

Flood Review

General

In the following review, I may use abbreviations for the names of the various flood models, as follows:

- CCT for Crystalline Canopy Theory
- CPT for Catastrophic Plate Tectonics
- HPT for HydroPlate Theory

In the following text, I may not always say "According to this theory/model, ..." but it will be implied and understood, that if I describe events or processes as though fact, that those events and/or processes were meant to be understood as being described under the assumption of the theory under review; ie, the phrase "According to this theory,..." can be appended to a statement such as "Then the canopy collapsed, and ...".

It has been a privilege to work on this project. I have learned much in this process. I am planning to learn more, and see this stage of the process more as a beginning of further investigation than the end of investigation.

The Search for Truth

The Purpose of Creation Science

The purpose of creation science is worth considering. Why bother with creation science, and with the flood of Noah?

Though the flood of Noah did not exactly occur during the 6 days of creation, it is a topic often considered by creation scientists. Also, the story of the flood appears in the first few chapters of Genesis, close to the story of creation. But let's get back to the topic of this section - the purpose of the study of creation and the flood. Is it really of value or important to have the truth about these things?

I think of the words of Jesus that He is the truth. Also I think of what he said - that if people did not believe the words of Moses (who is often considered to be the author of Genesis), how would they believe Jesus?

I think that a valid reason to accept or believe the gospel is because of the evident truth of it. That seems in fact to be the reason for belief in many cases as given in the Bible. People were shown miracles - ie, proof, evidence - and then expected to believe. (At one point Jesus commented that people would not believe unless they saw miracles or signs.) The story of Thomas is often brought up at this point, but that story refers to Thomas believing without seeing the evidence *of Jesus' resurrection* - we need to remember that Thomas already had seen vast amounts of evidence of the truth of Christ's claims through the many miracles which, as one of the disciples, he would have intimate knowledge of. However, the point to this is not the miracles themselves, in this context, but the use of evidence for coming to believe something, as taught by example in the Bible. We are admonished in the Bible to prove all things and to not judge according to the appearance.

So, according to Romans 17, faith is built on believing what one knows. The foundation for believing

something is knowing about it. And the reason for believing is (or some might say, ought to be) evidence. We see the Bereans mentioned in the Bible as being noble, because they did not just believe what they were told - even though it probably was true - but they checked it out first before believing it.

God says to prove him - in Malachi - this seems to me like God was inviting man to conduct a scientific experiment.

Well, enough of that.

Jesus taught with parables. He talked in the language people understood - using things to which they could relate.

If the trumpet give an uncertain sound - who will know whether it is a call for action, or what? This is hinted, or even stated, in the Bible. Also that speaking and not being understood is not desirable - rather being understood is.

So what will people listen to? or understand? In one parable Jesus told, the master says that people will listen to his son - so he sends his son. Who will people listen to? Who or what will they accept?

If they listen to science, then it makes sense to present science – if we want to communicate.

This is where the relevance, the value, of creation science lies.

On Miracles

One question that has come up in consideration of various flood proposals, is whether miracles ought to be allowed in the explication of the model. This seems good to consider at the outset.

First, let's clarify what we mean by miracle. We mean, or at least this context assumes, that miracle as used herein refers to something **not specifically mentioned in the Bible**. This usage of the term miracle implies **ad-hoc** usage to explain difficulties.

Arguments for Including Ad-hoc Miracles

One argument in favor of allowing miracles is simple: creation itself is a very big miracle, and the God of creation is known for miracles. So why not allow them?

Arguments for Omitting Ad-hoc Miracles

The argument for not including ad-hoc miracles will be explained by example.

Let's consider the following example and then examine the logical implication of allowing ad-hoc miracles.

A Silly Story

Suppose I have a theory of the flood. Let's call it the Green Cheese Moon theory, or GCM for short. We are going somewhere with this, trust me!

Now, according to my GCM theory, the flood was caused by water from the moon. The water from the moon was produced by the squeezing of the moon's material. The moon was made of green cheese when this happened. The cause of the moon's being made of green cheese was Martians. The way the Martians did this was by using a special machine they had, which turned moons into green cheese.

Now, would you consider this one of those "arguments to not use?" We see lists of arguments for creationists that they ought not to use. Why? Why not use those arguments? We will return to this question. For now, let's consider if there are any problems with the GCM theory.

List of Problems:

1. the moon is not, and was not at the time of the flood, made of green cheese
2. even if the moon were made of green cheese, squeezing green cheese would not produce water (this may not be a problem - since there is some water in cheese, so this may be removed from this list of problems - not to worry though; there are plenty enough other problems!)
3. even if the moon were made of green cheese, there is nothing that would have "squeezed" it
4. even if Martians could have squeezed it, there is no evidence that there were Martians at the time of the flood
5. even if there were Martians, to squeeze an entire moon the size of ours would be a very difficult, and unlikely to happen, task
6. there is no known motive or reason for Martians, if they did exist, to squeeze our moon
7. even if Martians did exist, and if they could squeeze our moon, and if the moon were really made of green cheese, and if such squeezing produced water - the water would have remained on the moon because of the moon's gravitation
8. even if all the above occurred... the moon is today not found to be made of green cheese

Solutions:

1. by a miracle the moon was transformed into green cheese just before the flood
2. by a miracle squeezing green cheese produced water
3. by a miracle there was a squeezing machine to squeeze the moon (a giant pair of tweezers!)
4. by a miracle there were Martians created, just before the flood, to operate the squeezing machine
5. by a miracle, like the strength of Samson, the Martians were miraculously provided marvelous muscular ability, and were able to perform this Herculean (or Samsonian) task of squeezing the moon
6. by a miracle, like the cows in the Bible pulling the Ark of the Covenant in a direction they had no motive to go, the Martians did something they had no motive to do
7. by a miracle, the law of gravity was overruled, and the water left the moon and came to earth as the rain of the flood
8. by a miracle, the moon was transformed back from green cheese into its normal material

Well, why not allow miracles to explain GCM theory? Are not miracles in the Bible? What is the difference between these miracles and those in the Bible?

Do you see the point of this GCM theory? It shows us that if we allow miracles, we open the door to GCM and other models equally improbable.

But, what is the difference with the miracles listed above and the miracles in the Bible?

The difference is that the miracles of the Bible are **plainly stated**; the above listed miracles are **not**; the above miracles are ad-hoc, added after-the-fact to prop up a theory, or, one may say, to solve the problems of the theory.

