

### **CAT 606- Die Impressed Sheet Misc. fragments**

K237, K260, K282, K345, K346, K361, K432, K435 K493, K520, K542, K613, K634, K649, K746, K758, K762, K763, K785, K813, K829, K866, K871, K872, K918, K919, K930, K961, K968, K1016, K1037, K1041, K1091, K1109, K1183, K1203, K1264, K1293, K1294, K1300, K1310, K1312, K1332, K1341, K1342, K1361, K1362, K1363, K1373, K1383, K1392, K1395, K1397, K1409, K1412, K1416, K1417, K1418, K1423, K1460, K1480, K1490, K1493, K1495, K1502, K1503, K1504, K1514, K1515, K1517, K1520, K1524, K1551, K1557, K1562, K1566, K1567, K1574, K1593, K1596, K1621, K1622, K1624, K1627, K1636, K1664, K1667, K1683, K1694, K1690, K1701, K1708, K1721, K1752, K1771, K1794, K1796, K1811, K1817, K1847, K1850, K1875, K1883, K1907, K1916, K1976, K1983, K1991, K2062, K2067, K2069, K2146, K2151, K2162, K2643, K5043, K5050, K5055

### **Condition Report**

**Conservation Started: April 2016**

**Conservation Finished: April 2016**

**Conservator: Kayleigh Fuller, Giovanna Fregni**

**Time Taken:** Several hours/ days to document all. Estimate of 2-3 weeks in total including digital photography, report, conservation and packing.

**Dimensions:** see table below

**Weight before:** see table below

**Weight after:** n/a

#### **Digital photography:**

Taken with a Canon EOS digital camera under daylight bulbs and Photomicrographs taken using Keyence VHX-1000 3D digital microscope with LED and/or fibre optic lights, 20-200x magnification.

**Description:** Visual and microscopic examination using Meiji stereo microscope 7-75x magnification. Mixture of silver fragments and gilded silver fragments of die impressed sheet or border. Some fragments are likely to form parts of the other catalogue numbers but they are not comprehensive associations to confirm links.

#### **Label information**

See table below

#### **Associated Material**

Associations unknown

**Pre-Conservation Condition:** Visual and microscopic examination using Meiji stereo microscope 7-75x magnification.

**Silver fragments** – Fragments are typically small, brittle with torn and damaged edges. Some of the sheet is dull on the surface with oxides. Impressions may be flattened and sheet material folded over or distorted. Associations and further joins are difficult to make.

**Silver Gilt fragments** – Fragments are typically small, brittle with torn and damage edges. The surface of the gilding has usually been worn or scratched and there may be some tarnishing marks. Impressions may be flattened and sheet material folded over or distorted. Associations and further joins are difficult

to make.

There are some copper alloy or small metal fragments with copper or iron corrosion products on the surface as documented below.

**Treatment:** Carried out using a Meiji stereo microscope

**Purpose:** Study

**Aim:** Cleaning/ Auditing

**Materials:** Soft natural/synthetic brushes, thorn in pin vice/holder, IMS on metals, 50:50 water/IMS on metals, cotton wool swabs, cocktail stick, Paraloid B72

*Treatment at British Museum Prior to treatment at Birmingham Museums Trust*

The granular soil on the front and back was mechanically removed or reduced where possible using a fine thorn tip secured in a pin vice and a small pure bristle brush. 50:50 IMS/water was used to soften the soil to facilitate removal. Loose particles of soil were then removed with a small swab of IMS.

The corrosion products were left in situ; corrosion was not active and can be further cleaned or stabilised at a later date.

The paper K number was adhered to the back with HMG brand Paraloid B72 (ethyl methacrylate copolymer) from the tube, applied with a cocktail stick.

Appropriate packing in Plastazote cut outs and crystals boxes.

**Further treatment at Birmingham Museum**

Fragments have been audited and documented at Birmingham Museums. Items may have been repacked appropriately to prevent further damage during transit or other activities.

Items have been renumbered as far as relevant for the fragments.

