

Figure 58.—Samples 14068-14072 photographed before collection. Inset photographs show correlations between the four largest fragments and LRL photographs of the samples. Insets are superimposed on a part of NASA photograph AS14-64-9126).

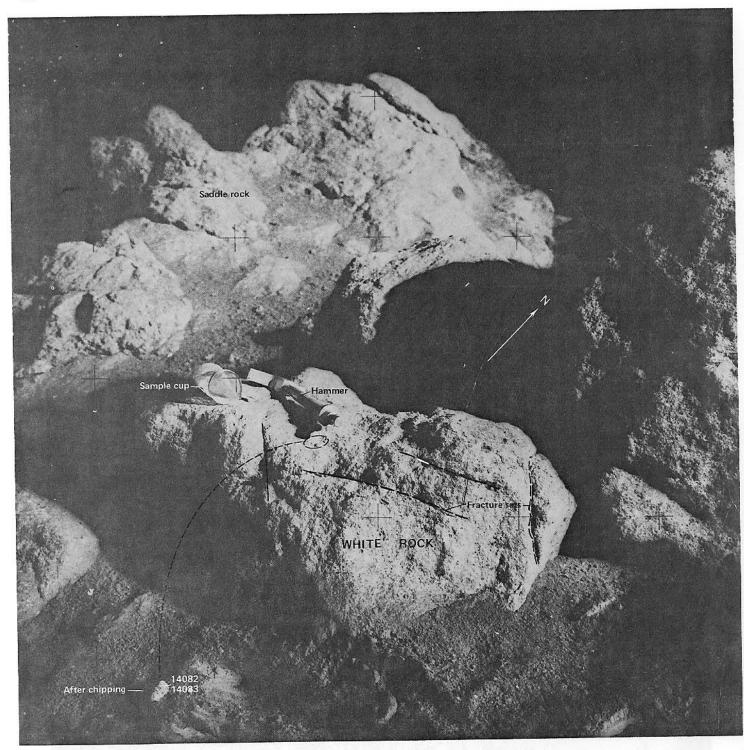


FIGURE 59.—Samples 14082 and 14083 (pieces of the same fragment) were chipped from a 1.5-m boulder in the White rocks group at station C1. The sample is shown on the fillet at the base of the boulder after chipping. Looking northwest. (NASA photograph AS14-68-7452.)

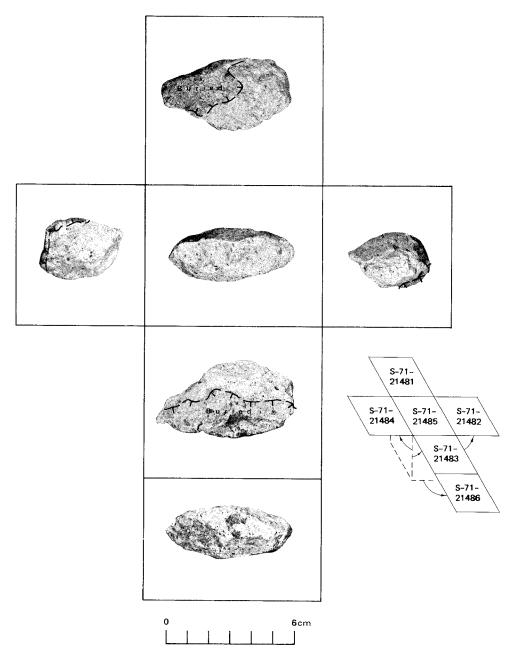


Figure 60.—Orthogonal views of sample 14082. The lunar orientation of the rock is not known, but weathered and unweathered portions of the rock suggest a burial line where it was chipped from the boulder. NASA photograph numbers are shown in the schematic diagram.

