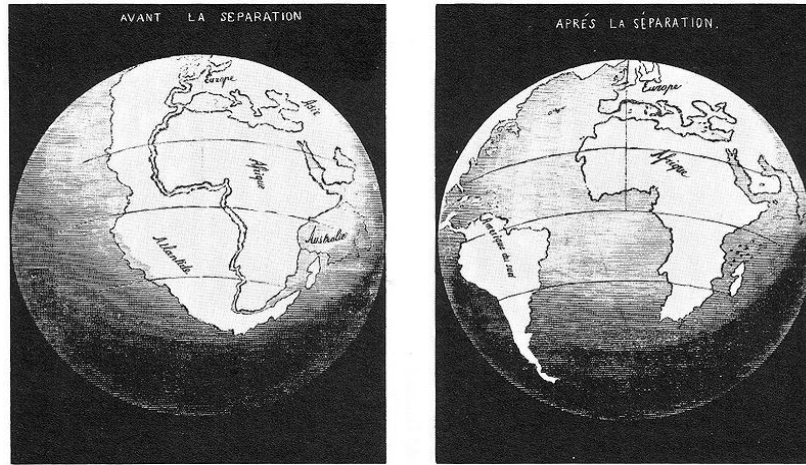


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PLATE TECTONICS AND CHANGE



by Miles Mathis

Ortelius first proposed continental drift in 1596, but the idea wasn't fleshed out until Frank Bursey Taylor in 1910 and moreso by Alfred Wegener in 1912. Wegener was scorned and libeled, but ultimately proved correct, [as is now admitted](#)—though it took 50 years for him to be vindicated. That was more than 30 years after his death, so he never saw his own victory. But due to embarrassment Wegener caused the mainstream and to a continuing prejudice, Wegener, like Tesla and many others, is still mostly buried. We are told that continental drift was just a precursor to the far more advanced theory of plate tectonics. Not true. Plate tectonics is mainly just a renaming of Wegener's theory, with some further theory pasted on top. Since there are many newer theories, none of which has been confirmed, almost no progress has been made since Wegener. Despite that, plate tectonics is taught as if it were invented in the early 1960's. In other words, current geologists still tend to give Wegener as little credit as they can, and tend to overstate the importance of theory since 1960. We have collected a great deal more data since the 1920's, but, as with everything else, the theory has stagnated or even devolved.

Why is Wegener still buried? Why the continued prejudice? Simply because he was not a “professional” geologist. Although Wegener had a doctorate in astronomy and was considered one of the foremost experts in the world on meteorology and glaciology (which is a subfield of geology), the geologists refused to let him theorize in their field. Since he turned out to be a better geologist than any of the mainstream geologists of his time (or since), we must ask what “professional” really means. It obviously has nothing to do with quality, or with being right, so it must have something to do with clubs or certificates. Apparently Wegener didn't have the right papers hanging on his walls, and didn't do rubber-stamped geologists the service of agreeing with them, therefore he was not “professional.” As you will see by studying the literature, this is still held against him almost a century later. That tells us a lot about science and about professionalism. It also tells us a lot about why science moves so slowly. It appears that “professionalism” should be scientifically redefined as “the most efficient brake

to science ever devised.”

We see an example of this continued prejudice at Wikipedia, where we are told,

Geophysicist [Jack Oliver](#) is credited with providing seismologic evidence supporting plate tectonics which encompassed and superseded continental drift with “Seismology and the New Global Tectonics,” published in 1968, using data collected from seismologic stations, including those he set up in the South Pacific.

