

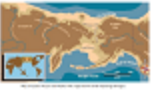
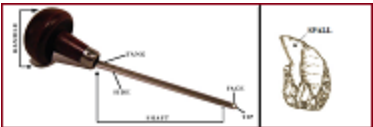
## Pre-Clovis Glossary

The standards for evidence of pre-Clovis candidates have not changed much since they were articulated by C. Vance Haynes in 1969:

*"A credible pre-Clovis site (older than ca. 13,600 cal BP) must contain human remains and/or undisputable artifacts in a primary depositional context, for which an accurate age can be determined."*


<b>Term / Name</b>	<b>Definition</b>
<b>(a) Geologic Epoch: Pleistocene</b>	The Pleistocene is the geological epoch that lasted from c. 2.58 million to 11,700 years ago, spanning the Earth's most recent period of repeated glaciations.. For a complete list of geologic epochs, please click <a href="#">Epochs</a> .
<b>(b) Geologic Epoch: Holocene</b>	The Holocene is the geological epoch that spans from approximately 10,000 years ago to the present, and represents the most recent interglacial interval of the Quaternary period.
<b>(c) Geologic Epoch: Anthropocene</b>	A recently proposed new geologic epoch, supplanting the late Holocene and characterized by humanity's domination over the planet's ecological systems and biogeochemical cycles. Some tie it to the worldwide distribution of cement and cement wastes beginning in the last 19th century, Others see a baseline with nuclear development in the late 1940s that resulted in worldwide radioactive particle dispersal.
<b>(d) LGM</b>	<b>Last Glacial Maximum.</b> The greatest extent of the ice sheets during the last glacial period, beginning at ~26,000 BP and attaining maximum extent between 21,450 and 19,150 BP. Caused a major expansion of deserts, along with a large drop in sea levels.
<b>(e) Older Dryas Chronozone</b>	The coldest post-LGM stadial, beginning 16-17 kya and ending around ~14.7 kya. The Oldest Dryas was a cold period interrupting and reversing the post-Last Glacial Maximum (LGM) warming trends. The Oldest Dryas was followed by the warm, moist Bolling (actually Bølling) Interstadial.
<b>(f) Bolling (actually Bølling) Oscillation - also Bølling Interstadial</b>	A geological interval of warmer global average temperature beginning around 15,000 BP and lasting approximately one thousand years.
<b>(g) Allerød Oscillations</b>	Generally warm and moist periods, interrupted by intra-Allerød cold periods, spanning between approximately 14,700 - 12,700 BP, and preceding the Younger Dryas.
<b>(h) Younger Dryas Cold Interval</b>	An extreme cold period, from ~12,620 to 11,350 BP, during which temperatures dropped back to near-LGM levels.
<b>(i) What Does "Dryas" Mean?</b>	"Dryas" is the name of a flower ( <i>Dryas octopetala</i> ) that grows in cold conditions and that became common in Europe during this time of extreme cold.
	<b>Terms in the rows above with this background color refer to climatic conditions which existed during times of human habitations and migrations to the North American continent. Letters in parentheses ( ) are there solely to keep the named conditions in their proper order.</b>
<b><math>\alpha</math>-Amino Acids</b>	Amino acids are organic compounds that contain both amino and carboxylic acid functional groups. Although over 500 amino acids exist in nature, by far the most important are the 22 $\alpha$ -amino acids incorporated into proteins. Only these 22 appear in the genetic code of life.

<b>Ainu</b>	The Ainu are an ethnic group of related indigenous peoples native to northern Japan, including Hokkaido and Northeast Honshu, as well as the land surrounding the Sea of Okhotsk, such as Sakhalin, the Kuril Islands, the Kamchatka Peninsula, and the Khabarovsk Krai. They have occupied these areas (known to them as 'the land of the Ainu'), since before the arrival of the modern Japanese and Russians. These regions are often referred to as Ezo in historical Japanese texts. They are descendants of the <a href="#">Jomon</a> culture, the oldest in prehistoric Japan.
<b>Allele</b>	An allele is an alternative form of a gene. It is located in a specific location on a certain chromosome. The alleles are passed down from parents to the offspring through sexual reproduction. They might be dominant or recessive. These genes are types of hereditary units that code for a specific feature in an organism. For instance, you might have one allele for brown eyes and another for blue eyes, but you will not therefore have one blue and one brown eye. Individuals do not normally display the characteristics encoded on each matching pair of genes.
<b>Alluvium</b>	Loose clay, silt, sand, or gravel that has been deposited by running water in a stream bed, on a floodplain, in an alluvial fan or beach, or in similar settings. Alluvium is also sometimes called alluvial deposit. Alluvium is typically geologically young and is not consolidated into solid rock.
<b>AMH</b>	<b>Anatomically Modern Humans</b> ( <i>Homo sapiens sapiens</i> ).
<b>Anadromous Fish</b>	A fish or fish species that spends portions of its life cycle in both fresh and salt waters, entering fresh water from the sea to spawn and includes the anadromous forms of Pacific trout and salmon of the genus <i>Oncorhynchus</i> (rainbow and cutthroat trout and chinook, coho, sockeye, chum and pink salmon), Arctic char, Dolly Varden, sheefish, smelts, lamprey, whitefish, and sturgeon.
<b>ANE Population</b>	Ancient North Eurasian ancestry has spread throughout Eurasia and the Americas in various migrations since the Upper Paleolithic, and more than half of the world's population today derives between 5 and 42% of their genomes from the Ancient North Eurasians.
<b>ANOVA</b>	Analysis of variance, or ANOVA, is a statistical method that separates observed variance data into different components to use for additional tests. A one-way ANOVA is used for three or more groups of data, to gain information about the relationship between the dependent and independent variables.
<b>Anzick Infant</b>	Anzick-1 is a Paleo-Indian male infant whose remains were found in south central Montana in 1968, and dated to 13,000-12,850 years BP. The child was found with more than 115 tools made of stone and antlers and dusted with red ocher, suggesting an honorary burial.
<b>Archaeological Culture</b>	<i>A set of typologically differentiated material remains primarily of stone and bone, comprising tool assemblages and the associated patterning in site distributions and characteristics. (Haynes, 2002)</i>
<b>Artiodactyl Metapodial</b>	<b>Artiodactyl</b> These are ungulates (large mammals with hooves) which bear weight equally on two (an even number) of their five toes: the third and fourth, often in the form of a hoof. The other three toes are either present, absent, vestigial, or pointing posteriorly. <b>Metapodials</b> (metacarpals in the wrist, metatarsals in the ankle) are the bones that link the phalanges of the digits to the more proximal bones of the limb. • To see these bones in humans, please click <a href="#">Arm /Hand</a> and <a href="#">Leg / Foot</a> from the "Skeletal Diagrams" section of the FOSA website.
<b>Autosomal DNA</b>	A term used in genetic genealogy to describe DNA which is inherited from the autosomal chromosomes. An autosome is any of the numbered chromosomes, as opposed to the sex chromosomes. Humans have 22 pairs of autosomes and one pair of sex chromosomes (the X chromosome and the Y chromosome).



