# Reading & Reference List

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Canadian Conservation Institute (CCI)


National Center for Preservation Technology and Training


USDA Natural Resources Conservation Service


**HANDOUT 2 — Perishable Materials**

[8/2009]

**Glossary**

**Adventitious remains:** human remains that are presently not part of a formal burial.

**Angle of Twist:** the angle that the slant of the twist makes relative to the vertical axis of the yarn. Angle of twist is categorized as loose (angle ≤ 10°), medium (angle from 11° to 25°) or tight (angle from 26° to 45°).

**Articular:** the joint surface of a bone, at its junction with an adjoining bone element.
Articulated: bones being in correct anatomical position, with few or no missing elements.

Artiodactyla: order of mammals including even-toed herbivores such as deer, elk, bighorn sheep, bison, etc. [from Greek artios, “even, matching” + daktulos, “finger”]

Aspergill: an instrument, such as a brush or a feather bundle, used in ceremonies for sprinkling or dispersing a substance [from Latin aspergere, “to sprinkle”]

Atlatl: a spear throwing tool, commonly of wood [from the Aztec’s Nahuatl language].

Basketry: a craft utilizing woven coarse materials for the production of a semi-rigid to rigid container. Forms range from flat to shallow to very deep, and from open to very constricted orifice. Baskets are made without benefit of any artificial device such as a loom and, therefore, sandals are technically included in the craft.

Bast fibers: soft, elongated strands from the inner bark or stalk of plants such as Apocynum sp. [Indian hemp], flax, nettles and milkweed.

Batten: flattened length of wood with rounded ends and smoothed to remove splinters, used on a loom to tamp down weft threads and to separate the warp threads.

Bead: a division within a segment, representing one of its component strands. Beads are usually clearly defined because of the opposing angles of twist of the strands. Beads may be single or compound.

Beamer: long bone artifact using the broken/cut edge of the shaft as hide dressing/scraping tool.

Bowed: describes wool from which dried fibers have been extracted, along with remnant dust.

Bull-roarer: perforated stick strung from cordage and twirled in the air to make a “roaring” sound.

Calcareaous: limey, containing calcium compounds such as CaCO₃.
Calcined: bone heated to a high temperature but below the fusing point, causing a loss of moisture, reduction or oxidation; such bone has a powdery white to blue-white appearance.

Card: to comb out wool or cotton so fibers align in one direction.

Chips: raw materials split from annual growth rings of a woody plant.

Clefts: raw materials split radially from timber.

Coiling: a “sewing” type of basket weaving in which the warp material(s) is a continuous spiral and each coil [warp] is secured by sewing the weft into the adjacent coil(s) below.

Collagen: protein fraction of bone; also in cartilage and connective tissue.

Colored Textiles: a decoration style using dyed threads during the weaving process, or dyeing the finished textile after the weaving is complete.

Coprolite: desiccated or otherwise preserved animal feces [from Greek kopros, “dung”].

Cord: a type of yarn made from twisting together two or more plied yarns; along with string and thread, this term also has been used to mean any type of yarn.

Core Cord: a cord that serves as the primary element, core or foundation upon which supplementary cords, knots or other elaborations are imposed.

Crest: a ridge, especially one surmounting a bone or its border.

Desiccated: thoroughly dried; devoid of moisture content.

Diaphysis: the mid-portion or shaft of a long bone.

Ecofact: biological material present in a site due to human activity but not obviously modified by people such as a bone fragment, seed, burned wood, etc.

Ecotone: the ecological area where two vegetation communities meet, such as the lodgepole pine–sagebrush interface common around the margins of some high mountain valleys.
**Ecozone:** a vegetation community and its environment—including the fauna, soil, climate, etc.

**Elements:** yarns (fibers twisted together), leaves (crushed, split or whole), or other materials used to create textiles.

**Emulsion:** a suspension of small globules of one liquid in a second liquid with which the first will not mix; in conservation, various adhesives soluble in water are used to preserve waterlogged/wet artifacts.

**Epiphysis:** the articular surface or end of a bone.

**Ethnobotany:** the study of plants and the manner in which they were used by a cultural group; the study of plant use in ancient times is *paleo-ethnobotany*.

**Fabric:** any type of construction made of fibers including woven, twined, and braided fabric structures.

**Fauna:** animals collectively, especially the animals of a particular region or time.

**Fiber:** the smallest untwisted component of a strand or bead. Also, raw material that has enough flex, strength and high length-to-width ratio to be used in fabric structures. *Stock fibers* are those kept in storage, often in bundles.

**Flora:** plants collectively, especially the vegetation of a particular region or time.

**Flotation:** a bulk soil sample, usually collected from partially burned archaeological deposits, processed by immersion in water to recover suspended organic materials such as seeds.

**Foramen:** a small opening or orifice in a bone [from Latin *forāmen*, “an opening”].

**Friable:** readily crumbled or brittle, e.g., a characteristic of some pottery vessels in the mountains and plains [from Latin *frīābilis*, “crumbling”].

**Groove:** a shallow linear depression, often marking blood vessel locations.

**Intrusive:** material present naturally in a site rather than a by-product of human activity, e.g., skeletal remains of burrowing rodents.
**Jacal**: Spanish name for a form of mud-and-stick architecture common in Colorado and the west. A series of vertical poles with intervening matting or other fine vegetation is plastered on both interior and exterior surfaces with clay-rich mud. “Wattle-and-daub” architecture is one variation seen in the Mesa Verde region.