You may ask yourself how evidence confirming continental drift manages to “supersede” the theory. How exactly did Oliver “encompass and supersede” Wegener? Remember that Wegener presented a great deal of evidence of his own, which is why his theory is given more weight than Taylor's. He was the first “to marshal significant fossil, paleo-topographical and climatological evidence” to support the drift theory. Wegener didn't just present a bald theory, so there is no way that later evidence of the same sort can supersede his theory. You are being spun here, led to believe that Oliver's evidence “supports” plate tectonics while it “supersedes” continental drift. Why? Simply because Jack Oliver is a “geophysicist” and Wegener wasn't. Everything the non-geologist did has to be admitted begrudgingly and downplayed, while everything the geologist did has to be inflated. Also notice Oliver's title, where he calls global tectonics “new.” This just means he doesn't want to give credit to Wegener. So he renames the already existing theory and tags it “new.” Normally, new evidence for old theory should make the old theorist more famous, as we see with Einstein. When new evidence for Relativity came in, Physics didn't rename Relativity and claim Einstein had been superseded. They applied the new evidence to the existing theory. Confirming data is normally seen as support for a theory that it confirms. But here, new evidence for old theory is said to “encompass and supersede” old theory. Wegener, instead of being enshrined like Einstein, was antiqued and mothballed like Grote Reber and all other scientists who dared to disagree with the mainstream and were right.

In the literature, we are always told that Wegener's theory wasn't accepted because he didn't provide the driving force of drift. Interesting, since the theorists of plate tectonics have also not been able to provide the driving force, given over half a century to do so. Yes, they have floated a lot of theories, but these theories are usually variations of Wegener's theories—as you will see below. Moreover, none of the newer theories have fared any better than the older theories. Currently, the books just stack all the theories, implying that one or all of them together must be right. But since there is neither any strong confirmation from data for any of them, or any widespread agreement, it is curious that Wegener is still belittled for lack of a mechanism, while current theory is promoted and inflated despite the continuing lack of a mechanism. Modern theory is just as circular as Wegener's theories, and just as full of holes, but that hasn't prevented it from being sold as a thing of special beauty.

This fundamental theory of geology has stagnated and deconstructed for the same reason many other scientific and physical theories have stagnated: ignorance of the charge field. I have shown in dozens of papers on various topics that the failure to unify charge into the various field theories has led to a series of theoretical meltdowns. Most recently, I showed how [core theory and nebular theory](#) have been forced into illogical and contradictory channels by this failure to understand the charge field. But it is also true in QED, [dark matter](#), [Bode's law](#), [axial tilt](#), [eccentricity](#), [Lagrange points](#), [planetary magnetism](#), galactic magnetism, [solar theory](#), and just about any other physical topic you could name, from [neutrinos](#) to [black holes](#). Because charge was unassigned field potentials for Faraday, unassigned field potentials for Maxwell, unassigned math for everyone from Bohr to Feynman, and a virtual field

now, it has never really become physical. It was heuristic only for Faraday and is heuristic only to this day. We are told charge is mediated by a virtual or messenger photon, one which not only has no mass or radius, but which has no reality or mechanics. It works by texting or some other magic, then disappears. This is the underlying cause of almost every theoretical meltdown in the 20th century.

Wegener said in the early days that the cause of continental drift was unknown and presently unknowable. He stated that the Newton of continental drift had not yet arrived. As of 2012, the Newton of continental drift has still not arrived, since no one has yet proposed charge as the fundamental cause. I will show that all the current theories are either circular or illogical, and that charge is the answer.

