

## **HISTORIC BACKGROUND**

### **FROM THE BEGINNING TO 1870**

This part of the text will take you through records, observations and experiments concerning the origin of life from the most ancient accounts, through Classic Greek records to the 20th Century. We will also look behind the scenes at the people involved, their motivations and impact of their work. It is a fascinating story and one that will sharpen your wits to help you distinguish between a good story, a scientific theory, and the facts of the matter - a skill absolutely necessary for leaders in the 21st Century. There is a vital need for people who know how to think - not just what to think!

Each part of this Historic Background to the “*Search For The Origin Of Life*” consists of an information **DATABASE**, followed by questions for you to **THINK IT THROUGH**. Read each Database, then discuss the questions with your fellow students and instructor, then write a summary of your discussion in the space provided. Questions marked “**CHALLENGE**” are optional extras for those who really want to **THINK IT THROUGH**. Brief biographies of famous people involved in the **SEARCH FOR THE ORIGIN OF LIFE** are included after most sections. Complete each **DATABASE** before you move to a new one, and feel free to make use of any additional textbooks as you “*Search For The Origin Of Life*”. A “hand in” assignment at the end of this Historic Background enables you and your instructors to evaluate your gain in knowledge skills.

**DATABASE 1****IN THE BEGINNING****Before 700 BC**

Unlike most texts on the **ORIGIN OF LIFE** which deal only with scientific experiments of the 20th Century, this supplementary course draws information about life's origins from ancient times to the present, from tribal peoples to space scientists. We start with ancient accounts written prior to 700 BC (mostly from the Middle East), and then oral or written traditions from indigenous peoples as far apart as Africa, Australia and America.

**WRITTEN ACCOUNTS****A) THE EBLA TABLETS**

Ancient Canaanite accounts of the origin of all things was excavated by Professor Matthaie (1964 - 1976), at Tell Mardikh, 30km south of Aleppo in Northern Syria. At the time of compilation of this Database, the Ebla Tablets are the oldest known original written documents on life's origin (2500 - 2300 BC). The published accounts of the text are by Professor Pettinato (1981).

*“Lord of heaven and earth  
the earth was not  
you created it  
the light of day was not  
you created it  
the morning light you had not (yet) made exist.”*

**B) HEBREW**

For the past two thousand years, the Ancient Hebrew book of Genesis has been well known in the west. Chapters 1 and 2 deal with the creation of all things. Portions are quoted below.

**Chapter 1. v1** *“In the beginning God created the heavens and the earth. v2 And the earth was formless and void, and darkness was over the surface of the deep, and the spirit of God was moving over the surface of the waters. v3 And God said ‘let there be light’, and there was light. v4 And God saw the light was good, and God separated the light from the darkness. v5 And God called the light Day, and the darkness he called Night..... v9 Then God said ‘Let the waters below the heavens be gathered into one place, and let the dry land appear’ and it was so.....v11 Then God said ‘Let the earth spout vegetation, plants yielding seed, and fruit trees bearing fruit after their kind, with seed in them on the earth, and it was so.....v20 Then God said, ‘Let the waters team with swarms of living creatures, and let birds fly above the earth in the open expanse of the heavens’ ..... v24 Then God said, ‘Let the earth bring forth living creatures after their kind, cattle and creeping things and beasts of the earth after their kind’, and it was so..... v26 Then God said, ‘Let us make man in our image, according to our likeness, and let them rule over the fish of the sea and over the birds of the sky and over the cattle, and over all the earth and over every creeping thing that creeps on the earth’..... **Chapter 2. v7** Then the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life, and man became a living being..... v21 So the Lord God caused a deep sleep to fall upon the man, and he slept, then He took one of his ribs and closed up the flesh at that place. v22 And the Lord God fashioned into a woman the rib which He had taken from the man, and brought her to the man.”*

### **C) BABYLON (ENUMA - ELISH)**

This account was discovered by Smith, Layard and Rassam between 1848 and 1876 on seven clay tablets from the library of ancient King Ashurbanipal at Nineveh in the area now known as Iraq.

