

## **Atlantis: The Reality versus the Popular Image**

**By Nigel Blair**

"Donnelly's Atlantis: The Antediluvian World is a remarkable tour de force. His enthusiasm vivified what might have been embalmed in a cabinet, and turned it into a book vital for certain temperaments. Donnelly created a vision of a golden past, of soaring adventurers spreading civilization around the world, of Eden's that once existed, were let perish — and should be a lesson to all of us. Strangely enough there is a moral in Donnelly's Atlantis, just as there was in Plato's: power corrupts."<sup>1</sup>

"All that the human race has achieved spiritually and materially it owes to the destroyers of illusions and the seekers of reality." - Erich Fromm.

"The life which is unexamined is not worth living."  
— Socrates, at his trial, Athens, 399 BC, reported by Plato

### ***Atlantis Research: Ignatius Donnelly's Imaginative Version***

"Donnelly's Atlantis: The Antediluvian World has served as the source for many other books in one of the steadiest streams of diffusion in literature. Scores, perhaps hundreds, of works of fiction stand in his debt, and a strong strain in modern science-fiction would not be understood without recourse to Donnelly."<sup>1</sup>

An unexpected by-product of all the new sea-level research is that it has breathed new life into Atlantology, the name given to research into the ancient story of Atlantis. This is described in detail as true history by Plato, citing the Egyptian priests of Sais, and more briefly by a range of other classical scholars. Something very like it is referred to in a wide range of legends and oral tribal teachings around the world. It has been the subject of more books and articles than most other subjects throughout history — many thousands at least.

For our knowledge of Plato's Atlantis we owe a great debt to Thomas Taylor, the famous English Platonist of the early 19th Century. A man of extraordinary intellectual achievement and also penetrating intuition - a rare combination - Taylor, having made available English versions of Plato's Atlantis accounts to a wide public for the first time, went on to translate many more of Plato's works, with extensive and penetrating notes. In 1820 he published a translation of Proclus commentary on the "Timaeus". This is quite invaluable as it still remains the only English translation of this crucial commentary. From it we get deep insights, and also quotations from a number of other classical authors whose works have been lost.

It was Taylor, probably more than anyone else, who first made the Atlantis story available in the modern West in an accurate form. He certainly deserves this accolade far more than the one usually given it. Ignatius Donnelly, whose "Atlantis: the Antediluvian World" departed radically from Plato in a series of massive exaggerations of the role of Atlantis. True, he appeared to put it on a (then) scientific basis, but his enthusiasm was such that the science, like the archaeology and history, was highly selectively cited and marshalled in the cause of his Atlantology.

Donnelly is best read nowadays in the 1970 Egerton Sykes edition, partly re-written with much modern evidence added. Donnelly thought of Atlantis, seriously exaggerating Plato, as a truly enormous island of sub-continental dimensions. True, he said it was only an island by the time of modern Man, not quite a continent as others later argued, but he made it very extensive, on the Mid-

Atlantic Ridge or the Dolphin Ridge as that part of it was then known, with an overseas empire extending throughout major parts of the Americas, Africa, Europe and beyond.

Donnelly, a U.S. congressman, did what he saw as his best with the scientific information available at the time, and wrote a very eloquent and moving narrative, backed by a truly impressive range of research — carried put mainly in the enormous Library of Congress in Washington DC. But he had an unfortunate tendency to let his undoubtedly sincere inspiration run away with him.

For example, he departed completely from Plato in arguing that Atlantis was the origin of modern civilization as a whole, inventing such things as the art of writing, pyramids, crop-growing and metalworking. Plato had only said that the Atlanteans had had these things, not that they had originated them; even less founded other civilizations by spreading them overseas. Incidentally, Plato did not mention pyramids at all, only temples, and a central hill modified by Poseidon.

### ***Donnelly's Atlanteans: "Gods" With A Widespread Empire and Unified Language***

"Donnelly's Atlantis: The Antediluvian World has served as a catapult book. Itself unworthy, it has led many young readers into, first, wonder and question, then disillusionment, then into serious science..... it has been an unwitting culture bearer..... it stimulated an interest that finally found fruition in serious work."<sup>1</sup>

Donnelly also, without real evidence, greatly extended the size of Plato's Atlantean empire to include areas as far away as the Baltic and even India. And he added such imaginative but unproveable details as the Atlanteans escaping in ships and arks from the sudden submergence of the island, bringing the terrible news to the suddenly-bereft overseas colonies. Plato said nothing of any Atlantean survivors from the catastrophe — although it is true he did not say anything to discourage the idea either.

Plato did, of course, say a great deal about survivors - especially Greek - from this and other catastrophes in general, but that is an entirely different matter, although we can assume that there must have been Atlantean survivors in some shape or form.

Donnelly also spoke of the Atlanteans as being the sole explanation of the gods and mythical heroes of the Greeks and other ancient peoples. Plato's account suggests that perhaps some of the heroes — notably Atlas and some of the Titans - could be explained in this way. But his story falls far short of Donnelly's sweeping claims in this respect. Of the gods, Poseidon and Zeus, the Greek god of the sea and king of the gods respectively, find a place in Plato's account, but not in such a way as to suggest, as Donnelly said, that they were simply deifications of mortal Atlantean heroes.

Charles Berlitz, who has a working knowledge of some 30 languages, has in his excellent book "The Mystery of Atlantis" made some trenchant criticisms of Donnelly's linguistic conclusions. On pages 137-8, he points out that Donnelly tried to establish an argument for a prehistoric worldwide all-originating Atlantean language on the grounds of similarities between words in languages which he considered to be completely unconnected.

While in some cases these similarities are genuinely remarkable, in other cases we now know that these languages, such as various European tongues and Sanscrit, were related in ancient times. Sometimes also, as with the modern word "hurricane", it was in fact simply taken by later colonizers from an ancient word, in this case the name of the Caribbean storm-god "Hurakan", rather than sharing some sort of Atlantean origin with it as Donnelly thought.

Having said this, Berlitz went on in Chapter 10 of "The Mystery of Atlantis" to list large numbers of words, some of them mentioned by Donnelly, which are shared between isolated ancient languages like Basque, Welsh and indigenous American tongues, despite the fact that these areas are still thought to have had no contact in ancient times. These, especially coming from a linguistic expert, really are remarkable.

They certainly suggest either a very widespread proto-language — a hypothesis now to some extent coming back into favour with new research supporting just that, under the academic name of "Proto-Nostratic" - or far wider and more numerous contacts, including trans-oceanic, between ancient civilizations worldwide than most scholars had thought possible.

Berlitz also said that, given the state of knowledge in Donnelly's time, he could not fairly be blamed for many of his errors, either the linguistic ones or others. In fact, he says that Donnelly was a remarkable pioneer, whose work was an extraordinary achievement, given the limitations of 19th Century research. This seems to be a fair summing-up.

### ***Donnelly: Monumental, But His Science Now Outdated***

"Donnelly, despite his truly impressive learning and industry, did not have an open mind..."<sup>1</sup>

Although many of his conclusions cannot now be accepted, he had the courage, initiative and sheer will-power to do an incredible amount of concentrated research and produce a monumental work. Its importance is shown abundantly in the number of distinguished and highly discriminating people influenced by it from that day to this.