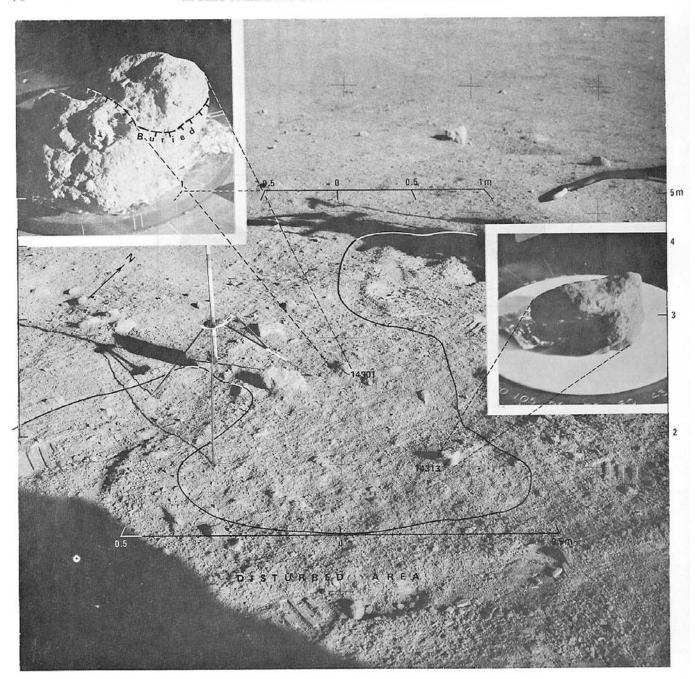


Figure 61.—Samples 14301 and 14313 on lunar surface. View northwest from station G1. Insets show approximate lunar orientations reconstructed in the LRL using oblique lighting. (NASA photograph AS14-68-9466).

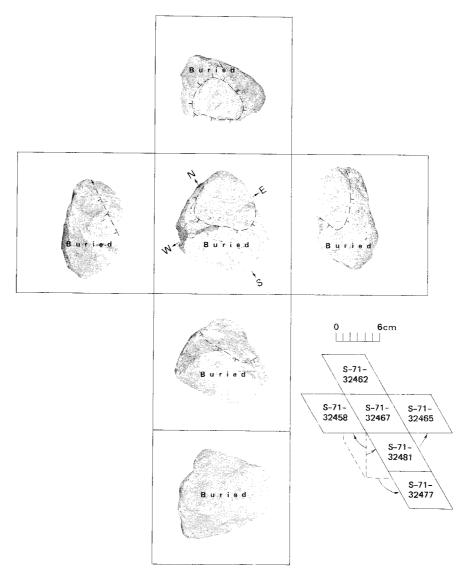


FIGURE 62.—Orthogonal views of sample 14301, shown in approximate lunar orientation. NASA photograph numbers are shown in the schematic diagram.

14315, 14318, 14320? (FIGS. 70, 71, 74, 75, 76) AND ONE SAMPLE STILL UNIDENTIFIED

Station: H (North Boulder Field)

Location: 15 m SE of Turtle Rock and 70 m NW of LM

Rock type: Coherent breccia

SAMPLE AREA CHARACTERISTICS

Slopes: Level

Fragment population:

Distribution and size range: Moderately abundant from limit of resolution to about 1 m. Samples from a cluster of about 20

fragments in a  $3\times3$  m area Color: Light to medium gray with white clasts

Shapes: Subangular to rounded Fillets: Moderately to well developed

Apparent burial: 1/4-1/3
Dust cover: Moderate

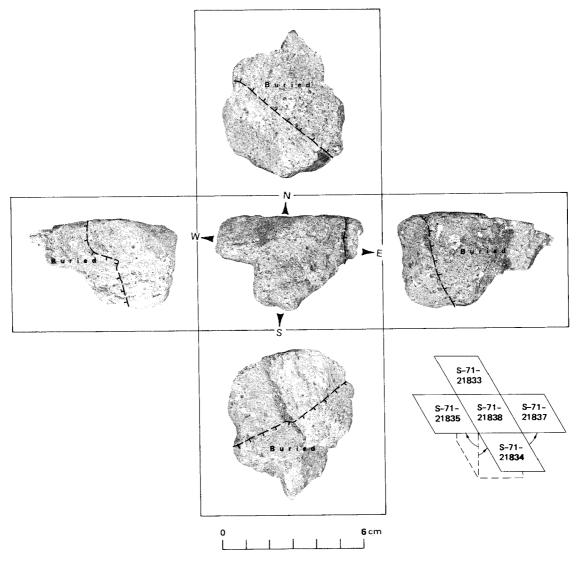


Figure 63.—Orthogonal views of sample 14313, shown in approximate lunar orientation. NASA photograph numbers are shown in the schematic diagram.