**Post-Conservation Condition/Findings:**

**Documentation information**

**SHBox 17- Warriors Left and Right**

K Number	Type	Fragments	Weight	Dimensions of largest	Context
K1636	Gilt silver border	2	0.08g	6mm (L) x 4mm(W) x <1mm(Th)	
K432	Silver sheet	4	0.04g	-	127 underlined, 7/7/09, S1
K1562	Gilt silver border	5	0.14g	8mm (L) x 6mm(W) x <1mm(Th)	
K1562	Silver gilt	1	0.18g	12mm (L) x 12mm(W) x <1mm(Th)	

	border sheet					
K1562	Silver gilt border sheet	1	0.20g	21.5mm (L) x11mm(W) x <1mm(Th)		
K813	Silver gilt sheet	1	0.01g	-		
K1361	Silver gilt sheet	1	<0.01g	-		
K2146	Silver gilt sheet	6	0.03g	5mm (L) x3.5mm(W) x <1mm(Th)		
K1183	Silver gilt sheet	1	0.12g	11mm (L) x7mm(W) x <1mm(Th)		SSH09 1971 1001 J9 296 in triangle 4/8/09
K866	Silver gilt sheet	1	0.12g	12mm (L) x9mm(W) x <1mm(Th)		
K1503	Silver gilt sheet	1	0.03g	6mm (L) x5mm(W) x <1mm(Th)		
K1847	Silver gilt sheet	12	0.07g	6mm (L) x3.5mm(W) x <1mm(Th)		
K1621	Silver sheet	2	0.02g	6mm (L) x4mm(W) x <1mm(Th)		
K1721	Silver sheet	1	0.01g	-		
K345	Silver sheet	2	0.08g	10mm (L) x5.5mm(W) x <1mm(Th)		
K829+K968+K961	Silver gilt sheet	3	0.16g	13mm (L) x11.5mm(W) x <1mm(Th)		
K968	Silver gilt sheet	1	0.06g	7mm (L) x3mm(W) x <1mm(Th)		
K1574	Silver gilt sheet	4	0.05g	11.5mm (L) x6.5mm(W) x <1mm(Th)		
K12	Silver sheet	1	0.08g	11.5mm (L) x6mm(W) x <1mm(Th)		255 in triangle, 3.08.09 1001, SSH09 BA 1971
K1627	Silver sheet	1	0.03g	4mm (L) x3.5mm(W) x <1mm(Th)		
K1916	Silver gilt sheet	1	0.03g	6mm (L) x5mm(W) x <1mm(Th)		
K1416	Silver gilt sheet	1	0.06g	8mm (L) x6mm(W) x <1mm(Th)		
K1416	Silver gilt sheet	1	0.02g	6mm (L) x5mm(W) x <1mm(Th)		
K1416	Silver gilt sheet	1	0.05g	8mm (L) x6mm(W) x <1mm(Th)		
K5050	Silver gilt sheet	2	0.08g	7.5mm (L) x7mm(W) x <1mm(Th)		
K1495	Silver gilt sheet	1	0.04g	10mm (L) x6.5mm(W) x <1mm(Th)		
K1412	Silver gilt sheet	1	0.19g	27mm (L) x5mm(W) x <1mm(Th)		
K2146	Silver gilt sheet	1	0.02g	5mm (L) x5mm(W) x <1mm(Th)		
K260	Silver gilt sheet	1	0.06g	8mm (L) x6mm(W) x <1mm(Th)		
K1907	Silver gilt sheet	1	0.05g	7mm (L) x6mm(W) x <1mm(Th)		
K1362	Silver gilt sheet	1	0.01g	6mm (L) x4mm(W) x <1mm(Th)		
K1109	Silver gilt sheet	1	0.15g	12mm (L) x8mm(W) x <1mm(Th)		
K260	Silver gilt sheet	2	0.07g	5mm (L) x5mm(W) x <1mm(Th)		
K237	Silver gilt sheet	9	0.07g	8.5mm (L) x4mm(W) x <1mm(Th)		

K2643	Silver gilt sheet	1	0.01g	-	
K1694/ K1690	Silver gilt sheet	2	0.07g	7mm (L) x5mm(W) x <1mm(Th)	
K1771	Silver gilt sheet	7	0.07g	6mm (L) x5mm(W) x <1mm(Th)	
K1495	Silver gilt sheet	1	0.06g	6mm (L) x5mm(W) x <1mm(Th)	
K1495	Silver gilt sheet	1	0.03g	8mm (L) x4mm(W) x <1mm(Th)	
K1495	Silver gilt sheet	1	0.03g	8mm (L) x4mm(W) x <1mm(Th)	
K1495	Silver gilt sheet	1	0.11g	6mm (L) x6mm(W) x <1mm(Th)	

