. The southern and western walls were constructed upon the remains of the walls of the earlier chamber. No finds either within the installation and from the dismantling of its walls.

11.14, 16.2006

L1810: Continues excavation of ash and slag layer, no developments from previous days. Excavation of L1810 extends to ca. 1m to the east, in order to examine the relation between the slag layer and the northern perimeter wall of the structure.

L1808, L1817: Ends excavation of L1808 with completion of layer. Begins excavation of next layer under L1817. Appearance of amassed debris disappears and ashy fill appears instead, indicating the remains of an occupation. The fill contains more pottery than in the fill above. At the western part, perpendicular to the corner with the northern wall of the chamber a wall made up of single stones appeared, dividing the narrow corridor into eastern and western sections. Locus will change with completion of layer. No signs of industrial utilization so far. Possible remains of a pavement by the eastern end.

L1814: Excavation of the locus reveals a layer of amassed stones, which after examination were proven to be debris. Stones within light colored fill. Few shards.

L1809: Excavation of locus reveals the extension of the slag and ash layer beneath the level of the stones lining the locus up to the structure. A rough line of stones ill-fitting to the general line and style of construction of adjacent wall L1800 appears to be foundation level. Only the western part of the locus was excavated.

L1816: New locus representing the excavation of the rocks and fill of the collapse of the walls of the northeastern chamber. Similar appearance to that of debris and fill familiar

from the chambers of the gate structure as well as from the neighboring “corridor” in Area R. As in these cases very few ceramic finds. It should be noted that there is no wall between the corridor and the chamber, except for a short stub at the western end.

L1812: Work along the eastern wall of the stone fenced perimeter . Effort intended to expose the wall, in particular its eastern face which seems to be either badly preserved or non-existent. There is a possibility that the wall was originally with a single face though the inspection of unexcavated section in various parts of the perimeter do not provide a definite answer. The wall “climbs” in preservation as it extends towards the south.

11.17.2006

L1817, L1822: A thin wall was found under the ashy fill representing the occupation layer in the space adjacent to the gate inside the structure. East of the wall the soil still contains many fallen stones. To the west of the wall appeared a soft ashy fill similar to the overall layer above (L1817). The wall ends the excavation of L1817 and divides the segment into two new loci, of which only the western was numbered and excavated today (L1822). Ca. 10 cm beneath the ash the remains of what seems to be a paved floor was discovered. The pavement survived mainly along L1800 – the northern wall. More to the middle there are a few stones but mostly a hard packed sediment, perhaps the foundation bed for missing stones. Ashy substance does continue next to the dividing wall, yet unexcavated. No industrial waste in the finds.

L1814: Surface made of packed earth identified today mainly along the limit wall to the north (L1818). The surface seems patchy but more excavation is needed before it is clarified. Wall L1818 now has two roughly definable faces. Width ca. 70 cm. Finds include some slag and scattered pottery.

L1810: Dozens pieces of tuyere pipes (ca. 50) in varied preservation discovered in today's excavation as well as a very large number of slag of various types and sizes. Finds also include large numbers of furnace fragments. Few shards. A wall that predates the main structure but may be contemporaneous with the industrial waste has been defined.

L1816: Continues removal of the upper layers of fill and rocks inside the chamber. Now it is clear that there is no separation wall at all between the chamber and the space by the northern perimeter wall of the structure.

11.18.2006

L1810, L1823: Continues dense appearance of slag and deep ash. Most of the material from the fill consists of slag and other industrial waste related to copper, mainly parts of tuyere pipes, of which dozens have been found in the last couple of days, including nearly intact examples. Among the slag also pieces with burnt wood embedded. Several of those have been collected and recorded separately. Locus change due to appearance of wall that predates the main structure and whose stratigraphic relation to the slag is yet unclear. Excavation continues under L1823, no change in the material.

L1816: Excavation of locus to end tomorrow technically. Continues descend into the rocks and light colored fill in the chamber with no further developments. Few shards.

