

SYNTHETIC STONES - CLUE TO MYSTERY OF PYRAMIDS



Task 1 Read quickly through the article and find out:

1. Where was this article published?
2. Which pyramids does it refer to?
3. Who is the person being interviewed?
4. How many workers built the pyramids according to him?
5. What did this scientist find so he can prove his theory?

1 A French industrial chemist says that he has discovered the mystery of how the ancient Egyptians built the Great Pyramids of Giza with only primitive tools. He thinks they just poured their own synthetic stones one on top of another.

5 'We have now studied the stones from a chemical and a microscopic point of view and we have proof that they are synthetic,' Dr Joseph Davidovits told the Miami Herald yesterday. He said a strand of hair gave him the key to the mystery that has baffled scientists for nearly 5,000 years.

10 People have always asked themselves how a society without up-to-date machinery could bring millions of blocks of stone from places that were miles away and then pile them one on top of the other up to more than 140 metres high. Some eminent scientists assume that brute strength and pulleys were used. Others are sure that extra-terrestrial creatures built the pyramids.

15 Davidovits said that his tests on five small stones from the largest of the great pyramids showed that they were composed of a mixture of concrete. He said this substance was so hard that it was not possible to distinguish from natural stone.

20 He said that his theory is proved by a two and a half centimetre-long strand of human hair found encased in one of the stones. The hair fell into the mixture when the pyramid was being built. He also said: 'We think that the mixture was transported in baskets that weighed 20 or 30 pounds, thus they did not need 50,000 or 100,000 workers to build the pyramids as it is assumed, there were only 1,500 workers on site, and so this is the end of the mystery...', he said.

Task 2. GUESSING WORDS. Using the line references given, underline the correct translation for these terms:

- Example: tools (Line 3) a. equipo b. herramientas c. obreros
- | | | | |
|------------------------|------------------------|----------------------|------------------|
| 1. poured (Line 3) | a. verter (una mezcla) | b. acarrear | c. arrastrar |
| 2. proof (Line 6) | a. creencia | b. prueba | c. teoría |
| 3. strand (Line 7) | a. puñado | b. adorno | c. mechón |
| 1. baffled (Line 8) | a. confundido | b. burlado | c. atemorizado |
| 2. up-to-date (Line 9) | a. complicada | b. pesada | c. moderna |
| 3. strength (Line 12) | a. fuerza | b. capacidad | c. perseverancia |
| 4. pulleys (Line 12) | a. ruedas | b. carretillas | c. poleas |
| 5. mixture (Line 15) | a. mezcla | b. sustancia | c. material |
| 6. thus (Line 21) | a. sin embargo | b. así, de este modo | c. no obstante |

Task 3

Now read the article more carefully and decide if the following sentences are true (T) or false (F). Justify your answer underlining and numbering the part of the text where the information appears; then make changes in the false items so that they become true.

- | | | |
|-----------------------------------------------------------------------------------------------------|---|---|
| 1. Dr Joseph Davidovits was born in France. | T | F |
| 2. The Egyptians used microscopes to build the pyramids. | T | F |
| 3. Dr Davidovits is a journalist for the Miami Herald. | T | F |
| 4. The mystery of the pyramids has worried scientists for thousands of years. | T | F |
| 5. Some hair gave Davidovits the clue to solve the problem. | T | F |
| 6. According to him, the synthetic mixture was transported by 1,500 workers. | T | F |
| 7. Davidovits analysed small pieces of stone from the great pyramids. | T | F |
| 8. Some investigators have wondered how the Egyptians managed to stack millions of blocks of stone. | T | F |

Task 4

Here is a summary of Dr Davidovits' interview, but some words are missing. Complete the summary with the words in the box. Be careful, there are some extra words.

mixture	stacked	test	workforce	amazing	scholars
secret	chemist	baskets	strand	observation	credited

Dr Davidovits, an industrial _____, gave an interview to the Miami Herald at his hotel last night. Among other things, he said: "I am quite sure that I found the _____ behind the mystery of the Pyramids - through chemical and microscopic _____, we are now in the position to answer what _____ have been asking themselves for thousands of years: Were pyramids built using a _____ of more than 50,000 men or are supermen from the outer space to be _____ for these _____ monuments? A _____ of human hair found in the synthetic _____ from which the stone blocks were made gave us the clue"

PRACTICE 2

THE ROSWELL INCIDENT

Task 1

Read this extract from a magazine article very quickly and decide which one of these summaries **does not** express its overall content.



1. It is about a UFO that crashed near a military base whose remains, including the occupants, were taken and put out of sight, so the public could ignore the real facts.
2. It is about a UFO which landed on a farm near Roswell Air Base and was confused with a weather balloon, according to official reports.
3. It is about a UFO incident occurred a long time ago and which is still remembered because it caused strong polemic among believers and non-believers of alien spaceships visiting the Earth.