<b>B/A Interstadial</b>	The <b>Bøllong/Allerod Interstadial</b>
<b>BCC</b>	<b>Buttermilk Creek Complex, Texas</b>
<b>BCE</b>	<b>Before Common Era</b> or <b>Before Current Era</b> or <b>Before Christian Era</b> : used when referring to a year before the birth of Jesus Christ when the Christian calendar starts counting years, BCE = secular version of BC, but means the same thing.
<b>Beringia</b>	<p>Beringia is the land and maritime area between the Lena River in Russia and the Mackenzie River in Canada and marked on the north by 72 degrees north latitude in the Chuckchi Sea and on the south on the tip of the Kamchatka Peninsula. To see a map showing its extent,</p>  <p>please click <a href="#">here</a>.</p>
<b>Beringian Standstill Hypothesis</b>	The "Standstill Hypothesis" theorizes that "Ancient Beringians" lived in isolation on the east Beringian Arctic steppe-tundra during the last glacial maximum (LGM, 36,000 - 12,000 years ago) and are the sole ancestral population of all Native Americans.
<b>Biogeochemical Cycle</b>	Any of the natural pathways by which essential elements of living matter are circulated. The term biogeochemical is a contraction that refers to the consideration of the biological, geological, and chemical aspects of each cycle. For additional information on this topic, please click <a href="#">Biogeochemical</a> ,
<b>Bioturbation</b>	The disturbance of sedimentary depositw by living organisms.
<b>BLB</b>	<b>Bering Land Bridge</b>
<b>Bluefish Caves</b>	The Bluefish Caves butchery site in the far northwestern edge of Canada's Yukon Territory is one of the oldest definitive pre-Clovis sites on record in North America. The combination of lithic technology and good faunal preservation provide insights into the the earliest waves of settlers into the Americas. A group of traveling hunters and gatherers who butchered large game like horses and caribou in far northern caves, and practiced tool-maintenance on site. To access a YouTube video on this site, please click: <a href="#">Bluefish Caves</a> .
<b>BP</b>	<b>Before Present</b> years, also known as "time before present" or "years before present (YBP)", is a time scale used mainly in archaeology, geology, and other scientific disciplines to specify when events occurred relative to the origin of practical radiocarbon dating in the 1950s. By convention: 1950.
<b>Burin</b>	<p>The term burin refers to a tool used by engravers that has a thin, pointed blade and is used to etch or cut. Click  for a larger view of a modern burin used for engraving and a Paleolithic burin. Paleolithic burins exhibit a feature called a burin spall - a sharp, angled point formed when a small flake is struck obliquely from the edge of a larger stone flake.</p>
<b>Burin Spalls</b>	A form of debitage created when toolmakers strike a small flake obliquely from the edge of the burin flake in order to form the graving edge.
<b>Cairn</b>	A cairn is a human-made pile of stones raised for a purpose, usually as a marker or as a burial mound. Cairns have been and are used for a broad variety of purposes. In prehistory, they were raised as markers, as memorials and as burial monuments.