So, should we allow miracles to solve problems of a theory? (by this we mean **ad-hoc** miracles)

Let's look a little deeper.

Even if we decide to allow miracles for *some* theories that we think are worthwhile, we need to consider

1. why do we think those theories are worthwhile - is this opinion based on science or personal preference (ie, bias)?
2. would other theories and arguments on the "do not use" lists need to be allowed again, since miracles can solve their problems, even as other explanations/arguments/theories/models that are allowed to use miracles can solve their problems via miracle invocation?
3. would allowing miracles for our preferred theory and not allowing miracles for other theories that we review or criticize, be inconsistent?
4. would we be invoking a double standard in doing what point 3 above describes?

Does it seem consistent to accept problems for one theory as not problems, by allowing miracles for that theory, and then to reject other theories for similar problems?

By the way - any and all problems of all arguments and models, by definition can be explained by miracles. Suppose we see that it is not possible for a miracle to remove some problem with a theory - but what is the definition of a miracle? Something that is not possible in the natural. So, by definition, ALL problems of ALL models can be solved by miracles.

Implications

This means that if one has a list of arguments to not use, and one accepts the list as valid, then one to be consistent logically, must also not accept any miracles (ad-hoc) to explain any other theory that one accepts.

This likewise implies (on the other hand) that if one does accept any ad-hoc miracle to prop up any theory, then one must also remove and throw away their lists of arguments to not use, and accept all of those arguments on their lists, if one wants to avoid a double standard and to be consistent.

Conclusion on Miracles

In conclusion for this section, I would suspect most readers would be familiar with the argument for including ad-hoc miracles in the explanation of a flood (or other) model, but it seems the arguments for not including ad-hoc miracles are less familiar, but worth thinking about.

Flood Models

It is good to investigate flood models. This is an investigation that should not be closed with the publishing of this review. Of course, the publishing of papers in science does not close the possibility of further progress. The nature of science is that of a continuing probe, of continuing to question original hypotheses, and to examine new evidence that might not have been available when earlier theories were proposed and explicated.

We see in science the replication of experiments. We also see Einstein questioning currently accepted theories, as indeed he questioned one interpretation of quantum mechanics which emphasized the role of statistics to the exclusion of other factors, though he himself pioneered the statistical interpretation.

Accepted theories can be questioned, often by their own creators, to be improved, to be tweaked, to be refined - even in some cases to be discarded, as Hoyle discarded his own steady-state theory.

Truth should be the goal of science, or is ostensibly already the (stated) goal. The search for truth

requires humility to be willing to learn, to be willing to change one's opinion - Einstein said "The measure of intelligence is the ability to change."

<http://lifechangequotes.com/albert-einstein-quote-the-measure-of-intelli...>

<http://lifeasacharityceo.wordpress.com/2012/12/03/the-measure-of-intelli...>

Therefore, I present this review as preliminary, or not complete in nature, but hopefully helpful to others who may continue research, as part of an ongoing process, to encourage further research in these areas, and to inform others of these flood models.

In closing I would like to place in this context a quote:

I believe, as a matter of principle, that at this stage in Flood research we need several competing models when there are so many unknowns. [1](#)

- 1. Does the Catastrophic Plate Tectonics Model Assume Too Much Uniformitarianism?, Oard, Michael, (2002)

CCT Review

Firmament

Dr. Baugh provides arguments for rakiya, the Hebrew for firmament, to refer to a solid material. Among other evidence, he points out Josephus' reference to the firmament as a crystalline material. He presents persuasive evidence to consider that the firmament could be some type of solid material structure.

Candidates

Silicate Sugilite Lattice

Silicate sugilite offers the most promise according to Dr. Baugh. He refers to the work of Dr. Edward Boudreaux and Eric Baxter: ¹

Their work demonstrates that a 2-cm-thick Silicate Sugilite Crystalline Canopy could be suspended eleven miles above the pre-Flood Earth.

The model envisions a 95% radius to the Earth under pre-Flood conditions. In further consideration, if we propose a 1-cm-thick canopy suspended ten miles above a pre-Flood Earth with a 95% radius, the energy required to keep it suspended is appreciably less.

Job 37:18 firmament as a hard mirror

Edward Boudreaux and Eric Baxter, "A New Model of the Earth's Pre-Flood Canopy," God Created the Earth," Rocky Mountain Creation Fellowship, P. O. Box 3451, Littleton, CO 80161-3451, pp. 114 -122

- 1. A New Model of the Earth's Pre-Flood Canopy, Boudreaux, Edward, God Created the Earth, Littleton, CO 80161-3451, p.114-122, (2012)

Section by Beaudreaux and Baxter

This is from the section of Dr. Baugh's paper ¹ contributed by Dr. Boudreaux and Baxter.²

Atmospheric pressure and magnetic forces on a canopy composed of this material are calculated in this section and found to balance sufficiently to hold the canopy in place above the earth.

Also the force required to distort the canopy is calculated and it is shown that the canopy would not have been distorted.

Calculations also were done to show that there would be no shear damage from the rotation of the earth.

Also calculations were done indicating there would be only a small temperature increase due to the presence of the canopy.

- 1. Crystalline Canopy Theory, Baugh, Carl E., Glen Rose, Texas 76043-0309, (Submitted)
- 2. A New Model of the Earth's Pre-Flood Canopy, Boudreaux, Edward, God Created the Earth, Littleton, CO 80161-3451, p.114-122, (2012)

Metastable Hydrogen Lattice

Superconductivity of this material implies it can be suspended by magnetic lines.

The model author writes this material provides difficulties, however, but should remain a possibility, though perhaps not likely.

Phase VII Ice

Under extreme pressure, ice can maintain solidity at high temperatures (212 F). With increasingly high pressures, the hydrogen atoms are close to the oxygen atoms, eventually becoming midway between oxygen atoms.

It is evident that Ice Phase VII, being hydrogen-centered, would meet the physical requirements of Earth's suspended canopy.

This is another interesting possibility, for which more investigation and elaboration are suggested.

Solid H₂O₂

This candidate is suggested, though apparently only found under extreme pressure. It appears to be suggested that magnetic forces could provide the pressure for this material to exist. Under the high pressure, hydrogen and oxygen exhibit spectral characteristics similar to those of solid hydrogen and solid oxygen. This seems to be the implied material, whose solidity could provide some structure and rigidity or strength to the canopy.

