

Institute for Christian Teaching
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**STUDYING NOAH'S ARK:
A TEACHING STRATEGY FOR A SCIENCE AND
RELIGION COURSE**

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"Anyone who comes and listens to me and obeys me is like someone who dug down deep and built a house on solid rock. When the flood came and the river rushed against the house, it was built so well that it even did not shake. But anyone who hears what I say and doesn't obey me is like someone whose house wasn't built on solid rock. As soon as the river rushed against that house, it was smashed to pieces."

Luke 6:46-49

"He who has a knowledge of God and His word through personal experience has a settled faith in the divinity of the Holy Scriptures. He has proved that God's word is truth and he knows that truth can never contradict itself. He does not test the Bible by men's ideas of sciences; he brings these ideas to the best of the unerring standard."

Ellen G. White, *The Ministry of Healing*, p. 462

INTRODUCTION

As we all know, there are two kinds of learning: Learning by memory (also called learning of facts and information), and significant learning (also known as learning of concepts). One of the biggest problems found in learning is that many teachers want their students to learn concepts, but later they find the students are only learning literal information that is meaningless to them; information that they will forget over time. For the educator, this is obviously frustrating, since the level of what is remembered of information which is not learned reflectively is almost zero. In a year, 50 % is forgotten; after two years, this rises to 90%.

Since a Christian teacher should be concerned with integrating faith in the teaching-learning process, it must be troubling when the students so easily forget those points which are important to their spiritual life. For that reason, the teaching and learning of Biblical concepts cannot be left to simple memorization, without students finding personal meaning in them. That is why we believe that significant learning is the best way for students to become acquainted with the concepts we wish to teach them.

In general, the requirements for learning concepts are much more demanding than are the required conditions for memorization. In other words, understanding is much more complex than memorizing.

Among the various conditions required for significant learning is the quality of the learning materials to be used. To be understood, they must be well organized—not simply an arbitrary list of contrary elements. Only those materials which are well organized can be understood, so each section of the material must have a logical connection with the other parts.

Another condition for significant learning is giving students the opportunity to relate their learning to the structure of knowledge that they already have. This previous knowledge must be taken into account if we want to create new knowledge. We must not forget that the students themselves have built that internal knowledge. It has been created spontaneously from their interaction with the world, and is quite stable and resistant to change, often persisting even after many years of study. Sometimes students come to our institutions with specific ideas, and despite their academic instruction, after they have passed all the examinations, they forget what we taught them, and still retain their own concepts. We have wasted our time.

In order to avoid superficial techniques based on fundamentally memoristic learning and to try to arrive at significant learning, classroom activities should be organized as effectively as possible. Let us not forget that in significant learning, the conditions imposed by the materials and the conditions arising from the students themselves make the structure of teaching activities for the understanding of concepts much more demanding than that of memoristic learning.

One of the most difficult jobs for our teachers in any of our Seventh-day Adventist institutions is to help students learn to trust the Bible. This is why we believe significant learning methodology is very useful. This kind of learning takes more time than traditional methods. It does not allow time to teach many subjects, but since it comes from a reasoned faith, its results are more effective and lasting, coming from a rational approach to the study of the Scriptures.

Remembering Jesus' well-known words in the parable about building a house upon a rock or upon the sand, as it is expressed in the Gospel of Luke, Christian educators should help students to build their "house" of knowledge upon the rock, that is, God. *"He (God) is the Rock... You turned away from God, your creator; you forgot the Mighty Rock"* (Deut. 32: 4, 15, 18, 31). *"Only You, Lord, are a Mighty Lord! Don't refuse to help me when I pray"* (Psalm 28:1).

We must study the best educational strategies to be used with our students, so that we can help them to develop a strong and solid faith that will enable them to endure the difficult moments they may encounter later.

In Matthew 7: 24-27, where we find the same parable, Jesus calls the ones that build their houses upon the sand foolish men, and the ones that build their houses upon the rock wise men. We must become "wise" teachers; we must encourage critical thinking and solid learning, so that students will acquire the concept of confidence in the Bible.

It is interesting that the parable makes reference to digging in order to lay the foundation upon the rock (i.e., God). The same must be done with Bible study. It must be treated as seriously and rigorously as possible. That is why we propose a methodology for significant learning in which the students can have a "personal

experience” that help them to “prove that God’s word is truth and to know that truth can never contradict itself” (*The Ministry of Healing*, p. 462).

Let me illustrate with a story. A student once said that he believed in the theory of evolution. When asked why, the only reason he was able to give was the testimony of an old teacher of his, who had presented a great number of reasonable arguments supporting evolution. While unable to remember any of these arguments, the student remained impressed by the strength of his teacher’s presentation, which had convinced him that evolution was an undeniable fact. That memory kept him tied to a belief in evolution. He did not know how to explain the theory, but he was convinced that it was true.