Currently, we are told that theories fall into three main categories: gravity, rotation, and mantle dynamics. That by itself already confirms what I have said above. As you see, those are three very broad categories. If any theoretical progress had been made since Wegener, we would certainly have narrowed it down more than that by now. This also confirms my introduction above, since Wegener had already hit all three before he died in 1930. Wegener's first theory was one of centrifugal forces, which are in the rotation category. He also proposed tidal forces, which are gravitational. And of course he also proposed mantle dynamics, although he considered this an effect rather than a cause. We are told that Arthur Holmes is credited with convection currents in the 1930's, but he was also extending ideas of Wegener, who had already proposed convection currents in the last edition of his book in 1929. Often Holmes is skipped along with Wegener, and we are led to believe that mantle dynamics wasn't even mentioned until the birth of plate tectonics proper in the late 1950's. But the truth is that mantle dynamics had been discussed from the very beginning. How could it not? Any centrifugal forces must percolate up through the mantle. Thermal expansion, however operating, must also come up from below the crust, so there is very little new about mantle dynamics. Perhaps the boldest claim of newer mantle dynamics is that it is a driving force of drift and tectonics. Wegener never would have agreed with that, since he could see that any movement of either crust or mantle must be an effect of something greater, not a cause or a driving force. So in this sense, theory has actually degenerated. Wegener was right not to try to sell mantle dynamics as a driving force, since mantle dynamics just begs the question: what is driving the interplay between crust and mantle? Likewise with any proposed core dynamics. If forces are percolating up from the core, through the mantle, and to the crust, what is driving the variations in the core? As we will continue to see, all of current theory is circular. All of current theory is a description of effects, and no cause is ever presented.

Before we move on to gravity and rotation, let us bludgeon mantle dynamics a bit more. We are taught that mantle dynamics can be divided into two main categories of driving force: basal drag (which is friction), and slab suction (which is gravity). We are told that in basal drag

the plate motion is driven by friction between the convection currents in the asthenosphere and the more rigid overlying floating lithosphere.

I hope you see the problem of logic there. By definition, friction is a *result* of motion, not a cause of motion. We also have convection current assumed here, which is basically assuming what you are trying to prove. According to this sentence, we have convection currents causing friction, which then causes plate motion. OK, so what causes convection currents?

Slab suction is just as bad. We are told, "Local convection currents exert a downward frictional pull on plates in subduction zones at ocean trenches." Again, what causes convection currents? Both theories are circular.

Wikipedia admits the weakness of all this, saying

Lately, the convection theory is much debated as modern techniques based on 3D [seismic tomography](#) of imaging the internal structure of the Earth's mantle still fail to recognize these predicted large scale convection cells. Therefore, alternative views have been proposed.

The first of these is plume tectonics, which is basically borrowed from 1930's models. And, although there is nothing really new about it, it is still circular. Instead of major convection cells, we have superplumes. Unfortunately, tomography also fails to find these superplumes. And even if they were found, we must ask, "what causes superplumes?" Any sort of convection must be caused by something deeper. Convection cells, no matter how large or deep, must be the result of some underlying driving force.

The second is surge tectonics, which was all the rage when string theory was the rage (late 1980's). Instead of making the convection cells larger and deeper, surge tectonics makes them smaller and less deep. These small channels just below the crust then use basal friction to create forces. But again, convection cells or channels, no matter how small or shallow, must be the result of some underlying driving force. They are another effect, and cannot be the cause.

Now on to rotation. We know that the old rotation models cannot be the driving force, since this would tend to force all landmasses to the equator. Scheidiger was still dismissing Wegener as late as 1953 based on that problem. What of newer rotation models? According to the current mainstream literature, we have 1) shear strain due to N-S compression, 2) pole flight, 3) Coriolis effect, 4) pole displacement, 5) and other smaller deformations caused by various wobbles. Could that list be more pathetic or desperate? Wegener was belittled for decades for pole flight, and still is, but now we find it in a modern list of rotational driving forces. What about the old argument that these forces were too small to explain what we see? Has that changed? No, what has changed is that the new people promoting these ideas are geophysicists, so they are held to much lower standards than Wegener and the old people. Insiders can get away with anything while outsiders can get away with nothing. Science has degenerated so much in the past century that scientists are no longer embarrassed to publish lists like this.

