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This year marks the 150th anniversary of the discovery of Neanderthal bones in the Neander Valley near Düsseldorf, Germany. A recently issued stamp (Germany Scott 2388) commemorates the find by depicting a Neanderthal skull along with a view of the Neander Valley. Since the 1856 discovery, all manner of speculation about Neanderthal man and his relationship to modern humans has arisen. Who were the Neanderthal people? How did they get to Europe? Could they properly be called humans? Why did they differ so markedly from later Cro-Magnon man? What eventually became of them?

Three stamps from Gibraltar (Scott 296-298) show a Neanderthal skull, profile, and family. Low foreheads, heavy brow ridges, broad noses, and protruding jaws characterized Neanderthal faces. Neanderthals appeared about 230,000 years ago, evolving from a homo erectus population that migrated from Africa around a million years ago. Neanderthals were shorter and squatter than Cro-Magnon man and had barrellike chests. These characteristics stemmed from the fact that they lived in the Ice Age and needed physiques similar to modern Eskimos to survive. No one knows for sure how they reached Europe but, once there, the Neanderthal people ranged from Spain in the south to Britain in the north. They were in Europe only in very small numbers and they found their world a cold, inhospitable place.

In their struggle for survival, they invented fire to heat their hearths and fur clothing to protect against Artic cold. Two stamps from Palau (Scott 546 q and r) show a Neanderthal skull and a Neanderthal hunter dressed in fur clothing. The skin of deer and the wool of bison and mammoth were used to provide clothing as well as food to these hunter-gatherers of the Stone Age. Fur wraps for sleeping were essential in cold, drafty caves and fur-lined cloaks were required for venturing outside the cave in winter.

Bedding was created by placing additional furs over straw mats. Winter boots could be made from animal hides insulated with native grasses or rabbit fur and waterproofed with the fat from a wooly mammoth kill.

The tools of the Neanderthal people were knapped from stone and flint into useful items. A recent issue from Guinee-Bissau shows a Neanderthal man carefully examining the stones he is about to make into tools. The hand axe and spear were the mainstay of Neanderthal tool kits, but they also needed sharp knives for cutting, scrapers for cleaning and de-hairing animal skins, and awls for piercing hides. Some of the hand-held tools used by Neanderthal man appear on a souvenir sheet from Gabon (Scott 685.)

Evidence from Le Moustier, a Neanderthal tool-making site in France, suggests that Neanderthal tools were produced in certain areas, which may have been manufacturing complexes. From the Le Moustier site, we get the term "Mousterian tool tradition." Flakes of a predetermined shape could be removed from a single suitable stone and fashioned into cutting tools and weapons. Those that made tools had to be experts in the

properties, texture, and color of stone and flint. Toolmakers were no doubt highly regarded members of Neanderthal clans since success in dangerous hunts depended on the quality of their weapons.

Although most Neanderthals were cave dwellers, the search for food required their hunting parties to travel far beyond their home base. As they followed the herds, they erected temporary shelters of various kinds. Some of the oldest shelters utilized a grass or bark covering over a framework of mammoth bones. Others used a twig and branch framework overlaid by grasses and held down with boulders at the sides. The later type of structure is shown on a stamp from Palau (Scott 546j.) It also appears on a newly-released souvenir sheet from Malawi.

Neanderthal people almost certainly had a language, but there is dispute whether it was a vocal language or a series of sounds accompanied by hand gestures. Hunter- gatherers, organized into clans or tribes would have had need to communicate with each other. This was especially true in the midst of a hunt, when an entire clan would have to close in and kill a ferocious animal. Apparently, Neanderthals were unable to use projectiles and had to fight in close with spears. The coordination necessary from all members of the hunting party would have necessitated a language of some sort.

The wooly mammoth, shown on a first day cover franked by United States (Scott 3078) was the most prized of Neanderthal hunting trophies. The bravery and determination shown by Neanderthal people in confronting such gigantic behemoths with spears alone is truly remarkable. But strategic planning always preceded a hunt. The prehistoric hunters tried to corner large beasts in bogs, ravines, or closed-in places to give themselves a better chance to make the kill.

The wooly mammoth, if successfully hunted, could provide a Neanderthal clan with meat for several months. The fat of the beast could provide oil for a multitude of purposes such as waterproofing footwear, making salves and ointments, providing a dressing to cure hides and furnishing fuel for long-burning torches. The mammoth was a beast as valuable to people of the Stone Age as whales would be to the seafarers of historic times.