If we want our students to trust in the Bible (this is a concept in itself) without questioning the truth of what they are reading, wondering if the events really happened as they are written or if the Bible statements are only myths and traditions of the past, in class we should present some examples of serious scientific research done by creationists. We should show how we can make a science out of Bible statements. It is also possible to show students how hypotheses can be formulated and models can be built on the basis of what revelation says.

It seems that in our classes too much time is devoted to evolutionary theory while too little time, consideration, and attention is given to the Bible. We think the emphasis should be the opposite. We should show the scientific depth of simple Bible statements so that, correctly understood, they can be used as a trampoline for serious research projects.

Obviously, there are other valid and feasible examples that can be developed in class, but the study of Noah’s Ark is a good subject for carrying out this kind of educational experience. Noah’s Ark is a clear example of those Bible stories that make the Bible seem a little unbelievable. These stories appear to defy the doctrine of the Bible’s infallibility, because when we read them, many questions and doubts appear.

This subject was presented in Science and Religion classes, to both upper-division high-school students (16 year-olds), and also to college Freshmen. Once this subject has been introduced, students can be asked to choose a Biblical theme related to the class and to develop it in the same way. This stimulates Biblical research.

To present a subject like Noah’s Ark, it is wise to divide the class into small groups so that they can do research on the questions that come up during the study. There are two possibilities: either all groups work with the same questions, or each group has a different question. In the first scenario, each group presents their results (on the chalk board, for example,) and they compare their results, which often starts discussions which can be very informative. In the second case, each group researches a different question, and afterwards presents their findings to the whole group, which is also very interesting.

GENERAL OBJECTIVES OF THE STUDY OF NOAH'S ARK

When studying Noah's Ark, there are several general objectives which should be kept in mind throughout the process:

1. **To motivate the student to do research on the Bible, so that he can get acquainted with an exciting book.**
2. **To enable the student to have a personal experience with the Bible so that he will see for himself that God's word is a source of reliable information.**
3. **To verify how the Bible, without being a scientific treatise, represents a basic and simple outline upon which we can build human knowledge.**
4. **To acquire the appropriate hermeneutic tools for Biblical research, in order to arrive at an appropriate understanding of the inspired text.**
5. **To become acquainted with Biblical information related to the proposed subject.**

Each of the major sections into which the subject of the Ark has been divided will be presented with statements that motivate students to research and reflect. These statements will be presented as more specific objectives, in addition to the general objectives stated above. Each of these specific objectives will have its own commentaries.

God as architect of human projects

Objectives:

- To study events in the Bible in which God acted as architect
- To clarify that God is the one who designs the Ark; Noah is only the builder.

Comments:

There are not many cases in the Bible in which God is presented as the architect of human activities. Two such instances are highlighted:

1. The sanctuary was given to Moses and the children of Israel, to be built according to plans designed by God Himself (Ex. 25, 26, 27, 30:1-6,17,18).
2. The Ark was given to Noah to be built according to the instructions which God, acting as architect, showed him (Genesis 6:14-16). Ellen G. White (1985) tells us that "God gave Noah the exact dimension of the Ark and explicit directions in regard to its construction...God was the designer, and Noah the master builder" (p.91).

In the first case, we are given many details about the structure and design of the sanctuary. In contrast, the second instance is much more difficult, because the Bible contains little information about the Ark.

The Purpose of the Ark

Objectives:

- To present in class the purpose of an Ark, rather than some other means of salvation, such as, for example, the building of a subterranean refuge.
- To reflect upon the importance and transcendence of the Ark as a testimony of the existence of a universal flood, and not a localized one as it is generally interpreted. Would Noah have worked 120 years to prepare for a localized flood?

Comments:

The construction of the Ark clearly demonstrates the idea of a universal flood. It would not make sense to spend 120 years constructing such a huge Ark for a local flood. Noah and his family could have escaped merely by leaving the vicinity. It also would not have been necessary to shelter within the Ark a specimen of each kind of animal in existence.

In the story of the destruction of Sodom and Gomorrah (Genesis 19), we know that it is talking about a very specific place. Lot did not have to build a bunker. It was enough to remove Lot and his family from that city. The same is true with Noah. If the flood had been a localized event, it would have been enough to take him and his family away from that area. The construction of an Ark is a good testimony of a universal flood.

The Design of the Ark

Objectives:

- What material was used in the construction of the Ark?
- Which kind of waterproofing was used?
- What about its size?
- What was its outer structure or design?
- How was the inside space distributed?
- How many exits did it have?
- What level of technology did it present?

Comments:

1. Material of construction: Genesis: 6:14

Type of wood: *Gopher* (of uncertain meaning).

It seems that the Hebrew word *gopher* comes from the old Sumerian term *giparu*, a tree that has not been identified with certainty. The ancient Egyptians built their large boats with cedar. Some commentators have

suggested that gopher wood could be boards of coniferous trees, such as the cedar and the cypress. Since these trees have a good deal of pitch, they would be ideal for such a use. This is a hard, light wood that is very resistant. “The material employed in the construction of the Ark was the cypress, or gopher wood, which would be untouched by decay for hundreds of years” (White, 1985, p. 91).