L1814: Excavation of locus to be concluded tomorrow with leveling to what seems to be a layer filled with industrial waste related to copper production, similar to layer represented by L1810 and L1823 on the other side of wall L1818. Relation between surface discovered yesterday and the industrial waste fill unclear.

L1815: Here too excavation of locus to be concluded with the leveling onto a layer of industrial waste which continues the layer represented by L1810 and L1823 to the west. Relatively large number of ceramics and some animal bones found within the fill.

L1818: Focused clarification work reveals what now seems to be the true width of the wall, now estimated at ca. 40 cm (single line of stones). The wall is founded over a layer of slag and other copper related industrial waste just as L1809. The two elements are most probably contemporaneous, related to a phase of occupation and utilization that post-dates both the man structure and the slag producing activity.

11.19.2006

L1826: Continues excavation of the SE chamber. Change of locus technical, as the stone and fill layer continues to appear, though now the fill seems to be more reddish. Ceramic finds continue to be limited to a shard or two a day. No slag. Clearing of the top of wall

L1819 shows better preservation of the inner face, where at two to three additional courses survive.

L1829: The locus represents a space where soft ash fill continues to appear between gaps in the pavement. Large quantity of pottery despite the limited space, ca. 1x0.60 m. Among finds also large quantities of copper waste. It is not clear whether the space was originally free of pavement, a pit in the surface or other possibilities.

L1828, L1823: Discovery of early wall reduces the size of L1823 although does not conclude the excavation of the locus. Now it is clear that the wall is the border between two types of industrial fill: to the west of the wall continues the appearance of dense accumulations of slag, including large pieces of tapped slag. To the east of the wall the slag layer occupies the upper stratum only, with fine layers of crushed slag and ash beneath (L1828). Among the finds within the slag layer continues appearance of dense accumulations of tuyere pipes and furnace fragments. Considerably reduced appearance of such finds in L1828. Ceramic shards and C14 samples have been collected from both. The wall seems to be forming a rounded perimeter, the first such case at the site. Among the finds of L1828 also the first example of Iron Age flint sickle blade to be found at the site.

L1827: Locus represents deeper excavation by the eastern end of Wall L1800, intended primarily to expose the foundations of the wall and the industrial accumulation beneath it. Few shards.

L1812: Today's excavation finally exposed four stones representing the outer (eastern) face of the wall. The question of whether there was an outer face is thus settled. Preservation of that part remains fragmentary.

11.20.2006

L1827: Continues excavation along the northern outer face of Wall L1800. Layer of slag similar to the layers found to the west (L1810, L1823) and to the south (L1814) appears in most of the excavated area. A layer of crushed slag shows at the northern part of the locus by the northern section. No clear definition between the two.

L1830: Represents expansion of excavation to the north and other industrial waste into the thick slag found by the gate yet at a stratum lower and earlier than the main structure. Excavation limited to the level parallel to L1810, over the preserved height of the early wall discovered within the industrial waste layer, and whose further exposure is the main reason for the expansion. So far the scene resembles in every detail that of L1810: fill consisting mainly of slag of various types and sizes as well as dozens of fragments of tuyere pipes.

L1829: Descend into the ash layer continues. No developments since yesterday, relatively large quantity of pottery appearing also in the inner section beneath the pavement slabs adjacent to the locus.

L1826: Continues excavation of fill within the SE chamber. No changes, continues appearance of fill mixed with rocks of various sizes, most of which served as building stones.

L1825: Excavation into the fill between the two rows of the installation did not yield any finds that might assist in the definition of the installation or its dating. No surface exposed. Excavation along the outer (western) edge of the installation revealed a layer of slag beneath it, just as in the case of wall L1812 and installation L1809, supporting the assumption that all three structures belong to a single phase.