Here is what Wiki says of its own list:

For these mechanisms to be valid, systematic relationships should exist all over the globe between the orientation and kinematics of deformation, and the geographical [latitudinal](#) and [longitudinal](#) grid of the Earth itself. Ironically, these systematic relations studies in the second half of the nineteenth century and the first half of the twentieth century do underline exactly the opposite: that the plates had not moved in time, that the deformation grid was fixed with respect to the Earth's [equator](#) and axis, and that gravitational driving forces were generally acting vertically and caused only locally horizontal movements (the so-called pre-plate tectonic, "fixist theories"). Later studies (discussed below on this page) therefore invoked many of the relationships recognized during this pre-plate tectonics period, to support their theories (see the anticipations and reviews in the work of van Dijk and collaborators).

Translating that into legible English, it means that we can throw out the list as unconfirmed. All these rotational causes are just as weak now as they were in the time of Wegener, and I don't really understand why textbooks still mention them. They are a very odd sort of ballast or filler, since they have no theoretical weight. Even worse, they show up the nature of modern propaganda, since they

basically tell us that contemporary geologists will continue to belittle Wegener for using such filler, while at the same time and on the same page they continue to use his filler themselves. In one paragraph we are told that *polflucht* or pole flight is ridiculous pseudoscience, and is one reason Wegener was ignored for decades. Then in the next paragraph we find it listed as a current driving force. That list of five above is also strange, in that it is basically just an expansion of Wegener's initial idea into five ideas with different names. In other words, all five are just different names for the same thing. The Coriolis effect IS pole flight, since in the Coriolis effect, the force due to rotation is always away from the pole. Shear strain is an effect of pole flight, and so is pole displacement. The “various wobbles” are secondary effects of the centrifugal force as well. Unless they are caused by other celestial bodies, in which they should be listed with gravity, not with rotation.

So we have killed rotation and mantle dynamics as driving forces. What of gravity? Although gravity is now played down and is admitted to be secondary if not tertiary, we will take a look at current mechanisms. The first is variously called ridge push or gravitational sliding. In this theory, plate motion is caused by the higher elevation of plates at ocean ridges. This is again circular, since we aren't told why the ocean ridges are higher. According to the theory, they are higher because the cooler, heavier lithosphere further away is lower. Circular. The effect causes the cause and the cause causes the effect. And anyway, the mechanism doesn't create a force. Even if we accept the mechanism, and the creation of higher and lower areas, these higher and lower areas won't cause lateral movement without further theory. Whatever is causing the ocean ridges must be causing the sliding, but we have no theory of ridge creation.

We are then told that current scientific opinion is actually *against* gravitational sliding, and for a thing called slab pull. Not ridge *push* but slab *pull*. In this theory, the cold dense plates sink into the mantle at weaker trenches. These trenches may even provide “trench suction.” But it turns out that scientific opinion is for slab pull against all available evidence. The North American, African, Eurasian, and Antarctic plates are all in motion without this subduction, so any real scientist would admit that the theory has been disproved. But even if all the plates were being subducted, this still would explain nothing. For we may ask, “What is causing the weaker trenches?” Heat variations and trenches and suction cannot be uncaused. What is driving the entire machine?

Wikipedia includes the tidal force with rotation, but I will look at it here as part of gravity. Once again, this tidal force was proposed by Wegener early on, belittled for decades, and is still belittled by many geologists (but only when it is connected to Wegener). But like *polflucht*, it has been resurrected by real geophysicists and promoted as if they invented it. Moore and Bostrom have presented evidence for a general westward drift of the crust relative to the mantle, caused either by inertial resistance to rotation or to the gravitational pull of the Moon. Either way, the theory is a non-starter as a driving force of plate tectonics, since many plates are moving north and east. And even if they weren't, a general westward drift cannot explain either continental drift or plate tectonics. Inertia would create greater speeds at the equator, and this isn't what we see. Tidal forces from the Moon would create greater speeds in the line of the Moon, and this isn't what we see. What we see is a general stirring from within, not a response to the Moon or the Earth's rotation. This is exactly why Wegener moved away from *polflucht* and tidal forces and toward convection. He could see that the observed motions were driven from within, and so it was best to follow the causes down. He never used convection as a driving force, but only as a pointer to the driving force below.