<b>cal BP</b>	The scientific term "cal BP" is an abbreviation for "calibrated years before the present" or "calendar years before the present" and that is a notation which signifies that the raw radiocarbon date cited has been corrected using current methodologies.
<b>Calcic Horizon</b>	A mineral soil horizon with evidence of secondary calcium carbonate deposition which is more than 15 cm thick, with a calcium carbonate content of more than 15 per cent by weight, and with 5 per cent carbonate more than is in the parent material or horizons below it.
<b>CCS</b>	CryptoCrystalline Silicate. Rock composed of extremely fine silica (quartz) crystals -- is known by a variety of different names (generally based on differences in translucence, color, texture, or presumed geological origin) including chert, chalcedony, jasper, agate, flint, and petrified wood.
<b>CIS</b>	Cordilleran Ice Sheet
<b>Cladistic Analyses</b>	Attempts to determine if changes in form (of a vessel, projectile point, etc.) reflect an evolution of design from one stage to the next, thereby allowing them to be categorized as being in the same family (e.g., "Clovis").
<b>Clast</b>	Clastic sedimentary rocks are made up of pieces (clasts) of pre-existing rocks. Pieces of rock are loosened by weathering, then transported to some basin or depression where sediment is trapped. If the sediment is buried deeply, it becomes compacted and cemented, forming sedimentary rock.
<b>Clovis Culture: From Its Archaeological Perspective</b>	Consists of artifacts, house plans, burials, land use, settlement strategies: Material remains.
<b>Clovis Culture: From Its Ethnic Perspective</b>	Consists of language, folklore and knowledge, cosmology, etc.: Belief systems.
<b>Clovis Culture: Its Dialectic Conundrum</b>	"Dialectic" refers to a form of logical argumentation involving the progression of two opposing views, and a related philosophical concept of ideological evolution. This process can also be called the dialectical method. The face/vase optical illusion is a visual example of a dialectic. As is attempting to define a "Clovis Culture" from an Archaeological vs. an Ethnic perspective. The trigger: Explaining the variability in fluted point artifacts.
<b>Clovis First Model</b>	The Clovis-First model of the peopling of the Americas was the idea that the earliest humans on the landmass had crossed the Bering Land Bridge after the Last Glacial Maximum when glaciers began to recede, about 13,000 years ago. The Clovis-first model "was refuted effectively in the '90s with this archaeological site of Monte Verde in Chile that was accepted as a 'true' pre-Clovis site," says Lorena Becerra-Valdivia, a radiocarbon dating scientist at the University of Oxford. See <a href="#">Monte Verde Site</a> .
<b>Clovis Genomic Population</b>	Available genetic data show that the Clovis people are the direct ancestors of roughly 80% of all living Native American populations in North and South America, with the remainder descended from ancestors who entered in later waves of migration. <b>Ref. Pre-Clovis, Class-1., Slide 29: Click <a href="https://www.fosa-ct.org/FCE/FCE2/Pre-Clo_Class_1.html#29">https://www.fosa-ct.org/FCE/FCE2/Pre-Clo_Class_1.html#29</a>.</b>
<b>Clovis Point</b>	Over most of North America, 12,000 to 13,000 years ago, ancestral Indigenous people were making distinctive fluted projectile points known as "Clovis points." Clovis points are easily recognized because of their large size, their exquisite craftsmanship, and the beautiful stones toolmakers chose for them. <b>For their physical characteristics, please access slide 27 by clicking <a href="https://www.fosa-ct.org/FCE/FCE2/Pre-Clo_Class_1.html#27">https://www.fosa-ct.org/FCE/FCE2/Pre-Clo_Class_1.html#27</a>.</b>

<b>Clovis Point vs Folsom Point</b>	In Clovis technology, the flute generally extends no more than half the distance of the overall point length, whereas in the Folsom tradition the flute generally extends nearly the entire length.
<b>CMT</b>	Coastal Migration Theory. See <a href="#">Pacific Coast Route</a> .
<b>Collagen</b>	Collagen is the most abundant protein in the body, Its fiber-like structure is used to make connective tissue. Like the name implies, this type of tissue connects other tissues and is a major component of bone, skin, muscles, tendons, and cartilage.
<b>Colluvial Deposition</b>	Colluvium (also colluvial material or colluvial soil) is a general name for loose, unconsolidated sediments that have been deposited at the base of hill slopes by either rainwash, sheetwash, slow continuous downslope creep, or a variable combination of these processes.
<b>CPT</b>	Clovis Paleoindian Tradition
<b>Crescent Point</b>	See <a href="#">Lunate</a> .
<b>Culture</b>	A system of learned and shared beliefs, language, norms, values, and symbols that groups use to identify themselves and provide a framework within which to live and work.
<b>Dating: Radiocarbon</b>	Radiocarbon dating, or carbon-14 dating, is a scientific method that can accurately determine the age of organic materials as old as approximately 60,000 years. First developed in the late 1940s at the University of Chicago by Willard Libby, the technique is based on the decay of the carbon-14 isotope.
<b>Dating: AMS Radiocarbon</b>	Accelerator Mass Spectrometry is a modern radiocarbon dating method that is considered to be the more efficient way to measure radiocarbon content of a sample. In this method, the carbon 14 content is directly measured relative to the carbon 12 and carbon 13 present.
<b>Dating: Bayesian Age Model</b>	A Bayesian way to produce age-depth models constrained by chronological / stratigraphical ordering of the dates. Material deeper down in a core will be older than material further up, so, we know that any age-model should increase monotonously, and not show any "leaps back in time." Bayesian statistics provide an explicit, probabilistic method for combining different sorts of evidence to estimate the dates of events that happened in the past and for quantifying the uncertainties of these estimates. This enables us to account for the relationships between samples during the calibration process.
<b>Dating: Cosmogenic Radionuclide</b>	Cosmogenic nuclide dating uses the interactions between cosmic rays and nuclides in glacially transported boulders or glacially eroded bedrock to provide age estimates for rock exposure at the Earth's surface. It tells us how long the rocks have been located at the surface, for example, on a moraine. This method of dating is effective over short to long timescales (1,000 - 10,000,000 years), depending on which isotope you are dating. Different isotopes are used for different lengths of times. It is an excellent way of directly dating glaciated regions. <b>Nuclide</b> The nucleus of an atom is a tiny, positively charged area that consists of almost all the atom's mass. The nuclide definition is given as that particular nucleus of an atom associated with a particular atomic number, and a particular atomic mass and energy of the atom. <b>Radionuclide</b> A radionuclide is a nuclide that has excess numbers of either neutrons or protons, giving it excess nuclear energy, and making it unstable.
<b>Dating: OSL</b>	Optically Stimulated Luminescence dating measures the last time an object was exposed to sunlight. Luminescence dating is good for between a few hundred to (at least) several hundred thousand years, making it much more useful than carbon dating.