These range from famous British Prime Minister William Gladstone, who wanted to send the Royal Navy to search for Donnelly's mid-Atlantic Atlantis, to modern diplomat and scholar Dr. Egerton Sykes, who produced by far the best edition of "Atlantis: the Antediluvian World" in 1970.

Much of the science of Donnelly's time is now outdated. For example, he thought that the mid-Atlantic island was part of what had once been an entire Atlantic continent. Some further scholars between 1882 and the 1950's greatly exaggerated Plato's account, and even Donnelly's, by claiming it had been a continent as late as the time of homo sapiens, spanning the Atlantic and connecting the continents on either side.

The idea of the continent followed the opinion of many geologists of the time, who believed that it was necessary to postulate this in order to explain the remarkable similarities between the flora and fauna of America on one side and Europe/Africa on the other. It was never really a starter, since most of these geologists even then believed that such a continent would have been submerged long before advanced humanity appeared. Plato had made no such claim: he had written only of a large island in the Atlantic opposite the Straits of Gibraltar, which led to other islands from which in turn the "great opposite continent" enclosing the Atlantic (America) could be reached. He was thus clearly specifying Atlantis as an island quite distinct from the real continent which was on the other side of the ocean.

Some of the more discerning earlier twentieth century Atlantologists, such as Lewis Spence, modified the exaggerated claim of an Atlantean continent, (as Donnelly had done) by arguing that the Atlantis of human memory consisted only of one or more remnant islands of the supposed one-time Atlantic landmass.

The rest of it, they argued, had (as the geologists said) disappeared many millennia before. Perhaps the most distinguished of the geologists who believed that remnants might have survived into the time of homo sapiens, was the great-French-geologist of worldwide reputation, Professor Pierre Termier.

### ***The "Continental" Illusion: Not Plato's Real Atlantis***

The idea of the "lost continent" of Atlantis spanning the Atlantic was never more than an inaccurate speculation, especially when writers attempted to place it as late as the end of the last Ice Age. It squared neither with the geological facts nor with the accounts of Plato, nor — for that matter — with other classical writers or tribal legends. In fact, had it been true it would have disproved Plato, who went out of his way in the "Timaeus" to stress that the Atlantean and other islands were mere stepping-stones to the real "great opposite continent" of America, and not remotely of continental dimensions themselves.

We have already seen how the famous reference in the "Timaeus" to the main island as "bigger than Asia and Libya put together" is using the concept of those territories in their original, limited Greek meaning, according to which they were each individually far from the sub-continental areas which almost all scholars have assumed them to be.

In fact, "Asia" was originally no larger than the western coastal area of present-day Anatolia, or Asiatic Turkey, i.e. the area that the Greeks colonized close to the Aegean. It later came to mean a somewhat larger part of what is now Turkey, but still no more — by Plato's time — than the western and central parts of Anatolia.

"Libya" was in its more precise meaning not the whole of North Africa, still less Africa as a whole, but rather a limited area immediately to the west of the Nile Delta. This region was not defined in ancient times, but was no larger than a major Western European country today, and possibly even a good deal smaller than Britain.

All Atlantis writers that I am familiar with — and I have read a very great many accounts — seem to be unaware of the fact that the Greeks had two ways of using the word "Libya". "Libya Entos" meant "Interior Libya", i.e. the whole interior of Africa, as distinct from the much better-known areas in North Africa. This is the phrase Plato uses in his second reference to Libya in the "Timaeus", when he says that the Atlanteans\* dominions included all of Libya as far as the borders of Egypt. He clearly means to say that Atlantis ruled a large part of the African continent that was then known to the Greeks, i.e. the northern part.

However, a few lines earlier, in the crucial phrase defining the size of the island of Atlantis as "bigger than Asia and Libya put together", the Greek word is just "Libyes", just "Libya" without any suggestion that the whole of Africa or even of North Africa was meant. This could easily refer to the district of North Africa between Egypt and Mannarica known as "Libya". This was sometimes referred to as "Libyae Nomos" since it had once formed an Egyptian administrative region known as a "Nomos", but very often simply as "Libyes". The absence of the defining word "entos" at this point suggests that Plato was indeed here alluding only to this "core" original precise meaning.

In fact, if we take this "Timaeus" account in conjunction with the far more detailed story of the main Atlantis island in the "Critias" (or "Atlanticos", "the Atlantic") we have no alternative but to accept this meaning.

## The Secret Story of Our Planet. Atlantis the Reality versus the Popular Image

In this second Atlantis Dialogue the land is described as having a great plain which ran up through the centre of the island had an area of about 80,000 square miles, a little less than that of the United Kingdom which is a little over 90,000. Plato says that the plain was surrounded by mountainous land. He does not give the area of the latter, but the account suggests that the island as a whole may have been up to around twice the size of Britain, or even larger.

It is clear, however, from the "Critias" — by far the more detailed of Plato's two Atlantis dialogues — that the island was in no way of continental size. For this, the great plain would have to have been insignificant in size compared to the island as a whole. Plato's detailed account of the major part it played in the agriculture and military forces of the island makes it unlikely that he could have thought this.

Moreover, Plato's statement that the plain went "up through the centre of the island" in itself rules out a continent. Plato's stated figures - as we will calculate in a later chapter - give a plain around 370 by 230 miles. Such an area would have been a mere coastal niche in a continent, which would be measured in thousands rather than hundreds of miles. In no way could it have anywhere near reached the centre of it, let alone gone through it. It would have been roughly the equivalent of a single medium-sized U.S. state in the whole of the North American sub-continent, including Canada: completely dwarfed, even if we exclude South America from the equation.

The Greeks' conception of "Asia and Libya" is usually interpreted as the whole of Asia Minor and North Africa except Egypt i.e. extremely large. For this reason; almost all studies of Atlantis have fallen foul of this imagined impossible dilemma whereby they have felt it necessary to attribute to Plato in the "Timaeus" a gigantic continental-sized Atlantis. This was clearly inconsistent both with (for those few who bothered to analyze it) Plato's own other dialogue, the "Critias", and with modern oceanography.

This crucial misunderstanding has led to a large number of "red herrings" and bizarre supposed locations for what was really a perfectly straightforward description by Plato. For example, some scholars have suggested that the island was so massive that it could only have been America. This, of course, ignores the fact that that great continent is very far from having submerged, and that Plato refers to America (the "great opposite continent") separately in the "Timaeus" saying that from Atlantis one could get to other Atlantic islands which then would take one over to it.

Plato's account, in fact, makes it crystal clear that all he was referring to was a fair-sized Atlantic island rather larger than Britain, possibly as large as France, which was suddenly "swallowed up" by the sea in around 9,600 BC following its defeat by a Greek-led coalition after it had invaded the eastern Mediterranean.

It is also possible that Plato's phrase "bigger than Asia and Libya put together" could refer to the oceanic area covered by an Atlantean archipelago of islands like the much-enlarged Azores or Canaries of the Ice Age era, combined with other Ice Age Atlantic islands now submerged by the rising sea-level. This could have been so if the account had been just slightly changed in the original transmission down some nine millennia, or in the Egyptian priest's translation from the hieroglyphs, or in Solon's note-taking.