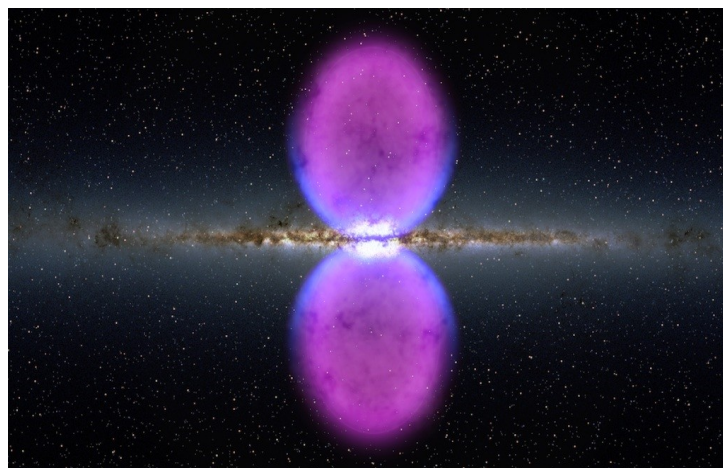
So we have seen that current theory is another stinking pile of garbage, brazenly dumped right out in the open. I encourage you to visit the plate tectonics page at Wikipedia, to see the state of the art. Wikipedia likes to brag about its science pages, which are written by the universities. That is, it likes to

brag about them until I visit them and tear them up. Then it likes to scold me for analyzing the pages, since they are then dismissed as being written by amateurs and vandals. I am really not sure what the intended argument consists of: is Wikipedia implying that the universities are composed of amateurs and vandals? Or is Wiki implying that the science pages are beautiful, tight, and professional until I signal an intent to visit them, at which point amateurs and vandals quickly go to work turning the page to trash?

Not only is current theory garbage, but it is the unsubtle continuation of a century of slander, ingratitude, and disinformation. Not only can contemporary geologists and geophysicists not come up with any good ideas of their own, but they have to steal ideas from their betters while refusing to give credit where credit is due. It is the science of the last man, and frankly it turns my stomach.

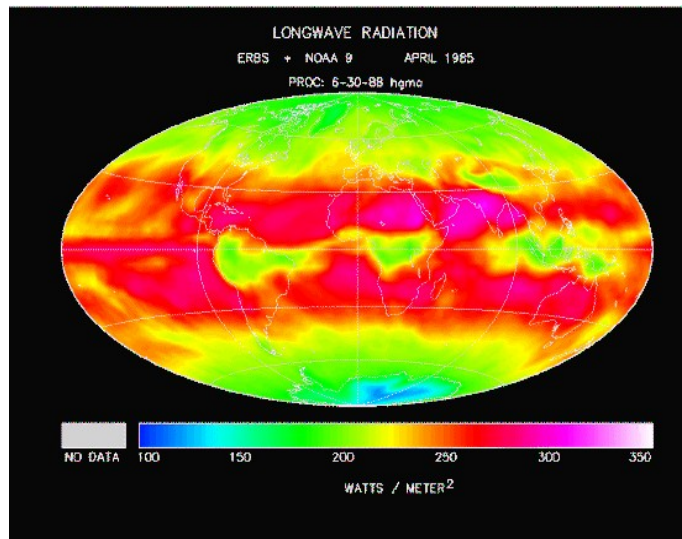
So let us move away from this bad air and breathe again the sweet breezes of logic. What is the driving force of continental drift? Charge. Something has to be moving up through the mantle and core to cause convection currents, either radial or lateral, and that something is charge. Something has to be driving energy out from the core to cause motions in the crust, either radial or lateral, and that something is charge. Something has to be causing the energy in the core, and that something is charge. Something has to be constantly replenishing the energy in the core, and that something is charge, coming in at the poles. Something has to be replenishing this charge coming in at the poles, and that is the ambient charge field of the Solar System. Something has to be replenishing this ambient field, and that something is the Sun. Something has to be replenishing the Sun's charge, and that is the Galactic Core. Something has to be replenishing the charge of the galaxy, and that is the Universal charge field.