Warm Ice

This section reports that microscopic layers of water trapped between conductive layers can form solid ice with sufficient applied energy. Such a "sandwich" of material layers is another interesting proposed candidate for the canopy. The conductive layers allow electrical forces, and of course magnetic forces resulting from electric currents, to possibly come into play. This, in general, increases the range of possible effects or characteristics of such a layer. This is one area not explored in depth; further research in this area is suggested.

Inter-laminated or Film-coated with Other Elements

Doping of material can indeed produce amazing effects, as exemplified by the doping of germanium and silicon semiconductors in the creation of electronic devices such as diodes and transistors.

Electrical voltage has been used to control the optical transparency of thin films.

This material category offers interesting and unique optical and electrical (superconductivity) properties.

Molecular Catalyst

The structures mentioned in this section are described in research from Peking University as forming not only tape-like structures but layers: which would certainly be the appropriate structure for a thin canopy. ¹

- 1. <http://www.chem.pku.edu.cn/mmm/publications/publications/Chem%20Commun/b...>

Super Atoms

This section points to the interesting observation that brittle material may become ductile when structured in the form of groups of small numbers of atoms. It was pointed out that some structures seemed to behave as "Super-atoms" in which electrons not only orbited individual atoms, but some electrons also orbit the cluster of atoms as a whole, lending the impression of a large atom consisting of the cluster of smaller atoms, with its own electrons orbiting its nucleus. Of course, the terms used to describe these particles (atom, nucleus) are used very loosely here, as relative comparisons for describing some newly observed behavior of matter. We are still learning more about the physical properties of matter, and the various forms it can take. The recent discoveries of "bucky-balls," followed by that of carbon nanotubes, are two examples.

The property of brittleness therefore seems less problematic for CCT than it otherwise might seem, due to the possibilities indicated above. The implication is that other properties of matter may also be less problematic for CCT than it may seem, if their atoms were arranged in some non-typical structure.

Benefits to Earth

Recharging EMF

According to Dr. Baugh, beneficial wavelengths of EM radiation would be transferred through the canopy to the living creatures below, and other wavelengths would recharge and sustain the electromagnetic field of earth.

UV Filtration

The crystalline canopy could filter potentially harmful radiation thereby protecting life.

Photo-multiplication of Starlight

An interesting effect of photo-multiplication is proposed for the canopy, as increasing the brightness of visible stars and other astronomical bodies. This seems to involve "impurities" or doping material in the canopy. Further research into this is suggested.

Magenta Light for Plants

The color of magenta is one color of sugilite (the color varies depending on its exact composition). Dr. Baugh points to research indicating that this color of light has resulted in increased growth for plants.

Radio Frequency Transference

Dr. Baugh points to recent research indicating the possibility of nano-sized radio structures, and also to research indicating beneficial effects of radio frequencies for living creatures. This type of non-radio structures he suggests could have existed in the canopy.

Sound Amplification

Dr. Baugh points to the possibility of sound amplification of phonons, similar to the amplification of light photons in a laser, as a feature that might have existed in the canopy.

EMF & Living Systems

Another potential benefit of the canopy would be its help in maintaining electromagnetic fields which would be beneficial to life.

Atmospheric Pressure

Due to a smaller volume of the planet before the flood, the atmospheric pressure would have been larger. This would have resulted in benefits to plants and animals, such as sped up healing. The large size of some plants and animals as indicated by fossil evidence can be explained by this. Examples include extremely large dragonflies, and very tall plants.

Flood Mechanism

Microwave radiation increased heat and cracked the earth's surface, releasing reservoirs of water. The fountains of the great deep would release water that would have ripped the canopy and collapsed it. Tidal action would have spread the sediment out along layers.

Objections

The objection that the canopy would be too brittle is dealt with in pointing to the evidence that the material of the canopy can be ductile, as mentioned earlier. As to whether the canopy could be held in place above the earth, support is made by pointing to evidence of layers of ice containing iron, supported today by the earth's magnetic fields. The magnetic field is hypothesized to have been stronger before the flood, and thus more capable of supporting such a canopy.

CPT Review

Major Points

I will focus on some aspects of this theory, CPT. Some aspects of CPT are listed below:

1. ocean floor younger than much sediment on land
2. aesthenosphere decoupling crust from mantle
3. runaway subduction
4. mantle convection
5. initial drop of temperature

Point 1 above seems to be also compatible with HPT.

One concern expressed by Michael Oard with CPT is its reliance upon conventional, evolutionary-based, concepts and dates. [1](#) which he maintains should be questioned.

This theory seems to involve conventional plate tectonics, merely sped up drastically. However, conventional plate tectonics has its problems, according to Oard.

It seems that the second point above provides reduction in friction or viscosity, allowing free movement. This is somewhat analogous to the lubrication provided by underground water in the Hydroplate Theory.

The point of subduction is one that has been highly questioned, as not possible. However, Dr. Baumgardner points out a drastic decrease in viscosity under extreme pressure and temperature conditions, which would make subduction easier to occur. The question remains - is this enough?

There seems to be some similarity between CPT and HPT; both assume movement of continental plates, both posit water being ejected up from the earth through the atmosphere, and both posit much more rapid movement than conventional theory assumes. I suspect the CCT model would also allow for movement of plates, though not explicitly calling for it.

- 1. Does the Catastrophic Plate Tectonics Model Assume Too Much Uniformitarianism?, Oard, Michael, (2002)

Problems

There are some problems that seem to require miracles to fix.

Here are some miracles that Catastrophic Plate Tectonics requires for the theory to work:

1. a miraculous drop in temperature
2. a miraculous confinement or location of the temperature drop to continental edges
3. a miraculous timing of the onset of this temperature drop
4. a miraculous feat of making lower-than-absolute-zero temperatures possible
5. a miraculous acceleration of nuclear decay
6. a miraculous prevention of adverse effects from the heat from the accelerated decay
7. a miraculous reversal or slowing back down of the accelerated nuclear decay

Cooling Problem

Below Absolute Zero?

First of all, this section merely illustrates a potential problem. If there is some resolution, or explanation, or misunderstanding between relative and absolute temperatures, please let me know! As I see the indications now, they seem to indicate a problem with the temperature drop that is used to initiate catastrophic processes.