Plato's whole emphasis on the maritime nature of the Atlantean economy would be consistent with this. He gives a detailed description of the empire and trading network of the Atlantic island, emphasizing that these were overseas, and could only be reached by extensive shipping. This was based on the great port and dockyards of the capital city, which are described with great care.

There is moreover, nothing in Plato or the other classical writers to suggest that Atlantis had once been part of a great continent. So far from this, Plato's strong emphasis on the Atlantic as the "true ocean", and its vast size, suggests he believed it had always been there, and was roughly of those dimensions even in the time of Atlantis, rather than being largely displaced by a great landmass.

### ***The Atlantis Story: A Patchwork Quilt to be Unravelling***

When the whole scientific basis for the one-time existence of an Atlantean continent was undermined in the post-war period by the new - and ultimately overwhelming - geological evidence for continental drift and "sea-floor spreading" the Atlantologists should not have been dismayed. On the contrary, they should have rejoiced at the removal of a dangerous "wild goose chase", a distraction which had brought nothing but disrepute and wasted effort to the serious study of their subject.

In its place, the new earth sciences, as they have been called - which to the superficial observer appear to destroy the Atlantean hypothesis - in a whole range of subtle ways give it a new lease of life. But in the course of doing this they forced us to re-examine from the very roots the concept of Atlantis. They also make us go back to the classical and other ancient sources with a rigour and a degree of penetrating analysis seldom if ever previously undertaken.

We cannot be content with generalizations, ambiguities or sparsely supported claims - things which have dogged Atlantology since its very inception. We must dispense with all wishful thinking and single-mindedly follow the precise truth wherever it leads. We must also range over a large number of disciplines and areas of research, especially linguistic, literary, anthropological, historical, astronomical, geological and oceanographical.

For what we are studying is in reality nothing less than the very origins and development of civilization and the unstable planet upon which it is based and "Atlantis" turns out to mean not just submerged islands but an entire Atlantic prehistoric culture-complex. Even with this greatly expanded meaning, we soon realize that it is only a small part, and by no means entirely a creditable one, of an even greater story - that of the rise of humanity to civilization on Earth.

If we can stick to the exacting path of true objectivity, a great reward awaits us. This reward is that sense can be made of Plato's repeated insistence that the Egyptian priest's account of Atlantis was historically true, and not false. There is an abundance of evidence for the most important elements of the story. But does not mean we must take it at face value. If we try to take it too literally we will destroy its credibility.

The secret is to take each major element and realize that it has its own authentic point of origin to some degree independent of the others. For the account, in principle, is the result of a patchwork quilt — Clement of Alexandria's "stromateis". The unravelling of this fascinating patchwork is one of the great detective stories of history.

The many-faceted metaphorical garment took many thousands of years in the weaving, through millennia of oral transmission and painstaking hieroglyphic writing of Egyptian and possibly other records. Like many ancient epics which were far more historical than myths but which never set out to be objective in the modern sense, it reflected many different and separate episodes in the history of humanity and Planet Earth.

The antecedent components which inspired it spanned the entire "post-Ice Age" epoch, from the most rapid period of the melting of the ice-caps around Plato's date of c. 9,600 BC for the submergence of Atlantis, right through to certain splendid 'Bronze' Age cities which may have inspired the account of

this great capital canals, gods and bull cult. We must start at the beginning. And this means that, for a little, we must turn to the very planet itself and the origins of the continents and oceans so familiar to us today.

### ***Shifting Continents, Volcanic Energies and Disappearing Islands – The Real Story of the Atlantic***

This evidence, confirmed and added to by recent findings from the 1980s and 1990s, has shown that the first beginnings of the Atlantic Ocean occurred when a massive "mantle plume", or up-rush of lava from the inner mantle of the Earth, created a gigantic crack in the one-time supercontinent of Pangaea, which in turn had split into Gondwanaland and later, to the north, Laurasia. This was in what is now the mid-Atlantic. The mantle plume continued to force lava up through this crack. America and Europe/Africa were separated in this way, and the sea rushed in to fill the gap.

Even after this, the lava continued to pressure its way up onto what had become the ocean floor. This is known as "sea-floor spreading". It pushes the land on either side apart at an infinitesimally slow rate in what is known as continental drift, currently estimated at about 2-3 centimetres (or one inch) a year. Even this was enough to create the present Atlantic, starting in the north much later than in the south, in fact as recently as about 58 million years ago.

The rock that now exists on the Atlantic sea-bed is not mostly, therefore, "continental rock" or "sial" as it is sometimes known, but "oceanic rock" or "sima", the solidified lava which, having arrived from the inner mantle has now spread out and filled the vast Atlantic area left by the separating continents.

In other words, it is not the remains of a lost continent which has submerged, because it would have had to consist of the "sial" of which we know such vast landmasses are made. This, combined with the theory of isostasy mentioned below, is a valid argument against an Atlantean continent. But it is not, as is often suggested, an argument against substantial former Atlantean islands or continental shelves.

For, unknown to many, "sima" can and does form large land-areas: a large part of mountainous southern Europe for example, once the Tethys Ocean, is made of it, especially in Switzerland. Nor does it mean that substantial parts of the ocean floor, composed of sima, cannot rise to the surface and form land. Iceland and countless other islands are testimony of this.

In his book "Atlantis" Dr. N. F. Zhironov, a leading Russian scientist and a specialist in chemistry and in marine geology, considers that the Atlantean island was a result of such processes and was therefore primarily an island composed of basaltic rock, i.e. oceanic sima. In Britain this idea has been independently developed by Chris Herald, who has done some excellent research on Atlantis.

It is now widely recognized, moreover, that continental-type rock has been found on the ocean floor, probably from bits that were broken off as the continents of America, Europe and Africa drifted apart (see below), forming "oases" of sial amongst the sima. These in some cases almost certainly took the form of islands which eventually sank. Whether any of them lasted long enough to have been part of Plato's Atlantis is not known. As we have just seen, it is not essential to the Atlantean hypothesis, for Atlantis is likely to have been composed mainly of volcanic, basaltic islands like Iceland, i.e. those made out of oceanic "sima".

But one thing is certain. The continental rock that has been found on the sea-bed is not only on the continental shelves, which of course by definition are composed of "sial" of this type, but also at times in the deep oceans. Zhironov reports finds of this continental sial particularly on the North Atlantic ocean floor east of the Mid-Atlantic Ridge, exactly where Plato said the main Atlantean island was.

Zhirov, an expert in oceanic chemical sciences, also believes that continental rocks which have been on the sea-bed can be transformed chemically into basaltic sima over time by the natural action of the sea, a process he calls "oceanisation". He thinks, therefore, that in the past there was probably far more continental rock, probably once above the surface, lying now in the form of sima on the sea-floor.

The Atlantean "empire" or sphere of influence, and possibly parts of Atlantis proper, would have consisted partly of the now-sunken continental shelves. It would probably also have contained territory further inland which still now exists, especially in France, the north-west European peninsula containing what is now the British Isles, Portugal, Spain, north-west Africa, the Caribbean and America.