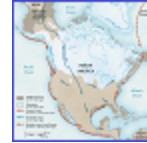
<b>Deciduous Teeth</b>	Deciduous teeth, or primary teeth, are the first set of teeth that humans and other mammals develop. They are eventually replaced by permanent teeth, that begin to grow in throughout childhood. Deciduous teeth actually begin to form during pregnancy, around the sixth week.
<b>Dent Mammoth Site</b>	The Dent Site is a Clovis culture (about 11,000 years before present) site located in Weld County, Colorado, near Milliken, Colorado. It provided evidence that humans and mammoths co-existed in the Americas. The site is located on an alluvial fan alongside the South Platte River
<b>Diachronic</b>	Concerned with the way in which something has changed or evolved over time. (contrast: <a href="#">Synchronic</a> ).
<b>Discoidal</b>	Having a flat circular shape. synonyms: disc-shaped, dislike, discoid, disk-shaped, dislike circular, round. having a circular shape.
<b>Distal</b>	Situated away from the center of the body or from the point of attachment. Opposite of Proximal.
<b>Ecesis</b>	The time between the ice sheet leaving an area and colonization by a plant or animal.
<b>Endemic Animals</b>	Animals that live in a limited area, such as a mountain range, lake or island, among others.
<b>Erratic</b>	A rock of unspecified shape and size, transported a significant distance from its origin by a glacier or iceberg and deposited by melting of the ice. Erratics range from pebble-size to larger than a house and usually are of a different composition than the bedrock or sediment on which they are deposited.
<b>Eustatic Sea-Level Fluctuations</b>	Eustatic sea level changes are global sea level changes related to changes in the volume of water in the ocean. These can be due to changes in the volume of glacial ice on land, thermal expansion of the water, or to changes in the shape of the seafloor caused by plate tectonic processes.
<b>Expedient Tools</b>	Expedient tools are just that: crude waste flakes from tool-making production utilized for a specific task once, or a few times, then discarded like the plastic cutlery we use today or a rock picked up to drive tent pegs into the ground.
<b>FCR</b>	<b>Fire Cracked Rock</b>
<b>Fishtail Point</b>	Distinctive bifacially worked chipped stone point with an outline rather like the shape of a fish; the basal tang or stem represents the tail of the fish. Derived from Clovis.
<b>Foliate Biface</b>	 <p>A leaf-shaped bifacial tool.</p>
<b>Friable</b>	Easily crumbled or pulverized.
<b>GAP</b>	Before 15,000 years ago, human settlement in Beringia appears to have been largely confined to the exposed East Siberian Arctic Shelf (sometimes labeled the <b>Great Arctic Plain</b> and adjoining lowlands along the arctic coast of Northeast Asia.
<b>Gene vs Genome</b>	A gene is a specific segment of DNA that tells cells how to function. A genome is the entirety of the genetic material inside an organism. The human genome consists of between 20,000 and 25,000 genes.




