

Reading Glossary for:

Ross Andersen. "Welcome to Pleistocene Park." the Atlantic. April 2017.

(These words are footnoted in the reading.)

1. mammoth: noun: a large extinct elephant of the Pleistocene epoch, typically hairy with a sloping back and long curved tusks
  2. Siberia: noun: a vast region of Russia that extends from the Ural Mountains to the Pacific Ocean and from the Arctic coast to the northern borders of Kazakhstan, Mongolia, and China. Noted for the severity of its winters, it was traditionally used as a place of exile; it is now a major source of minerals and hydroelectric power.
  3. Arctic Circle: noun: the parallel of latitude  $66^{\circ} 33'$  north of the equator. It marks the northernmost point at which the sun is visible on the northern winter solstice and the southernmost point at which the midnight sun can be seen on the northern summer solstice
  4. larch: noun: a coniferous tree with bunches of deciduous bright green needles, found in cool regions of the northern hemisphere. It is grown for its tough timber and its resin (which yields turpentine)
  5. Pleistocene: adjective: relating to or denoting the first epoch of the Quaternary period between the Pliocene and Holocene epochs: *at the end of the Pleistocene era sea levels increased*. Pleistocene: noun: (the Pleistocene) the first epoch of the Quaternary period, between the Pliocene and the Holocene epochs, or the system of deposits laid down during it: *the glacial world of the Pleistocene was dramatically different from our own*. The Pleistocene epoch lasted from 2,640,000 to about 10,000 years ago. It was marked by great fluctuations in temperature that caused the ice ages, with glacial periods followed by warmer interglacial periods. Several forms of fossil human, leading up to modern humans, appeared during this epoch.
  6. geoengineering: noun: the deliberate large-scale manipulation of an environmental process that affects the earth's climate, in an attempt to counteract the effects of global warming
  7. geology: noun: the science that deals with the earth's physical structure and substance, its history, and the processes that act on it | geological: adjective: relating to geology: the geological features of an area: *the geology of the Outer Hebrides* | the geological features of a planetary body: *the geology of the surface of Mars*
- epoch: noun: *Geology*: a division of time that is a subdivision of a period and is itself subdivided into ages, corresponding to a series in chronostratigraphy: *the Pliocene epoch*
- chronostratigraphy: noun: a branch of geology concerned with establishing the absolute ages of strata
- strata: noun (plural strata): a layer or series of layers of rock in the ground

8. biome: noun (ecology): a large naturally occurring community of flora and fauna occupying a major habitat, e.g. forest or tundra
9. savannah: noun: a grassy plain in tropical and subtropical regions, with few trees
10. steppe: noun: a large area of flat unforested grassland in southeastern Europe or Siberia
11. tundra: noun: a vast, flat, treeless Arctic region of Europe, Asia, and North America in which the subsoil is permanently frozen
12. permafrost: noun: a thick subsurface layer of soil that remains frozen throughout the year, occurring chiefly in polar regions
13. accelerant: noun: accelerating or causing acceleration
14. aerosol: noun: a substance enclosed under pressure and able to be released as a fine spray, typically by means of a propellant gas
15. woo: verb: seek the favor, support, or custom of
16. predator: noun: an animal that naturally preys on others
17. cataract: noun: 1) a large waterfall; 2) a medical condition in which the lens of the eye becomes progressively opaque (not able to see through), resulting in blurred vision
18. subterranean: adjective: existing, occurring, or done under the earth's surface
19. taiga: noun (often **the taiga**): the sometimes swampy coniferous forest of high northern latitudes, especially that between the tundra and steppes of Siberia and North America
20. Eurasia: noun: a term used to describe the combined continental landmass of Europe and Asia
21. calamitous: adjective: disastrous: *such calamitous events as fires, hurricanes, and floods.*
22. feedback loop: noun: Feedback occurs when outputs of a system are routed back as inputs as part of a chain of cause-and-effect that forms a circuit or loop
23. apocalyptic: adjective: the complete destruction of the world
24. thermodynamic: Thermodynamics is the study of the relations between heat, work, temperature, and energy. The laws of thermodynamics describe how the energy in a system changes and whether the system can perform useful work on its surroundings. Thermodynamics is a branch of physics that studies how energy changes in a system. The key insight of thermodynamics is that heat is a form of energy that corresponds to mechanical work (that is, exerting a force on an object over a distance). vault: noun: a large room or chamber used for storage, especially an underground one. Thermodynamic vault: an underground chamber created by temperature difference between the air and the ground. The ground stores CO<sup>2</sup> because the ground remains frozen.
25. herbivore: noun: an animal that feeds on plants
26. cosmic rays: noun: Cosmic rays are high-energy protons and atomic nuclei which move through space at nearly the speed of light. They originate from the sun, from outside of the solar system, and from distant galaxies