**SHBox 18- HORSEMAN, MOUSTACHE MEN, WARRIORS & SILVER GILT/ OTHER BORDERS BOX**

K Number	Type	Fragments	Weight	Dimensions of largest	Context
k2151	Silver gilt DIS	2	0.7g	5mm (L) x 3mm(L) x <0.5mm(Th)	SSH09 BA1971, 472 in triangle J7 1001 12/8/09
K758	Silver gilt DIS	1	0.12g	12mm (L) x 8mm (W) x <0.5mm(Th)	
K1373	Silver gilt DIS	6	0.39g	15mm (L) x 12mm (W) x <0.5mm(Th)	
K1397	Silver gilt DIS	2	0.09g	9mm (L) x 7mm (W) x <0.5mm(Th)	
K763	Silver gilt DIS	1	0.04g	7mm (L) x 4mm (W) x <0.5mm(Th)	
K1423	Silver gilt DIS	1	0.04g	7mm (L) x 5mm (W) x <0.5mm(Th)	
K1363	Silver gilt DIS	1	0.08g	10mm (L) x 8mm (W) x <0.5mm(Th)	
K634	Silver gilt DIS	1	0.21g	12mm (L)x 10mm (W) x x <0.5mm(Th)	
K542	Silver gilt DIS	1	0.03g	7mm (L) x 5mm (W) x <0.5mm(Th)	
K1016	Silver gilt DIS	1	0.14g	10mm (L) x 10.5mm (W) x <0.5mm(Th)	BA 1971, SSH09, 6/8/09/ EVSC L7, 405 in triangle
K166	Silver gilt DIS	1	0.09g	10.5mm (L) x 9mm (W) x <0.5mm(Th)	
K1503	Silver gilt DIS	3	0.09g	6mm (L) x 5mm (W) x <0.5mm(Th)	
K1417	Silver gilt DIS	1	0.04g	8.5mm (L) x 5.5mm (W) x <0.5mm(Th)	
K1417	Silver gilt DIS	1	0.06g	8.5mm (L) x 8mm (W) x <0.5mm(Th)	
K1417	Silver gilt DIS	1	0.05g	9.5mm (L) x 6.5mm (W) x <0.5mm(Th)	
k1342	Silver gilt DIS	2	0.16g	11mm (L) x 10mm (W) x <0.5mm(Th)	
K762	Silver gilt DIS	1	0.08g	8mm (L) x 9mm (L) x <0.5mm(Th)	
K762	Silver gilt DIS	1	0.04g	7mm (L) x 4mm (W) x <0.5mm(Th)	
K1264	Silver gilt DIS	1	0.06g	6mm (L) x 8mm (W) x <0.5mm(Th)	
K1664	Silver gilt DIS	3	0.25g	9mm (L)x 8.5mm (W)x <0.5mm(Th)	
K1363	Silver gilt DIS	1	0.04g	7mm (L) x 4mm (W) x <0.5mm(Th)	
K1593	Silver gilt DIS	6	0.19g	10mm (L) x 5mm (W) x <0.5mm(Th)	
K1875	Silver gilt DIS	1	0.15g	13mm (L) x 10mm (W) x <0.5mm(Th)	
K1664	Silver gilt DIS	1	0.03g	5mm (L) x 5mm(W) x <0.5mm(Th)	

K5055	Silver gilt DIS	1	0.11g	7.5mm (L) x 7mm(W) x <0.5mm(Th)	190 in triangle
K1664	Silver gilt DIS	3	0.07g	6.5mm (L) x 5mm (W) x <0.5mm (Th)	
K7	Silver gilt DIS	1	0.24g	15mm (L) x 16mm(W) x <0.5mm (Th)	BA 1971, SSH09, 1001 M11, 213 in triangle, 31/7/09
K1392	Silver gilt DIS	2	0.09g	9mm (L) x 6mm (W) x <0.5mm (Th)	BA1971, SSH09, 1001, 332 in triangle
k1363	Silver gilt DIS	1	0.06g	10mm (L) x 4mm (W) x <0.5mm (Th)	
K1493	Silver gilt DIS	2	0.11g	10mm (L) x 5mm (W) x <0.5mm(Th)	
K1493	Silver gilt DIS	2	0.10g	9mm (L) x 6mm (W) x <0.5mm (Th)	
K1690	Silver gilt DIS	6	0.11g	8mm (L) x 3mm (L) x <0.5mm(Th)	
K1416	Silver gilt DIS	1	0.12g	6mm (L) x 8mm (W) x <0.5mm(Th)	
K2069	Silver gilt DIS	1	0.10g	9.5mm (L) x 7mm (W) x <0.5mm(Th)	
K1690	Silver gilt DIS	7	0.17g	8mm (L) x 7mm (W) x <0.5mm(Th)	
K1624	Silver gilt DIS	1	<0.01g		
K763	Silver gilt DIS	4	0.05g	5mm (L) x 4mm (W) x <0.5mm (Th)	
K1493	Silver gilt DIS	5	0.12g	7mm (L) x 3.5mm (W) x <0.5mm (Th)	
K1493	Silver gilt DIS	3	0.11g	11mm (L) x 3.5mm (W) x <0.5mm(Th)	
K1596	Silver gilt DIS	1	0.06g	9mm (L) x 5mm(W) x <0.5mm (Th)	
K1596	Silver gilt DIS	1	0.07g	9.5mm (L) x 7.5mm(W) x <0.5mm(Th)	
K1493	Silver gilt DIS	1	0.09g	10mm(L) x 4.5mm (W) x <0.5mm (Th)	
K1493	Silver gilt DIS	1	0.14g	6mm (L) x 6mm (W) x 1mm(Th)	
K1493	Silver gilt DIS	1	0.03g	7mm (L) x 4mm (W) x <0.5mm(Th)	