<b>Glacial Refugium (plural Refugia)</b>	A glacial refugium is a geographic region which made possible the survival of flora and fauna during ice ages and allowed for post-glacial re-colonization. Different types of glacial refugia can be distinguished, namely nunatak, peripheral, and lowland.
<b>GMSL</b>	<b>Global Mean Sea Level</b>
<b>Gyre</b>	<p>In oceanography, a gyre is any large system of circulating ocean surface currents, particularly those involved with large wind movements. Gyres are caused by the Coriolis effect; planetary vorticity, horizontal friction and vertical friction determine the circulatory patterns from the wind stress curl. These large systems of circulating ocean currents are kind of like slow-moving whirlpools. There are five of them: the North Atlantic Gyre, the South Atlantic Gyre, the North Pacific Gyre, the South Pacific Gyre, and the Indian Ocean Gyre which have a significant impact on the ocean.</p>  <p>Click  for a diagram of the North Pacific Gyre.</p>
<b>Haida Gwaii</b>	Formerly known as the Queen Charlotte Islands, Haida Gwaii is an archipelago located between 55-125 km (34-78 mi) off the northern Pacific coast of Canada.
<b>Haplogoup: Y-Chromosome DNA</b>	A human Y-chromosome DNA haplogroup is a haplogroup defined by mutations in the non-recombining portions of DNA from the male-specific Y chromosome (called Y-DNA). Many people within a haplogroup share similar numbers of short tandem repeats (STRs) and types of mutations called single-nucleotide polymorphisms (SNPs)
<b>Haplogroup: MtDNA</b>	A human mitochondrial DNA haplogroup is a haplogroup determined by differences in human mitochondrial DNA (q.v.)
<b>Haplotype</b>	A haplotype is a group of alleles in an organism that are inherited together from a single parent, and a haplogroup is a group of similar haplotypes that share a common ancestor with a single-nucleotide polymorphism mutation.
<b>Heinrich Events</b>	Heinrich Events are intermittent periods of iceberg surges and meltwater flow mainly from the Laurentide ice sheet that occurred during glacial times. Iceberg drift and meltwater influx was largest in a belt between 40 <sup>0</sup> and 50 <sup>0</sup> N.
<b>Homologous Traits</b>	When organisms share a trait due to common ancestry, it is called a homologous trait. For example, all vertebrate animals (frogs, birds, fish, people) have skeletons because the ancestor of the vertebrates had a skeleton and passed that trait on to all of its descendants. The bones of a human's front left are homologous to the bones of a bat's front left limb: Both limbs end in five digits, and though some parts differ in size, both limbs have the same overall structure.
<b>Horizon</b>	A distinctive type of sediment, artefact, style or other cultural trait, that is found across a large geographical area within a limited time period.
<b>Horizonation</b>	The formation of soil horizons.
<b>Humic Substances</b>	Humic substances are colored recalcitrant organic compounds naturally formed during long-term decomposition and transformation of biomass residues. The color of humic substances varies from yellow to brown to black.
<b>Ice Sheet: Laurentide</b>	The Laurentide Ice Sheet was a massive sheet of ice that covered millions of square miles, including most of Canada and a large portion of the Northern United States, multiple times during the Quaternary glacial epochs, from 2.58 million years ago to the present. For additional information on this ice sheet, please click: <a href="#">Laurentide</a> .


<b>Ice Sheet:Cordilleran</b>	The Cordilleran Ice Sheet was a major ice sheet that periodically covered large parts of North America during glacial periods over the last ~2.6 million years. For additional information on the Cordilleran ice sheet please click: <a href="#">Cordilleran</a> .
<b>Ice Sheets: Image</b>	Please click:  .
<b>IFC</b>	(interior) <b>Ice-Free Corridor</b> , between the Laurentian and Cordilleran Ice Sheets during a warming phase. To see a larger view of this hypothetical route, please click  .
<b>Intertidal</b>	The area of a seashore which is covered at high tide and uncovered at low tide.
<b>Isometric Reconstruction in Archaeology</b>	Literally, to construct again; in the archaeological context this is taken to mean the rebuilding of something using non-original materials but to a design or pattern that is well established. This applies to structures and artefacts. To see an example of such a diagram, please click <a href="#">Reconstruction</a> .
<b>Isostatic Rebound</b>	The rise of land masses after the retreat of ice sheets.
<b>JMP statistical software</b>	JMP is a suite of computer programs for statistical analysis developed by JMP, a subsidiary of SAS Institute. It was launched in 1989 to take advantage of the graphical user interface introduced by the Macintosh operating systems. "JMP" initially stood for John's Macintosh Project." "SAS" stands for "Statistical Analysis Software"; JMP is a wholly-owned subsidiary of SAS..
<b>Jomon Culture</b>	The earliest major culture of prehistoric Japan, lasting from c. 14,000 - 300 BC. The Jomon were the original aboriginal people of Japan. They are ancestors to the <a href="#">Ainu</a> , who have European-looking facial features and commonly curly hair. The Jomon culture is generally thought to have developed from the first pottery-making culture of Japan, called Incipient Jomon,. Most scholars also assume that the Incipient Jomon people were descendants of the local Upper Paleolithic people, not a new intrusive population.
<b>ka / kya</b>	<b>kilo (thousand) years ago</b>
<b>Kamchatka Penninsula</b>	The Kamchatka Peninsula is a 1,250-kilometre-long (777 mi) peninsula in the Russian Far East, with an area of about 270,000 km <sup>2</sup> (100,000 sq mi). The Pacific Ocean and the Sea of Okhotsk make up the peninsula's eastern and western coastlines, respectively. Immediately offshore along the Pacific coast of the peninsula runs the 10,500-metre-deep (34,449 ft) Kuril - Kamchatka Trench.  Click  for a larger view of this area.
<b>Katabatic Winds</b>	A drainage wind, which carries high-density air from a higher elevation down a slope under the force of gravity. Such winds are sometimes also called fall winds; the spelling catabatic winds is also used.
<b>Kelp Highway Hypothesis</b>	This hypothesis focuses on the "kelp highway", theorizing that the first human inhabitants of these lands were seafarers that migrated throughout the west coast of the Americas following nutrient rich kelp in the oceans, and from there spread throughout the rest of the lands.





To see a larger view of this hypothetical route, please click [here](#). See also [Pacific Coast Route](#). And see [Gyre Ocean Currents](#).