**Loom**: mechanical device designed to keep the warp under stress during weaving. A vertical or parallel loom refers to the orientation to the ground surface, perpendicular or horizontal.

**MAU**: Minimum Animal Units; archaeological bone values of “minimum number of elements” expressed as a percentage, adjusted to account for the differential frequencies of each bone element class in a complete skeleton.

**Metapodial**: foot bone (metacarpal or metatarsal) of a large quadruped such as deer and bighorn sheep, commonly fashioned into a tool such as an awl.

**MNI**: Minimum Number of Individuals; archaeological bone count equal to the highest number of any single skeletal element of a species identified in a faunal inventory.

**NISP**: Number of Identifiable Specimens; archaeological bone count equal to the total number of bone elements identified for each species in a faunal inventory.

**Ossification**: the process of bone formation; the hardening into a bony substance.

**Ossuary**: multiple grave sites, either primary or secondary, in which there is often some overlap in the position of individual sets of human remains.

**Osteology**: study of the bony anatomy of an animal [from Greek *osteon*, “bone”].

**Palynology**: the scientific study of pollen and spores [from Greek *palunein*, “to sprinkle”].

**Pathology**: study of the essential nature of diseases and, especially, of the structural and functional changes produced by them.

**Pattern Weaving**: a type of weaving where the warp and the weft crossings are arranged to form a design. This can be done using different types of threads or colored threads.
**Perissodactyla:** order of mammals including odd-toed herbivores such as horses and rhinoceroses [from Greek *perissos*, “uneven, excessive” + *daktulos*, “finger”].

**Plaiting:** the simplest basket weaving technique; both the warp and weft are of equal size, shape, weight and pliability. The elements are flat in form.

**Plied Yarn:** a type of yarn made from twisting together two or more single yarns.

**Polster:** a moss clump collected with adhering sediment as a modern pollen sample.

**Post-cranial:** that part of a skeleton beyond the skull, i.e. “from the neck down.”

**Provenance:** location of origin, e.g., a specific source area for wood or cotton [from Latin *pro-*, forth + *venire*, to come].

**Provenience:** location of discovery, e.g., the excavation grid coordinates and vertical elevation of a wood or cotton artifact.

**Process:** a slender projecting point on a bone.

**Raw material:** basic elements utilized in the production of baskets. The material is generally stiff and taken from shoots of trees and shrubs.

**Rods:** basket-making raw materials consisting of the shoots of a single year’s growth.

**Segment:** one revolution of a strand in the final combination creating a cord. When a cord is held vertically and viewed from one side, a segment is one diagonal unit.

**Sinew:** material of animal tendons, commonly processed to utilize the fibers for cordage, hafting material, etc.

**Single Yarn:** see Strand.

**Skeins:** basket-making raw materials of young growth split longitudinally.

**Solvent:** a liquid capable of dissolving another substance; in conservation, various adhesives are dissolved in acetone, ethanol, xylene, etc. (but not water) then applied as preservatives to artifacts in dry conditions.
**Spinning**: the process of twisting the fibers together to produce thread or yarn for weaving. Threads may be produced by thigh spinning (rolling the fibers across the leg), or spindle spinning (spinning fiber using a short rod and flywheel/spindle).

**Spun**: fibers twisted together to produce a continuous strand. Two basic types are created by reversing the direction (L or R) of the spin or twist. An “S” cord has the largest segments slanting from upper left to lower right, and is produced by twisting to the right. A “Z” cord has the largest segments slanting from upper right to lower left, produced by twisting to the left.

**Sticks**: basket-making raw materials of consisting of shoots two or more years old.

**Strand**: a unit composing a cord, consisting of one or more sets of fibers twisted individually or together. Equivalent to the term “single yarn” preferred for textiles.

**Subsistence**: the food a culture uses to survive, and how it is acquired.

**Suture**: sinuous joint between two bones in the cranium.

**Taphonomy**: the study of the post-occupational processes leading to the preservation/destruction of a material such as bone.

**Tease**: to pull apart wool or cotton to remove foreign objects.

**Textile**: flexible woven artifacts generally produced on a loom.

**Tinkler**: an elongated bone, metal or other non-lithic artifact combined with others in a necklace and suspended to a uniform length so as to make noise (“tinkling” sound) like a wind chime while worn.

**Tubercle**: a small tuberosity or prominence on a bone, marking a muscle attachment.

**Twining**: a type of fabric construction method using two sets of yarns in which one set of yarns is twisted, commonly in pairs, around another set of yarns. In contrast to weaving, twining involves twisting of yarns around other yarns, not interlacing. The term also is used for a basket weaving technique in which the more rigid warp is held stationary and vertical to the weaver, while the more flexible weft is woven across the warps horizontally. Some analysts equate this
technique with **Wicker**, and some specify that true twining involves passing two wefts simultaneously from opposite directions. The technique was commonly used in prehistoric bag manufacture.

**Warp**: one group of parallel threads kept under constant tension on a loom. Also, the foundation or basic framework of a basket, generally more rigid than the weft.

**Weaves**: creating a design in a textile by the manner in which the weft is woven through the warp.

**Weft**: a group of parallel threads that pass at a right angle, over and under the warp threads of a textile. These threads form the bulk of the visible textile. Also, the filler woven around/over/under the warp on a basket, generally more pliable than the warp.

**Wicker**: see Twining, above.

**Woof**: same as Weft, above.

**Yarn**: the general term for a variety of elements made from fibers.

**Zooarchaeology**: the study of bones and other faunal material in archaeological contexts, and the manner in which animals were used by a cultural group.