

Program 10 - HOW MAN CONQUERED NATURE - November 25, 1940SOMETHING TO DO AND TALK ABOUT FIRST

There are incidents in the life of adults that stick in memory like burrs in fuzzy felt. In Ranger Mac's is the story of Juan and Juanita, which a teacher read to the school at such intervals as could be snatched during the school's busy day.

Juan and Juanita are captured by Indians. They are taken a long way from their home, but finally escape. They must feed themselves on the long trip back home. Part of their diet is wild turkey. What other things do you think they might have eaten? What would you eat if you were lost in the woods of Wisconsin?

Think of all the breeds of poultry you know. Do you know where the different breeds came from?

Make out a menu for a typical Thanksgiving dinner. Try to find out where each item comes from.

DO YOU KNOW THESE WORDS?

cmmor

developed

yield

LISTEN FOR THESE IDEAS

1. What is "cmmor"? Where does it grow today?
2. What are some of the important food plants that the white man brought to America?
3. What are some of the important food plants that the white man found in America, and later developed?

SOMETHING TO DO AND TALK ABOUT LATER

1. What are some of the ways in which plants have been made to yield larger and improved food crops?
2. Why are countries like Egypt, Chaldea, and Babylonia no longer rich and prosperous?
3. How important is the farmer in the development of a happy nation?
4. Compare the standard of living in our country with that of the old worn-out countries. What do you have that some of the children in these countries can't have?

Wisconsin School of the Air
Afield With Ranger Mac
November 25, 1940

HOW MAN CONQUERED NATURE

Hello Boys and Girls:

The subject for our trip afield today is "How Man Conquered Nature." Ranger Mac did not think deep enough about that title or he would not have used the word conquered. We do not like that word "conquered", especially these days; we know what it means. It suggests force, selfishness, destructions, without any thought of love and partnership. You cannot conquer nature, and still have an abundance in nature. Our dust storms, floods, eroded fields, barren lands, diminished wild life and flowers - all show as plain as A B C that you cannot conquer nature. How foolish it was of Ranger Mac to use that word. Where man has tried to conquer nature, he has suffered always. But where man has learned to understand the laws of Nature and worked with Nature, there Nature yields abundantly. You cannot change the laws of nature anymore than you can change the laws of mathematics, and arrive at the solution of the problem.

All of our Trailhitters have read the Ten Commandments; maybe some of you know them by heart. They were written by Moses, as you know. He watched the behavior of his people, noticed the things they were doing that spoiled their lives. If Moses could have seen far enough ahead to see the man-made deserts, the ruined civilizations the poverty and suffering of billions of people because man thought himself a selfish conquerer of land, forests and other natural resources, Ranger Mac thinks he might have ~~written~~ ^{added} another commandment, ^{to the ones the Lord gave him -} the 11th commandment, which might have read something like this:

"Thou shall use the holy earth as a faithful partner, conserving its resources and fertility from generation to generation. Thou shall protect thy fields from erosion, thy living waters from drying up, thy forests from destruction, thy hills from over-grazing, so that thy descendants shall have abundance forever. If thou

fail in this partnership, thy fruitful fields shall become stony ground and wasting gullies, and thy descendants shall live in poverty and want."

That's about the way the 11th commandment would have read, and it shows that man should think of himself not as a conquerer of, but as a partner with, nature. So Ranger Mac wants to change the title to read "Man's Partnership with Nature."

This partnership with nature started way back before history was written history, when man with shaggy, uncut hair and hairy body, killed other animals for food and ate them raw, when he ate wild nuts, fruits, seeds and roots. He had no great teeth like a lion or a tiger. He could not run like a rabbit or a wild horse. He could not leap like a panther. But he had a thumb. Without that thumb he would have been helpless among those creatures. Try to grasp anything without using your thumb and you will discover how very important the thumb is. With thumbs set opposite the fingers, he was able to protect himself with weapons, shelter, clothe and feed himself, and use implements of his own manufacture to build and dig.