<b>Kennewick Man</b>	The name given a skeleton exposed by erosion in Kennewick, WA While there are several articles on the Kennewick Man in this website, we suggest you access <a href="#">Kennewick Man</a> in the FOSA website, where Dr. Douglas Owsley discusses his work on the Man's skeleton and the issues surrounding it.
<b>Kotovinas</b>	Filled animal and insect, crayfish, root, etc. burrows, often observed and documented in stratigraphic profiles at archaeological sites.
<b>Lateritic Soils</b>	Lateritic soils are highly weathered residual soils found in tropical and sub-tropical regions, formed as a product of the laterization of rock.
<b>Lineage ANA</b>	Ancient Native American
<b>Lineage ANE</b>	Ancient North Eurasian
<b>Lineage ANS</b>	Ancient North Siberian
<b>Lineage Big Bar Lake</b>	"Those who left Alaska gave rise to at least three genetically distinguishable groups: Northern Native Americans (NNA), Southern Native Americans (SNA), and a third group represented by the genome of a 5,600-year-old individual from Big Bar Lake [a lake in British Columbia, Canada]."
<b>Lineage NNA (or ANC-B)</b>	Northern Native American
<b>Lineage SNA (or ANC-A)</b>	Southern Native American
<b>Lineage: NAM</b>	First American
<b>LIS</b>	Laurentide Ice Sheet
<b>Loess</b>	In some parts of the world, windblown dust and silt blanket the land. This layer of fine, mineral-rich material is called loess. Loess is mostly created by wind, but can also be formed by glaciers. When glaciers grind rocks to a fine powder, loess can form. Streams carry the powder to the end of the glacier.
<b>LSRC</b>	Lower Salmon River Canyon
<b>LU</b>	Lithostratigraphic Unit
<b>Lunate</b>	A small stone artifact, that has a sharpened straight edge and a blunt crescent shaped back. A lunate object can be typically used as a decorative piece, a stone tool or even a transverse projectile point used in hunting birds. To see a larger view of a Lunate, please click  .
<b>Mal'ta Boy</b>	Scientists have mapped the genome of a four-year-old boy who died in south-central Siberia 24,000 years ago. The results provide a window into the origins of Native Americans, whose ancestors crossed from Siberia into the New World during the last Ice Age. They suggest about a third of Native American ancestry came from an ancient population related to Europeans.

<b>Mammoth vs Mastodon</b>	Please reference the attached article by Pamela Groves of the University of Alaska: <a href="#">Comparative Article</a>
<b>Manus</b>	The zoological term for the distal portion of the forelimb of an animal.
<b>Marmes Rockshelter Report critique</b>	A critical review of the <a href="#">Marmes Rockshelter Report</a> , presented for educational purposes.
<b>MASL</b>	<b>Meters Above Sea Level</b>
<b>Megafaunal Extinctions Periods</b>	The most recent fell between 18,000-11,000 years ago in South America, 30,000-14,000 in North America, and 50,000-32,000 years ago in Australia. These periods occur when the continents were first inhabited by humans, and when climate changes were occurring.
<b>Melanin</b>	A dark brown to black pigment occurring in the hair, skin, and iris of the eye in people and animals. It is responsible for tanning of skin exposed to sunlight.
<b>MIS</b>	<b>Marine Isotope Stages</b> are marine oxygen-isotope stages, or oxygen isotope stages (OIS), are alternating warm and cool periods in the Earth's paleoclimate, deduced from oxygen isotope data derived from deep sea core samples. Working backwards from the present, which is MIS 1 in the scale, stages with even numbers have high levels of oxygen-18 and represent cold glacial periods, while the odd-numbered stages are lows in the oxygen-18 figures, representing warm interglacial intervals. The data are derived from pollen and foraminifera (plankton) remains in drilled marine sediment cores, sapropels, and other data that reflect historic climate; these are called proxies. For additional information, please click <a href="#">MIS Stages</a> .
<b>Monte Verde Site</b>	Monte Verde is a Paleolithic archaeological site in the Llanquihue Province in southern Chile, located near Puerto Montt, Los Lagos Region. It contains two separate layers, the younger Monte Verde II, dating to 14,500 cal BP, and an older, much more controversial layer suggested to date to 18,500 cal BP. For a map of the Monte Verde site complex, please click <a href="#">Site Complex</a> .
<b>Morphometric analysis</b>	A quantitative measurement and mathematical analysis of landforms. It plays a significant role in understanding the geohydrological characteristics of a drainage basin in relation to the terrain feature and its flow patterns.
<b>mtDNA</b>	Mitochondrial DNA is the circular chromosome found inside the cellular organelles called mitochondria. Located in the cytoplasm, mitochondria are the site of the cell's energy production and other metabolic functions. Offspring inherit mitochondria - and as a result mitochondrial DNA - from their mother.
<b>Organelle</b>	A subcellular structure that has one or more specific jobs to perform in the cell, much like an organ does in the body. Among the more important cell organelles are the nuclei, which store genetic information; mitochondria, which produce chemical energy; and ribosomes, which assemble proteins
<b>Osseous Tools</b>	Bone tools.
<b>Pacific Flyway</b>	The Pacific Flyway is a major north-south flight path for large numbers of migratory birds in the Americas, extending from Alaska to Patagonia. Every year, migratory birds travel some or all of this distance both in spring and in fall, following food sources, heading to breeding grounds, or traveling to overwintering sites.  For a map of flyways in the U.S. please click <a href="#">here</a> .
<b>Paijan Projectile Point</b>	Lanceolate: have convex-sided bodies with a maximum width that is different from the base; the tip is very long, thin and sharp. Triangular: have "straight sides with a maximum width

that is located at the base of the body.



