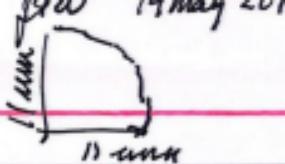


Arborescita

This iron is from Zucolito. She wondered if it could be Campo and the only evidence that it is not is a high Au content



Polishing (rough) and etching shows much evidence of oxidation, some L-shaped inclusions (bar thickness  $\approx 0.1$  mm, bar lengths 0.2 to 3 mm). I am not ~~as~~ <sup>as</sup> ~~sure~~ <sup>\*</sup> sure what these are. They seem to shiny to be scale\*, The sample is badly corroded and the only evidence regarding banding is that areas outlined by corrosion have dimensions of  $\approx 2$  mm. But the bulk of the ca.  $1 \text{ cm}^2$  sample shows no band-like boundaries. I speculate that it may have suffered reheating.

\* Perhaps these "inclusions" are taenites. One triangular area could be plessite. That occupy  $\approx 1\text{-}2\%$  of the surface

# Arlington (Minnesota, USA)

16 IV 68. Small, 2.4 g sample from AMNH. Etched 30 sec nitric.

Curious structure sample consists almost entirely of karn with variable band widths from ~0.4 to ~0.7 mm, ~~Dy-Dan~~. The karn bands are parallel without cross bands for more than 1 cm, suggesting a plenite field. If this is so, then the smallest bands should not be counted, and the band width can be defined as 0.5 - 0.7 (Hey gives 0.9) mm, Dm. Plenite with bands < 0.1 mm.

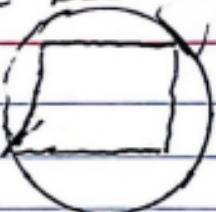
occurs in one small area, otherwise the "large banded plenite" is the only type seen. At 15 $\times$  + 45 $\times$  I see no inclusions whatever. Oxidation is very light and confined to end of small specimen. I saw main mass at USNM, and it looks very fresh, like a recent fall

Arlington IL U.S.A.: 1967

1144 + 313 Aug 84

1 inch

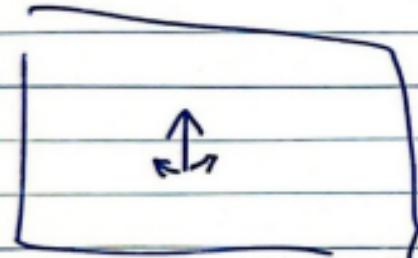
thick section



New error from Minnesota. Thought to be  
new sample of II-Arlington but is a THAB  
Medium octahemite, band width  $1.0 \pm 0.1$  mm.  
Magnetite has been recrystallized to a minor degree.  
There are "domain" boundary lines in the hematite and  
~~many~~ the plagioclase fields seem to be recrystallized. Schreibersite  
is rare. No troilite seen in the section.  
Weathering has filled cracks with oxide. There are some  
squiggly "flowers" that I suspect could indicate minor impact melt.

Arlunga (Central Australia, Australia)

23 IX 70. 48.0 g slab from BritMus, permission to remove  
2.0 g. Sample is same as that studied by Aron. The structure is  
of very structureless gabbro. There are what appear to be lamacite  
bands, very rudimentary,  $\leq$  0.01 mm wide. They are oriented  
primarily as shown below,  $\pm 90^\circ$  to the long direction of the  
slab, with many fewer at  $\pm 60-70^\circ$ . There are few inclusions,  
typically  $\sim 0.02 \times 0.1$ , unidentified. ~~The~~ Meteorite is fresh  
and relatively unweathered. A short look revealed no  
signs of heating near the crust, however.



Aroos (Azer .. , USSR)

13 Nov 66 1.2 x 1.3 cm remnant of sample obtained from Max-Planck Institut, Mainz. Two large faces + small face between polished and etched 60 sec in nitric. Very little structure. Taenite bands have disappeared in most cases, but some taenite and even plessite remains. One band which is definitely oriented is 2.7 mm wide before it disappears, another seems to be 2.2 mm. Surface has numerous black spots. Under 90X I can't tell if they are taenite, carbon, or schreibersite. No obvious cohenite is visible, but some schreibersite is present along grain boundaries. Surface has many Neumann lines. No oxidation (observed all)."

Anderson (Ohio, USA)

30 VII 68 From Harvard, entire 170g mass. Broke off small fragment. Rounded olivine, in many sized spheres from 0.3 to 1.0 cm, some "coalesced." There seems to be a border between coalesced nodules isolating schreib, or differently oriented crystal structures, or both. Thin deposits of schreib seem to surround olivine. The olivine only appears to occupy ~50% of area in this section, and is definitely not close-packed. One metallic area is ~1.5 cm across. Small fragment shows some surface oxidation, but not too much.