So, as you have seen, I have taken the cause and the driving force back much further than convection cells in the mantle. I can point to a logical line of causes all the way back to the Universal charge field, which we know exists not only from the so-called [cosmic background radiation CBR](#), but more recently from [dark matter](#) estimates and from [NASA's discovery](#) of new super-galactic structures:

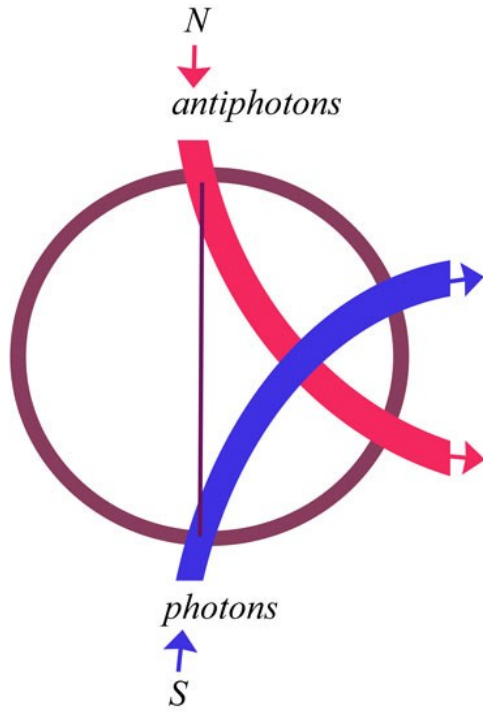


Closer to home, we have evidence of charge recycling by the Earth in this NOAA schematic below from 1985, which shows long wavelength radiation concentrated at the equator. I have shown that

charge peaks in the infrared, and infrared is long wavelength radiation. Furthermore, this NOAA schematic also shows us that charge recycling varies not only by latitude but by longitude. In other words, we have direct evidence of charge variation both east to west and north to south.



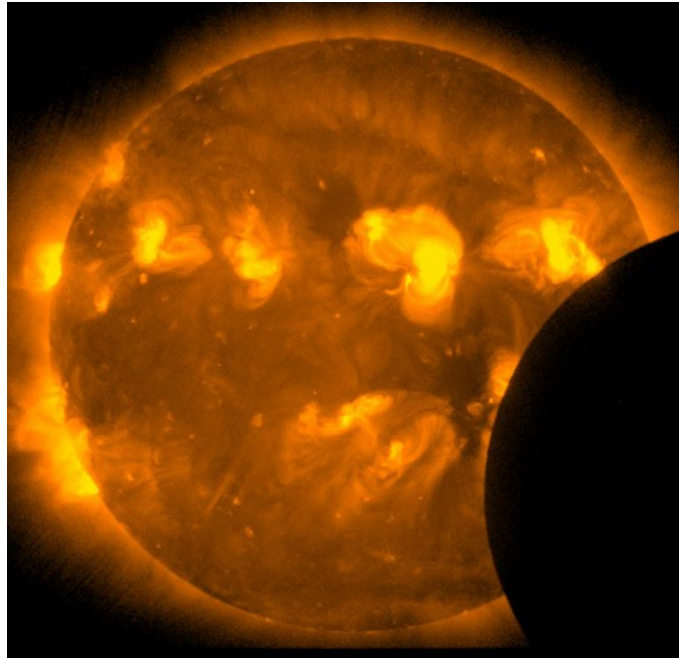
This schematic is doubly and triply gorgeous because it not only shows clear evidence of charge recycling via the routes I have given—in at the poles and out at the equator—it goes even further by showing clear evidence of finer points of my theory. [In other papers](#) I have indicated that charge coming in the north pole should exit heaviest below the equator and vice versa.