#### **SHBox 19 - BORDER FRAGS AND MISC**

<b>K Number</b>	<b>Type</b>	<b>Fragments</b>	<b>Weight</b>	<b>Dimensions of largest</b>	<b>Context</b>
K1460	Silver border	1	0.15g	16.5mm(L) x 6mm (W) x <1mm(Th)	
K918	Silver gilt border	1	0.09g	9mm(L) x 6mm (W) x <1mm(Th)	
K871	Silver gilt border	1	0.03g	7.5mm(L) x 5mm (W) x <1mm(Th)	
K188	Silver gilt border	1	0.23g	13mm(L) x 13mm (W) x <1mm(Th)	24/07/2009
K224	Silver border	1	0.10g	8mm(L) x 5.5mm (W) x <1mm(Th)	24/7/2009 (unstrat)
K1037	Silver gilt border	1	0.04g	5mm(L) x 5.5mm (W) x <1mm(Th)	
K2162	Silver gilt border	3	0.10g	11.5mm(L) x 6mm (W) x <1mm(Th)	
K1332	Silver gilt border	1	0.10g	9mm(L) x 9mm (W) x <1mm(Th)	
K221	Silver gilt border	1	0.06g	8.5mm(L) x 5mm (W) x <1mm(Th)	24/07/2009 (unstrat)
K1701	Silver gilt border	1	0.08g	16mm(L) x 2.5mm (W) x <1mm(Th)	

K1701	Silver gilt border	2	0.09g	9mm(L) x 4.5mm (W) x <1mm(Th)	
K1409	DIS	7	0.18g	8mm(L) x 5mm (W) x <1mm(Th)	
K1811	DIS	1	<0.01g	5mm(L) x 3mm (W) x <1mm(Th)	
k1983	DIS	17	0.14g	5mm(L) x 3mm (W) x <1mm(Th)	
K1991	DIS	9	0.04g	5mm(L) x 2mm (W) x <1mm(Th)	
K919	DIS	1	0.03g	7.5mm(L) x 3.5mm (W) x <1mm(Th)	
K1312	Silver gilt border	1	0.01g	4mm(L) x 3mm (W) x <1mm(Th)	
k1621	Silver gilt border	1	0.02g	6mm(L) x 4mm (W) x <1mm(Th)	
K1515	Silver gilt border	5	0.06g	5mm(L) x 2.5mm (W) x <1mm(Th)	
K115	Silver gilt border	1	0.04g	7mm(L) x 5mm (W) x <1mm(Th)	
K872	DIS	1	0.03g	4mm(L) x 4mm (W) x <1mm(Th)	
K1622	Silver gilt border	1	0.02g	5mm(L) x 3mm (W) x <1mm(Th)	
K2062	silver gilt small fragments	62	0.35g	-	
K219	Silver gilt border	1	0.11g	8mm (L) x 6mm(W) x <1mm(Th)	24/07/2009 (unstrat)
K230	Silver gilt border	1	0.03g	6mm (L) x 4mm(W) x <1mm(Th)	
K1883	Silver die impressed sheet	1	0.12g	11mm (L) x 9mm(W) x <1mm(Th)	
K1041	Silver gilt DIS	1	0.14g	13mm (L) x 11.5mm(W) x <1mm(Th)	
K5043	Silver DIS sheet	2	0.04g	5mm (L) x 4mm(W) x <1mm(Th)	
K1850	Silver gilt sheet	3	0.07g	6.5mm (L) x 6mm(W) x <1mm(Th)	
K1667	Silver gilt sheet	1	0.06g	10mm (L) x 9mm(W) x <1mm(Th)	
K1417	Silver gilt sheet	1	<0.01g	-	
K649	Silver gilt sheet	2	0.05g	9mm (L) x 4mm(W) x <1mm(Th)	
K1504	Silver gilt sheet	1	0.04g	11mm (L) x 8mm(W) x <1mm(Th)	
K1520	Silver gilt sheet	1	0.01g	3mm (L) x 3mm(W) x <1mm(Th)	
K1794	Silver gilt sheet	1	0.02g	-	
K1976	Silver gilt sheet	1	0.05g	7mm (L) x 6mm(W) x <1mm(Th)	