27. CRISPR: acronym: (clustered regularly interspaced short palindromic repeats); noun: a segment of DNA containing short repetitions of base sequences, involved in the defense mechanisms of prokaryotic organisms to viruses; a genetic engineering tool that uses a CRISPR sequence of DNA and its associated protein to edit the base pairs of a gene
28. Hemoglobin: noun: a red protein responsible for transporting oxygen in the blood of vertebrates
29. tweak: verb: (informal) improve (a mechanism or system) by making fine adjustments to it
30. Yakutia: noun: an autonomous republic in eastern Russia; population 948,400 (est. 2009); capital, Yakutsk. It is the coldest inhabited region in the world, with 40 percent of its territory lying north of the Arctic Circle. Official name Sakha, Republic of. The **Yakutian** or **Yakut** is a native horse breed from the Siberian Sakha Republic (or Yakutia) region. It is large compared to the otherwise similar Mongolian horse and Przewalski's horse. It is noted for its adaptation to the extreme cold climate of Yakutia, including the ability to locate and graze on vegetation that is under deep snow cover,<sup>[3]</sup> and to survive without shelter in temperatures that reach  $-70\text{ }^{\circ}\text{C}$  ( $-94\text{ }^{\circ}\text{F}$ ). The horses appear to have evolved from domesticated horses brought with the Yakuts when they migrated to the area beginning in the 3<sup>rd</sup> century, and are not descended from wild horses known to inhabit the area in Neolithic times.
31. uterine: adjective: relating to the uterus or womb
32. biotechnology: noun: the exploitation of biological processes for industrial and other purposes, especially the genetic manipulation of microorganisms for the production of antibiotics, hormones, etc.
33. gestation: noun: the process of carrying or being carried in the womb between conception and birth
34. Locate Yakutsk on the map at footnote <sup>35</sup>.
35. Download the following [locations](#), and maps, and using the [labeled map](#), [locate the seas, lakes, rivers, countries](#) on the [blank map](#).
36. Stalin: noun: Joseph Stalin: ( 879– 953), Soviet statesman; general secretary of the Communist Party of the former Soviet Union 922–53; born Iosif Vissarionovich Dzhugashvili. In 928, he launched a succession of five-year plans for rapid industrialization and the enforced collectivization of agriculture. His large-scale purges of the intelligentsia in the 930s were equally ruthless.
37. gulag(s): noun: a camp in the Gulag system, or any political labor camp; Gulag: noun: a system of labor camps maintained in the Soviet Union from 1930 to 1955 in which many people died
38. Solzhenitsyn: noun: Alexander Solzhenitsyn: ( 9 8–2008), Russian novelist; Russian name Aleksandr Isaevich Solzhenitsyn. After spending eight years in a labor camp, he began writing. He was exiled in 1974 and eventually returned in 1994. Notable works: *One Day in the Life of Ivan Denisovich* (1962), *Cancer Ward* ( 1968), and *The Gulag Archipelago* ( 1973). Nobel Prize for Literature (1970).
39. geopolitical cachet: noun: geopolitical: adjective: relating to politics, especially international relations, as influenced by geographical factors; cachet: noun: a distinguishing

mark or seal. The cold and cruelty of Cherskiy is a reminder of the cachet of Stalin's prison system called the Gulag Archipelago, a system of labor camps (see above: gulag(s)).