1 This incident occurred sometime between 4
and 6 July, 1947, in the state of New Mexico,
USA. According to the US Department of
Defense, a weather balloon simply **crashed** on a
5 farm near Roswell Air Base. However, not
everyone believes this. A large group of people
believe that the 'weather **balloon**' was in fact an
Unidentified Flying Object (UFO) from outer
space. They think that the military **actually**
10 recovered three or four alien **bodies** and the
remains of the UFO. What happened to the **debris**
or the bodies has not been conclusively
determined.

15 Mack Brazel, the ranch **owner** on whose land
the crash occurred, found debris from the crash
and reported it to the Roswell sheriff, who **in**
turn, reported it to Captain Jesse Marcell at
Roswell Air Base.

20 Captain Marcell declared to the press that the
Army had **indeed** recovered a UFO. But
mysteriously, his **statement** was later retracted.
The new official version, according to General
Roger Ramsey, was that the

25 incident had involved a weather balloon, and
not a UFO, as Marcell had previously declared.

What really happened at Roswell? After all
these years people from several countries are still
debating on this. Their opinions are diverse. Here
30 are some letters sent to newspapers that state
different points of view:

"I sincerely believe that Roswell really
happened. There are aliens who crashed to the
site, and the government is hiding it from the
35 world. But I believe that something deeper is still
going on in our relations with these alien beings.
There are some groups of human beings who are
actually conspiring with them."

Antonio Catubay, Philippines

40 "I believe from NASA studies that space travel
for living beings is very limited because of
radiation. There are other planets and most likely
other beings living on them but travelling just five
light years is a problem. Aliens seem to abound
45 and everyone has seen one, however, nobody can
catch one... even when they crash."

Matthew Craig, UK

Task 2

Guessing New Words. Find the English equivalents (in bold in the article above) for these Spanish terms. The numbers in brackets show the paragraphs in which they appear.

escombros (Para. 1) debris	a su vez (Para. 2)	establecen (Para. 4)
estrellar (Para. 1)	propietario (Para. 2)	seres (Para. 5)
realmente (Para. 1)	declaración (Para. 3)	ocultando (Para. 5)
globo (Para. 1)	ciertamente (Para. 3)	debido a (Para. 6)
cuerpos (Para. 1)	varios (Para. 4)	probable (Para. 6)

Task 3 Contextual Reference. What do the words in italics refer to? Look back at the article to find out.

1. *They* think that the military actually recovered ... (Line 9)many people.....
2. ... *who* in turn, reported it to Captain Jesse Marcell.... (Line 16)
3. ...*his* statement was later retracted. (Line 21)
4. *Their* opinions are diverse. (Line 29)
5. There are groups of human beings *who* are actually conspiring ... (Line 38)
6. ...who are actually conspiring with *them*. ... (Line 38)
7. ...and most likely other beings living on *them*, ... (Line 43)
8. ... and everyone has seen *one*, ... (Line 45)
9. ... even when *they* crash... (Line 46)

Task 4 Checking Comprehension. Match these sentence halves to check your understanding of the ideas expressed in the article.

- | | |
|-----------------------------------------------------------|------------------------------------------------------------------------------|
| 1. <i>The Roswell Incident occurred</i> | <input type="checkbox"/> a. a UFO crash really happened at Roswell. |
| 2. The USA Department of Defense claims that | <input type="checkbox"/> b. the debris and the bodies after the crash. |
| 3. Many people think that 'the weather balloon' was | <input type="checkbox"/> c. they had recuperated the remains of a UFO. |
| 4. Nobody knows what happened to | <input type="checkbox"/> d. informed about it to the local authority. |
| 5. Mr Catubay, the reader from Philippines believes | <input type="checkbox"/> e. a weather balloon crashed on a farm. |
| 6. Mr Craig from England does not accept the idea | <input checked="" type="checkbox"/> f. <i>In New Mexico a long time ago.</i> |
| 7. The first version from one of the officers stated that | <input type="checkbox"/> g. it is extremely difficult to travel to them. |
| 8. People all over the world do not agree | <input type="checkbox"/> h. actually a UFO from outer space. |
| 9. Probably there is life in other planets, but | <input type="checkbox"/> i. the governments veil information about UFOs. |
| 10. Mack Brazel, the farmer where the crash occurred | <input type="checkbox"/> j. of UFOs travels because nobody caught one yet |
| 11. It is difficult to understand why | <input type="checkbox"/> k. on the existence of alien spaceships. |



Task 5 Looking up information. Find more information in English about the Roswell UFO crash in the Internet, then write a brief summary in Spanish in about 350 words.