Fines:

Color: Medium gray; appears lighter than most of traverse area Compaction: Moderately high

Craters:

Distribution and size range: 10–50 cm craters common; five small craters in sample vicinity; samples from fragments around a subdued 35-cm crater

Shape: Moderately subdued to subdued; 50-cm crater SE of sample site has one straight side

Ejecta: Fragments appear to be associated with several craters in the photograph. Abundant fragments up to 15 cm in size around the 35-cm crater between samples

#### SAMPLE CHARACTERISTICS

 $Sample\ 14315$ 

Size:  $3\times6\times6$  cm; 115 g

Color: Medium gray matrix with white clasts

Shape: Rounded on exposed surface; angular on buried surface

Fillet: Poorly developed

Apparent burial: 1/3

Dust cover: Moderate

Comparison with other rocks in area: Appears typical of fragments in cluster

 $Probable\ origin:$  From blocky ray of Cone crater. Possibly reejected from 35-cm crater

Comments: Angular underside and numerous pits on the rounded surface suggest a simple tumbling history

 $Sample\ 14318$ 

Size:  $11.4 \times 7.8 \times 5.3$  cm; 600.2 g

Color: Medium gray matrix with light gray clasts

Shape: Rounded on exposed surface; irregular and sub-rounded on buried surface

Fillet: Poorly developed

Apparent burial: 1/3

Dust cover: Moderate

Comparison with other rocks in area: Appears similar to other rocks in cluster

Probable origin: From blocky ray of Cone crater. Possibly reejected from 35-cm crater

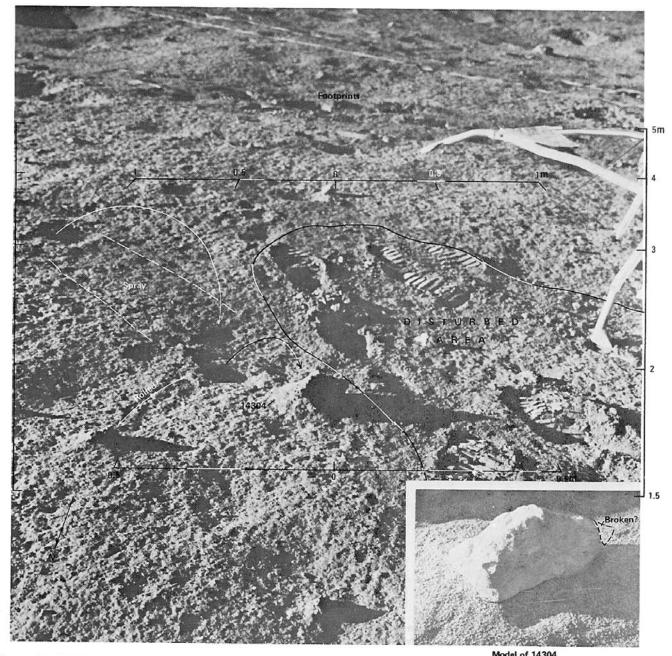


FIGURE 64.—Sample 14304 and vicinity; view south. (NASA photograph AS14-67-9390.) Inset shows approximate lunar orientation reconstructed using a plaster model and oblique lighting. Note that the pointed right end of the rock on the lunar surface is absent from the model, indicating that the sample was broken during transport.

Comments: Dense pitting on all sides suggests a complex tumbling history. Glass-lined fractures present

Sample 14320?

Size: 5.5×5×2.5 cm; 64.9 g

Color: Medium gray

Shape: Slabby; rounded; one surface convex and rounded and op-

posite surface is roughly planar

Fillet: Poorly developed

Apparent burial: 1/3-1/2

Dust cover: Moderate

Comparison with other rocks in area; Appears similar to other rocks in cluster

Probable origin: From blocky ray of Cone crater. Possibly reejected from 35-cm crater

Comments: All surfaces equally pitted at saturation density suggesting a long and complex tumbling history

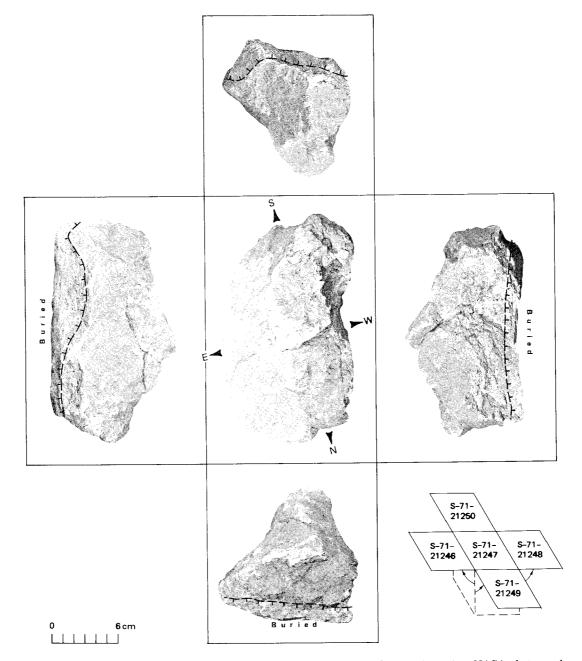


FIGURE 65.—Orthogonal views of sample 14304, shown in approximate lunar orientation. NASA photograph numbers are shown in the schematic diagram.