11.21, 23.2006

L1826, L1831, L1834: L1826 closes as excavation reaches level immediately above estimated surface level. Also noted change in fill color, with light colored fill replaced with light-reddish sediment, including significantly less stones. Stones that still appear are considerably smaller. L1831 represents that level inside the chamber, L1834 the same fill at slightly lower elevation, no difference in character but inclusive of both the chamber and the strip to the north up to northern perimeter wall of the structure (L1800). Continues appearance of finer pottery, such that is related to domestic rather than industrial activity. Several additional Cypro-Phoenician shards were discovered as well as two complete cups with geometric shapes drawn in black over white slip.

L1830, L1832, L1833: End excavation of L1830 with final removal of upper layer containing thick accumulations of slag down to the top level of the earlier architecture.

Two more walls forming a corner exposed at the northern part of the excavation. The two walls seem of similar architectural character and elevation as the circumlunar wall discovered at the southern end. With the conclusion of the excavation of the upper slag layer two new loci opened: L1832 representing the crushed slag layer to the east and L1833 representing the western part, still containing rough slag accumulation. Continues appearance of numerous parts of tuyere pipes within the slag as well as scattered pottery in thin representation.

L1827: Expansion of locus towards the east continues to expose large quantities of slag and other copper production layers. At eastern extreme reached so far a layer of crushed slag is bordered with an accumulation or a flow of tap slag running across the locus. Small quantity of pottery in the fill. Appearance of tuyere pipes far less concentrated than at the western parts at the same level.

L1829: Excavation of locus ends as layer of slag begins to appear in probe beneath the pavement. Layer of slag probably identical to the layer outside the structure and known to have predated it. This offers additional evidence for the building having been founded over an earlier slag mound.

11.24.2006

L1827: Continues excavation of slag layer by the northern face of wall L1818. No developments though quantity of pottery increases considerably. Slag layer same as layer seen beneath the wall, belongs to pre-structure phase of copper industrial activity.

L1832, L1833: Continues excavation of both loci after perimeter middle measurements redefined extent and shape of loci, according to the appearance of the related early architecture. Architectural remains now full defined and will be plotted in and numbered tomorrow. Finds from L1833 (slag layer) continue unchanged: large quantities of slag and dozens of fragments of furnaces and tuyere pipes. Tuyere pipes and some slag are also found at the northernmost end of L1832, where a localized lens of whitish ash has been found.

L1834: Excavation of layer over surface proceeds as the surface itself is not yet exposed. Layer of debris continues to obscure the surface, still comprising stones of various sizes, which are thoroughly cleaned before being identified as debris and removed. Third complete cup found next to two known from yesterday, as well as additional fragments of cypro-phoenician pottery and two fragments of a highly red-burnished jar decorated with geometric black shapes. Cups seem to be inserted into a built installation.

11.25.2006

L1834: Additional complete vessel discovered in the northern part of the locus. In this part there are also signs for the existence of a packed earth or natural soil floor, though here too it is heavily strewn with debris, much of it embedded into the surface. No additional work was done at the southern part, the chamber itself, in anticipation for the leveling of the whole space of the locus. Several painted shards among the finds, as well as additional pottery.

L1833, 1832: Continues excavation of both loci, after walls of the earlier structure have been fully delineated. At L1833 the material continues to be homogenous – dense accumulations of slag, furnace fragments and tuyere pipes. Among the scattered pottery also a rare fragment of a crucible. The diagonal (slope) appearance of the material is now clear, general decline north to south. L1832 continues to show layers of crushed slag, with few casual slag pieces, with the exception of the north-western corner, there an ash accumulation is particularly rich with tuyere pipes, several of which complete. Meaning of ash layer or lens still unclear.

L1827: Layer of large pieces of tap slag continues towards the east. Due to mistake in excavation several have been removed prior to photography but appearance continues beyond. Large quantity of pottery in the fill above and between the slag.