#### **The Creation of the Universe**

*Nothing existed except the divine parents Apsu (the sweet water ocean) and Tiamut (the salt water ocean), and their son Mummu (the mist). They were an undefined mass.*

(Then follows a prolonged account of the birth of the gods, then eventual war between the gods and the final victory of the god Marduk, as below.)

*The god Marduk divided the body of the defeated goddess Tiamut in two parts, from which he created the universe. One half of her formed the sky, the other half formed the earth. He built gates in the east and the west for the sun to enter and depart, and caused the moon to shine.*

#### **The Creation Of Man**

*The imprisoned followers of Tiamut were made servants to provide sustenance for Marduk's gods. However, they asked Marduk for relief. As a result Marduk and the god Ea resolved to create man, and make man do the service of supplying food to the gods. So Marduk killed the leader of the imprisoned rebel gods. Ea then severed his arteries and created mankind with his blood.*

### **D) EGYPT**

In the temple of Esna, Upper Egypt, an inscription to the ancient fertility god, Khnum, reads "You are almighty.... and you have made men on the wheel, you have created (the gods). You have modelled (both) the small and the great cattle. You have formed everything on your wheel each day".

### **E) GREECE**

*In the beginning there was Chaos (the infinite, empty space). Ge (mother earth) sprang from Chaos. Ge (mother earth) gave birth to Uranos (the heavens) and Pontus (the sea). Uranos (the heavens) mated with Ge (mother earth) to produce the Hundred Handed Giants, the one-eyed Cyclops and the 12 Titans.*

(Then follows an involved story of war among the gods which leads to the god Zeus becoming chief god, after which man is made as follows.)

#### **The Creation Of Man**

*Two of the Titan gods, Prometheus (forethought) and Epimetheus (afterthought) had supported the chief god Zeus during the war with the other Titan gods.*

*Prometheus (forethought) made man, shaping our earliest ancestors out of clay, but later stole fire from Olympus (the mountain of the gods) and gave it to humans and so brought upon himself divine vengeance from Zeus (the chief god).*

#### **The Creation Of Woman**

*Zeus ordered Hephaestros (the metal smith) to make a beautiful woman called Pandora (the all giver). Pandora married Epimetheus (afterthought), but then she opened a box from which escaped all the ills which plague mankind. Zeus then declared man had become intolerable to him and decided to destroy man with a flood.*

### **The Flood**

*Deucalion, the son of Prometheus, was warned by his father that Zeus had decided to wipe out mankind by releasing a great flood on the earth. As a result, Deucalion built an ark which saved both himself and his wife Pyrrha (the daughter of Epimetheus). The ark came to rest on Mt Parnassus. Their son Hellen was the ancestor of all the Greek people (the Hellenes).*

### **F) CHINA**

*“At the beginning there was nothing ..... long ages passed by and nothing became something ..... long ages passed by and the something divided itself into two parts .....male and female. These two somethings produced the first being named P’an Ku, the ancestor of the 3 families who ruled heaven, earth and mankind. P’an Ku’s descendants ruled nine divisions of the prehistoric world.*

*Then came the first monarch Fu Hi. (Supposed reign 2953 - 2838 BC) He taught the people to worship and to sacrifice. But people began to deteriorate. Three rebels conspired with the demons of water and fire to destroy the world, and a great flood came. Nu Kwa caused the waters to retreat. (According to Chinese chronology, this flood occurred between 2943 and 2868 BC.)*

### **G) INDIA**

*“In the beginning the UNIVERSAL SOUL assumed the shape of man, Purusha. He did not delight. Therefore nobody when alone feels delight. He was desirous of a second. He was in the same state as husband (Pati) and wife (Patni).... He divided himself twofold. Hence husband and wife produce. Therefore this was only a half of himself, as a split pea is of the whole..... The void was completed by woman.” .....*

*“There came a time when the holy person MaNu was warned by the large fish that he must build an ark to save himself from a flood which will destroy the earth. MaNu alone was saved from destruction with his 7 holy beings and the seeds of all the plants. MaNu became the ancestor of all people.”*

**The significance of this story is that MaNu’s name has passed into common use. The descendants of MaNu still bear his name - MAN KIND. MaNu is known in other cultures as Mannus, Nu, Nu’u, Noe, or Noah.**