1. there is no physical explanation (that I found) for the temperature drop
2. the drop seems to be from the surface, on down - which seems to indicate affecting the surface; this implies that, to prevent going below absolute zero, the initial surface temperature would have to be above the boiling point of water, before the flood

I can see no explanation for this, other than miracles. I would be interested in knowing of any explanations, but I have not found any.

To illustrate this temperature drop, here is a quote:

An initial temperature perturbation is required to initiate motions within the spherical shell domain that represents the earth's mantle. For this, a temperature perturbation of -400 K to a depth of a few hundred kilometers is introduced around most of the perimeter of the supercontinent. ¹

By the way, the perturbation is cooling. (This is to increase the density enough to start a downward motion.)

NOTE: The above quote is from John R. Baumgardner, "A Constructive Quest for Truth," Technical Journal, Vol. 16, No. 1, 2002, p. 80, and images below come from the videos found at <https://www.youtube.com/watch?v=y7HCa6XIYO0&feature=relmfu>, <https://www.youtube.com/watch?v=OKOhPUx9XF4>

For this to NOT go below absolute zero, the earth's temperature must be over 260 F, which is well over the boiling point of water. (400 Kelvin is 720 Fahrenheit degrees, and absolute 0 is -460 F; a drop of 720, reaching -460, must start at 260 F: $720 - 460 = 260$.)

Yet, the earth's temperature probably was not above 260 F before the flood. (If it was, then we need other miracles to deal with the high temperature.)

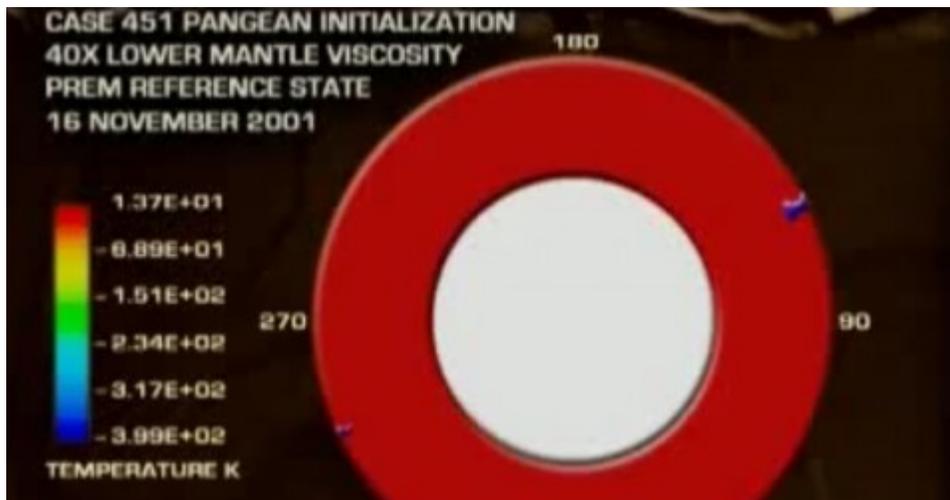
The -400 K perturbation would take the temperature from earth normal down 720 Fahrenheit degrees. From a high earth normal of 212 Fahrenheit, too high for human life on earth before the flood, the drop still goes to -508 Fahrenheit, which is below absolute zero (approximately -459.7). From a normal temperature of 100, the result is -620, even further below absolute zero.

Therefore, this perturbation seems to be below absolute zero - a miracle.

This is not a restricted, local high temperature - this is "to a depth of a few hundred kilometers" and

"around most of the perimeter of the supercontinent."

One chart shows a scale to -500 K, even lower than that above! (The chart is from a video by Baumgardner.)^{2,3} -500 K is 500 degrees below absolute zero (0 k). Even if Celsius degrees, this is still over 200 degrees below absolute zero (-273 C).



The chart shows a scale of -400 K up, with -400 K being blue at the bottom of the scale, and a blue region in the image right of the scale. In the video Baumgardner says that he uses the initial cold temperature to start the CPT process. This is shown in the tiny “crack” on the top right, whose blue color indicates a -400 K temperature – while 0 K is absolute zero. That this seems to be below absolute zero is indicated in that a lighter blue corresponds on the scale to over -300 K – still below absolute zero – while the blue on the illustration is darker, that is, even colder.

It appears that temperature does go below absolute zero, in computer models. (It seems much support of the model is due to computer simulations, though few seem aware of this initial condition going into the computer simulation.) Other equally cold temperatures appear in the video of Dr. Baumgardner explaining CPT, on several charts, in addition to the text at the top of this document, which also is from a different source.

Since this temperature anomaly is repeated in various places, it is not likely to be a typo or accident.

There is yet another chart (not shown) that mentions temperatures to $-5E+02$ K (Kelvin), which is -500 K, while absolute zero is 0 K. This is 500 degrees K below absolute zero, from another, much more recent (2011), source, a flood model review by In Jesus Name Productions, 1600+ pages.

Modeling does often involve approximations and deviations from reality. However, this particular one is seemingly more than a minor deviation - seemingly requiring major departure from laws of physics for the catastrophe to initiate.

This above quote is in addition to the chart I mentioned; so this temperature requirement is not likely an accident.

Does this temperature change occur low underneath the crust?

The question of whether this happens so far down where temperatures are high enough that absolute zero would not be crossed can be examined in light of the following statement.

*“Another realization that has emerged from the 2D numerical modeling experiments is that **runaway motions in the mantle** not only can **originate** by **cold** dense material plunging down **from above** but also by hot buoyant material rising up from below.” p. 133 ⁴*

The above statement of Dr. Baumgardner is quoted from a recent (2011), source, The Flood Science Review, a flood model review by In Jesus Name Productions, over 1600 pages, accessible for a donation at https://www.injesusnameproductions.org/pages/page.asp?page_id=167120 Contributors and participants included John Baumgardner, Walt Brown and Michael Oard among others.

The opening quote by Baumgardner mentions a temperature drop of 400K "to a depth of a few hundred kilometers".

This to me means a range, a section or shell of some thickness. This thickness is a few hundred km, and it is described in the text as "to a depth of" and that implies the question - from where? the depth is a few hundred kilometers - from what? from a depth a thousand kilometers below the surface?

The un-stated but I think implied answer is, from the surface. There is no other answer - if the depth is not a few hundred kilometers down from the surface, then what can depth possibly refer to? to a depth of a few hundred kilometers below some other depth? What other depth seems not specified.