11.26.2006

L1827: Continues excavation of tap slag both to the east, where several more slabs have been exposed in the last two days and to the east, where the appearance of tap slag disappears and is replaced mainly by crushed slag and some scattered stones. Continues appearance of a relatively large quantity of pottery.

L1834: Excavation of locus towards conclusion with discovery of ash layer extending to the full length and width of the chamber. Excavation today concentrated on the northern end, from which numerous fallen stones have been removed. On the layer parallel to that reached on the southern side a large number of shards have been found, including a large

reconstructable bowl, several pieces of Cypro-Phoenician shards and the neck of a jug that included a cup-formed spout, probably to measure liquids extracted. Still no clear marks of a floor or surface.

L1833: Ends excavation of locus with final leveling onto an arbitrary slag layer. Conclusion technical, as priority moves from further deepening into extension northwards. The western section of the locus shows quite clearly the diagonal levels of slag accumulations implying the most probably pouring of layers of that waste. Decline from north to south and to full extent of chamber, except a slight leveling at the extreme southern corner by the building itself. Continued appearance of large quantities of furnace fragments and tuyere pipes.

L1832, L1838: Excavation of locus near conclusion. Remains only the clearing of the eastern section. At the northern section near the meeting with the corner between early walls L1836/L1837 two complete tuyere pipes were found along with the fragments of several others within a limited range (ca. 2-3 feet across). The pipes were found among thick accumulation of slag and furnace fragments, opening a possibility of furnace activity immediately to the north of the present excavation. In order to clarify the issue new excavation area expands the present exposure to the north (L1838). Today only the western extreme of the locus had been excavated to ca. 15 cm. Possibly wind-blown light colored fill deposited over what may be a layer of slag.

11.27.2006

L1838, L1840, L1841: L1838 (topsoil) closes after excavation of ca. 15 cm with leveling over layer of ash and slag throughout the extension. Layer of slag thicker at the western side, more mixed with soft ash in the eastern part. Limit vague. Sharp increase in concentration of pottery in the ashy part. Distinction leads to division of extension into two parts: western part – L1840, eastern part: L1841. Effort invested in the eastern part to isolate furnace fragments, as extension's original purpose is` the investigation of possible smelting activity in this part.

L1827, L1842: Both loci closed. L1827 ends with failure of tap slag concentration to appear on eastern part, replaced with crushed slag. Continued excavation into deeper layers of crushed slag under L1842. Thin concentration of pottery discovered so far. Crushed slag layer now seems to appear throughout the eastern part of the extension.

L1834, L1839: Probable surface discovered today under thin layer of ash. Surface consists of hard sediment within which flat stones are occasionally scattered. Continues appearance of large quantities of pottery in this layer. Change of locus aimed to isolate ash layer over the surface from the more mixed layers above.

11.28, 30.2006

L1839, L1844: End of exposure of surface layer, consisting of packed earth and scattered stones over crushed slag layer that predates the structure. L1844 represents probe

conducted at the SE corner of the chamber into the slag layer, aimed to prove penetration below the foundations of the structure, as was indeed shown. Excavation of the chamber ends and with it also excavation inside the structure for this season.

L1840, L1841, L1843, L1846-9: Continues main effort conducted at the new expansion of the excavated area north towards the northern perimeter wall of the courtyard. Excavation reaches the wall, which until now includes 5 courses and seems to be descending further. Excavation taking place in slag rich soil, containing limited quantities of tuyere pipes, significantly less than in the more southern parts, but localized concentrations of furnace fragments. Particularly large parts of furnace fragments discovered immediately to the north of new wall discovered at the southern part of the extension. This wall cuts across the excavated area west-east, and is built in the same style as the walls of the early structure, also reaching same height of preservation. There is therefore no reason to doubt that this newly discovered architectural feature is of the same context as that of the early structure partly exposed to the south. So far it is not clear whether the furnace fragments belong to a cohesive unit, though there is clear distinction between them and the slag rich layer that surrounds them from all sides. Average quantity of pottery in those layers. Locus division as such: L1846, L1847, L1848 situated to the south of the new wall, in sequence from west to east. L1849: general slag rich layer to the north of the new wall, under what was the northern parts of L1840 and L1841 and under L1843, which bordered these two loci to the north.