2. Kind of waterproofing: Genesis 6:14

Insulation employed: *Kopher* (tar, pitch, fish).

The word translated as “pitch” has a Babylonian origin, and it means “tar” as well as “pitch.” Such materials have been found in Mesopotamia since antiquity and have been used to caulk ships. The Ark was protected from any water seepage by a double layer of tar, both inside and out.

The word *Hemar*, translated as “tar,” is used in Genesis 11:3 and in Genesis 14:10. This tar is a pasty residue obtained from the distillation of wood, and especially pitch-coal pitch. In woodworking, it is a mixture of pitch, fish, tallow and fish oil used to caulk and paint lumber and riggings. How could this tar come from petroleum, which resulted from the burial of trees and animals in the flood? Students can research the possibility of the existence of non-fossil tar as the vegetable tar obtained from dry distillation of wood.

3. Measurements: Genesis 6:15

The measurements of the Ark were 300 x 50 x 30 cubits. What is the modern-day equivalent measurement of a cubit? Finding the answer to this question is an activity students may do at home.

In that time, there were many kinds of “cubits”: the Babylonian cubit—48.5 centimeters; the short Egyptian cubit—44 centimeters; the long Egyptian cubit—51.5 centimeters; the short Hebrew cubit—43.7 centimeters; and the long Hebrew cubit—51.6 centimeters.

Since we do not know which one was employed in the above-mentioned text, we will use the cubit of 45 centimeters, which is neither the biggest nor the smallest. The sizes of the Ark then would be: length—135 meters; breadth—22.5 meters; height—13.5 meters.

It would be good for our students to compare these measurements with some familiar human construction, such as a soccer field, which is known by the majority of the students. For example, the Ark measured 135 meters: a soccer field is 120 meters long.

4. Exterior design of the Ark

We do not know much about the exterior design of the Ark. Many witnesses who claim to have found it give specific descriptions. Unfortunately, because these descriptions do not agree, we need to be careful about what we believe. Nothing would make us happier than having found it and being able to know how it was, but after analyzing all of the supposed sightings, it seems that none of them are true. In class we could comment on the sightings, but maybe we shouldn't go much further than that.

Evidently, the Ark did not look like present-day boats. It was rather a big floating house without a keel, mast, sail, oars, or a rudder. It was not made to sail, but to float until the water went down. It did not have much mobility, but it would not sink easily. It had a great capacity for transporting a heavy load. Experiments with scale models have shown that the Ark had a loading volume superior to ships with curved lines. The stability of such a ship increases as the ship submerges. The lower the center of gravity, the more difficult it is to sink.

5. Distribution of the internal space: Genesis 6:14

5.1. Number of floors.

We have very clear information from the Bible and also in Ellen White's writings regarding the number of floors in the Ark. We know that the Ark was three stories high, but we do not know the height of each story. If the Ark was 13.5 meters high, each story would be about 5 meters. They were not necessarily this height; in fact, each floor could have had a different height according to its requirements. If the first story, for example, was for the mammals, with the biggest species being the giraffe or the elephant, it would have to have been higher than the stories housing the birds, reptiles or amphibians. In any case, the stories must have been quite high, so that the animals could have enough air to breathe. Because of the height of the stories, some people conclude that the human beings of that time were very tall. Genesis says that there were giants before the flood (*nephilin*), but it doesn't say how tall they were.

We do not know how the different floors were connected: Were there stairs, ramps, or freight elevators? We do not know.

5.2. The compartments

The Bible uses the Hebrew word *quinnim* (compartments) to describe the distribution of the Ark's interior. We do not know the size or layout of the compartments: anything we say about it is pure speculation. Sometimes speculation is beneficial so that the studied object appears more real to us. Of course, this must be done with prudence and humility.

We would like to be able to answer the following question: How were the animals distributed in the Ark? The only thing we can say—and this is also an assumption—is that Noah might have taken into account three things:

1. The amount of air existing in the Ark.
2. The relationship between the animals.
3. The animals' sizes so that there was enough room for everybody.

With respect to the first point, the stories housing the animals must have been high enough to contain an adequate amount of air; perhaps five meters.

We do not know the arrangements or layouts of the compartments. The Ark may have resembled a zoo in many aspects, with compartments and cages. The big animals would have reached the roof. The cages of the small ones could be placed in stacked layers in order to utilize the space most efficiently.

It is probable that the existing relationships between the animals were respected. Herbivores and carnivores, for example, were not placed in the same compartment, because such an arrangement would have had disastrous consequences. However, the compatible species could have been placed together, as is done in modern-day zoos.

