

# Definitions of Plaster Types and Digital Photos of Reference Samples

The definitions of plaster types are based on the characteristics of plasters observed. Due to these specific characteristics, the plasters were placed into groups. In this table, these groups are represented by the reference samples at each building.

Digital photos of the reference samples are presented in connection with the definitions. Some particulars must be explained with regards to the pictures.

The photos were taken outdoors in natural daylight. They were prepared with a drop of white spirit, a diluent, to make the colours in the filler appear clearly and then placed on a rough white paper close to a scale. The camera was not fixed to a stand, and consequently the distance from the object is not always the same. In this context, I have tried to use the millimetre scale to adjust the differences, as far as possible. Due to the changes of light during the day as well as during different days, there is some variation in the colours of the photos.

In spite of these imperfections, I find it important to present visually what kind of different plaster types that are spoken of, and they illustrate rather well what I see under the microscope.

## A

“Black and white, lots of crystals”. Small grains between large, a few very large. Mainly black, lots of pyroxenes (many black crystals, few glassy).

Aa: almost exclusively black particles, few olive green and/or yellow. Beige lime.

Ab: olive green and yellow crystals. White, slightly beige lime.

Ac: olive green and yellow crystals and some bright yellow particles. Very small grains. White lime.

1<sup>st</sup> style decoration: Casa del Frutteto room 13. Basilica, Temple of Apollo, Temple of Jupiter, Casa di Pansa. Plaster remains: Casa del Bell’Impluvio, Casa di Amarantus, Casa del Puer Successus, Casa di Cerere.

### **Aa** (F1, A1; TA 2, TJ3, P1)

*Plaster*: solid.

*Lime*: unclean, grainy lime with lumps. Little lime.

*Grains*: small grains, irregular, rounded, mainly black, and grey. Few brown. One or two yellowish. Some large grey, black or beige grains. Some black with red dots.

*Porous*: some small porous red.

*Crystals*: lots of long black, some transparent uncoloured, grey and olive green.

*Stucco*: clean cream white lime with transparent uncoloured and yellowish large and small crystals.

### **Ab** (BI16, PS1)

*Plaster*: solid

*Lime*: unclean, grainy lime with lumps. Little lime.

*Grains*: small grains, irregular, rounded, mainly black and grey. Few brown. Some large or very large grey, black or beige grains. One or two yellowish. Some black grains with red dots.

*Porous*: some small porous red.

*Crystals*: lots of long black, some transparent uncoloured, a few yellowish and olive green.

*Stucco*: clean cream white lime with transparent uncoloured and yellowish large and small crystals.

### **Ac** (C1; B2, TA1)

*Plaster*: -

*Lime*: clean lime with lumps.

*Grains*: very small irregular, rounded, black, grey and brown grains. A few large grey and black.

*Porous*: few red, some large. Some yellow and bright yellow.

*Crystals*: lots of long black, well-shaped, few transparent uncoloured and orange, many olive green, some large.

*Stucco*: clean yellowish lime with large and small uncoloured and yellowish crystals.

*Group A, reference samples*



## **B**

“Black and white, large grains”. Large grains, some very large. Lack of small. Few crystals. Yellowish lime with lumps.

Ba: many grey and a few brown grains, some olive green and yellow crystals.

Bb: grey and brown grains, no green and yellow crystals.

1<sup>st</sup> style decoration: Casa del Bell’Impluvio room 12; Basilica, Temple of Jupiter. Plaster remains: Casa del Puer Successus, Casa di Amarantus.

2<sup>nd</sup> style decoration: Casa di Cerere room 11.

### **Ba** (BI1, PS2, A12; B1, TJ1)

*Plaster*: good proportion between lime and filler. Very frail.

*Lime*: white, slightly yellowish with lumps and cracks.

*Grains*: Homogeneously large grains, irregular, rounded. Mainly black, pale and warm grey and beige. Some very large grey.

*Porous*: few small red.

*Crystals*: mainly transparent uncoloured and grey. One or two olive green or yellowish.

*Stucco*: Yellowish lime with small transparent uncoloured and yellow crystals.

### **Bb** (C9)

*Plaster*: frail or very frail.

*Lime*: unclean lime, sandy, pores and cracks.

*Grains*: black, brown, beige, pale and warm grey. Some very large brown and grey. Black with orange dots.

*Porous*: few red.

*Crystals*: broken black, transparent uncoloured. No green or yellow.

*Stucco*: very few crystals.

*Group B, reference samples*



## C

“Black and warm colours, fine-grained, compact”. Very small particles between few large. Lots of crystals. Unclean lime with lumps.

2<sup>nd</sup> style decoration: Casa del Bell’Impluvio room 6; Casa di Cerere rooms 1, 2, 3, 4, 5, 6, 9; Temple of Jupiter, cella. Plaster remains: Casa del Puer Successus.

BI 2, PS 4, C 2; TJ8.

Many colours. Extremely small particles between few large grains. Lots of crystals.

*Plaster*: hard.