#### **SHBox 21- DIS- SMALL AND VARIOUS**

<b>Fragments- Small and Various</b>			
<b>K Number</b>	<b>Type</b>	<b>Fragments</b>	<b>Weight</b>
K1091	gilt-silver foil	5	0.1
K1041	gilt-silver sheet	2	0.16
K230	silver sheet	1	0.03
K1567	fibre	1	>0.01
K1567	Stone	1	0.08
K1567	gilt-silver sheet	18	0.38
K1667	gilt-silver sheet	27	0.52

K1667	silver sheet	12	0.21
K1667	gold fragment	1	0.04
K1502	gilt-silver sheet	37	0.35
k1502	silver sheet	2	0.03
k1502	stone	2	>0.01
K1817	gilt-silver foil	5	0.15
K1203	gilt-silver foil	1	>0.01
K1203	silver	4	>0.01
K493	copper-alloy	2	0.07
K493	gilt-silver sheet	12	0.23
K493	silver sheet	2	0.04
K493	silver (corroded)	3	>0.01
K493	gilt-silver fleck	1	>0.01
K746	Silver	1	>0.01
K1480	silver-gilt fleck	1	>0.01
K2067	Silver sheet	2	0.04
K1293	gilt-silver sheet	1	0.05
K1796	gilt-silver foil	1	0.04
K1383	silver	4	0.02
unknown	gilt-silver fragment	1	>0.01
K1514	gilt-silver fragment	1	>0.01
K1524	gilt-silver fragment	2	>0.01
K613	silver sheet	5	0.09
K613	gilt-silver sheet	7	0.11
K1690	silver sheet	12	0.07
K1690	silver	1	0.01
K785	silver sheet	1	>0.01
K1203	silver gilt	1	>0.01
K1517	silver foil	1	>0.01
K171	gilt-silver sheet	1	>0.01
K282	gilt-silver sheet	3	0.05
K763	gilt-silver sheet	2	0.06
K1683	gilt-silver sheet	1	>0.01
K1300	silver sheet	4	0.06
K1300	organic?	1	>0.01
K520	gilt-silver sheet	2	>0.01
K346	gilt-silver sheet	1	>0.01
K1490	fibres	2	>0.01
K1490	copper-alloy	4	>0.01
K1490	horn?	4	>0.01
K1490	silver	22	0.15

K1490	gilt-silver	44	0.76
K1294	gilt-silver	1	>0.01
K1566	gilt-silver	1	>0.01
K146	silver	15	0.03
K1310	gilt-silver	4	0.03
K1752	silver	2	>0.01
K1341	gilt-silver	1	0.02
K930	gilt-silver	2	0.04
K435	gilt-silver	1	0.03
K1596	gilt-silver	3	0.07
K282	silver	1	0.1
K282	gilt-silver	4	0.03
K361	silver	1	0.01
K1551	gold foil	1	>0.01
K1551	silver	4	>0.01
K1551	copper-alloy	8	0.06
K1551	copper-alloy with gilt-silver foil layer	2	>0.01
K1551	gilt-silver	23	0.3
K1418	gilt-silver	50	0.53
K1418	copper-alloy	1	>0.01
K1418	silver	7	>0.01
K361	silver	1	0.03
K1708	gilt-silver	10	0.11
K1708	silver	4	>0.01
K542	gilt-silver	1	>0.01
K1557	gilt-silver	12	0.05
K1557	copper-alloy	2	0.02
K1557	silver	10	0.03
K1395	gilt-silver	31	0.34
K1395	copper-alloy	11	0.02
K1395	stones	9	0.02
K1395	organic	16	0.01

**Key features:**

- **Border fragments**
- **Silver/ Silver gilt sheet**

**Samples:**

None – insufficient soil.



**References:**

Shearman,F., Camurcuoglu, D., Hockey, M., and McArthur, G. 2014 *Department Of Conservation And Scientific Research: Staffordshire Hoard Die-Impressed Sheetmetal Conservation Report*. Unpublished report for the British Museum