That's precisely what we see in the image from NOAA, since we get maxima both above and below the

equator. I have also [predicted more charge emitted north](#) of the equator, and explained the reason for that: the Earth's charge field is imbalanced, with more photons than antiphotons. This is what explains the strong magnetosphere here and the weak magnetosphere on Venus. It also explains the lack of parity in quantum interactions [like beta decay](#), since the field here is not symmetrical. The NOAA diagram again confirms that with more purple patches north than south. And it confirms it with that big blue charge hole at the south pole.

We can see the same thing in this recent satellite image of the May 20, 2012 annular solar eclipse:



We clearly see a line of maximum emission both above and below the equator, with the line above stronger than the line below. The Sun shows a lot of variation in emission, but this particular image happens to capture an average emission, showing the unbalanced ambient field in our system. In other words, the Sun, like the Earth, is recycling more photons than antiphotons. We have seen this in other recent images I have published in my papers, where we have seen the charge hole at the south pole of the Sun. The north pole also has a charge hole, but it isn't as large or as prominent as the south hole.

This can also be seen in [a video from NASA at youtube](#), where they show you three years of the Sun in about 3 minutes. You can see for yourself the maximum emission 30 N and S, as well as the low activity at the poles. In fact, the top comment on the video asks why there are no “explosions” at the poles. There is less activity at the poles because that is where recycled charge is coming *in*. Those are lows in the potential field.

Because the Earth is spinning in the same direction as the Sun, it shares the charge profile of the Sun and most planets. Venus, spinning opposite, is upside down to the Solar field, and thereby cancels the charge spin of the field—which is its magnetism.

Now, if we apply all this to the problem at hand, we find a simple and direct cause for both Vulcanism and Continental Drift. Because the Earth is not a homogeneous sphere, charge can't be recycled through the planet in a homogeneous way. The core, the mantle, and the crust all have density

variations caused by variations in composition. Since the Earth is said to have been accreted, the accretion cannot have occurred precisely the same at all stages or in all areas. And so we have density variations. In some places, the charge recycling is blocked more and in other places it is blocked less. In places where it is blocked more, it may be bottled up to some degree. This will create more heat and energy in those places. It may also cause the charge to be diverted laterally, as it seeks to pass through less dense areas. This is the cause of convection cells and currents.

Since charge is composed of real photons, it can not only be channeled, blocked, or diverted by matter, it can also be reflected. We saw this [in my explanation of the South Atlantic Anomaly](#). The extra thick and dense plate under Indonesia acts to reflect part of the charge arriving at that place. In the same way, the density of the plate forces charge that is not reflected to be diverted laterally, seeking release at plate joints, where it causes increased Vulcanism and seismic activity.

This response goes both ways, since as matter affects charge, charge also affects matter. In other words, if a dense area in a plate diverts charge to the left, the charge will divert the plate to the right. Equal and opposite, you know.

What this means for current theory is that some of the mantle dynamics and convection theory is on the right track, it is simply circular and unsupported. Bringing charge into the picture gives a cause to the initial motions, allowing us to show a line of causes rather than circle and a begged question. But charge does much more for drift and plate theory than provide a first cause and driving force: it provides a mechanism that indicates the direction of influence at each spot and at all levels, allowing us to fine-tune theories that were (and are) little more than wild speculation. Since some of this speculation has been closely tied to data, it is not far wrong. But by following charge we can make it far better.