### ***The "Lost" Atlantic Continent: Now Mainly Europe. Africa and America***

It is clear from our last section that there never was an Atlantic continent which had sunk. But the apparent obvious alternative, the great traditional anti-Atlantis assumption, once popular with experts, that the Atlantic Ocean had always existed, is an equally untenable notion. For when oceanographers began to measure the age of the sea floor rocks, they were increasingly amazed by an extraordinary fact, as the results gradually built up into an overall picture.

The rocks were incredibly young, with ages for the northern North Atlantic varying from 58 million years old at the edges (nearest America and Europe) to merely a few thousand years old at the centre of the Mid-Atlantic Ridge. This seemed at first to be inexplicable, and its implications were therefore ignored by many scientists.

For what it implied was that, before the existence of this very geologically recent sea-floor, there had indeed been land there. Was this, after all, some sort of confirmation of the old view that there had been an Atlantic continent?

The answer is, in a sense, yes. It is true to say that the area of the Earth's surface now occupied by this great Ocean was once land. This fact took a very long time to be accepted, because it seemed to be completely impossible, and the mainstream of geological science fought a prolonged and determined rearguard action for several decades against it, until it was forced to concede the issue when the evidence became overwhelming in the 1960s.

How could the region now covered by the Atlantic sea-bed possibly have been once dry land, if the main part of the top "sima" rock layer of the sea-bed itself had not constituted that land?

The almost unbelievable answer was the result of the process we described in our last section. We have described how a continent had been there — the north-western part of the great all-in-one supercontinent now called Pangaea. A northern part of Pangaea had already broken away, and Wegener had named it Laurasia. This had been slowly but surely pushed out of the way. It had, as we saw, split apart. A giant crack had appeared along the line of the present Mid-Atlantic Ridge.

An enormous "mantle plume" of lava, having pushed its way up for many hundreds of miles through the mantle rock underlying the Earth's crust, emerged about 58 million years ago. It continued to force its way through the crack in what became called "sea-floor spreading", gradually pushing away the thick layer of continental rock on either side and replacing it with basaltic, volcanic "sima" which is now the top layer of the ocean floor. In doing so, the mantle plume started a process which is still

continuing, which accounts for the fact that America and Britain move two centimetres or so further apart every year, a process which is minutely measured.

Continental drift, as it became known, had been vigorously debated from its first public beginnings in 1912 (with Alfred Wegener's original book on the subject) to the late 1960s, when the confirmatory findings became so strong that it convinced even the conservative scientific "backwoodsmen".

The two parts of the original western Laurasia became America and Europe. The result is that, when we fly the North Atlantic, we are in fact flying over a whole continental-sized part of the Earth's crust once covered by continental rock. This supported the rolling hills, plains and forests of what are now Western Europe or the eastern half of North America. These are, in a very real sense, the main parts of the lost subcontinent of the North Atlantic, what might be called the lost Laurasia. It has been lost, as a single Atlantic-area unit, by being split, pushed out of the way and replaced by the Atlantic Ocean, with its relatively new sea-bed of "sima".

This concept is not so different from the old geological idea of the lost continent of Atlantis — but instead of having to sink in order to be replaced by the Atlantic, it was split; and the two halves forced gradually away in opposite directions, allowing the ocean to fill the gap. In the same way South America and Africa are the main parts of the lost sub-continent of the South Atlantic — the split-off western remnants of the lost Gondwanaland, as Wegener called the main southern portion of his original supercontinent.

### ***Continents Cannot Be Submerged, but Bits of them Can***

The greater part of this ancient Atlantic sub-continent, alias western Laurasia, has not been lost by Submergence. In fact, those like Wegener himself who really knew their geology and physics, even early in the century, were aware that the laws of isostasy, which govern the gravitational effects of landmasses on the Earth's crust, had already ruled out the submergence of entire continents. It was in fact this realization which drove Wegener on to discover the alternative concept of drifting continents to explain why, having once been part of a supercontinent, they are now separated, in some cases by vast oceans.

However, there are three qualifications to this picture. The first two have already been mentioned in another context, but they are so crucial that they must be stressed at this point. First, notice that we saw how the greater part of the Atlantic region of Laurasia was not lost by submergence. Some of it probably was. Pieces on the edges of the two drifting halves appear to have broken away and, sooner or later, been swamped by the rising new Atlantic Ocean.

Second, one neglected fact is even more crucial. Neither the laws of isostasy nor the prevalence of "oceanic rock" or "sima" on the ocean floors by any means rule out large islands which have submerged. These islands were very likely in some cases composed of the remnant continental rock from the break-up process just described. In other cases, like Iceland and most of the other Atlantic Islands, they were formed out of oceanic "sima" thrust up by volcanic or mantle plume forces, and appeared long after the Atlantic was created. These still-existing islands are all in reality partly-submerged remnants, as they were very much larger when the sea-level was lower during the last Ice Age. Many present-day seamounts and underwater plateaus, now submerged, were of course once islands, some very large.

The third point is already implied by the second. All this separation of continents occurred on a time-scale of many tens of millions of years. There have been many millions of years since then for countless sequences of islands to appear and disappear. In addition, of course, there has been ample

time for the enormous areas of continental shelf off the main continents to be formed and then to submerge in epochs of high sea-level. As we saw earlier, this is just what occurred at the end of the last Ice Age, centring on Plato's date of around 9,500 BC.

### ***Atlantis, the Ancient Atlantic and the "Great Opposite Continent"***

".....In those days the Atlantic was navigable from an island situated to the west of the straits which you call the Pillars of Hercules [Straits of Gibraltar]: the island was larger than Libya and Asia put together, and from it could be reached other islands, and from the islands you might pass through to the opposite continent [America], which surrounded the true ocean....."

— the Egyptian priest of Sais, then capital of Egypt, describing to Solon in 571 BC the nature of Atlantis and the Atlantic Ocean. From the "Timaeus" by Plato.

" Many great deluges have taken place during the nine thousand years, for that is the number of years which have elapsed since the time of which I am speaking; and in all the ages and changes of things there has never been any settlement of the earth flowing down from the mountains, as in other places, which is worth speaking of; it has always been carried round in a circle, and disappeared in the depths below. The consequence is that, in comparison of what then was, there are remaining in small islets only the bones of the wasted body, as they may be called, all the richer and softer parts of the soil having fallen away, and the mere skeleton of the country being left. ..."

- Plato's "Critias", third paragraph, continuing the story begun in the "Timaeus", and later moving on to a very detailed description of Atlantis prior to the catastrophe.

The "small islets" which were all that remained, the "bones of the wasted body", the "mere skeleton of the country being left" are here referring to what happened to the prehistoric Greece of around 9,600 BC after the catastrophe. The same principle could however easily apply to, amongst other places, Atlantic islands like the Azores or the Canaries. These are remnants of far larger Atlantic lands that we know existed before the upheavals and rising sea-level at the end of the last Ice Age in c. 10,000-9,000 BC. Precisely consistent with the date Plato gives.

The description could also refer to other countries, especially in the islet-strewn Aegean area, which are known to have been greatly devastated, flooded and shrunken by the same earth-shattering geological events. It could and clearly does, moreover, refer also to other planetary cataclysms which scientists are now realizing occurred at later stages in humanity's history.