*Also, this depth as starting from (measured from) the surface is indicated by the **purpose** of the temperature drop - to increase the density enough to initiate subduction of plates on the surface. (Another way of putting it is, the purpose is to crack the crust.)*

Therefore, the temperature seems to affect the surface as well as the material beneath the surface down to the depth of a few hundred km. If this is not the case, information explaining this would be welcome, but I have not found it.

1. John R. Baumgardner, “A Constructive Quest for Truth,” *Technical Journal*, Vol. 16, No. 1, 2002, p. 80.
2. <https://www.youtube.com/watch?v=y7HCa6XIYO0&feature=relmfu>
3. <https://www.youtube.com/watch?v=OKOhPUx9XF4>
4. The above is Baumgardner's quote, from a recent (2011), source, The Flood Science Review, a flood model review by In Jesus Name Productions, over 1600 pages, accessible for a donation at https://www.injesusnameproductions.org/pages/page.asp?page_id=167120 Contributors and participants included John Baumgardner, Walt Brown and Michael Oard among others.

Mantle Convection

This section deals with convection, and whether or not convection of mantle material is part of Catastrophic Plate Tectonics, and whether such convection is possible.

If mantle convection is inherent and basic to Catastrophic Plate Tectonics, and if such convection of mantle material is not possible, then Catastrophic Plate Tectonics could not be possible.

There is seemingly strong evidence that this is the case.

Convection in the mantle seems not possible, according to recent research.

Some creation scientists with whom I have spoken have said that there is no convection in CPT. After double checking, I found that it appears that convection does appear in and is part of Catastrophic Plate Tectonics. We welcome any corrections or additional information. A major source below is Baumgardner, the primary author of CPT.

Convection

“the basaltic magma could not ascend from a position deeper than 200 km in the Earth's interior.”

source: http://www.spring8.or.jp/pdf/en/res_fro/06/113-114.pdf

Satoru Urakawa et al., “Anomalous Compression of Basaltic Magma,” *Research Frontiers* 2006, p. 114.

If convection is not part of CPT then – there is no problem with the above statement.

But if convection IS part of CPT, then – CPT may have a big problem; it might be impossible.

The material below indicates that convection does seem to be part of CPT (implying, on the basis of the above scientific paper, CPT may not work).

Bold is added:

“when the hot rock at the **bottom of the mantle** reaches the **top**”

a quote from Dr. Baumgardner's presentation on video obviously referring to convection. The point here, and the reason for emphasizing that these are the words of the primary author of CPT, is to clarify whether CPT does or does not involve convection.

Sources:

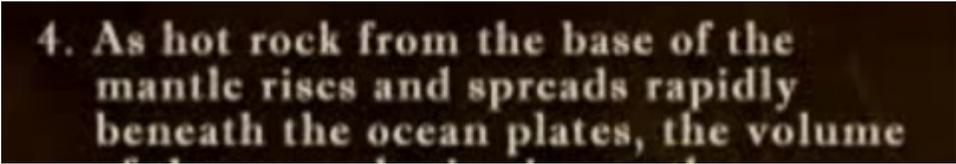
The Flood Science Review, a recent (2011) source, In Jesus Name Productions, over 1600 pages, accessible for a donation at https://www.injesusnameproductions.org/pages/page.asp?page_id=167120

Dr. John Baumgardner - Global Tectonics and the Flood 1

<https://www.youtube.com/watch?v=y7HCa6XIYO0&feature=relmfu>

Dr. John Baumgardner - Global Tectonics and the Flood 2

<https://www.youtube.com/watch?v=OKOhPUx9XF4>



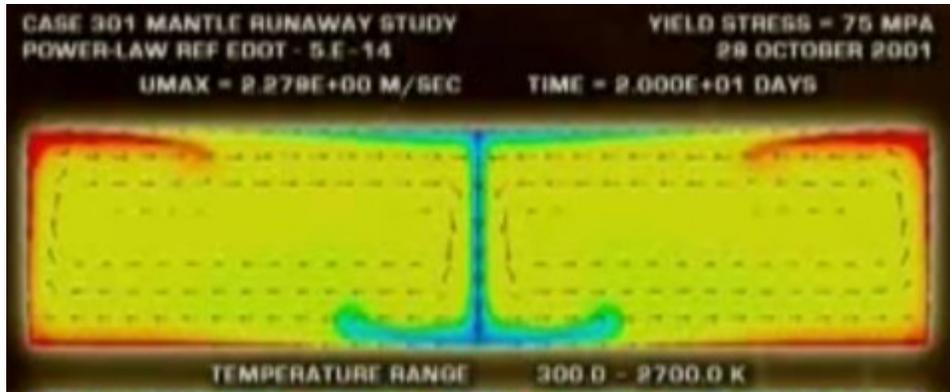
4. As hot rock from the base of the mantle rises and spreads rapidly beneath the ocean plates, the volume

The above, from a presentation by Baumgardner, states that rock rises from the base of the mantle. The mantle is 1800 miles thick – and therefore the base would be further down than only 200 km which is less than 10% of the mantle's thickness.

This, above, is what the new research indicates to be not possible – molten magma cannot rise from below the crossover depth.

1. *Molten magma rises* to fill the gaps (mid-ocean ridges) in the ocean floor as the pre-Flood ocean plates slide rapidly, like giant conveyor belts, into the earth's interior.

The above, also from a presentation by Baumgardner, is describing convection.



The image above is an illustration Baumgardner used in a presentation.

Below is text from the flood review by In Jesus Name Productions (referenced below) referring to upwelling (i.e. convection) (emphasis – **bold** – mine).