L1845: Represents further excavation inside the early chamber. This excavation is made as a probe in the eastern part of the chamber. What was considered a threshold to the chamber is now clarified as a narrow funnel connecting the chamber to the outside space. Function unclear. Material excavated contains large amounts of slag. At the northern end what seems to be a packed earth surface emerged. The surface's elevation is identical to the lowest course of the chamber but it appears only at that corner, disappearing in other parts of the probe, where a layer of slag and below it a layer of crushed slag appears. The layer of crushed slag penetrates below the walls of the chamber, thus belonging to a phase that predate the building. Small quantity of pottery found.

12.01.2006

L1849, L1850: The concentration of furnace fragments continues to be exposed at the south-central part of the locus, abutting wall L1851, which cuts across the northern extension west-east. Elsewhere excavation of the large northern extension continues, as thick layers of slag appear at all parts but the northern most strip by the northern perimeter wall of the yard, where it disappears for layers of crushed slag. The layers of crushed slag continue below the wall, practically proving that it is contemporaneous with the 9th century phase central structure of the area, which is founded on a similar layer. Finds include scattered pottery, and many fragments of tuyere pipes and furnace fragments

L1847: Excavation of locus near conclusion, with leveling of the layer to the elevation of L1832 and L1848. The dense concentration of copper industrial waste continued

throughout the excavation of the locus, including a large fragment tap slag to which were attached two large pieces of tuyere pipes and furnace fragment. Apparently the artifact represents flowing slag from a furnace, to which fragments of the furnace itself and of associated tuyere pipes were attached. A built boundary has been discovered between the locus and L1846 to the west. The wall (L1852) connects the chamber's northern wall (L1837) with the wall that cuts across the northern extension (L1851). The discovery of the wall however does not assist in the explanation of the accumulation of industrial waste at this spot.

L1846, L1853: Excavation of L1856 is concluded with the exposure of what may be a surface. The possible surface is made up of packed earth into which a few flat stones have been incorporated. At its center a thick layer of white ash was discovered, with what may be a tuyere pipe stuck in its midst. This element will be excavated in the following days.

L1848: Locus excavation near conclusion with leveling on layer of L1832 to the south. Appearance of ashy layers continued to the end level, as well as that of scattered pottery and slag in much lower concentration than in neighboring loci. Similar continuation of the distinction between the locus and the dense concentration of L1847.

L1845: Ends excavation of the locus with final straightening of western section. No differences from the scene of previous days. Continued appearance of dense slag

accumulations along with other artifacts associated with the waste from copper production.

12.02.2006

L1849: Excavation of locus reaches near conclusion as it becomes clear that the layers excavated represent a slag mound with undetermined depth, and due to end of season constraints. Further expansion not planned, with only section clearing and general refining planned for tomorrow, the last day of active excavation at area R. Excavations today continued to unearth a large number of tuyere pipes, furnace fragments, some of them very large, and slag of various sizes and types, as well as several hammerstones. The general impression is of the existence of a large furnace at this location, relatively substantial remains of it have been uncovered by wall L1851 (L1850) and at the locus north-western corner, which will remain unexcavated. There is a possibility of defining a rough outline of the furnace, pending on careful continued excavation in a future season. Among the finds scattered pottery of various types.

L1853: Excavation continues at the limited space between walls L1837, L1851, L1852 and the section. What seemed like a surface yesterday has been further clarified as a packed ash layer into which excavation now progresses. Here too continues appearance of copper industrial waste of all types, as well as scattered ceramics.

L1847: Excavation of locus ends as an additional layer of burnt material and copper industrial waste is reached. Level of locus as final level of loci L1832 and L1848. End of excavation technical – end of season.