### ***The Lost Continental Shelves and Islands of Atlantis***

"They also add, that the inhabitants of it [the 'immense' Atlantic island sacred to Neptune, the Roman name for Poseidon] preserved the remembrance from their ancestors, of the [previous, far larger] Atlantic island that existed there, and was truly prodigiously great; which for many periods had dominion over all the islands in the Atlantic Sea, and was itself likewise sacred to Neptune [Poseidon]. These things, therefore, Marcellus writes in his Ethiopia History....."<sup>2</sup>

### ***"Bigger than Asia and Libya Put Together": But How Big?***

If they had been faithful to the ancient authors, especially Plato, the Atlantologists would, however, not have been deterred by the findings of the new Earth sciences. They would have known that an Atlantic continent had never been part of the authentic Atlantis tradition.

Some of them were misled by Plato's description of the island of Atlantis in the "Timaeus" as "bigger than Asia and Libya put together". Many of them have attributed a quite inappropriate meaning to these words and even supposed that Plato meant the present-day concept of Asia, i.e. by far the largest of the continents, then inconsistently combining this with just one of the later ancient meanings of Libya, namely the whole of Africa. This makes it quite impossible to make any sense of Plato's account at all, since one would have to envisage an Atlantic island far bigger than the Atlantic itself!

The best such writers can do with this is to suppose Plato must have meant the whole of the Americas, which are still nothing like as large as Asia and Africa together, but are at least of continental scale. This of course involves ignoring a whole range of other statements in the two Dialogues quite inconsistent with this idea. Atlantis is described as an island of clearly modest dimensions, not remotely a continent, as we will see shortly. It was swallowed up by the sea in a "single dreadful day and single dreadful night", which clearly has not happened to America!

It is stated to be opposite or beyond the Straits of Gibraltar. The fact that it was meant to be fairly close to the Straits, rather than several thousand miles across the Atlantic, is shown by the immediately following statement in the "Timaeus" that its submergence caused the mud just beyond the Straits which Plato described as an impediment to navigation from the Mediterranean into the Atlantic. As if this were not enough, there are several other statements in the dialogues which clearly place Atlantis in the Atlantic not very far beyond the Straits.

The "Critias", whose alternative title of "Atlanticos" is in itself significant states that one of the sub-kings of Atlantis, Gadierus, was given that part of the island opposite to "Gades", widely thought to be the origin of the modern name of Cadiz in south-western Spain just on the Atlantic side of the Straits of Gibraltar. It also could be, at least in part, the ancestor of the names Guadalquivir, the Spanish river near Cadiz, and Agadir, the Atlantic port in Morocco on the other side of the Straits.

In addition, the whole context of Plato's account, which links together the Atlantis island beyond the Straits with its south-west European and North African subject territories and describes the invasion into the Mediterranean from the Atlantic, completely rules out the idea of its being a distant continental-sized landmass several thousands of miles to the west. The idea of launching a massive invasion at that time over several thousand miles of ocean is out of the question. It was not possible even in World War II: "D-Day" had to be launched across the English Channel, and even then the weather made it difficult enough!

But we have already noted earlier the most decisive of all problems was the idea that Atlantis was America. For the latter is also mentioned in the "Timaeus" as lying across the Atlantic well beyond Atlantis, the "great opposite continent" which enclosed the "true ocean", which could be reached via "other islands", and over part of which Atlantis ruled.

### ***The "Asia" of the Greeks and Romans***

Some Atlantologists have taken the trouble to come a little closer to the real meaning of Plato's terminology than the great majority, who have often played fast and loose with it. They argue, for

example, that by Asia Plato meant Asia Minor, i.e. the whole of Anatolia, or non-European Turkey, but no further afield than this; and by "Libya", often translated as "North Africa", he meant probably only the northern part of Africa best known to the Greeks, excluding Egypt. The problem with this is that this is still an enormous area, far too large to have been the island described in the "Critias".

The true solution to the problem we have already mentioned briefly earlier. In the New Testament, St Paul sent letters to the churches of Asia, which clearly did not mean the modern supercontinent, or even Asia Minor. It is clear that it referred to only a limited area which was quite distinct from the other provinces in modern Turkey to which Paul sent letters.

My brother. Dr. Philip Blair, a theologian and linguist to whom I am indebted for the analysis of key words in the original Greek texts of Plato's "Timaeus" and Proclus's commentary on it, added an important further reference. The Apocalypse of St. John the Divine, otherwise known as the Book of Revelation, is of course the last book of the Bible. At the beginning, the author addresses it to "the seven churches of Asia", which is clearly only the Roman province in western Anatolia.

In "The Times Atlas of World History" pages for the Roman period (especially page 86), "Asia" is, indeed, a Roman province, a limited enclave in north-western Anatolia. The Roman province was, however, formed out of the kingdom of Pergamon, which was given to the Roman Empire by Attains III in BC 133. Do we have any evidence that the Greeks before this had any similarly limited concept of "Asia"?

In the maps of the "Times Atlas" for the classical Greek period, it is given as a vaguely-defined area in Asia Minor or Anatolia. The map covering the period of Greek colonization in the Mediterranean world, 750 to 550 BC (pages 74-5), marks Anatolia as Asia Minor, but the title is placed distinctly in the western part of it. The eastern part, which then belonged to the Persian Empire, is marked as such.

This suggests that, with the latter part belonging to a foreign empire, Asia Minor to the early classical Greeks was, in practice, primarily western Anatolia, even though the phrase may have technically meant the whole of it. This becomes clearer when one looks at the areas of Greek colonization, shown in insets on page 74, which are mainly in the western part. The first map of the Greek world which clearly marks Asia Minor as the whole of Anatolia is one of the Empire of Alexander the Great on pages 76-7. This of course refers to a period when the (Macedonian) Greeks had conquered, not only the whole of this area, but a vast area beyond, extending to the borders of India. The Empire of Alexander, however, did not start until the 330s BC, after Plato's time. It seems that, from the maps, there is a good case that Plato's use of the word "Asia" to define, with "Libya", the size of Atlantis could have referred primarily to western Anatolia, the area the Greeks principally knew and had partly settled.

### ***Limited and Real: What Plato Meant by Atlantis***

It remained for me to check the limited interpretation of "Asia" in some of my large library of classical and ancient reference books. I found it amply confirmed, as a possibility, in my principal geographical classical dictionary, a massive and scholarly work which contains vast amounts of ancient geographical information absent from almost all other classical reference books. This has an enormous entry on the classical meanings of "Asia" amounting to some five or so pages of a normal book. It says that the word was, indeed, first used by the Greeks to mean the western part of Anatolia only, especially the plains watered by the river Cayster, where they first settled what is now Turkey.

It then adds that, as the Greek geographical knowledge advanced, they extended the word to mean the whole of Anatolia. It goes on to describe in detail how the Greek knowledge of the area was built

up. It is certain that, by well before Plato's time (roughly 400-350 BC), the Greeks knew of the whole of Anatolia and often described it as "Asia". They also, by that time, knew of much land further afield to the east, but did not normally include this within the term.