Sources:

The Flood Science Review, a recent (2011) source, In Jesus Name Productions, over 1600 pages, accessible for a donation at https://www.injesusnameproductions.org/pages/page.asp?page_id=167120

(all words are those of Baumgardner:)

“... **downwelling** mostly around a great circle, to conserve mass, **leads to upwellings** on either side of the circle, as suggested by the red features in the images above. The presumed upwelling in the middle of the eastern hemisphere beneath Africa was near the center of the original supercontinent. If this interpretation is correct, then this upwelling flow would have had the tendency to cause the supercontinent to **pull apart**.” p. 101

“Another realization that has emerged from the 2D numerical modeling experiments is that runaway motions in the mantle not only can originate by cold dense material plunging down from above but also by hot buoyant **material rising up from below**. In the 2D animation included in the 2008 ICC PowerPoint presentation on the Flood1 , the **runaway begins** with the **upwelling** on the outside margins of the domain.” p. 133

“then causes these blocks to reverse direction and return to close to their original places to form Pangea is an even more daunting task. **My present guess is that a viable initial condition** will likely involve an **upwelling** plume beneath the northwestern part of the initial supercontinent plus some zones of cold material sequestered in the upper mantle, probably around much of the supercontinent's perimeter.” p. 146

“We can use estimates for the average physical properties of the Earth’s mantle to estimate its actual Rayleigh number. Using 10 m/s² for gravitational acceleration, $3 \times 10^{-5}/^{\circ}\text{C}$ for the volume coefficient of thermal expansion, 2000°C for the adiabatic temperature difference across the mantle, 3000 km as the mantle thickness, 2×10^{18} m²/s for the kinematic viscosity, and 10^{-6} m²/s for the thermal diffusivity, we get $Ra = 8 \times 10^6$, a value more than 10,000 times the critical value! This implies that **the Earth’s mantle is far within the convective regime**, and, as far as convective systems are concerned, **convecting vigorously.**” p. 269

Then what about the issue of **mantle convection**? If the mantle is essentially all solid crystalline rock, **can it convect** like soup boiling in a pan on the stove? The simple answer is, **yes**. A simple case known as Rayleigh-Bénard convection occurs when a thin fluid layer in a gravity field is heated from below and cooled from above. ... p. 268

The page numbers above refer to a recent (2011), source, a flood model review by In Jesus Name Productions, over 1600 pages, accessible for a donation at https://www.injesusnameproductions.org/pages/page.asp?page_id=167120

The above is Baumgardner stating that "the Earth's mantle is ... convecting vigorously." However, we can look at research which indicates that such convection is not possible.

It seems from the above that CPT does involve convection. However, the paper referenced at the beginning of this section indicates that convection is not possible. This can be a major problem for CPT - if it is not completely disproven by this, there might need to be a major reworking of the theory, or at least rewriting of published explanations. I realize the papers we worked with are in some cases several years old, but they are all I had available or could find. If there is more information, I would like to find out about it.

What do proponents of CPT say about this? I am not aware of any answer to deal with this problem, other than a miracle.

If proponents of CPT have answers to the above, we would very much like to see them. Also it seems there could be more clarification as to what is convecting - solid, liquid, etc. as well as what role if any the drastically reduced viscosity that is mentioned in relation to runaway subduction might have in such explanations.

The above is to me a problem for which I currently know of no answer.

Subduction

Michael Oard spells out some problems with this theory. ¹

He points out that CPT borrows heavily from uniformitarian areas - and those are built upon assumptions about dating, etc. that are possibly not accurate. Also he warns us that the conventional theory of plate tectonics was too readily and uncritically accepted; therefore, before widely using the concepts of plate tectonics, they should be carefully examined.

Oard mentions one problem for subduction of trenches - the sediment is missing in many cases, or if there, is not layered as it should be. Also the analysis of the content of the sediment shows it to not be the type of material it should be. Evidence of compression is rarer than it ought to be, if subduction had occurred.

Oard questions slab pulling, which he described as the favored mechanism for subduction (writing in 2002). Brown points out that pulling a slab would require tensile strength sufficient to resist breakage, and that rock, though compressionally strong, has weak tensile strength.

Dr. Baumgardner responded to 15 reasons Dr. Brown gave that subduction was not possible. Space and time will not prevent going into this in detail here. Further research and exploration of this area is suggested. ²

- 1. <http://www.answersingenesis.org/articles/tj/v16/n1/plate-tectonics2>
- 2. [The Flood Science Review](#), p.1644, (2011)

HPT Review

Overview

The Hydroplate Theory seems to me both complex and simple. In a sense, the theory is simple: it merely claims that the fountains of the great deep opened up, releasing water from beneath the surface of the earth. All the rest is physics and science applied to the result of this event.

And in another sense, the theory is very complex: Brown's book deals with the differences in the periods of comets, the amount of deuterium in water, the amount of limestone on earth, frozen mammoths, etc.

To try to sum it up, as I understand it, the earth before the flood had underground chambers, interconnected, and containing water. Rocky columns or pillars helped support the roof of these chambers, and due to tidal pumping by the moon, the pillars weakened. Eventually, the water broke free and gushed forth, along a widening crack which now has become the Mid-Oceanic Ridge. As the water gushed forth, the floor of the underground chambers bulged upward into the crack, much as an inner tube would bulge outward through a crack in a tire. The crust, or plates, to either side of this crack slid away from the crack, lubricated by the water layer underneath.

As these plates slid away from the crack, they eventually slowed, and in the process mountain ranges buckled upward. Some of the rock and ice thrown violently outward (due to the high pressure) eventually fell back to earth as rain, while some material continued on into space, forming comets, etc.

There is much more - details as to timing, various forces, and chemistry, and so forth. That is the theory in a nutshell, though.

Trenches

According to the Hydroplate Theory, the fountains of the great deep opened up. The Mid Atlantic Ridge is one major area where this happened. As the crack in the Atlantic widened, the release of pressure allowed the chamber floor to bulge upward. There was a corresponding movement of material throughout the earth (through the interior, not just along the surface), resulting in a corresponding move of material beneath the Pacific. As material from the interior of the earth moved towards the Atlantic bulge, or opening, the material from the inner earth of necessity moved away from the Pacific. The deepest part of the earth's oceans is in the Pacific, the Mariana Trench.

This section goes into the physics involved in formation of ocean trenches.

... material beneath the western Pacific subsided at least 10 miles, it sheared and buckled downward in some places, forming trenches. ... ¹

Also of note, this section indicates the inner earth rose in temperature due to the friction and movement, resulting in melting and some reduction in the volume of the earth. The ancient usage of a 360 day year, while we now have a 365 day year, could be explained by this. How so? The reduction of the earth's volume would have sped up the rotation, allowing more days per year. A reduction of volume of earth would also have reduced the earth's radius, thereby reducing the earth's moment of inertia, and to preserve angular momentum, rotation would have to speed up. This principle is something ice skaters use on a regular basis when they increase the speed of their spin. The speedup of

the earth's spin would shorten the day, allowing more days to occur in a year.

The measured, though slight, shortening of the length of the day after large earthquakes lends support to this theory, since earthquakes today are hypothesized to be due to collapsing or movement of material of the inner earth, due to reduction in volume, caused by melting.