PRACTICE 3

THE COMPUTER REVOLUTION

Task 1 Understanding Contents. Read the article below very quickly and select one of the headings for each paragraph.

— *Computer evolution*

— *Computers' capabilities and limitations*

— *Computers in our daily lives*

— *Fast, powerful and versatile machines*

1. WE ARE AT THE BEGINNING of the third industrial revolution, and the protagonist is the computer silicon chip. Computers are changing the way in which we live. They are creating new jobs making some old ones unnecessary: offices, banks and factories operate differently now than 30 years ago. Scientists use computers to discover more about our world. Space explorations, genetic engineering, optical fibre technology, scanners, lasers and telecommunication all depend on computers now. The armed forces in large countries optimise their radar systems, missile control and war simulations with the aid of computers. Education is another field which computers will modify greatly in a near future.

2. The first electronic computers made in the 1940s were large, slow and very expensive, and since they used valves and wires to pass electricity, the problem of high temperatures was very hard to solve, but in the 1960s computers made a giant step forward with the invention of transistors which used the semiconductor properties of silicon, so it was possible to reduce the size and cost of computers, and also to make them work much faster with more information.

After transistors came integrated circuits (miniaturised combinations of transistors and other electrical parts). Today, a simple computer costing \$500 can process more information and more quickly than the famous Mark I made by IBM in 1943 which was 55 feet long and 8 feet high and cost millions of dollars.

3. The basic job of the computer is to process information. Early computers were simple calculators working with numbers alone. Today's computers can work with different types of information in vast amounts. Now it is possible to put all the information contained in 1,000 books on one plastic disk, and at the same time, to find information at very fast rates.

4. Although they work so efficiently, it is important to remember that computers are not 'intelligent'. They are only machines that follow instructions. Scientists are trying to teach them to 'think' through artificial intelligence, AI, which emulates the human logic process. They have already made computers which can play chess, make medical diagnosis and weather forecasts. However, some experts think it is only a question of time before computers start thinking like humans.

Task 2 Working with words. Find synonyms and antonyms in the text for the following terms

SYNONYMS	
utilize (Para. 1)	.....use.....
rely (P. 1)	.....
improve (P. 1)	.....
change (P. 1)	.....
big (P. 2)	.....
difficult (P. 2)	.....
huge (P. 2)	.....
price (P. 2)	.....
quantities (P. 3)	.....
needed (P. 3)	.....
smart (P. 4)	.....
predictions (P. 4)	.....

ANTONYMS	
end (Para. 1)	.....beginning.....
old (P. 1)	.....
the same (P. 1)	.....
small (P. 1)	.....
fast (P. 2)	.....
cheap (P. 2)	.....
low (P. 2)	.....
backward (P. 2)	.....
increase (P. 2)	.....
complex (P. 2)	.....
little (P. 3)	.....
forget (P. 4)	.....

Task 3

Inference. Very often a reader needs to deduce information that is not explicitly mentioned in a text, so it is necessary to read 'between the lines' or infer things. Practise this useful reading strategy by writing **S** (stated) in the boxes if the information appears in the text, or **NS** (not stated) if it is not included, even if it is true.

- 1 The use of computers may cause a problem of unemployment. ☐
- 2 Language translation is the main goal on which computer experts are working on. ☐
- 3 Early computers required large amounts of electric energy. ☐
- 4 Scientists believe that in some years computers will be able to think as humans do. ☐
- 5 In the future students will study via TV and computers through distant education. ☐
- 6 One of the main characteristics of modern computers is their storage capacity. ☐
- 7 Without computers, modern space travels could not be possible. ☐
- 8 Many natural disasters, such as tsunamis and earthquakes, can be predicted now using computer capabilities. ☐
- 9 Computers in the 1940s were huge and extremely expensive. ☐
- 10 Communication has developed a great deal due to computer technology. ☐

Task 4

Odd One Out. In each one of the four sets of computer-related words below, one is the 'odd one out': different from the others. Find the word that is different, and circle it.

For example: monitor printer scanner spreadsheet

In this case, a **spreadsheet** is a computer application, the others are machines.

- | | | | | |
|---|--------------|---------|--------------|----------------|
| 1 | desktop | laptop | notebook | palmtop |
| 2 | keyboard | modem | mouse | trackball |
| 3 | drive | port | power switch | motherboard |
| 4 | database | file | spreadsheet | word processor |
| 5 | inkjet | laser | plotter | scanner |
| 6 | cell | column | row | window |
| 7 | function key | screen | shift | space bar |
| 8 | click | italics | bold face | caps |

THE DEVELOPMENT OF TECHNOLOGY

Task 1 Sequencing. In what order did these events in the development of technology occur? Put a number next to each line. Then read the article below to check your answers.