It is equally certain that, especially after the Persian wars in the century before Plato, the eastern part of Anatolia was regarded — except for some coastal enclaves — as a foreign, little-known and often hostile area, the main part of which was frequently inaccessible to them. What is unclear is whether, because of this, the Greeks by Plato's period still at times used the term "Asia" loosely in the more limited, earlier sense, to mean western Anatolia only.

From my research into this, ranging over a number of works, I suspect that this is indeed the case, and that "Asia" to the classical Greeks of Plato's day could mean, in certain contexts, an area no larger than the western part of present-day Anatolia, or Asiatic Turkey. This was clearly true in the later Roman period for at least many writers as late as towards the end of the 1st Century AD, when St. John the Divine wrote the Book of Revelation. Originally, as we saw, it was just the western coastal area that the Greeks colonized close to the Aegean.

Very likely there was a degree of ambiguity about the term during at least much of the Greek classical epoch. How far East in Anatolia it denoted was probably, at the very least, uncertain. Equally likely, Plato who would not have been sure of the dimensions of Atlantis from the Egyptian priest's account did not want to commit himself to an exact measurement, and deliberately chose a vague definition by comparing its size with two regions which were themselves somewhat undefined. The great majority of other authors on Atlantis, classical and modern, have similarly refrained from defining its size too precisely!

"Libya", likewise, was in its more precise meaning not the whole of North Africa, still less Africa as a whole, but rather a limited area immediately to the west of the Nile Delta that had been an Egyptian "Nomos" or administrative region. True, "Libya" did as time went on become applied to the whole of known (i.e. primarily North) Africa. In Plato's time, however, there was no reason to believe it meant this unless the context suggested it or unless, as we outlined earlier, "Libya Entos" ("Libya Interior", i.e. the whole interior of North Africa, the Africa known to the Greeks) was specified. As we saw, Plato uses this phrase when describing the area conquered by the Atlantean "empire" in North Africa, but not when he uses "Libya" to define the size of Atlantis.

Both these names, Asia and Libya, as used by Plato, are still vague in the area they specify, but one thing is clearly strongly arguable. In the reference in the "Timaeus" to the main island as "bigger than Asia and Libya put together", it now seems likely that Plato is using the concept of those territories at least to some degree in their original, limited Greek meaning, according to which they were each individually far from the sub-continental areas which almost all scholars have assumed them to be.

### ***Atlantis an Archipelago, not a Single Island***

As we have just seen, Plato's "Asia" and "Libya" could well have indicated areas each on their own smaller than Britain, or not very much larger than it. This would suggest an Atlantis possibly between the sizes of Spain and France, or around twice the size of Britain; perhaps somewhat larger, but still very small compared with any sub-continent.

Moreover, in all my reading of large numbers of Atlantis books I have not yet come across a recognition of what seems to be another very real possibility, which I have already briefly referred to. By a relatively minor mistranslation (from the original Egyptian hieroglyphs translated for Solon by the

Egyptian priest of Sais in 571 BC), or a mistake in its transmission via Solon's notes and Dropidas down to Critias and Plato, the whole meaning of the passage could have been drastically changed.

A statement originally intended to mean that the area covered by the main Atlantean group of islands was "bigger than Asia and Libya put together" could have become a claim that this was the size of the single main island. This would enable Plato's main island of Atlantis to be scaled down even further. No longer would we even have to believe that, to be in principle consistent with Plato, any one island must have been around twice the size of Britain. Instead, this could have been the size of the core central islands of a substantial archipelago.

If we are to take the dimensions of Plato's great plain in the "Critias" literally, then at least one island would have to have been a little larger than Britain as a minimum, to make room for the mountainous land which Plato said surrounded the plain of about 80,000 square miles, but we are now dealing with an oceanographically much more manageable order of dimensions.

If we do not take Plato's "Critias" this literally, then we do not even have to envisage any single island anywhere near the size of Britain. An archipelago which added up to a substantial overall land area would suffice admirably and this, as we will see a little later, is very easily within the evidence produced by the new Earth sciences, as we have called them. For the rising sea-level at the end of the last Ice Age rapidly submerged large parts of several Atlantic island archipelagos - especially at around 9,500 BC, practically spot-on Plato's date for the submergence of Atlantis. But this is very far from all we have to go on. Certain other classical historians besides Plato, and independently of him, seem to have known about Atlantis and it is to this that we must now turn.

### ***Lost Atlantis: Submerged Islands.....***

Either interpretation of Plato's Atlantis outlined in our last section — a major archipelago with, or without, a very large central island — would produce a size well in keeping with the statements of other classical authors. For these do not give the dimensions of the islands they describe, but simply state or imply that there was one at least fairly large one, which in some cases they explicitly identify with Atlantis, and which dominated other Atlantic islands.

Such a scenario is reported by Proclus in his commentary on Plato's "Timaeus", in which he cites Marcellus's "Ethiopic History"; It is abundantly clear, from this that the "Atlantic Sea" existed at the time of Atlantis, and was not then displaced by a land continent. Some of these other authors, contrary to what is often claimed, are clearly writing independently of Plato, from quite different sources.

We saw earlier how the revised, smaller interpretation of "bigger than Asia and Libya" is fully consistent with Plato's own far more detailed description of Atlantis in his second Dialogue on the subject, the "Atlanticos" or "Critias". Here, as we described earlier, he gives the size of the great plain of the island as around 80,000 square miles, or a little less than that of the United Kingdom. Although he adds that this levelled-out flat area was surrounded by a great deal of other land, much of it mountainous, the implication, as we saw, is that the great plain was at least a substantial part of the overall island.

If as we suggested this made the whole island perhaps nearly twice the size of the United Kingdom, this would equate to the great raised underwater area of the Azores Plateau — as the geologist Dr. Otto Muck argues. Perhaps it could be several times the size of Britain, as the distinguished Russian geologist and chemist Dr. Nikolai Zhironov argues from his exhaustive oceanographical analysis of the

mid-Atlantic sea-bed; but it would still be clearly a large island rather than anything remotely continental in dimensions.

Muck and Zhirov are especially valuable in that they apply rigorous scientific analyses to their studies. However, they are to some extent limited by the fact that they were writing just at the time when a revolution was occurring in geology and oceanography, the implications of which were not to become fully clear until the 1980s or even in some areas the 1990s.

In their English translations, which are also updated editions Muck and Zhirov are recent enough (1970s) to incorporate the results of some of the geological revolution that had occurred in the 1950s and 1960s / 70s with the discovery of decisive evidence confirming continental drift, tectonic plates and "sea-floor spreading". But in some crucial respects, such as the true nature of the sea-floor spreading and the magnetic "stripes" it revealed, the behaviour of underwater volcanoes, and mantle plumes, they pre-date important discoveries.

### **..... And Continental Shelves**

*"Teeth of mastodons and mammoths have been recovered by fishermen from at least 40 sites on the [north-east United States] continental shelf as deep as 120 metres. Also present are submerged shorelines, peat deposits, lagoonal shelves, and relict sands. Evidently elephants and other large mammals ranged this region during the glacial stage of low sea-level of the last 25,000 years."<sup>3</sup>*

It is worth adding that Plato describes Atlantis as roaming with animal life, including elephants. One other point is crucial. Plato, in his "Timaeus" and "Critias", when he referred to "Atlantis", was including not just the Atlantic islands but the whole Atlantean empire, which, as we will outline shortly, included substantial coastal and inland areas of three continents — America, Western Europe and North Africa. At the time of which he was writing, which he made clear at several points was 9,000 years before the Egyptian priest of Sais told the account to Solon (571 BC), or about 9,600 BC, the continental shelves around these continents were still mostly above the surface.