<b>Paleosol</b>	These are soils formed long ago that have no relationship in their chemical and physical characteristics to the present-day climate or vegetation. They represent former land surfaces and paleoenvironments, and as such have played an important role in Quaternary studies since the nineteenth century. Paleosols mark key boundaries within Quaternary sediments, including boundaries between glacial - interglacial cycles.
<b>Palimpsest</b>	Something reused or altered but still bearing visible traces of its earlier form. For a perhaps more meaningful description of palimpsests as relating to books and manuscripts, please click <a href="#">Sinai Palimpsests</a> in the "Related Websites" section of the FOSA website. The essential meaning is the same.
<b>PCR</b>	<b>Pacific Coastal Route.</b> A terminal Pleistocene route from Northeast Asia into the Americas. It is presumed to have been largely along shorelines, estuaries, littoral zones, river deltas, and coastal plains, where maritime peoples relied on coastal resources as the central focus of their subsistence economy. See also <a href="#">Kelp Highway Hypothesis</a>
<b>Pedogenesis / Pedogenic Alteration</b>	Soil formation, also known as pedogenesis, is the process of soil genesis as regulated by the effects of place, environment, and history. Biogeochemical processes act to both create and destroy order within soils. " <b>...genesis</b> ": a suffix referring to the beginning, development, or production of something.
<b>PFxx</b>	<b>Pit Feature xx</b> = local nomenclature used to specifically identify the feature. Features are usually some sort of pit into the ground. People used pits in the ground in much the same way that we use root cellars to store perishable items. Storage pits would have been used until they became infested with rodents and insects, and then were often used to dump trash.
<b>Pinniped</b>	The word 'pinniped' means fin- or flipper-footed and refers to the marine mammals that have front and rear flippers. This group includes seals, sea lions and walrus - animals that live in the ocean but are able to come on land for long periods of time.
<b>Population</b>	A group of people defined variously by shared genetics, ethnicity, linguistics, subsistence or socio-political traits.
<b>Proboscidean</b>	Proboscidea is a taxonomic order of afrotherian mammals containing one living family and several extinct families. First described in 1811, it encompasses the elephants and their close relatives. Proboscideans include some of the largest known land mammals.
<b>Proglacial Lake</b>	A lake formed either by the damming action of a moraine during the retreat of a melting glacier, a glacial ice dam, or by meltwater trapped against an ice sheet due to isostatic depression of the crust around the ice.
<b>Proximal</b>	Situated nearer to the center of the body or to the point of attachment to the body. Opposite of Distal.
<b>Quaternary Geology</b>	The study of the process and deposits that developed during the Quaternary, a period characterized by glacial-interglacial cycles.
<b>rc BP</b>	The raw radio-carbon date, uncorrected (see cal BP above).
<b>Recordation</b>	The act or process of recording something in the official records.
<b>Refugia: Lowland</b>	Lowland glacial refugia, unlike nunatak and peripheral glacial refugia, are found at low elevations rather than in mountains, situated beyond the limits of ice shields.

<b>Refugia: Nunatak</b>	A nunatak is a type of glacial refugium that is located on the snow-free, exposed peaks of mountains, which lie above the ice sheet during glaciations.
<b>Refugia: Peripheral</b>	Like nunataks, peripheral glacial refugia exist within mountain systems; they differ in that they are located at the borders of mountain systems.
<b>Saiga</b>	A species of antelope which during antiquity inhabited a vast area of the Eurasian steppe, spanning the foothills of the Carpathian Mountains in the northwest and Caucasus in the southwest into Mongolia in the northeast and Dzungaria in the southeast.
<b>Salkhit Woman</b>	The oldest hominin fossil found in Mongolia to date, a 34,000-year-old individual known as the Salkhit woman. Remarkably, the Salkhit woman inherited one third of her genome from Western Eurasia and also carried Denisovan ancestry.
<b>Sandur</b>	An outwash plain formed by meltwater from glaciers.
<b>Saqqaq Paleoeskimo</b>	The Saqqaq culture (named after the Saqqaq settlement, the site of many archaeological finds) was a Paleo-Eskimo culture in southern Greenland. Up to this day, no other people seem to have lived in Greenland continually for as long as the Saqqaq.
<b>Sessile</b>	Of, or pertaining to being permanently attached to the substrate or to the base, hence, not freely moving.
<b>Shovel-Shaped Incisors</b>	Shovel-shaped incisors (or, more simply, shovel incisors) are incisors whose <b>lingual surfaces</b> (the part of the tooth surface that faces the tongue, and is nearest to the tongue) are scooped as a consequence of lingual marginal ridges, crown curvature, or basal tubercles, either alone or in combination.  Click  for a comparative view of these two types.
<b>Stadial</b>	A stage in the development of a glacier, or a stage in a period of glaciation, when the temperature falls and more ice is formed.
<b>Stadial vs Glacial</b>	Generally, stadials endure for a thousand years or less, and interstadials for less than ten thousand years. Interglacials last for more than ten thousand and glacial for about one hundred thousand years.
<b>Steppe</b>	In physical geography, a steppe is an ecoregion characterized by grassland plains without closed forests except near rivers and lakes.
<b>Stratigraphy</b>	Studying the different layers of soil. An archaeologist will slowly dig down through these layers of soil to look for artifacts. As a rule, the deeper they dig, the farther back in time they go.
<b>Stratigraphy: Bio</b>	Biostratigraphy is the branch of stratigraphy which focuses on correlating and assigning relative ages of rock strata by using the fossil assemblages contained within them.
<b>Stratigraphy: Chemo</b>	Chemostratigraphy is the study of the inorganic/organic chemical variations within the sedimentary sequences, either based on the elemental or isotopic composition of the rock. It provides a useful tool for unconventional resource exploration and development.
<b>Stratigraphy: Chrono</b>	Chronostratigraphy is the branch of stratigraphy that studies the ages of rock strata in relation to time. The ultimate aim of chronostratigraphy is to arrange the sequence of deposition and the time of deposition of all rocks within a geological region, and eventually, the entire geologic record of the Earth.
<b>Stratigraphy: Geo</b>	One of two ways of classifying the earth's strata and the chronologies associated with it. Geostratigraphy, refers to the layers and sublayers of strata - the physical rock. The other method is Geochronology.