*Lime*: little lime, pale beige with lumps.

*Grains*: black, warm grey, beige. Black with red dots.

*Porous*: red.

*Crystals*: broken black, transparent uncoloured and yellowish, green.

*Stucco*: yellowish lime with transparent uncoloured and yellowish small particles.

### *Group C, reference samples*



D

“Small grains, lots of yellow.” Extremely small grains, lots of yellow. Lack of large. Compact plaster.

3<sup>rd</sup> style decoration: Casa del Bell’Impluvio rooms 8, 9, 12.

BI 6

Many colours, extremely small grains. Lots of yellow.

*Plaster*: solid. Little lime.

*Lime*: lime with pores and some lumps.

*Grains*: mainly black, brown and yellow grains.

*Porous*: red, a lot of small bright yellow.

*Crystals*: long black. Many green and olive green, transparent uncoloured and yellow. A few large uncoloured more than 2 mm.

*Stucco*: c. 3 mm. white lime, large particles. Transparent and yellowish crystals.

*Group D, reference sample*



## **E**

“Many colours, lots of yellow.” Large and small grains, lack of very small. Lots of yellow and orange crystals, few olive green, grey and broken black. Clean lime with some lumps.

3<sup>rd</sup> style decoration: Casa del Bell’Impluvio rooms 2, 7, 11; Casa del Puer Successus room 9, 10; Casa del Frutteto rooms 8, 11, 12; Casa di Cerere room 9; Edifice of Eumachia, Temple of Vespasian. Plaster remains: Casa di Amarantus, Temple of Apollo, Temple of Jupiter.

### **BI 7, PS 3, F 4, C 7, A 6; E1, TV2, TJ10, TA3.**

Warm colours, large and small grains. Lack of very small. Lots of yellow.

*Plaster*: frail.

*Lime*: clean white/beige lime with some lumps.

*Grains*: rounded, irregular, black, warm grey. Some red, beige and yellow. Some large beige. Some black with red dots.

*Porous*: red, orange, bright yellow.

*Crystals*: transparent uncoloured and yellow. A few long black. Few olive green and grey.

*Stucco*: c. 3-5mm. Creamy white with large and small particles.

*Group E, reference samples*



## F

“Many colours, lots of red”. Small and medium sized particles. Many porous red and lots of black, uncoloured and yellow crystals. Some orange.

3<sup>rd</sup> style decoration: Casa di Cerere, rooms 9 and 14; Edifice of Eumachia, Temple of Vespasian.

### C14

Many colours, mainly small grains. Lots of red.

*Plaster*: good proportions in grain size and between filler and lime.

*Lime*: -

*Grains*: rounded, irregular, black, warm grey. Some red, beige and yellow. Some large beige. Some black with red dots.

*Porous*: many red, orange, bright yellow.

*Crystals*: broken black, uncoloured. Few olive green and grey.

*Stucco*: creamy white with large and small uncoloured and yellowish particles.

### *Group F, reference samples*



## G

“Sandy brown plaster, all kinds of grains”. Very small particles between large grains. Black and brown, lots of red and yellow. Crushed materials of all kinds. Good proportion lime/filler.

4<sup>th</sup> style decoration: Casa di Amaranthus room 12/7. Plaster remains: Casa del Bell’Impluvio; Temple of Jupiter, Macellum, Casa di Pansa.

A2, BI9, TJ2, M1, P2.

Reused plaster. Large and small, all kinds of grains.

*Plaster*: dirty. Good proportion large and small grains.

*Lime*: unclean, sandy lime with white lumps. Very little lime.

*Grains*: all kinds of grains. Large and small, black and grey. Crushed brick, paint flake.

*Porous*: crushed red, some bright yellow.

*Crystals*: crushed black, transparent uncoloured and green.

*Stucco*: -

### *Group G, reference samples*



## H

Sandy plaster, lumps of lime. Reused grey plaster. All kinds of crushed materials, such as glass, paint flakes, pottery. Very small grains between large. Lots of black particles, transparent yellow. Unclean beige lime with pores, lots of lime lumps.

4<sup>th</sup> style decoration: Casa del Puer Successus room 10. Plaster remains: Casa di Amaranthus, Temple of Apollo, Edifice of Eumachia, Macellum.

PS10, A8, A31, TA6, E10, M3.

*Plaster*: sandy, crushed materials, lots of lime with large lumps. Good proportions between lime and filler.

*Lime*: unclean with large lime lumps.

*Compact*: large and small grains, black, warm grey, brown.

*Porous*: red "dust", some large red.

*Crystals*: crystal dust.

*Stucco*: -

**X**: *Cocciopesto*, *cocciopesto* repair: samples F18, F20.

Plaster type BI15, appearing only in one room in Casa del Bell'Impluvio, is considered to be an unclassified repair/preparation.

Samples taken from preparation layers in the Basilica and from the Temple of Jupiter are not included among plaster types (samples B5, TJ4).

*Group H, reference samples*



*X, reference samples*

