

ANALYSIS OF FLAKES RELATIVE TO FLINTWORKING TECHNIQUES

Primary steps in the study of flintworking and surface character of stone artifacts

Outline does not deal with form

MATERIALS:

ISOTROPIC TYPE OF STONE

Flint and Flint-like Materials (silica forms) *SILICATE*

Obsidian

SILICA

Ignimbrite

CHALK

Rhyolite (basalt)

CHALK FLINT

LIMESTONE FLINT

Lava

MOSTLY HOMOGENEOUS CRYSTALLINE VARIETIES OF QUARTZ

Opal

Chalcedony

Hornstone

Jasper

RESIDUAL CLAYS

Agate

Petrified Wood *Dead algae corals*

Quartzite *cemented sands & metamorphosed sandstone*

Silicified Sediments

Quartz Crystal

GLASS, STARCH, RESIN, COBALT, ICE

GRADE

Desirable

Undesirable

Cleavage Plane

Inclusions

Vesicles

Crystal Pockets

Under Stress and Strain

Cracks

Checks

SOURCE

Quarries

Cobbles *ALLUVIUM*

Veins

Ledges

Surface, etc.

*GLACIAL TILL
OCEAN BEACHES
ALLUVIAL FANS
LAKE BEDS
RIVER BEDS*

Ca. 31. 3.3 (6)

TEXTURE

Luster

Granular

Dull, MATT

Fine

BRIGHT.

Medium

Course

LIGHT TRANSMISSION OPAQUE TO TRANSPARENT

COLOR

SIZE

FLAKES

CHIPS

SPALLS

Portions of material detached by percussion or pressure, or both, from a core or a larger piece of material than the original flake

DETACHED BY:

MAN

HOOFED ANIMAL

ELEMENTS

Natural expansion, contraction & diastrophism

INTERNAL PRESSURE

Exfoliation

Dehydration

Shrinkage

Expansion and Contraction

EXTERNAL PRESSURE

Earth Movement

Ice and Ice Movement

TIDES

TALUS

WATERWAYS

THERMAL FRACTURES

LAVA FLOWS

Forest Fires

Range Fires

Overheated in Household Fires

FLAKES

PERCUSSION, PRESSURE
OR BOTH

MICRO FLAKES

Fine retouching, notching and serrating

Small

Blades (Prismatic) (Micro)

Medium

Specialized Flakes

Parallel Sides

Large

One Dorsal Ridge

Two Dorsal Ridges

Micro Blades

Burin Blades

Sidestruck Flakes

Uniface, European

Channel Flakes

Hinge

Reverse Hinge

Errature

Short: Length = Width

Medium: 2 x Length = Width

Long : 3 x Length = Width

Xtra Long: 4 or More x Length = Width

Thin

Normal

Thick - Tabular

Right angular sides

Sections of cleaved flakes

Sections of pebbles

Sections of cobbles

Sections of nodules

Straight

Dorsal

Curved

Source

Spiral

Shape of Flake

One Dorsal Ridge

Ventral

Two or More Dorsal Ridges

Blade Technique

Possible Heat Treatment

Proximal End

- Size of Platform
- Preparation of Platform
- Character of Bulb or Pressure or Percussion (Etrailure) *DISFUSED BULB*
- Direction of Force Scars (Striations)
- Presence of bulbar scar
- Angle of Platform
- Polished
- Abraided
- Order of Flaking

Distal End

- Feather Edge
- Hinge Fracture
- Step Flake
- Reverse Hinge
- Undulations
- Shock Fracture
- End Character

Planned Thermal Treatment
(Quartz Family)

WITH MATERIALS

- Heated
- Unheated
- Overheated
- Crazed
- Checked, potlids, exfoliation
- No bulbs of force
- Color change (Cortex) for identification

Cores

All flaked stone artifacts are cores if the surface of one or more sides are covered with flake scars. Shape will help indicate technique

- Conical
- Cylindrical
- Rectangular
- Uniface
- Turtle back, not European
- Biface
- Multiface
- Utilized Cores

METHOD TYPOLOGY

SURFACE

Dorsal
Ventral

Irregular - Random (Preform)

Percussion & Indiscriminate Pressure

Regular

Relative to length

Wide
Medium
Narrow

Number of flakes per inch

Parallel (Right Angle)

Oblique

Double oblique

Chipped from one edge only

Order of Flake Removal

Radial Scars indicate direction of force

Angle

Thinning

Hinge Fractures

Ripple

Released at Center

Depths of Crests and troughs

No Flutes

Bulbs of Force

DISPOSED BULBS

Unflaked Surfaces

With flats, indicate of Thermal treatment

Edges

Can indicate function

Irregular

Regular

Beveled

Sharp

Dull

Sinuous

Alternating

Ground

Polished

Serrated

Deep

Shallow

Medium

Manner of Removal

Crushed

One Side

Both Sides

Alternate

Serrated as tool is retouched

BASAL ASPECTS

- Thinning
- Fluting
- Grinding
- Polishing
- Hafting Technique or Notching

- side
- Corner
- Basal

- Narrow
- Wide

Preparation

- Single Flakes on both sides
- Multiple Flakes on Both Sides
- Widening of Notch after Narrow Opening

- Concave
- Convex
- Straight
- Recurved

Specialized Hafting

CROSS SECTION

- Convex
- Double Convex
- Diamond
- Strength May Indicate Function

TIPS

- Sharpening Methods
- Direction of Flakes
- Burin Flake*

NOTE:

THE COMPLETED ARTIFACT MAY NOT INDICATE PRELIMINARY STAGES OF MGE.