- | | | |
|-------------------|-----------------------------|---------------------------------|
| ___ a. farming | ___ d. mining | ___ g. control of fire |
| ___ b. the wheel | ___ e. fortifications | ___ h. alloys of tin and copper |
| ___ c. stone axes | ___ f. means of measurement | ___ i. carts pulled by animals |

- 1 IN OUR MODERN WORLD, technology is all around: automobiles, computers, nuclear plants, x-ray cameras, satellites and mobile phones are all examples of technological advances. But how did all this begin?
- 2 Technology has been defined as the process by which human beings invent and make **tools** and machines **in order to** change, manipulate and control their environment.
- 3 Technology started when man first made simple tools, **such as** stone axes and bone **arrow tips**. It continued with learning how to start and control fire; with the making of pottery, baskets, clothes and simple **jewellery**. Later, when men learned the rudiments of **farming**, they transformed from nomadic **hunters** into farmers. Later on the invention of **wheel** in Mesopotamia, now Iraq, about 3500 BC **led** to the use of two-wheeled **carts** pulled by animals.
- 4 The discovery of **alloys** of tin and copper produced a strong and malleable bronze that could be used for **weapons** and farming implements. This **knowledge** brought humanity from the Stone Age into the so-called Bronze Age about 3000 BC.
- 5 Effective farming and transport methods allowed for a denser population, so cities began to grow. Mining, metalworking and **trade** brought **wealth** and changes in the social structure. Trade and wealth also stimulated the invention of **means** to **measure** weight, size and time. Armies were now needed to defend, and sometimes conquer, new territories. Constructions of fortifications, public structures, **waterworks** and dams led to the beginning of a new science, and so Engineering was born.

Task 2 Guessing Unknown Words. Find the English words in the article for the following Spanish terms.

para (Paragraph. 2)	..... in order to	cazadores (Para. 3)	.....
herramientas (Para. 2)	.....	conocimiento (Para. 4)	.....
agricultura (Para. 3)	.....	aleaciones (Para. 4)	.....
Conducir (past) (Para. 3)	.....	armas (Para. 4)	.....
tales como (Para. 3)	.....	medir (Para. 5)	.....
rueda (Para. 3)	.....	acueductos (Para. 5)	.....
carretas (Para. 3)	.....	comercio (Para. 5)	.....
joyas (Para. 3)	.....	medios (Para. 5)	.....
puntas de flecha (Para. 3)	.....	riqueza (Para. 5)	.....

Task 3 Understanding Concepts. Check your reading comprehension of the text above by filling the gaps with words from the box. Be careful. There are some extra words.

fire * wheel * manipulate * farmers * stone axes * weapons
 Stone Age * fortifications * bronze * measure * nomadic * transport * alloy
 wheeled carts * technology * engineering * environment * armies

- When man learned how to start and control *fire*..., his living conditions improved a lot.
- The invention of tools and machines were made to convert materials into useful things. This process is known as
- One of the most significant invention in the ancient world was the, which occurred in about 3500 BC.
- It was important for the development of sciences that people find ways to things like distances, sizes, time, etc.
- People saved a lot of work and time moving heavy things and travelling around when they began to use hauled by animals.
- The discovery of bronze, an of tin and copper, permitted the change from the to a new era in human history.
- When men became, they stopped moving from place to place so they could cultivate their food.
- science was born when people learned to measure sizes in order to make useful things to simplify their lives.
- were created to defend or conquer new lands, so building around the cities against the enemy led to the beginning of civil engineering.
- Cities began to grow due to the improvement of farming and which permitted larger concentrations of people.

Task 4 Word play. The clues below contain anagrams, i.e. words with letters in a changed order. These terms are from the article you read. Find these words in the puzzle and write their number on the margin.

- | | | |
|---------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. A thin, pointed shaft made to be shot from a bow. | WAROR | <div style="text-align: center;">1</div> <div style="border: 1px solid black; padding: 5px;"> A R R O W G R E G M A D
 O I Y U E Y H N D V Y A
 S A Z G Y T D V I K M T
 O L P E O H G I B U K I
 A L Y F U L A R N I M E
 T O S U R G O O N X G N
 Y Y E R W U F N H U W T
 O I B E F L Q M H E H I
 W N U G O T F E C C E Q
 R H U O E M N N L S E D
 P O T T E R Y T W Z L T </div> |
| 2. A wall across a watercourse built to stop the flow. | MAD | |
| 3. An instrument used by the hand, e.g. a hammer. | LOTO | |
| 4. The science of the industrial arts and manufactures. | HOGTCNLYEO | |
| 5. The surroundings and conditions that influence life. | REMOVINETNN | |
| 6. The art of making utensils from earth and clay. | TEROPYT | |
| 7. A mixture or combination of metals. | LOYAL | |
| 8. A circular frame capable of turning on an axis. | HEELW | |