### **H) HEBREW**

**Genesis 6:10-12** *Noah had three sons: Shem, Ham and Japheth. Now the earth was corrupt in God's sight and was full of violence. God saw how corrupt the earth had become, for all the people on earth had corrupted their ways....***7:6-9** *Noah was six hundred years old when the floodwaters came on the earth. And Noah and his sons and his wife and his sons' wives entered the ark to escape the waters of the flood. Pairs of clean and unclean animals, of birds and of all creatures that move along the ground, male and female, came to Noah and entered the ark, as God had commanded Noah....***10:32** *These are the clans of Noah's sons, according to their lines of descent, within their nations. From these the nations spread out over the earth after the flood.*

## ORAL TRADITIONS

These have largely been collected only since the explorations of Columbus (The Americas 1490's) and Captain Cook (The Pacific 1770's) took scholarly interest outside of Europe.

### **I) AUSTRALIAN ABORIGINAL**

Biame (the Creator spirit) travelled across the land he had made. Because there was no one to talk with he was lonely. He took red earth in his hands, and shaped it into two men. There was only enough earth left to make one woman which was asking for trouble!

### **J) HAWAII**

Twelve generations after the first man, Kumuhonua, was created, the earth became evil. The good man Nu'u built a large vessel with a house on top of it stocked with plants, food and animals. Nu'u was saved along with his wife and sons when the great flood came. After the flood subsided, Nu'u's vessel landed on top of Mt Maunakea where they lived for a time in a cave. (Even today, a cave near the summit is called Pu'Lili-noe, i.e. the Cave of Noah's Wife. This cave is marked on 1994 maps as traditionally named.)

### **K) THE ASHANTI PEOPLE** Ghana, Africa

Odomankoma, the creator, made the heavens and the earth, man, all creatures, trees and rivers. (The Ashanti insist that things which owe their origin to the Creator must be clearly distinguished from the works of man.)

### **L) BUSHMAN** Africa

The Creator made the earth and put plants upon it. He thought up many different animals to live in the world. He struck a huge baobab tree and made the animals walk into the light for the first time. He named the animals and gave them a place to live. Last of all came man. By then there was only one role left, so the Creator and his helper Mantis, gave this to the Bushmen - to be a hunter gatherer.

### **M) SWAZI** Africa

In the beginning, all the animals lived together in peace until man came. Only after man began to kill the animals, did the animals and birds copy the example of man and fear was born.

### **N) APACHE INDIANS** USA

"We lived in the old red fire land before the great flood. It was to the east, in the sunrise sea. Beneath the land in giant caves dwelt the fire god, whose name we never speak. He became angry and left the caves, raining fire and death upon the people, destroying the old land. Then came the great flood. We with the other people came west over the water, and came to a new land."

**O) SAN PASQUAL INDIANS** California USA

In the beginning of time Ahmy Yaha, the great spirit, took clay from the earth and moulded it to form a man. He stood the image up, and it became Yahomat, the first man. He took more clay and moulded it in the form of a woman. He stood the woman up but she fell down. Then Ahmy Yaha pulled a whisker from his chin and wrapped it around the woman. After that she stood up and became Tuchipah the first woman.

**P) TIBETAN**

In the beginning there was only one man on earth. Winter was not cold and summer was not hot, wind did not blow violently and there was no snow or rain, and flocks had nothing to fear from beasts of prey. The man had 3 children who lived a long time, eating milk and fruit. After a very long life the man died ..... His children divided his body into 3 parts from which they formed all races of man, whose differing characteristics are derived from the different body parts.

**THINK IT THROUGH 1**

1-1. Could any of the above accounts of creation have been based on human observation?

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1-2. Could any of the above accounts of the flood have been based on human observation?

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1-3. Of all the above accounts, the Genesis record of the Creation of Life and man has had the greatest influence on western public and scientific thought. Suggest why this has been so.

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1-4. Virtually every traditional culture has a written or oral account which usually includes 2 or more of the following features.