6. Openings to the exterior (doors and windows) Genesis 6:16

6.1 The door

According to the Bible and Ellen White's writings, the Ark had only one door, which was on the side. Noah could not open or close it from the inside. An angel of God was in charge of closing it when everybody had gone inside, and then opening it at the end of the flood. The opening of that huge door was necessarily beyond the will of man, because, among other reasons, the occupants of the Ark, more than once, would have been tempted to open it, endangering their lives. Remember that the antediluvian men tried to break down the door to escape the onset of the rain. There was a possibility that Noah, hearing the frantic screams of his fellow men, might have opened the door, jeopardizing the security of the Ark and interfering with God's direct order that the opportunity for salvation had already passed. Ellen White comments on Genesis 7:16, "And God closed the door" in her book *Patriarchs and Prophets* (1985, pp.89, 98-99).

6.2. The windows

Tsohar (sohar). Genesis 6:16. This word is mentioned in the description of the Ark. Its possible meanings are skylight, covering or roof, light opening, light hole and Ark ventilation. It may also be translated as "window," but this is a doubtful translation. The translation "covering," as is found in the Jerusalem Bible, seems to be the best one, but our knowledge here is limited. Whatever its meaning, the light came from overhead (like a skylight) to illuminate the Ark. Ellen White says that "the light was admitted at the top, and the different apartments were so arranged that all were lighted (White, 1985, p. 91).

The command to "Make a roof and finish it to a cubit above" is difficult to interpret. If the word *Tsohar* means "light opening," perhaps the expression makes reference to a kind of railing work, placed a cubit away from the upper part of the Ark. This would allow the entrance of the light. What we do know is that Genesis says there was a cubit between the roof and the upper part of the walls.

Jallón. Genesis 8:6 ("hole," "opening"). This word makes reference to the window opened by Noah to send the raven and the dove. This window was totally different from the *tsohar* mentioned above. *Jallón*

was a kind of window that could be opened and closed, possibly situated in the compartment where the people lived.

Jeseh. Genesis 8:3 (“roof, covering”). Noah had to open this to see the surface of the ground. Ellen White does not say much about this: “There were no windows on the sides of the Ark. It was three stories high and the light was admitted at the top” (White, 1945, p. 6-7).

In any case, remember that the antediluvian men tried unsuccessfully to enter the Ark. So, even though the *isohar*, the *jallón* and the *jeseh* could be opened from the inside, they were made in such a way that nobody could enter the Ark from the outside.

7. The Antediluvian level of technology

This is one of the most difficult points to analyze. The Bible is not very clear regarding this subject, and we have very little information regarding the technological level of the antediluvians. But if they were intelligent, and they lived for many hundreds of years, their cultural development should have been significant.

Generally, as we move back in history, we tend to think that human beings were not as developed culturally and technologically. We envision human history as steadily advancing in knowledge, culture, and technology, with increasing complexity. This is true in many instances, but not in others. Of course, the antediluvian era was a clear exception. In 2000 years of existence, they may well have developed a cultural and technological level we do not suspect. Since Noah and his family could not take anything with them when the flood came, however, we can say that the flood ended that technological era. If a similar catastrophe occurred today and some of us were saved, how much of our culture and technology would we be able to transmit to our descendants? Would we know how to make a simple match? a telephone? a car? a radio? In a totally destroyed world, we would restart with something like a primitive era. Possibly we would not know how to make clothes, or to start a fire. This is the explanation that we give for primitive man as presented by the theory of evolution.

When we see movies about Bible stories, such as “The Bible,” and we contemplate their portrayal of the Ark and the flood, we feel like crying at the misrepresentations. We know that if we had seen the actual Ark, we would be amazed at the technological level of its construction. For this reason we recommend that such movies not be shown in class, since they present a false image of the past, and they do not help students to know the Bible.

Because we do not know the abilities of the antediluvians, we should not take a position about this subject in class. For example, some people say that the antediluvians had developed electricity, because an artifact something like a battery has been discovered. But if we want to put the Bible account in good standing, we should be cautious and prudent with our students at every moment, even with well-intentioned conjectures

that are intended to support the Bible.

Ellen White, however, (1985) gives us useful information about the antediluvian world that can help us to understand the cultural and technological level of that time. See *Patriarchs and Prophets*, p. 69-79.

How long it took to build the Ark

Objectives:

- How much time did it take to build the Ark?

Comments: Genesis 6:3

There was sufficient time to construct the Ark. There were 120 years after God's initial announcement of punishment. We do not know if all of that time, or just part of it, was employed in the construction of the Ark. The Bible does not enlighten us, and the story of the construction of the Ark has not been preserved or has not been written; we do not have it.

All we know about this period of construction is what Ellen White (1985) tells us in *Partriarchs and Prophets*, p.91, 92, and *Spiritual Gifts*, chapters 7 and 8.