40. Cherskiy: on the blank map above, also label [Cherskiy](#)

41. European Union: noun: an economic and political association of European countries as a unit with internal free trade and common external tariffs

42. National Science Foundation: noun: The National Science Foundation (NSF) is an independent agency of the United States government that supports fundamental research and education in all the non-medical fields of science and engineering. Its medical counterpart is the National Institutes of Health. With an annual budget of about US\$7.8 billion (fiscal year 2018), the NSF funds approximately 24% of all federally supported basic research conducted by the United States' colleges and universities. In some fields, such as mathematics, computer science, economics, and the social sciences, the NSF is the major source of federal backing.

43. tributary: noun: a river or stream flowing into a larger river or lake

44. IPA: noun: short for Indian pale ale: a type of light-colored beer similar to bitter, typically with a higher than average alcohol and hop content

45. cavernous: adjective: giving the impression of vast, dark depth

46. amenities: noun: a desirable or useful feature or facility of a building or place

47. philosopher: noun: a person engaged or learned in philosophy, especially as an academic discipline

48. science: noun: the intellectual and practical activity encompassing the systematic study of the structure and behavior of the physical and natural world through observation and experiment

49. rickety: adjective: (of a structure or piece of equipment) poorly made and likely to collapse

50. stratum: noun (plural **strata**): a layer or a series of layers of rock in the ground

51. geode: noun: a small cavity in rock lined with crystals or other mineral matter

52. prolific: adjective: (of a plant, animal, or person) producing much fruit or foliage or many offspring; present in large numbers or quantities; plentiful

53. enhance: verb [*with object*]: intensify, increase, or further improve the quality, value, or extent of

54. temperate-zone biomes: noun: a large naturally occurring community of plants and animals (biome) in a zone that is not too hot (torrid) and not too cold (frigid) (temperate).

55. microbial: adjective: relating to or characteristic of a microorganism, especially a bacterium causing disease or fermentation

56. constituent: adjective: being a part of a whole | noun: a component part of something

57. biped: noun: an animal that uses two legs for walking

58. bison: noun (plural **same**): a humpbacked shaggy-haired wild ox native to North America and Europe (also called buffalo)

59. contemplate: verb [*with object*]: look thoughtfully for a long time at; think about; [*no object*] think profoundly and at length; meditate; have in mind as a probable though not certain intention
60. musk ox: noun: a large heavily built goat-antelope with a thick shaggy coat and large curved horns, native to the tundra of North America and Greenland
61. exotic microbiota: noun: unordinary microorganisms; in this case, in the stomach of a musk ox
62. megafauna: noun: the large mammals of a particular region, habitat, or geological period
63. omnivorous: adjective: (of an animal or person) feeding on food of both plant and animal origin
64. resilience: noun: 1) the capacity to recover quickly from difficulties; toughness  
2) the ability of a substance or object to spring back into shape; elasticity
65. phylum: noun (plural **phyla**): a principal taxonomic category that ranks above class and below kingdom
66. Bering land bridge or Bering Strait: noun: a narrow sea passage that separates the eastern tip of Siberia in Russia from Alaska and links the Arctic Ocean with the Bering Sea, about 53 miles (85 km) wide at its narrowest point. During the Ice Age as a result of a drop in sea levels, the Bering land bridge formed between the two continents, allowing the migration of animals and dispersal of plants in both directions.
67. aphoristic: adjective: having the characteristic of an aphorism: noun: a pithy observation that contains a general truth, such as, “if it ain’t broke, don’t fix it.”
68. aura: noun (plural **auras** or **aurae**): the distinctive atmosphere or quality that seems to surround and be generated by a person, thing, or place
69. heft: noun: the weight of someone or something
70. matriarchal: adjective: relating to or denoting a form of social organization in which a woman is the head
71. pungent: adjective: pungent: adjective: having a sharply strong taste or smell
72. lucid: adjective: bright or luminous
73. John Muir: noun: (1838-1914), US naturalist, born in Scotland. An early advocate of wilderness preservation, he founded the Sierra club in 1892 and he is known as “father of national parks.”
74. Lazarus of Bethany: noun: a Biblical figure described as being raised from the dead