They would have been largely part of the Atlantean empire, or sphere of influence. Therefore, it is correct to include major parts of the Atlantic (and western Mediterranean) continental shelves in the name "Atlantis". Hence, we can redefine the incorrect phrase so often used, "the lost continent of Atlantis", as "the lost continental shelves and islands of Atlantis".

Finally, just in case any reader should doubt that Plato meant Atlantis to have been in the Atlantic, it is worth pointing out here that the alternative title for his "Critias" is the "Atlantikos" (Latin) or "Atlanticos" (Greek), which of course in Greek means the Atlantic, itself named after Atlas, Plato's second king of Atlantis. "Pelagos Atlanticos" literally means "the ocean of Atlas" or, by inference, "the ocean beyond the Atlas mountains". "Atlantis" literally means "daughter of Atlas", which at the very least strongly implies it was in the Atlantic Ocean, quite apart from Plato's explicit repeated statement that it was so.

### **The "Victory" of the Sceptics: Over A Mere Mirage**

As a result of the gross exaggerations of some of the less scholarly and more imaginative Atlantis writers, the established scientific community developed an extreme but understandable response. This was mainly in reaction against the idea that Atlantis had been an entire continent, sometimes with the concomitant that it had been in some sense a "cradle area" for the whole of humanity or the base for a high-tech civilization in advance of today's. Atlantologists who remained faithful to the

ancient authors never dreamed of claiming such ideas, for which there is no acceptable evidence. Nevertheless, the establishment's hostility rubbed off onto the whole subject of Atlantis, however moderately it was treated.

In order to avoid any chance of being tarred with the brush of a theory that could involve wild and cultish associations, the orthodox scholars "closed ranks" and, explicitly or implicitly, made it practically impossible for any accredited academic or scientist to state a belief in Plato's Atlantis, or anything like it, without serious damage to his standing. Those scholars who wished to support it in any way — and there have been quite a number of these in the second half of the 20th Century, as in the first — have had to risk such damage in the cause of truth. This has been true even if they have gone to great lengths to phrase their conclusions in non-provocative ways.

Thus, for example, there is the case of Professor Charles Hapgood, an eminent American University scientist who had done pioneering work in paleomagnetism and tectonic plates. Brad Steiger says in "Atlantis Rising" that Hapgood told him he had not referred to the ancient seafaring Atlantic race as "Atlanteans" at any point in his famous book "Maps of the Ancient Sea Kings". This is despite the fact that he found plentiful evidence from his minute examinations of ancient maps supporting Atlantis in principle. This included large Atlantic islands now disappeared, far larger and more numerous Azores islands, and evidence for extensive Atlantic sea-floor subsidence in ancient times. It also included indications of advanced mathematical, astronomical and map-making skills — and worldwide navigation — by a lost culture many thousands of years before Christ.

In the 1960s, the sudden conversion of the scientific establishment in the West to continental drift, "sea-floor spreading" and tectonic plates — described earlier — superficially appeared to rule out Atlantis. In reality, these discoveries ruled out only the continental-sized Atlantis, which was already a non-starter for other reasons. Nevertheless, the hostile academics, who had up to that time risked contending with distinguished geologists hypothesizing about supposed one-time Atlantean continents, breathed a sigh of relief. At last, they said, Atlantology had been pushed safely "beyond the pale".

In fact, as we saw, the old geological belief in such sunken continents had been known for many decades to be unsound — by scientists like Wegener who knew their laws of isostasy. In any case, even the believers in them had mostly argued that they had disappeared long before the arrival of "Homo Sapiens". So the orthodox scientists, whose exasperation with them was so marked, had all along been "tilting at windmills". They had been fighting a mirage: something that had never been part of the serious case for Atlantis.

### ***Continental Shelves, Rising Oceans and the Ice Age Atlantic. Dramatic Confirmation of the Real Atlantis***

".....In some places the shore line advanced over the coastal plains as much as a kilometre a year.

Throughout the world, detailed surveys of the shallow continental shelves have revealed the traces of many of the old shorelines. In fact the continental shelves themselves are the work of rivers when sea level was much lower. Then, the rivers had to flow farther to reach the sea. The detritus they deposited has built up to form a wide coastal plain which was flooded when sea level rose....

..... The world-wide flooding of coastal regions during the most recent rise in sea level [at the end of the last Ice Age] may be the event behind the flood legends which exist in so

many different cultures."<sup>4</sup>

"The evidence indicates that the present continental shelf [off the northeastern U.S. coast] was a broad coastal plain about 15,000 years ago [13,000 BC], and that it gradually submerged as water from glacial ice returned to the ocean.....

Students of large Pleistocene [geological era lasting up to the end of the last Ice Age] mammals have long known that these animals must have travelled across exposed continental shelves in order to reach islands where their remains occur: notable examples are Japan, England, Mediterranean islands, Java, Sumatra, and other islands of the East Indies, and small islands off southern California..... off Japan, molars of mastodon and *Elephas naumanni* (Makiyama) have been dredged from a depth of 80 metres in the strait west of Kyushu and from 90 metres in the Inland Sea.... In the English Channel, especially from Dogger Bank at 30 or 40 metres, bones of many Pleistocene mammals, including mammoths, have long been reported by fishermen....."<sup>3</sup>

The serious case for Atlantis — for sunken islands and continental shelves only — was not only completely undamaged by what has been called the new Earth Sciences. In fact, in several ways which have been neglected or misunderstood, the case has been actually helped by them. They have, amongst other things, removed what would have been several possibly insuperable obstacles. Let us take a case in point.

One thing the new Earth Sciences have done is to establish that continental drift has proceeded far more slowly than many had thought. At one point early in this century some scientists — early believers in the theory — thought that the continents might have separated relatively rapidly, in a matter of scores of thousands of years only. In the 1930s, according to James Bramwell's scholarly "Lost Atlantis" published in 1937, it had been worked out (erroneously, it turned out) that the continents were drifting apart at a rate of 300 miles in 10,000 years. This, Bramwell calculates on page 172, would have meant that they had been joined only 80,000 years ago. This would have left only a short while for Atlantean islands to appear in the newly-born Atlantic Ocean; as Bramwell points out, it would have tended to destroy the Atlantean hypothesis.

However, by the 1960s, the separation of the continents and the birth of the Atlantic had been dramatically pushed back in time, on average, by a factor of at least a thousand by decisive new evidence, since amply confirmed. Most of the Atlantic Ocean was at least 80 million years old, not 80 thousand<sup>46</sup>. Even in the north, its youngest part, it dated back 58 million years. There were now vast epochs of time available for large numbers of islands, created possibly by low sea-levels or mantle plumes, to appear and disappear many times over. Likewise, there was now almost an infinity of time for rising and falling sea-levels repeatedly to submerge and alternately reveal enormous continental shelves.