The cargo of the Ark

Objectives:

- What can we say about the feeding of the animals throughout the whole year they spent in the Ark? How was the food preserved?
- What can we say about the origin and preservation of live plants?
- Did all the animals fit in the Ark? Did all the people fit? What animal species entered the Ark?
- How many individual animals of every species entered the Ark?
- What can we say about the people who were chosen to be the parents of all human beings?
- What tools did Noah and his family take with them?

Comments:

1. Food for the living creatures

"The ark was finished in every part as the Lord had directed, and was stored with food for man and beast" (White, 1985, p. 94). "Noah had laid in store immense quantities of food for man and beast" (White, 1945, p. 67).

How did they preserve the food? Did they cure it with salt? Did they freeze it? Did they dry it? The Bible does not tell us what they did to preserve the food. This fact, however, should not make the story appear unbelievable. Surely they had some system of preserving food.

2. Seeds or plants.

Students in “Science and Religion” classes can look for the origin of some fruit trees in agriculture books. They may see that many of these trees come from the region of Ararat. We know that Noah planted a vineyard.

3. The animals

This is one of the most difficult points to explain because of its complexity. After examining it from different angles, we have found one explanation that seems to be the most useful. Because of its size, the explanation of such a subject goes beyond a paper like this, in which we only offer some brief suggestions that can be useful for any teacher who wishes to carry out this experience. Here we will present only some short comments on those parts we want to highlight.

3.1 What animal species entered the Ark?

3.1.1 What are species? (Concept of species)

We have found that our students, and lay persons in general, do not know anything about the concept of species, without which it is impossible to understand this section. It is therefore worthwhile to spend time in clarifying the concept.

3.1.2 Review of the species that exist today

Interesting results are obtained when the class is given a brief review of the animal species we know today. The objective is to make the students realize that not much room is necessary to fit those species into the Ark. On the one hand, if we want to prove this, we must take into account the current marine species that obviously did not need to enter the Ark. On the other hand, we should also take into account the huge quantity of small-sized land species, such as the insects, that would have occupied very little space.

If we make a short review of the zoological scale, knowing there is a great disparity of opinions regarding this aspect, we can say that there are 500,000 vegetable species and about 1,000,000 animal species on Earth. The percentage of distribution by means of zoological groups is 94.7% for the invertebrates and protozoans (insects—73.5%; arachnids, crustaceans and myriapods—6%; mollusks—9%; worms—2.5%; the rest of the invertebrates—1.7%; protozoans—2%); and 5.3% for the chordates (vertebrates).

As we can see, the greatest part of the animals are invertebrates (92.7%). Therefore, if we eliminate the marine species, such as the crustaceans and a large number of mollusks, the rest of the animals are small sized, and of course they would have needed little space in the Ark. We will only analyze the 5.3% of

vertebrates.

Students can make a zoological study including this kind of calculation. They can also make a study of the number and distribution of the animals of a zoo in their country. We must think that in a way, the Ark might have had an interior distribution of animals similar to a zoo. By doing this study, students may see that most animals are not excessively big.

3.1.3 Approximation to the species of the past

a) **Paleontology.** It can be said that all the species we have in the fossil register which do not have any living representative are extinct species. The question would be when they became extinct. Many people feel that the species that are found in the Tertiary stratum are from the flood, while the Quaternary species are postdiluvial.

If this is true, we can say that the animals that were fossilized by the flood did not enter the Ark, or, having entered it, they became extinct without leaving any paleontological or historical vestiges. An example of this would be the dinosaurs.

On the other hand, the fossilized animals that are in the upper part of the Quaternary stratum may have been in the Ark, but became extinct later. For example: the mammoth, some extinct species of elephants, the woolly rhinoceros, etc. Our students can research the fauna of the Quaternary stratum.

We should not forget that it was God who sent Noah the animals which should enter the Ark so that they would be preserved. God had to make a selection of the entire antediluvian fauna. He determined which animals were going to enter the Ark and which ones were not. Those who did not would be condemned to extinction for several reasons. Some of the reasons might be: that they were too big or dangerous for postdiluvian man, that they had been the result of hybridizations, that they were the consequences of some kind of antediluvian genetical engineering, or that because of some characteristics they should not be in the redistribution of the ecosystems of the new world.

b) Genetics (the creation of diversity)

Genetics is perhaps one of the more interesting specialties we can use in class to help our students understand that there are species that have changed over the years. Because of space limitations, we are not going to consider this subject here, but we encourage teachers to do it. It is important to show the possibility that in the creation week, God created a basic series of archetypes, from which many current species developed in a similar way that more than 200 kinds of cells are formed in the human body from a single-celled zygote. The archetype can be the same as the family, the genus, or the species. So, we must suppose that the genetic information contained within the basic archetype permitted the diversification of species and genus within a family.

We do not know how many species were produced during the 2000 years that elapsed between creation and the flood. Probably the diversity was less than it is today. We must take into account that twice as many years have gone by, and with the dramatic environmental changes produced by the flood, the number of new species must have increased as a consequence of the need to adapt to the new and possibly more demanding conditions.