As just one example, we have seen that although gravity and tidal forces can explain some variations, it cannot explain lateral forces well, and drift is mainly lateral forces. On the other hand, rotation can provide lateral forces, but it cannot provide the variations we see, or any longitudinal variations at all. Mantle dynamics can explain a short chain of influences, but cannot provide the driving force to start the chain. Charge solves all three problems simultaneously. It solves the gravity problem, because it shows us precisely what the centrifugal force is working on. Before now, it was not clear how the variation was being produced. The actual matter of the Earth is not moving out from center, so how is the force transmitted outward? Charge. The centrifugal force acts to increase charge recycling, by propelling the charge photons out from the center and the axis. And it acts to increase charge above and below the equator by the natural laws of angular momentum, as in the diagram above. In the same way, charge solves the rotation problem, because it explains what the rotation is working on: charge. Rotation provides a natural channel for charge laterally when it is bottled up. Lacking other forces and channels, blocked charge will tend to move westward, and the closer it is to the equator the more it will want to move to the west. In the north it may also want to move south, and vice versa. But remember, if the charge is diverted west, the plate will be diverted east. And this is just a rough rule, since I said "lacking other forces." Movement of charge is very complex, and charge may move laterally for other reasons than the Earth's rotation. Finally, charge explains mantle and crust dynamics, by providing the mechanism, the field, and the direction.

But let us apply charge to a real problem. We will be bold and look at the central problem of drift and tectonics: the cyclical coming together and breaking up of the continents. How could charge recycling add to our understanding of this phenomenon? Well, let us start with one supercontinent like Pangaea and see how charge recycling would affect it. It is clear that if charge is being recycled in the manner I

have proposed, it is going to be blocked more by the denser oceanic crust. Some of this charge will be diverted to Pangaea, where it can more easily penetrate the less dense continental crust there. Once it has been channeled under Pangaea, it will seek the the weakest points of release, which will become the plate seams. Charge will then preferentially release along the seams, creating lines of Vulcanism and other seismic activity. Over long periods of time, those seams will weaken the crust, and eventually split it. This allows for the newly created continents to move apart.

What of the reverse? Why would a continental Earth like we now have wish to move back to a single supercontinent? Well, unless the new continents were all exactly the same size and same latitude, they couldn't be moving at the same speed. Those nearer the equator will be moving faster, and the small ones will be moving faster than the large ones. So, no matter whether they are moving east or west, they will tend to collide once more. This is obvious for continents moving in opposite directions: the Earth is a closed loop, and so we would have to have a pile up. But the same is true for continents moving at different speeds in the same direction. We again have a pile up. In fact, there would be only two ways to keep this cycle from happening. One way is the way I implied above: all the created continents just happen to be the same size and at the same latitude. So they maintain the same speeds and the same separations. Obviously, the odds of that happening are zero. The other way is to push the continents far north and south, so that they avoid collisions at the equator. That can't happen due to the rules of angular momentum. The Coriolis effect pushes objects on a sphere away from the poles and toward the equator. So the Pangaea cycle is a simple outcome of a couple of simple physics rules. The most basic rule of angular momentum pushes the continents to the equator, where their varying sizes guarantee they collide. This cyclically creates a Pangaea. Density variations in the crust then guarantee that recycled charge will split Pangaea again and again.

Of course there is much more that could be said on this topic, and I may address other problems or the finer points of the above problems in upcoming papers. But the point of this paper was not to rewrite all the rules of geophysics. That would take a shelf of books. I only wanted to propose charge as the underlying cause and driving force of drift and tectonics, and I have now done that. As my readers know, I don't feel compelled to specialize or to exhaust theory in any one field. I tend to hit the high points and move on. There is so much that can be done with charge in so many subfields, I have to work very efficiently and move quickly. Perhaps in future I will have addressed all the major points of contact of my charge field with contemporary science, and can return to fill in the gaps. But for now I must continue to cast my net as widely as possible, and continue to offend the establishment as broadly and as sharply as I can. Only by doing that can I hope to achieve the sort of success I envision.

To read more on this, you may visit [my newer paper on isostasy](#).

You may also consult [my paper on the Schiehallion experiment](#).

To see how charge explain the South Atlantic Anomaly, [go here](#).

To read how my charge field replaces the core dynamo, [go here](#).

To see how charge explains Canada's gravity deficit, you may now read [my new paper on that](#).