But man is not the only animal that possesses a thumb. The apes and monkeys also have thumbs opposite their fingers. They, too, can handle sticks and stones. But the smartest monkey in all the world could not make a spear out of a stick. So man's ability to use the things of nature has come not from a stranger body but from a better brain. The mind of man is the most powerful thing in the universe.

Man's first and greatest partnership with nature came in the use of the fire. Almost everything we have and use and do is made possible because man and fire are partners. Without fire we could have no steam or electricity, and there would not be a factory or railroad in this world. We would not have so much as a hammer or knife, for we could not work metals without fire.

Fire must have come first from lightning. A lightning flash set a dry tree on fire, and then through the forest roared a great fire. After the fire had roared itself away, some man or woman found the body of an animal cooked. They ate it, and liked it better than raw meat. Then they found that the remains of the fire kept them warm at night, gave them light in the dark and frightened away other animals. So they learned to cherish the dying embers, and kept the fire alive, for they had no other way to light it again.

Right here the difference in the work of man and woman began. When it became important to preserve the fire, it was woman who was left to do it. She was not as good a hunter as man, and she was hampered by children who clung to her. So she stayed behind to tend the fire and her children. It was difficult to carry fire long distances without its going out, and so the family became attached to one spot. The hunter roamed the forest and came back to his fire and family - and home as an institution was started. So the fire came to stand for home, with woman the tender and guardian of the fire. Next, man discovered how to produce fire. Either by chance or by reasoning it out, he discovered that by rubbing two sticks of wood together long enough and hard enough, fire could be produced. Boy Scouts do this now as a part of their program in woodcraft. That was a wonderful discovery, as important to early man as steam or electricity is to us.

So you see how woman became the homemaker. In this partnership with nature, she became the first harvester, the first storer of food. She collected the wild fruits, nuts and roots, and learned how to store them for winter. She dried berries. It was a great step in this partnership with nature to preserve food.

Woman was the first miller. She invented the mortar and pestle. She looked around until she found a stone that had a hollow on one side. In this hollow she placed the seeds of wild grain and then crushed them with another stone. This meal mixed with water, baked over fire, became the first bread, with woman the breadmaker, just as she has always been.

Among these early peoples, woman was the first cook, as she has

always been. The first cooked food was the roast. The piece of meat was hung on a stick before the fire and turned around to cook each side, or it was wrapped in leaves and laid among the hot ashes. She made delicate cookery, too. She boiled wild fruit with flour and honey, to make a sort of fruit pudding.

You have heard about "Unleavened bread" that the Bible speaks about. Unleavened bread is heavy bread without the many thousands of little holes in it to make it light. We make light bread by means of yeast. But primitive women in the forest never discovered how to make light bread.

Woman was the first salt maker. She boiled salt water in great stone pots till the water was all gone, and the salt was left in white crusts.

Woman was the first curer of meat. When the man killed a deer or a buffalo, and the meat could not all be eaten fresh, she learned to cut it in long strips and dry it in the sun. Then she would beat these dry strips with a stick into a powder. Then she would crush the large bones of the animal with stone hammers, pick out the marrow inside the bones and melt it. Then she would pack the powdered dried meat in a long sack made of animal hides, pour the melted marrow over it, and close the sack. This kept a long time. The indian women made great quantities of this, and when our soldiers first went out upon the western plains to fight the Indians, this food, called "pemmican" was served as rations to the soldiers.

Woman was the first farmer, the first gardener. She had to wander far and wide to find the fruits and seeds she wanted. She learned she could plant them near the hut. Then she found that by stirring the ground around them, she could make them grow better. So she invented a sort of hoe. When David Livingston explored the heart of Africa, he found women using a two handled hoe which they dragged between the rows to cultivate them. This was a partnership with nature that was the beginning of our modern agriculture.