3.2 How many animals of each species entered the Ark?

According to the *Seventh-day Adventist Bible Commentary*, this subject has been discussed by many translators and Bible commentators. The Hebrew text says: Bring into the boat with you seven, a male and a female.” This can be understood as “seven pairs” or seven of every kind of animals (1978, p. 278).

The Greek *LXX version*, the Latin *Vulgate*, and many ancient and modern scholars support the translation “seven pairs.” Whatever the explanation, it is obvious that there were more clean than unclean animals in the Ark. Foreseeing the necessity of food after the flood destroyed all the vegetation, God knew that man would need to eat the meat of the clean animals. They were also needed for sacrifices. Because of these obvious reasons God determined to preserve enough clean animals so that they were not eradicated. God did not make any distinction between clean and unclean animals in His initial instructions to Noah. In the 120 years before the flood, such detailed instructions were not necessary. Here, we should motivate our students to investigate why God put more clean than unclean animals in the Ark. Food could be a reason, but probably it was not the only one.

4. Human beings

The Bible is clear regarding this subject. Eight people entered the Ark: Noah, his wife, his three sons and their wives. The entire postflood planet became populated from these eight people. It is often said that we all descend from Adam and Eve, and this is true. But we often forget that all of us descend from Noah and his wife, making them the second Adam and Eve.

It is good to know that God chose as progenitors of the human race a group of people who had not been as corrupted by their environment as those around them. He chose people with a healthy lifestyle, people with a good gene pool. If our second parents had been participants of the degenerative behavior of that corrupted antediluvian world, the coming generations would have inherited an even more deteriorated nature. The fact that God chose Noah and his family as our second parents because of their good behavior has been good fortune for all of us.

Another activity that can be done in class is to study, as far as possible, the fact that each of Noah’s sons built cities and fathered a race of people. We can also spend time studying the origin of the races, and the expansion of civilization from the region around Ararat. We could also study the type of people who

entered the Ark—tailer and with a longer life span than today.

5. Tools, belongings, goods

The Bible does not say anything about this, but we suppose that Noah's family took with them those implements that could be used in a totally destroyed world. If the flood happened today, it would not make sense to take a television or a computer to an uninhabited planet. But of course, we could take such basics as clothes and manual tools.

Students can study which items from our culture they would take with them in a similar occasion. By doing this, they may see that with the flood, the previous culture was destroyed, and that there was a new beginning. Maybe prehistory started at that time.

Entrance into the Ark

Objectives:

- What does the Bible say about going into the Ark?

Comments:

The Bible records this subject in Genesis 7: 7-10. It only mentions the entrance by indicating who and how many people entered the Ark. It does not give other details about boarding the ship. Ellen White gives us the most information about this subject. See *Patriarchs and Prophets*, p. 85, and *Spiritual Gifts*, Chapters 6 and 7.

In the story of the flood, we sometimes get the idea that Noah was in charge of assembling all the animals that were to enter the Ark. A more detailed reading, however, shows that the work of the embarkation was shared. God brought the animals and Noah put them into the compartments he had made for this purpose. Here we are, in front of our students, facing a supernatural intervention that seems difficult to accept, especially within a materialistic background. Our students must understand that God is a real Being who takes part in the events of human lives—a Being who has the intelligence, the knowledge and the power to accomplish or provide those things that human beings cannot. His level of knowledge transcends ours, and He is able to perform works that we barely understand. The miracles are the results of the activities of a Being whose knowledge and capabilities extend far beyond ours.

Regarding the subject of boarding the Ark, God brought the animals to the Ark. If that task had been left to Noah to accomplish by himself, it would have produced a series of problems, such as the hunting, capture and subsequent transport of the animals, and the differentiation between male and female in those species that do not have sexual dimorphism. It's likely that with some of the smaller creatures that either he

wouldn't have been able to find them, or he would have easily gotten more than two, as in the case of the insects.

Staying in the Ark.

Objectives:

- How much time were the people and the animals in the Ark?
- What was daily life like in the Ark? What can we know about the care of the animals, the division into species, the food, the excrements, drinking water, etc.?

Comments:

1. Time of staying in the Ark.

The Ark started being boarded on the third day of the second month of the 600th year of Noah's life. This boarding lasted a week, at the end of which, the people and the animals and everything they had take with them, were inside the Ark. They were ready to endure the flood. The door was closed on 02/10/600. The flood began on 02/17/600, a week after they were inside. During this week, Noah and his family had time to arrange everything. They exited from the Ark when the surface of the earth was dry, this was on 02/27/601. So, they were in the Ark from 02/10/600 to 02/27/601, that is, a year and seventeen days.

We can discuss the ancient calendars with our students and the different ways of counting the time, so that we can give credibility to the dates indicated by the Bible.