# Angelica

9 II 70 USNM #2177, 4.8 g, Area  $\sim 2 \text{ cm}^2$ ; polished and etched (30 sec); rather regular Widmanstätten pattern, band width  $\sim 0.5 - 1 \text{ mm}$ ; this piece contains an inclusion of Troilite and Cobelite (?) (see picture), and a small hole without oxidation products; most of the plenite shows minor-Widmanstätten structure. There are some very thin long cracks in this piece; surface slightly oxidized

Angra Dos Reis (vion)

IN 381

Hem JA

5.46% Ni, .2% P

57 ppm Ga, 188 ppm Ge, 71 ppm Te  
Cassini, Toul, Schreiber.

} VFB

### Herahedrite

5.5% Ni  
.2% P

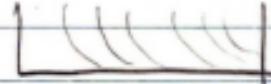
Many Habolites present

Neumann lens

Some schreiberite



2 Vhard irregular inclusions, probably schreiberite  
Effects of torsion visible along one side.



INAA

(1)

II I 77

(2)

21 IX 77

# Annakim (Saskatchewan, Canada)

10. Jan 66. 17 g sample from Geol Surv. Ottawa. Polished and etched 20 sec nital. The structure is of mod. distinctness. The karn bands are difficult to orient, but the smallest are in the range of 1.3 - 1.6 mm, thus Ogr. A few tiny  $0.2 \times 0.02$  mm schreib incl. Plenite is  $\approx 10\%$  of area. It is  $\approx$  half dark,  $\approx$  half banded, in several directions. No cracks, no oxidation.

No obvious carbonifer, silicate or sulphide.

Removed 3 mm wide block from one end, adjacent to existing cut  
D.W. 4 Dec 1979

23 IV 80. One small inclusion (trilobite) in next 3 mm block. To be awarded.

Anoka, Minn.

25. III. 5. Looking again at sample, originally 8. g., now about 4 g., from Voshage, Minn. Clear Widmann-structure. Several fine schreibersite inclusions - no troilite visible. Lots of quite attractive plessite of matte texture. Lam. band width 10. or 10. 20 mm, thus off on Buckwald system.

Camp: Hqgsmakssalik N 2111

14 Jan 2012 - STW

Rusty slab ~3 mm thick; total mass 62.0 g

Coarsest octahedrite; lam. bandwidth ~5 mm

Much corrosion at lam. grain boundaries but interiors seem to be solid metal.

Metal seems to have a frosty appearance, probably the result of a deep etch. We did not yet prepare a new surface.

I was not able to find any inclusions.

IN 1360

Anyujskij

Small sample from KMAN, Moscow 5 mm. Seems to be a hexahedrite; abundant Neumann<sup>7</sup> lines, no taenite. Curious "whitish" mottled area in lower left - may be some sort of reheatting effect. Under high power I can see many tiny ( $10 \mu\text{m} \times 100 \mu\text{m}$ ) kamacites in the unreheated area, but extensive resorption and even euhedral melilite? (domains of clear soled  $60 \times 100 \mu\text{m}$  in size) in the mottled areas.

JRW 3.9.90

# Antofagasta (Antofagasta, Chile)

13. Aug. 71. Two pieces from NMNH 1207. Both have had olivine removed. Pallasite seems to be relatively rich in metal. Olivine grains were rounded, and typical dimensions were apparently about 0.5 cm diameter. The one flat surface of the larger piece we received includes one area of clear metal about 1.1 cm across, and at least 2-3 mm thick in this section. There is a little fresh rust on the polished etched surface, but on the whole the sample is very fresh. Minor amount of (schreib.) inclusions - apparently most were removed with olivine. Kam about 1.2 mm, unoriented. Swathing kam 1-2 mm across, unoriented. Dark plessite with no banding, but one big (1.2 mm) band.  
"merowid"

Apizaco

Jan 2015

End piece weighs ~ 5 g, piece recovered  
from straight edge on "north". Mass today 126.5

Section not completely flat (we didn't remove  
all the grooves from the saw).

Band width is  $1.05 \pm 0.15$  mm

Numerous dark plagioclase fields,  $(0.3-1) \times (1 \times 2)$  mm

No FeS recognized. Some small bright inclusions (upto  $3 \times 0.6$  mm)  
may be schreibersite (Alan agrees that they are),  $\text{NO}_{\text{2}} \text{mm}^{+2}$

There is a crack (shown in mirror image on the sketch), filled  
with iron oxide.

The meteorite rests happily in the cabinet.