We have seen how the early savage woman gathered wild grains and ground them between stones to make meal. Then we have seen how she made the

first little garden, and dug around the plants with a little stick to make them grow. And as man cultivated these wild plants and kept other weeds away, they grew larger and better and became different plants from the wild weeds from which they came. So all of our main crops and vegetables - wheat, oats, barley, rye, corn, potatoes, peas, beans, tomatoes, all of them were once wild plants; and all of them still grow wild in some corner of the world. For instance, on the rocky hills of Palestine, where Jesus lived, grows a wild wheat called emmer. All the cultivated wheats probably came from this wild plant. Grains of this wild plant were found in the wold Egyptian tombs which were closed six thousands years ago. So these early people became botanists to a degree that we seldom realize. For instance, our Indians developed beans, potatoes, and sweet potatoes, which with corn make four of the leading foods of the world. To these we could add peanuts, squash, pumpkins, chocolate, peppers, pineapple, and sunflowers. When the white men came to America in the early days, they brought with them the seeds and roots of plants growing in their native countries, and they brought with them their domesticated animals. They found this continent well adapted to both the plants and animals, and so now we have the vast herds of sheep and cattle, and the vast fields and orchard filled with wheat and apples, apricots, pears and figs.

And likewise, some of the plants which the white man found here he took back with him. Corn was one of them. Corn was an American weed which grew wild in Guatamala. With painstaking care, extending thru many centuries, the Indians developed a fairly good size ear and stalk. And so Indian corn or maize became the main crop of the Indians, and the Indians' chief gift to agriculture of the world. Columbus took the Indian corn home with him to Spain, and since then it has spread all over the world and forms the principal foods of many countries. Before the discovery of America no white man had smoked. Tobacco is a native American plant, and the Indians understood its use and smoked its dried leaves, but now tobacco is grown in most of the warm countries of the world.

And so it is with all the cultivated crops. Whatever man finds that is good to eat or to feed to animals, he tries to grow in his own country. In that way the great staple foods of mankind are now grown all over the world. Potato, found as a weed on the plateaus of South America, has become one of the main foods of the world. Rice, which first grew in the East India islands, is now one of the great crops of our southern states; and corn which is an American plant, is today one of the principal foods of India.

The next great step in man's partnership with nature was the taming of wild animals. The dog was the first animal domesticated. The first dogs came from jackals. Children probably got hold of little jackal cubs and raised them to be pets. When grown these jackals would follow the hunter in his hunts. So man got his first animal helper, the hunting dog. Next came the cat, which became so useful and important in guarding the winter stores of grain from mice that the Egyptians made the cat a part of their religion, just as fire became a part of the religion of the Romans. Next came the horse, first tamed in eastern Europe - the noblest and most intelligent of all man's burden bearers.

And so the story goes of man's partnership with nature. It was not a conquest but an understanding, learning the laws of nature and then following those laws to bring plants and animals to man's use. It took centuries to make what we might call a most simple accomplishment, but with each accomplishment this early man developed the ability to form new partnerships with nature, to use metals in forming tools, to use the winds to sail his boats, to grow animals for meat instead of the uncertainty of hunting it, to make his own cloth from the wool and hair of animals. And so step by step he learned to make machines, first operated by animal power; then he learned the power of steam and how to harness it; then electricity.

So today we talk in terms of calories, vitamins, hybrids, radio, auto, traitors, airplane, television, refrigerators, movies, insulation, and a hundred other accomplishments, all our heritage with most of it done in the last fifty

years, but with humble beginnings buried in the deep, deep past; ours to enjoy
because:

Man was given a superior brain, capable of thinking.

A soul capable, even in their crude state, of hoping and loving.

A yearning for things that would reduce drudgery

And bring comfort, convenience and pleasure;

and because he was given two honest hands with thumbs opposite the fingers.

Good Bye and

May the Great Spirit

Put Sunshine into your Heart

Today, and forevermore

HEAP MUCH!