2. Daily life in the Ark

It has not been revealed to us how the inhabitants of the Ark spent their days throughout the entire year that they remained inside. Questions on this subject are difficult to answer with certainty; we can only offer conjectures and suppositions. Our inability to answer these questions with any surety could make some students lose their faith in this story. In their eyes, the Bible loses credibility when we are not able to answer some of those questions.

It is not easy to find satisfactory explanations for such topics as the care of the animals, the division into species "like a zoo," the food, the excrements, the drinking water, etc. However, it is good for students to realize that in these cases we must try to be objective. And if we are ignorant about something, we have to acknowledge our limitations, without trying to invent answers.

The hibernation of the animals, for example, is used as an explanation to some questions of the life in the Ark. But, this subject is not clear for us, for during the first five months, the Ark was strongly disturbed by the strength of the flood. Surely, the animals were scared and nervous, and such characteristics do not allow animals to hibernate. Noah and his family heard the noises produced by the animals, the creaking of the wood and the noise produced by the storm. Probably hibernation happened during the last seven months, when the

Ark was floating quietly protected by the tops of the mountains. We will see later that the mountain tops formed a natural harbor. Anyway, we must also say that not all animals have the capacity to hibernate.

Ellen White in her books *Patriarchs and Prophets* (p. 98) and *Spiritual Gifts* (Chapters 6 and 7) tells us about the environment in the Ark and explains that animals were very scared.

The place where the Ark came to rest

Objectives:

- How can we know the exact place where the Ark rested?
- Why did God choose the region of the Ararat as the place where the Ark should rest?
- What happened to the Ark?

Comments:

Noah's Ark is one of the more searched-for objects of the Old Testament. People have organized many expeditions to the Mountains of Ararat. Even though some witnesses claim to have seen it, the truth is that we lack any tangible evidence. Throughout the centuries, many people have assured us that they have seen the Ark. But when we compare their testimonies, we realize that they do not agree with each other.

There is an abundance of literature on this subject. We want to continue to show respect for the Bible, as we have tried to do in the development of this paper. We should not be preoccupied with the wish of finding the Ark in order to prove its existence and also to prove that the Bible is true. While we would be really happy if the Ark were found, this should not make us leave the rigor and seriousness of our duty as teachers. Teachers and students must analyze this subject together, being as objective as possible, without showing an excessive enthusiasm for the Bible.

1. The geographic region where the Ark came to rest

The two big sources of information that can determine the place where the Ark came to rest are the Bible and Ellen White's writings. They say:

1.1 The Bible

"The ark came to rest somewhere in the Ararat Mountains" (Genesis 8:4)

This verse tells us that the Ark did not rest upon a particular mountain but in the region of the "Ararat Mountains." The Hebrew expression "hare Ararat" must be interpreted by taking into account the use of the plural "hare," in "the Ararat Mountains," that is to say, the Armenian Mountain range.

From Genesis 8:5 the region is described in the already-mentioned navigation diary, as a zone full of mountains that were a little distance apart. The tops of those mountains could be seen from the Ark. It is

possible to think that during the first five months, the Ark wandered aimlessly from one place to another; but during the other seven months it stayed quietly in the region of the Ararat.

1.2 Ellen White's writings

- a) "As the waters began to subside the Lord caused the ark to drift into a spot protected by a group of mountains.... These mountains were but a little distance apart, and the ark moved about in this quiet haven..." (White, 1985, p.103).
- b) "As the waters decreased, He caused the ark to rest upon the top of a cluster of mountains.... These mountains were but a little distance apart, and the ark moved about and rested upon one, then another of those mountains..." (White, 1945, p.77)

Ellen White's writings state clearly that we must look for an area that is protected by a group of mountains, that are close together and that may constitute a natural harbor.

According to the above-mentioned texts, we do not need to look for a particular mountain as Ararat, but for a group of mountains. We cannot talk about distances in miles or kilometers between the mountains, because the terms used in the text are rather vague. The exact number of mountains is not mentioned. We also cannot talk about their height. We do not even know the height the flood waters reached. The Bible tells us only that the mountains were seven meters below the surface of the water. And we still do not know their height, even though Ellen White says that the mountains preceding the flood were not as tall as the ones we have today.

Also, for zoological reasons, the place where the Ark rested must have been in a valley and not on a mountain, where we have traditionally searched for it. If it were on a mountain, it would have had a difficult access, and such animals as elephants and hippopotamus would have been endangered while descending the mountain.

We should find evidences in the geography of the Armenian region that support what the Bible and the Spirit of Prophecy say about the place where the Ark came to rest. According to some information obtained from pictures taken by the Landsat satellite and data obtained from maps of that region, we think that it is possible to confirm what inspiration has revealed.

In this search for evidence, the teacher can contribute to the class by bringing all the necessary materials such as maps, pictures, etc., in order to study this topic together with his students. This is a time-consuming process, but the experience is worthwhile. As someone has observed: "The firewood that gives the most warmth is that which comes from slow-growing trees."