Dr. Brown points out the implication of the reduction of volume when melting occurs (under extreme temperature and pressure, as in the interior of the earth). Below a certain depth, the cross-over point, melted rock will shrink to a volume smaller than it had before melting, when it was a solid. This explains the collapsing of material as it heated and melted, and the resulting speedup of earth's rotation. Whether this occurred gradually over time or all at once, is part of the details which space does not permit going into here. Suffice to say that current earthquakes are possibly part of this still ongoing process, though much reduced in intensity from the time of the flood.

- 1. In the Beginning, p. 158

Fossils, Layers, and Liquefaction

Liquefaction is proposed for the explanation of sorted fossils in stratigraphic layers. This explains the sharp demarcation between layers, whereas conventional ideas of long periods of time for the creation of the layers does not. A major problem with the conventional idea is the lack of erosion between layers, even though there would have been long periods of time during which erosion would have occurred.

Brown claims that surface erosion could not produce the sedimentary layers we see today.

Were the sediments we see today (including sedimentary rock) produced by eroding crystalline rock at the earth's surface? If so, the first blanket of eroded sediments would prevent that rock from producing additional sediments. As more sediments are produced and deposited, fewer sediments could be produced. Exposed crystalline rock would disappear long before all today's sediments and sedimentary rocks could form.

Transporting those new sediments, often great distances, is another difficulty. Clearly, most sediments did not come from the earth's surface. They must have come from powerful subsurface erosion, as explained by the hydroplate theory, when high-velocity waters escaped from the subterranean chamber. ¹

- 1. In the Beginning, p. 195-196

Limestone

The Hydroplate Theory offers an explanation of the origin of much of the earth's limestone, as having come from the underground water chambers.

Present conventional explanations for the origin of limestone were examined by Dr. Brown in his book, and problems with them pointed out. Brown notes there is too much limestone to be accounted for by means of these conventional mechanisms of limestone formation.

Grand Canyon

In addition to the chapter of Dr. Brown's book on the Grand Canyon, there is a 53 minute DVD by

Mike Snavely, president of Mission: Imperative!, which explains the formation of the Grand Canyon, using the ideas of Brown. ¹

The Hydroplate Theory does not claim the Grand Canyon formed during the flood, nor even immediately afterwards due to being carved out by draining flood waters. Brown points out that the Grand Canyon is unique, and there ought to be other similar canyons throughout the world if draining flood waters were the cause.

The rapid formation of a canyon after Mt. St. Helens erupted is given to illustrate that canyons can form rapidly. The theory for the formation of the Grand Canyon involves the rapid breakdown or breaching of a barrier, the edge of a lake. Actually two lakes are involved, ancient lakes which are now dry lake-beds. There is indication of water erosion in the landscape surrounding the Grand Canyon.

One question is, where is the river delta? If the vast volume of mass that had to be removed to form the Canyon was indeed removed by the Colorado River, then where is the river delta? A catastrophic event, rather than a slow and gradual event, might have carried the material, moving with higher velocity, farther away from the mouth of the river.

- 1. GRAND CANYON The Puzzle on the Plateau, Snavely, Mike, USA, p.53 min, (2010)

Mammoths

There has been a mystery of how mammoths came to be buried with undigested food still preserved in their bodies. This has been given as proof of quick-freezing, though some have disputed this. This question is whether it is possible for fresh food to be preserved in a mammoth's body without such extreme quick freezing - which in no way does away with the possibility of preserving the material if there were quick freezing; it only argues that there may have been other ways to preserve the material.

Regardless, though, and leaving the quick-freezing aside for the moment, the one remaining question is how could a mammoth be crushed in such a way that requires extreme pressures? Brown gives an example of one mammoth whose leg was broken in such a way that extreme pressure would have been applied vertically. Rapid burial under material from the flood seems to explain this.

Another question is, how and why did the animals die with undigested food in their bodies? This indicates a quick death, apart from issues of how long freezing took.

One observation that seems to be consistent with all 3 models is the condition of many fossils - limbs torn apart violently, which hints at a catastrophe.

The quick freezing issue is one that I would like to see further researched.

Comets

The section on comets is very interesting.

First, I find the difference between long and short period comets compelling; the Hydroplate model explains the observed differences, while no other theory seems to do as well in explaining this.

The many discrepancies between what conventional theory expects of comets and what is actually the case has been repeatedly pointed out by recent missions to the comets. ¹ These missions have brought back comet material to the earth to be analyzed in labs, and taken close-up photos, and even crashed an object into a comet to observe the results. The data from the probes reveal comets to be more of a mystery than heretofore expected.

I am aware of a pastor ² who contacted the principal investigator of the Stardust mission, and relayed to him a prediction of Dr. Brown - which was found to be correct, as Brown predicted, though the prediction was largely at variance with what NASA scientists expected to find.

Another amazing corroboration of the Hydroplate Theory is the analysis of comet periods resulting in the finding of a likely time of the flood - which is close to the time of the flood as calculated by other methods. ³

Altogether the evidence concerning comets supports the Hydroplate Theory.

- 1. Comets - Their Silent Testimony, Spears, Joe, Volume 2014, Raleigh, NC, (2014)
- 2. Personal communication with this pastor by phone.
- 3. <http://creationsciencehalloffame.org/2013/08/05/astronomy-2/global-flood...>,
<http://creationsciencehalloffame.org/2013/06/30/astronomy-2/global-flood...>,
<http://creationsciencehalloffame.org/2013/05/17/creation-2/news/global-f...>

Asteroids and Meteoroids

One interesting observation is that the total mass of all asteroids is only less than one-two-thousandth of the earth's mass; this is less than half of a tenth of 1 per cent. I think most people would not be aware of this, and therefore to them, the claim that asteroids came from the earth would seem incredible. The view that the asteroids are the remnants of an exploded planet adds to this effect, since the tacitly implied assumption is that the total mass of the asteroids *must* be the mass of a planet!

The composition of the asteroids and meteoroids has been found to be strikingly similar to the mineral composition of the earth, which argues in favor of a terrestrial origin.

Radioactivity

This section of Brown's theory describes a process by which accelerated nuclear decay could possibly have arisen. This alone makes this section and this model of value to creation scientists. The R.A.T.E. Group research proposed such accelerated nuclear decay ¹, and Brown gives us the method of such decay.