<b>Stratigraphy: Geo vs Geochronology</b>	Please click <a href="#">Strata and Chronologies</a> .
<b>Stratigraphy: Litho</b>	Lithostratigraphy is a sub-discipline of stratigraphy, the geological science associated with the study of strata or rock layers. Major focuses include geochronology, comparative geology, and petrology. In general, strata are primarily igneous or sedimentary relating to how the rock was formed.
<b>Stratigraphy: Magneto</b>	Magnetostratigraphy is a technique that uses the record of the polarity reversals of the Earth's magnetic field registered in sedimentary and/or volcanic rocks.
<b>Stratigraphy: Pedo</b>	Pedostratigraphy (soil-stratigraphy) can be defined as the study of the stratigraphical and spatial relationships and implications of surface and buried soils.
<b>Stratigraphy: Sequence</b>	Sequence stratigraphy is a branch of geology, specifically a branch of stratigraphy, that attempts to discern and understand historic geology through time by subdividing and linking sedimentary deposits into unconformity bounded units on a variety of scales.
<b>Subclade</b>	A subclade is a subgrouping in the haplogroups of the human genetic trees. This may be either the Y-chromosome tree or the mitochondrial tree. Subclades are more specific to a location or population group than the major branches (haplogroups).
<b>Swidden Farming</b>	Farming in an area cleared for cultivation by slashing and burning extant vegetation.
<b>Synchronic</b>	Concerned with the way in which something as it exists at one point in time. (contrast: <a href="#">Diachronic</a> )
<b>Taiga</b>	The taiga is a forest of the cold, subarctic region. The subarctic is an area of the Northern Hemisphere that lies just south of the Arctic Circle. The taiga lies between the tundra to the north and temperate forests to the south. Alaska, Canada, Scandinavia, and Siberia have taigas.
<b>Taphonomic Analysis</b>	Taphonomy is the study of how organisms decay and become fossilized or preserved in the paleontological record. There are five main stages of taphonomy: disarticulation, dispersal, accumulation, fossilization, and mechanical alteration.
<b>Technology / Technology Complex</b>	Similarities of industries between different sites within a region from roughly the same time period.
<b><i>terminus ante quem</i></b>	"the latest possible date" for something
<b>Tradition</b>	Similar subsistence practices, technology & forms of socio-political organization, spatially contiguous over a relatively large area & which endure temporally for a relatively long period, shared by a group of populations.
<b>Tundra</b>	The tundra is the coldest of the biomes. It also receives low amounts of precipitation, making the tundra similar to a desert. Tundra is found in the regions just below the ice caps of the Arctic, extending across North America, to Europe, and Siberia in Asia.
<b>Ust-Ishim Individual</b>	Ust'-Ishim man is the term given to the 45,000-year-old remains of one of the early modern humans to inhabit western Siberia. The fossil is notable in that it had intact DNA which permitted the complete sequencing of its genome, one of the oldest modern human genomes to be so decoded.
<b>Vertisol</b>	Vertisols are clayey soils that have deep, wide cracks for some time during the year. They shrink as they dry and swell as they become moist. The natural vegetation is predominantly grass, savanna, open forest, or desert shrub.

<b>Vole</b>	Voles are small rodents that are relatives of lemmings and hamsters, but with a stouter body; a longer, hairy tail; a slightly rounder head; smaller eyes and ears; and differently formed molars. They are sometimes known as meadow mice or field mice.
<b>WST Tradition</b>	<b>Western Stemmed [Projectile Point] Tradition</b> (of the Intermountain West). These projectile points are generally narrow bifaces with sloping shoulders, and many have relatively thick contracting bases (ref. images below). They were commonly made on flakes by broad collateral, midline, percussion flaking and finished by pressure flaking.
<b>Yana RHS Site</b>	The Yana Rhinoceros Horn Site is an Upper Palaeolithic archaeological site located near the lower Yana river in northeastern Siberia, Russia, north of the Arctic Circle in the far west of Beringia.
<b>yDNA</b>	YDNA is the DNA inherited by men from their fathers. It changes very slowly over the generations, so men have the same (or very similar) YDNA as their father, grandfather, great grandfather, and so on. YDNA can reveal deep geographic origins and genetic connections - much further back than autosomal DNA tests.