According to some traditions, people have mentioned other regions and nearby mountains as possible sites for the Ark. Historians from Armenia eliminate Ararat as the place where the Ark came to rest. To some

Armenian historians, Ararat is a country. The interpretation that Ararat is the place where the Ark rested is a more recent tradition. So, they feel it should not be considered.

The Ararat region constitutes a group of mountains distributed in such a way that they formed closed circles. These circles could have been the natural harbor that protected the Ark during the flood. Possibly, the Ark rested on the bottom of the valley formed by the tops of such mountains. If the Ark had rested upon Mount Ararat, some animals such as the elephant and the hippopotamus would not have been able to get down very well. So, it is more logical to think that the Ark rested upon the smoother and lower-lying land.

In class, we can search maps of the region, looking for all the mountains that are more than 2000 meters high, and marking them with a circle, so that at the end we can easily see which of them could form a natural harbor. By doing this, the student will soon demonstrate that the possible places where the Ark could have rested are too numerous for them to pinpoint one location in particular. This shows that with the information we have, it is difficult to know in which specific place the Ark came to rest. If Ark is buried in one of those places, it would be very difficult for us to locate.

2. Strategic importance of the region of the Ararat

Genesis 8:17 talks about the distribution of the animals throughout the entire planet. “Bring out every kind of living creature...the birds, the animals, and all the creatures that move along the ground—so they can multiply on the earth” (NIV).

Students can be shown a map that includes the distribution of the dry land over the entire world. On this map, we can look for the Ararat region. By doing this, we can easily see that this is a privileged area that has connections with the rest of the continents. From this region, men and animals could move to the continents of Africa, Europe, and Asia; from Europe to the American continent through the Bering Strait; and from Asia to Indonesia and Australia. The question can be answered, for here we clearly see the possibility of expansion of the living creatures from the place where the Ark rested.

3. The Destiny of the Ark

We fear that we will probably never find it. Two important reasons support this statement.

3.1 The dismantling of the Ark

The most feasible possibility is that Noah and his family dismantled the Ark so that they could use the raw material to build their own houses in a desolated world without mature trees. God gave them a hard and durable wood. This was especially resistant wood, because God knew that after the flood they would need it to build their houses and to warm themselves. With God’s promise that the world would not be destroyed again by a flood, Noah knew that the Ark was no longer necessary.

We must also consider the builders of the Tower of Babel who attempted to save themselves from another flood, should God decide to send one. This makes us think that probably they no longer had recourse to the Ark. These people lived in the region of Ararat for some time before migrating to Shinar; so they knew what had happened to the Ark. They built a tower to save themselves from a new flood, because the Ark no longer existed. Noah's descendants continued living in the Ararat Mountains "for some time" (White, 1985, p. 111).

3.2 Concealing of the Ark

If the Ark still exists, it is possibly very well hidden. We cannot find it perhaps because we do not investigate according to what inspired writings say, or simply because God wants to keep it hidden from human beings who tend to worship idols. This is a very common attitude of God with respect to sacred places. This is easily proved by visiting Israel and attempting to locate some specific places where important Biblical events took place, such as Sinai, the mount of the crucifixion, the place where Jesus was born, etc. So, as it happened with the Ark of the Covenant, perhaps God hid it because He does not want us to find it.

CONCLUSIONS

As we have been able to see, we must try to explain the Bible as rigorously and seriously as possible. We have also seen that for this task, we need time. We usually want to give our students a curriculum that is as complete as possible. Sometimes our list of contents grows until it suffocates and overwhelms the students. All this is done with good intentions: to teach our students as much as possible. They must take an exam that demonstrates they have learned the entire curriculum in a satisfactory way. When they get their grades, everything is finished, but we don't follow up in later years to see what they have remembered of all that they had to learn.

We think that significant learning is a good approach, but the process is slow and painstaking. This approach requires a reduction in the amount of content taught in Science and Religion class, and other Bible classes. Teachers are required a more effort and dedication, a lot of study, and creativity. But if we want our students to build their houses upon the rock, we must help them to have a scientific experience with God's word, so that they can trust the Bible—and this is what we want to teach them.

Regarding the Ark, the greater part of knowledge and information our students acquire will surely be forgotten, but if we make use of the significant learning method, the students will obtain an important concept for their lives: The Bible is a book that can be compared with science, and it presents a good, serious alternative to evolution in answering questions about our origins. Subsequent papers will have more to say, but this is an introduction to the subject.

Remember our initial story of the science student who was not able to remember hardly anything of what his teacher had taught him, but had acquired a conceptual map and believed in everything he had been told? That teacher had dedicated the time necessary to show the proofs his students needed to be convinced. The effort was not in vain, even though perhaps he will never know the results of his work. Ellen G. White tells us that in the New Earth we will see the results of our work. I hope those results will be the best!

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