#### 14321 (FIGS. 77, 78)

Station: C1

Location: 1.25 km NE of LM and about 30 m SE of Cone crater rim

Rock type: Moderately friable clastic breccia

## SAMPLE AREA CHARACTERISTICS

Slopes: Gentle slope to south

Fragment population:

Distribution and size range: Very abundant from limit of resolu-

tion to 1.5  $\mathrm{m}$ 

Color: Light to dark gray

Shapes: Subrounded to rounded; irregular

Fillets: Mostly well developed; a few poorly developed

Apparent burial: 1/8-1/2

Dust cover: Moderate to high

Fines:

Color: Light gray to tan; almost white in places

Compaction: Firm

Craters:

 ${\it Distribution}$  and  ${\it size}$  range: A few subdued 0.2- to 1.5-m craters

Shape: Subdued

 $\it Ejecta:$  Station is on continuous ejecta deposit from Cone crater

## SAMPLE CHARACTERISTICS

 $Sample\ 14321$ 



Figure 66.—Sample 14305, from which the end (sample 14302) was broken during transport. View north. (NASA photograph AS14-67-9393.)

Inset shows approximate lunar orientation reconstructed (without the broken end) in the LRL using oblique lighting.

Size:  $23 \times 23 \times 17$  cm; 8998 g Color: Grayish to black to white

Shape: Blocky, subround on exposed surface, with some irregular

surfaces

Fillet: Well developed Apparent burial: ¼ Dust cover: Moderate

Comparison with other rocks in area: Appears similar in color, texture, and shape to other rocks

Probable origin: Cone crater

Comments: Probably represents material excavated from as deep as 60-80 m

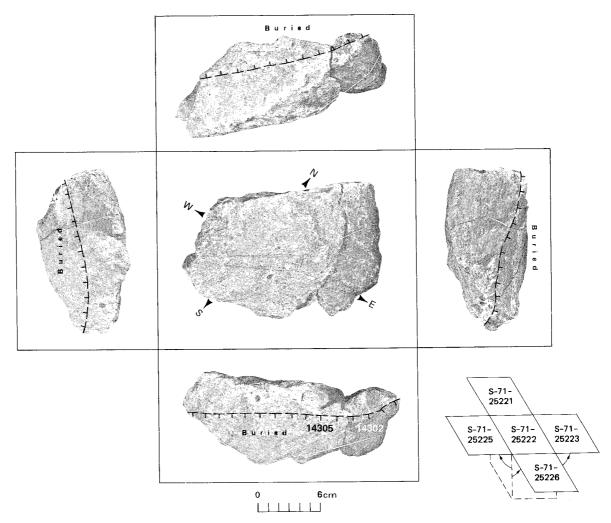


Figure 67.—Orthogonal views of samples 14305 and 14302 wired together, shown in approximate lunar orientation. NASA photograph numbers are shown in the schematic diagram.

# CATALOG OF 70-MM PHOTOGRAPHS TAKEN ON THE LUNAR SURFACE DURING THE APOLLO 14 MISSION

This log of photographs taken by the Apollo 14 crew was designed as an aid and reference for interpreting data gathered during the EVA's. Data on 16-mm motion picture film or on photographs taken with the Apollo Lunar Stereo Closeup Camera during the lunar stay are not included.

The photographic surveys taken during the Apollo 14 lunar stay were designed for several specific purposes:

- 1.—Locating and illustrating the gross topographic features at each major geologic station.
- 2.—Photographic documentation of geologic targets of opportunity.
- 3.—Recording the in situ surface characteristics of sample areas, correlating returned samples with these areas, and determining the orientation and location on the lunar surface of the samples at the time they were collected.

Nongeologic photographic surveys were taken to document the deployment of the ALSEP, the interaction between the LM and the lunar surface during landing and other soil mechanics experiments, miscel-