It may seem strange to postulate a change of nuclear decay rates, since this decay rate is one thing that has been assumed to be constant - so constant, in fact, that it is used as a clock, a reference, by which to measure the age of things. However, it is interesting to note that every day mankind alters the decay rate of radioactive materials in nuclear reactors. If the decay rate was not increased, the reactor would not work, and there would be no energy output from it.

Process

Briefly, various causes associated with the flood led to electromagnetic forces which may have altered the decay rate of radioactive materials. One example of such a cause is the effect of mechanical forces on piezoelectric materials to induce voltages; it should be noted that there is much piezoelectric material in the earth's crust (granite is 27.5% quartz, which is piezoelectric). It has been noted that decay rates of radioactive materials, as measured, have been found to have changed. ²

According to the Hydroplate theory, there were, before the Flood of Noah, large underground chambers of water. The crust above these water chambers was about 10 miles thick. Granite pillars supported the

crust above the chambers. The quartz crystals in the granite of those pillars were aligned (due to the way the quartz crystals were formed - by extrusion - and by the effect of tidal forces). Each crystal acted as a tiny battery, and since there was an alignment of the crystals, the result being the accumulation of electrical voltages (and thereby electrical currents and forces) resulting from each crystal's piezoelectrically induced voltage changes.

As the crust broke open and the water surged up, leading to the great flood, the pressures involved in the breakup of the crust, and the pressures in the pillars, would be changing, as well as greatly increasing in cases of fracture, bending, and breaking of rock layers and granite pillars. This would have caused piezoelectrically generated electrical force inside the earth's rock layers. If the electrical force was great enough, this could have altered the radioactive decay rate in those rock layers!

The undulating crust that is familiar to many in the case of earthquakes, would be many times greater at this historic period when the earth's crust broke open, and "the fountains of the great deep" were opened. This undulation of the crust would result in tension and compression in the crustal rock. Evidence of this bending of the crust is found in lineaments, parallel linear structures of unknown origin, along which earthquakes tend to occur. ³ The undulating crust would have caused the surface to fracture in just such parallel lines as these lineaments.

The electrons flowing through the rock would have encountered atoms of various sizes and types, resulting in acceleration / deceleration of the electrons. This acceleration produces bremsstrahlung radiation, which in turn produces free neutrons in surrounding material, if the energy of the radiation is high enough. ⁴ These neutrons could affect the rate of radioactive decay.

High energy electron flow inside solids can also produce heavy elements that will then decay into typical elements found in earth's crust. This has been observed in experiments performed in Kiev, Ukraine. ^{5,6} The reported result of these experiments was the creation of isotopes of elements that are found in the earth's crust, but which were not in the original sample material of the experiment. The energy output of some experiments was greater than the electrical energy input, and this, plus the appearance of newly formed elements, suggested that fission and/or fusion must have occurred to account for the energy. Also, the fission / fusion would have had to have occurred at an accelerated rate to account for the observed results.

At the Flood, electrical currents due to the mechanisms mentioned above, could have vaporized the rock and this would have led to vastly increased pressures in the rock. This pressure could then lead to more piezoelectric effects.

Another effect that could have been present during the Flood's crustal rupture is known as z-pinch. The path taken by closely placed, nearly parallel electrical currents, in this effect, are subject to a constricting effect, known as the Z-pinch ⁷, which would force nuclei closer together. Recall, pressure (i.e., forcing things closer together) has been shown to affect decay rates. Also, the proximity of electrically charged particles (that are involved in the decay process) seems to affect decay rates, and the z-pinch would move particles into closer proximity to each other. Thus it would seem that the z-pinch effect would contribute to the mechanisms involved in altering the radioactive decay rate of material.

- 1. Radioisotopes and the Age of the Earth, Vardiman, Larry, Chaffin Eugene F., and Snelling Andrew, Volume 1, El Cajon, CA, p.676, (2000)
- 2. Radioactive Decay Rates May Change, Plaisted, David, Raleigh, NC, (2011)
- 3. A. Arellano Baeza et al., "Changes in Geological Faults Associated with Earthquakes Detected by the Lineament Analysis of the Aster (TERRA) Satellite Data," Pagina Web De Geofisica, December 2004, p. 1.

- 4. P. L. Shkolnikov and A. E. Kaplan, "Laser-Induced Particle Production and Nuclear Reactions," *Journal of Nonlinear Optical Physics and Materials*, Vol. 6, No. 2, 1997, pp. 161–167.
- 5. Stanislav Adamenko et al., *Controlled Nucleosynthesis: Breakthroughs in Experiment and Theory* (Dordrecht, The Netherlands, Springer Verlag, 2007), pp. 1–773.
- 6. Proton-21 Electrodynamics Laboratory (2003) Results of experiments on collective nuclear reactions in superdense substance < www.proton21.com.ua/articles/Booklet_en.pdf > Accessed 2011 February 23
- 7. Willard H. Bennett, "Magnetically Self-Focusing Streams," *Physical Review*, Vol. 45, June 1934, pp. 890–897.

Final Statements

I see the fewest problems and fewest ad-hoc assumptions in the Hydroplate Theory. Also the Hydroplate Theory makes the most predictions, some of which already have been confirmed, and explains much of the past and current evidence (sedimentary layers, the Pacific Ring of Fire, and composition of comets, for example).

The CCT model posits a possible mechanism for creation of the earth's core; the HPT model does not require the earth's core to have existed in its current form before the flood, and proposes that the core as we know it today is, or at least can be, a result of the melting and events of the flood. Could not both of these theories account for the core? Could not the CCT theory mechanism have produced the original core, smaller and perhaps cooler than today's, while the HPT mechanisms increased its size?

Also I see the CPT and HPT models as somewhat overlapping in major features, while differing in the underlying causes and mechanisms. To clarify, I am referring to the following as points of similarity:

- both posit water entering earth's atmosphere as the opening up of the fountains of the great deep
- both agree the flood resulted (directly or indirectly) in the sedimentary layers we see today
- both hypothesize great cataclysmic events
- both posit the movement of continental plates
- both posit the formation of mountains as a result of the flood

and to be fair, the Crystalline Canopy Theory is probably consistent with many of the above also.

Perhaps the truth can take from several models, not just one.

The proposition that there was a canopy, that also collapsed at the time of the flood, while also the fountains of the great deep opened up (as both HPT and CPT posit, though by different mechanisms), should not be discounted, but further investigated.

In conclusion, I see many questions needing answers. Further research is suggested in this area of flood models.