On this question of the continental shelves, again the new oceanography and Earth Sciences have given us today a definite verdict. This time, they have not merely removed obstacles to the Atlantean hypothesis. They have decisively proved it. Proved it, that is, as long as we continue to envisage the lost continental shelves and islands of Atlantis, rather than the lost continent of Atlantis.

For, back again in the 1930s when James Bramwell wrote "Lost Atlantis", this whole question of the continental shelves was being vigorously debated by oceanographers. Bramwell gives us a detailed outline of the then controversy on pages 187-91. He points out that the date of the shelves was not yet known. Although the tendency at that time was to date them later and later, their last appearance above water was not then fixed recently enough to enable "Homo Sapiens" to have lived on them. He

discusses at some length the various possible dates of the many river canyons found on them which, it was beginning to be realized, must have been created when they were above the surface.

He adds that, if it could be shown in the future that they were dry land 500,000 years ago, the question of a scientific backing for Atlantis would have to be re-opened. This was because of the possibility that, with Dr. Leakey's (then) recent discoveries in Kenya, homo sapiens was already possibly 250,000 years old, and the date might be pushed back further. In that case, with the dating of the continental shelves tending to become more recent as that of advanced humanity got older, the ends might "yet meet".

In fact, by the late twentieth century, this issue had been definitively settled, by general agreement, far more in favour of Atlantis than Bramwell could have dared to hope. True, the date of homo sapiens has not yet been pushed back to everyone's satisfaction beyond Leakey's 250,000 years. Some would now put it before this; others would still claim it was later. But that of the last appearance of the greater part of the continental shelves above the surface of the oceans is an entirely different matter. It has been truly revolutionized.

Exhaustive worldwide oceanographical research has consistently fixed this, not at Bramwell's hoped-for 500,000 years ago; not even at 100,000. It is now universally recognized by experts to be a mere instant of geological time ago.

These vast areas, often sub-continental in size, were dry land until the end of the last Ice Age around 11,000-8,000 BC. A date range so snugly centring on Plato's c. 9,600 BC for the submergence of Atlantis that, as certain distinguished oceanographers like Professor Emiliani and his team from Miami University were courageous enough to point out as early as 1975, it could hardly be coincidence.

Especially since, according to Emiliani's painstaking sea-bed research which we will examine later, the evidence showed that there had been a particularly rapid sea-level rise (131 feet) centring on exactly Plato's 9,600 BC - a point he made explicitly. More recent research has modified his findings in detail, but borne them out in substance. The rise at that time — over a period of a mere 160 years — is now known to have been, at the very least, of the order of 100 feet. It is to the question of rising sea-levels that we must now turn.

### ***Official: Rising Oceans Swallowed up the Atlantean Island Group***

There are two ways in which islands and continental shelf areas can be "swallowed up by the sea", as Plato said happened to Atlantis, the great island in the Atlantic opposite the Straits of Gibraltar. One is for the land itself to sink until it passes below sea-level. This has been known to happen on many occasions in the past with limited areas of land. In the case of islands, this is usually brought about by the subsidence of the ocean floor on which the islands rest.

Whether this happened with the Atlantean island-group is controversial. This is not, however, essential to the Atlantean hypothesis. For there is a second way in which land can be "swallowed up"; the ocean can rise. On this question geological and oceanographical research over the last few decades has again removed serious obstacles to the Atlantean hypothesis, and established the lost continental shelves and islands of Atlantis beyond any doubt. For, in the 1930s when James Bramwell wrote "Lost Atlantis", the enormous extent of the lowering of sea-level during the last Ice Age, when large amounts of water were locked up in the polar ice-caps, was not known. Bramwell, on page 186, reports that it had probably lowered the world's sea-level by several feet. Now, as we will describe in detail later, it is known that this lowering was between 400 and 500 feet — an increase in the amount by a factor of say around a hundred.

Consequently, the estimate of the amount of one-time ocean floor in the Atlantic, and worldwide, which rose above the surface and became land for much of the many hundreds of thousands of years of the several Ice Ages, has multiplied out of all recognition. Conversely, just before, at and after the end of the last Ice Age - i.e. roughly between 14,000 and 6,000 BC — the worldwide rise in sea-level, as this polar ice melted, was correspondingly greater.

Of recent estimates, 120 metres, or about 400 feet (actually 393.7 feet) - still frequently cited - now seems perhaps a conservative estimate. Woods Hole Oceanographical Institute put it at 425 feet as far back as several decades ago. 150 metres (492.1 feet) is now often given as a maximum, and a recent calculation based on research in the Pacific arrived at 500 feet as a mean estimate. Of course, scientists cannot get a really precise overall figure, because in any one region it depends on rises and falls in the neighbouring coastal lands over the same period. This is why I have to be content with saying between 400 and 500 feet. But the fact that it is of this order is not in dispute.

This is where modern geology and oceanography, though perhaps unwittingly, really puts Atlantis back on the map. For any rise in sea-level on remotely this scale means that truly enormous sub-continental areas of land would have been drowned. Just how great land regions these would have been before the first big sea-level rise, i.e. up to around 10,000-9,000 BC (centring almost exactly on Plato's date of c. 9,600 BC for the submergence of Atlantis) can be calculated easily by studying the depth readings on charts of the oceans.

One thing is certain; not speculation, but fact. After all the new research of the last few decades, it is generally accepted by experts the world over. Of course, its implications for Atlantis have not been thought through, but, all the more powerfully for that, it remains fact. It has been arrived at over many decades, by numerous accredited researchers from well-known institutes and universities worldwide, who have no connection with Atlantology.

This powerful fact stands like a rock, secure through all the maelstroms of the Atlantis controversy. It is not only, as we saw above, that gigantic regions of present-day ocean floor, known as the continental shelves - surrounding all the main continents, and often including large platforms and spurs projecting hundreds of miles into the sea, were dry land during the last Ice Age. These could have been part of the Atlantean empire or sphere of influence, but were not the control centre: not Atlantis itself as Plato described it.

Modern oceanography has also revealed Plato's Atlantis itself. For the continental shelves were very far from the only extra land, now undersea plateaus or shelves, which existed during the last Ice Age and were submerged at the end of it. There were also whole archipelagos of islands, many of them large and in the Atlantic, especially in the north and equatorial Atlantic. Some of these appear on Professor Hapgood's ancient maps. Some have been confirmed by detailed oceanographical expeditions and soundings.

Present-day island groups were, at least, far more extensive, and sometimes formed part of much larger lands: what we see now, in fact, are the mere remnants of their Ice Age dimensions.

## **References**

1. Atlantis: The Antediluvian World by Ignatius Donnelly. Published in New York, 1976.
2. "The Commentaries of Proclus on the Timaeus of Plato", Volume I, translated by Thomas Taylor. Published London, 1820.

## The Secret Story of Our Planet. Atlantis the Reality versus the Popular Image

3. Frank C. Whitmore Jr, K. O. Emery, H. B. S.Cooke and Donald J. P. Swift. "Elephant Teeth from the Atlantic Continental Shelf" Science", Vol. 156, 16th June 1967.
4. Earth Story: The Shaping of Our World by Dr. Simon Lamb and David Sington, published 1998.