Once the mammoth was felled, imagine the teamwork required to butcher it, air-dry the meat, package up the enormous amounts of fat, and get everything loaded into woven grass or animal skin containers for transport back to the cave. A pair of se-tenant stamps from Jersey (Scott 666 and 667) shows a prehistoric hunting party returning to their cave with a mammoth carcass in tow. Most of the butchering and drying would be done at the kill site to lessen the load of the party on the return trip to the cave.

What did Neanderthal people do to combat illnesses and infirmities? Hunter-gatherers had a keen eye for medicinal plants found in the natural environment. They knew which plants or roots had narcotic properties to relieve pain, which could reduce fever, and which could aid digestion. Usually, a medicine woman was responsible for selecting these plants and roots and keeping them on hand in a medicine bag. Iza, the Neanderthal

medicine woman in Jean Auel's Clan of the Cave Bear had a medicine bag fashioned from the pelt of a beaver. Animal skin bags go far back in prehistory and were used for many purposes including cooking vessels, water bags, and tote bags. A modern day oxhide milk bag appears on Botswana (Scott 335.) Medicine women could pull teeth too and maybe even fill them. An astonishing article on Stone Age dentistry appeared in a recent issue of the Washington Post.

The Neanderthal people were the first to bury their dead. The use of red ochre played a prominent role in Neanderthal burials. Bones found at many Neanderthal burial sites were stained with the red pigment. It is unknown if this furnished evidence of some sort of body painting or whether a red wrap originally covered the body but disintegrated with time, leaving its color on the bones. Evidence of prehistoric pollen from Shanidar cave in northern Iraq indicated that Neanderthal people used flowers in burial rites.

What religious ceremonies, if any, took place at Neanderthal burials is a matter of speculation. A shaman or magician, acting as an intermediary between the clan and the spirit world, may have officiated.

Considering the cold and hostile environment that they lived in, Neanderthals exercised great stamina and ingenuity in just staying alive. Their short arms and squat bodies put them at a disadvantage in using projectiles which was not shared by their Cro-Magnon successors. Modern humans, migrating from Africa in a great wave around 45,000 years ago, were taller and had longer arms. They could use projectiles to kill ferocious animals at a distance. A cave painting of a javelin thrower is shown on Lesotho (Scott #62.) Projectiles diminished the threat to hunters from savage beasts which could kill or maul them, as they often did with Neanderthal hunters. This gave the anatomically modern humans a huge advantage in the struggle for survival.

What was the fate of the Neanderthals? Sad to say, extinction. But it did not happen precipitously. Two stamps from Cuba (Scott 3880 and 3881) show artist's depictions of Neanderthal and Cro-Magnon man. In many places, there was a period of thousands of years of seeming coexistence between the two groups. There was even a tool culture that seemed to combine Mousterian and Aurignacian (modern human) technologies in tool making. If the two groups lived side by side in Asia, Europe, and the Levant, as late as 30,000 years ago, what was their attitude toward one another? We probably will never know for certain. All we know is that modern humans started coming in record numbers. The Neanderthals, who were there only in small numbers, eventually disappeared.

What are some possibilities regarding the Neanderthal demise? The older culture may have been unable to adjust to rapid climate change. Neanderthals were Ice Age people who may have been unable to adapt to the onset of suddenly warmer temperatures. The newcomers from Africa may have brought with them new tropical diseases, to which the Neanderthals had no natural immunities, and led to their demise. The Cro-Magnons could have waged war against the Neanderthals, eventually exterminating them. The Cro-Magnons and Neanderthals could have lived side by side and interbred, absorbing the

smaller population into the larger. The recent discovery of a child's skeleton in a rock shelter north of Lisbon, Portugal is possible proof of the later scenario. The child showed both Neanderthal and Cro-Magnon traits. The find was described in the July/August 2000 issue of Archaeology magazine.

A new development may hold the key to discovering more about Neanderthals, their relation to modern man, and the mystery of their demise. At the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, there is an attempt afoot to crack the Neanderthal genome. Using a 38,000 year-old fragment of fossilized Neanderthal bone, scientists are trying to reconstruct Neanderthal DNA. If we can understand more about Neanderthal genetics, the scientists feel, we can know more about how modern man differed from Neanderthals.

Neanderthals and our human forebears started as equals hundreds of thousands of years ago but took different evolutionary paths. Then one group rose to global dominance while the other disappeared. Let's hope the research provides some answers to one of science's enduring mysteries.