{ west  
filled  
crack  
curved  
edge }

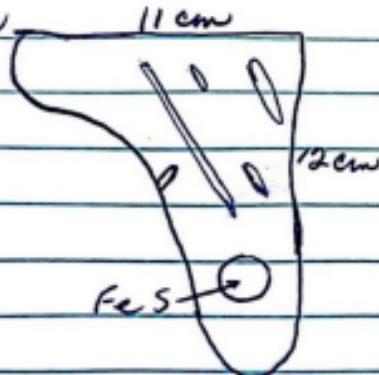
Apolca - 2nd card.

6 Jun. 66. sample received from CNHM, Cat No. Me 1008, Wt 18.0 g.  
sample is flat slab,  $\sim 1.5\text{ cm} \times 3\text{ cm}$ , with one  $0.5 \times 3\text{ cm}$  surface  
in very bad condition from weathering. Weathering does not  
appear to have penetrated inward more than  $\sim 0.1$  mm, however.  
Several large schreib inclusions, which are extended to form  
cracks. Evidence of oxidation along these cracks + inclusions, inward  $\sim 0.1$   
mm. Widmannstätten pattern a bit indistinct, probably as a result of  
light heat treatment (or a manifestation of weathering? - I doubt it). Kams  
bands are irregular, and vary in width from  $0.3 - 0.7$  mm. Resembles  
group III b mts except for slightly washed out Widmannstätten pattern.

29 Jul 1966 Perry (1944) plate 47, fig 1, p. 167 gives a very nice X1.2 photo  
of Apolca, showing a troilite inclusion and two small Reichenbach lamellae

# Apoala

18.10.66, USNM, beautiful specimen, one big 2cm diameter troilite nodule, many long thick schreibersite inclusions bands vary greatly in width, from  $\sim 0.2$  to  $\sim 0.8$  mm. One or 2 schreibersite inclusions have different orientation than others



13. Dec. 65,  
small sample (10g) from Leonard Coll. The band widths appear to be about 1.3 mm, although the object is 0m, ~~not~~ of this size, probably a small nodule ( $11 \times 11 \times 1$  cm). The

Apoala - pseudo

## Apsala - pseudo

Sample in Leonard collection labelled Apsala has a very indistinct Om structure, quite different from USNM and CNHM samples - see Apsala card.

13. Dec. 65. small sample (~ 30g) from Leonard Coll. Kam band width appears to be about 1.3 mm, thus the object is Om, not O<sub>f</sub>. There are numerous small rust-filled cracks. The Widmannstätten structure is very indistinct, and it appears that the sample has been reheated.

While in Washington, I noted that Misteca, which is from the same general region of Mexico, is very similar to our sample. This would seem to be a possibility, that Minings is on a forage down south, thought that what he bought was Apsala, when it was really Misteca.

5 Sep 66. Sample observed again. Kam is polycrystalline, Kam band widths are 0.7 - 1.1 mm, thus Om-O<sub>f</sub>. Numerous banded plumbite areas are to be seen ~ 10-15% of section.

Apelsky

# 737

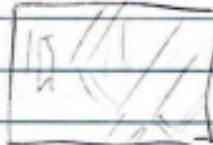
III B - An ?

10.0% Ni

octahedrite b.c. say 0.7mm.

{ though larger ~1mm. band visible }

1cm



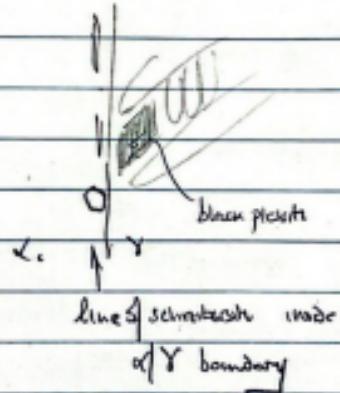
no large sch inclusions

shocked hatched komatite

Ni ~ 9.5% (of Bear Creek)

III B

compression very little



Arabella

810

ITW 23 XII 09 Piece supplied is irregular trapezoid. It seems to be reasonably fresh, though the surface has a thin oxide layer. On the sawed face I see some grain boundaries indicating lam. lamellae thickness  $\approx$  0.5-0.7, thus it seems to be One, as reported in the literature. There are some fine inclusions clustered together; I guess these are Schreibersite. Total mass as received is 1.6 g. From J. Zippel, Senecaburg Mea.

Argonia

IN 911

0.23g from ASU spec 458.2

Pallasite

use entire pice - INAA May 26, 1977

Rounded silicates

large amount of taenite, cloudy taenite veins observed  
Piece not large enough to determine Cr of kamacite.  
A few .2mm schreibersite grains.

Plessite - very fine

Sample #2 from ASU Spec 458.2 .22g

2<sup>nd</sup> INAA Feb 10, 1978