ANALYSIS OF FLAKES RELATIVE TO FLINTWORKING TECHNIQUEST

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

Outline does not deal with form

MATERIALS:

TYPE OF STONE

- Flint and Flint-like Materials (silica forms)
- Obsidian
- Ignimbrite
- Rhyolite (basalt)
- Lava
- Opal
- Chalcedony
- Hornstone
- Jasper
- Agate
- Petrified Wood
- Quartsite
- Silicified Sediments
- Quartz Crystal

GRADE

- Desirable
- Undesirable
  - Clevage Plane
  - Inclusions
  - Vesicules
  - Crystal Pockets
  - Under Stress and Strain
    - Cracks
    - Checks
  - Molecular imbalance

Desirable:
- Isotropic
- Cryptocrystaline
- Homogeneous
- Elastic
- Vitrious
- Adequate Size

SOURCE

- Quarries
- Cobbles
- Veins
- Ledges
- Surface, etc.

TEXTURE
- Luster
- Granular
  - Doll
  - BRIGHT
  - Fine
  - Medium
  - Course

COLOR

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

DETACHED BY:

MAN

HOOFED ANIMAL

ELEMENTS
- Natural expansion, contraction & diastrophism

INTERNAL PRESSURE (RAPID TEMPATURE CHANGES)
- Exfoliation
- Dehydration
- Shrinkage
- Expansion and Contraction

EXTERNAL PRESSURE
- Earth Movement
- Ice and Ice Movement

TIDES

TALUS

WATERWAYS

THERMAL FRACTURES
- Forest Fires
- Range Fires
- Overheated in Household Fires

FLAKES

PERCUSSION, PRESSURE OR BOTH

MICRO FLAKES
Fine retouching, notching and serrating

Small

Medium

Large

Specialized Flakes
- Blades (Prismatic) (Micro)
- Parallel Sides
- One Dorsal Ridge
- Two Dorsal Ridges
- Micro Blades
- Burin Blades
- Sidestruck Flakes
- Uniface, European
- Channel Flakes
- Hinge
- Reverse Hinge
- Erailure

LENGTH

Short: Length = Width

Medium: 2 x Length = Width

Long : 3 x Length = Width

Xtra Long: 4 or More x Length = Width

THINNING

WIDTH
CIRCULAR

Thin

Normal

Thick - Tabular
- Right angular sides
- Sections of cleaved flakes
- Sections of pebbles
- Sections of cobbles
- Sections of nodules

Straight

Curved

Spiral

One Dorsal Ridge

Two or More Dorsal Ridges

Dorsal
- Source
- Shape of Flake

Ventral
- Blade Technique
- Possible Heat Treatment

Proximal End
- Size of Platform
- Preparation of Platform
- Character of Bulb or Pressure or Percussion (Erailure)
- 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
- COMPRESSION RINGS
- Undulations
- Shock Fracture
- End Character

Planned Thermal Treatment (Quartz Family)
- Heated
- Unheated
- Overheated — Color change (Cortex) for identification
  - Crazed
  - Checked, potlids, exfoliation
  - No bulbs of force

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
- Utalized Cores

EXHAUSTED C

METHOD TYPEOLOGY

- SURFACE
  - Dorsal
  - Ventral
    - Irregular - Random(Preform)
      - Percussion & Indiscriminate Pressure
    - Regular
      - Relative to length →
        - Wide
        - Medium
        - Narrow
          - Parallel (Right Angle)
          - Oblique
          - Double oblique
          - Chipped from one edge only
          - Order of Flake Removal
            - Radial Scars indicate direction of force
          - Angle (CROSS SECTION)
          - Thinning
          - Hinge Fractures
          - Ripple
          - Released at Center
          - Depths of Crests and troughs
          - No Flutes (TROUGHS)
          - Bulbs of Force
          - Unflaked Surfaces
            - With flats, indicative of Thermal treatment

Number of flakes per inch

- 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
    - Concave
    - Convex
    - Straight
    - Recurved
  - Specialized Hafting
    - Preparation
    - Single Flakes on both sides
    - Multiple Flakes on Both Sides
    - Widening of Notch after Narrow Opening

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

TIPS
- Sharpening Methods
- Direction of Flakes

NOTE

THE COMPLETED ARTIFACT MAY NOT INDICATE PRELIMINARY STAGES OF MANIFACTURE