- (a) A unique and divine origin for life and man.
- (b) A golden age or a time when there was no death, war, fighting or winter and summer extremes.
- (c) A time when degeneration, both moral and physical entered the human world.
- (d) A catastrophic flood as judgement upon the earth.
- (e) The survivors of this flood were the ancestors of all present day man.

Why might these themes have such consistent threads through ancient accounts on the origin of life?

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**DATABASE 2****BACKGROUND CLASSIC GREEK****700 - 400 BC**

Because Greek thought has influenced western man so profoundly (even though many of us do not know it), we include a brief review of some of the most important Greek thinkers.

**Thales (c 624-548 BC)**, the eldest philosopher of the Ionian School, introduced Geometry into Greece from Egypt and taught that living things developed from slime under the influence of heat. He believed the universe was a living thing with water providing the Key force.

**Anaximander (610-545 BC)**, an associate of Thales, believed living creatures arose from the moist element as it was evaporated by the sun, and mankind, like all other animals was descended from fish.

**Empedocles (490-430 BC)** is often regarded as the father of evolution concepts. He argued life was actually formed from life-giving forces in fire, air, water and earth. Empedocles wrote *“The first generation of animals and plants were not complete but consisted of separate limbs not joined together; the second arising from the joining of these limbs were creatures in dreams; the third was the generation of whole mature forms. Here sprang up many faces without necks, arms without shoulders, unattached, and eyes stayed alone in need of foreheads. But as one divine element mingled with another, these things fell together as each chanced to meet others, and many other things besides were constantly resulting. Whenever, then, everything turned out as it would have if it were happening for a purpose, there the creatures survived, being accidentally compounded in a suitable way; but where this did not happen, the creatures perished and are perishing still.”* Empedocles believed all structures were made by combination of life forces caused by Love or Strife. Love caused trees to be the first things to grow on the earth. Later when Strife came, species and sexes became separate. When Love and Strife acted together mixtures occurred and only the fittest survived.

**Protagoras (490-421 BC)** was the first of the Greek wise men known as Sophists. His work on Truth begins “man is the measure of all things”. His writing concerning the gods shows he professed agnosticism as to whether gods existed or not.

**Democritus (c 470-380 BC)** thought the living world originated in water, and animals passed through long developmental processes before they took their present form. He advanced the theory of the mechanical self creation of life resulting from an inherent movement of atoms in lifeless moist earth accidentally uniting with atoms of live energising fire. He regarded nature as a continuum, the living kingdom composed of an ever changing collection of forms all related by descent from a common ancestor. He was the founder of the **Atomic** school which believed the universe is composed of a vast number of atoms mechanically combined, operating by chance with no place for supernatural intervention. Democritus dismissed the gods as unnecessary to life’s origin, and denied a **Creator**.

**THINK IT THROUGH 2**

2-1. Were these Ancient Greek ideas based on direct human observation or experiments?

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**DATABASE 3****GREEK EXCEPTIONS****500 - 400 BC**

**Socrates (469-399 BC)** is known to us through the writings of his disciple Plato. Socrates believed the universe to be under the control of a single Divine Spirit, the human soul immortal, and would be judged in another world. His teachings challenged the beliefs of Greek leaders, so authorities condemned him to death through hemlock poisoning for corrupting youth with his teachings.

**Plato (428-347 BC)** accepted Socrates' belief in an afterlife, which he used at the end of his dialogue on '**The Republic**', where he writes about the ideal society which may never exist on earth, but it is a scheme "laid up as a pattern in heaven". Plato's conclusion was it would be "better for every creature to be under the control of Divine wisdom", so that all men may be "friends and equals". Plato founded the first recognised university. His teachers were known as wise men or **Sophists** whose skill later became the art of winning an argument, rather than worrying about any truth in the argument. Their skill with words gave rise to such words as **sophisticated**. Plato gave his account of Divine creation in '**Timaeus**', and argued that the design and purpose in nature pointed to a Designer of life.

**THINK IT THROUGH 3**

3-1. How would the views of Socrates have challenged the prevailing Greek views of the day?  
(HINT: See Database 2)

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3-2. Was Socrates' view on a Divine Creator of life a new idea?

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3-3. Is it a compliment to be called "sophisticated"?

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