

Hemispheric Impact, Global Resonance, PTB?

Author: Peter Nielsen
 Comments: See Vols 1, 3 Slide Shows.
 Journal Reference: 3.1 of Impact Tectonogenesis, CD-ROM ebook ISBN 0-646-40916-6 at www.nodrift.com since 21 Dec 04.

Abstract: Earth's $(\frac{1}{2})^{3,4}$ th order 8-, 16-fold continent-ocean rhythm (See Vol 3 Slide Show) has been inscribed by antipodally resonant interference pattern degeneracies, "ghosts": composite $(\frac{1}{2})^4$ th order super huge impact-energisation Resonant "Object" (PIRO) and Inverse Resonant "Image" (IRO).

Keywords: Impact, Tectonogenesis, Tectonic, faultline, antipodal conjugacy.

PREAMBLE

The following papers 3.1-8 followed a train of ideas subsequent to my review-version thesis of 1999/2000, Vol 4. Vols v, w, x, y were done in reverse order subsequent to Vols 0-2, again done in reverse order, after this Vol 3.

Vol 1 used the (PTB) Impact-energisation Resonant "Object" (PIRO) and Inverse Resonant "Object" (IRO) Perspex templates of this paper, page 9.

PTB THESHI?

I formulated PIRO-IRO before PTB impact became a News item also, and there was an idea consistent with this paper's super huge impact (THESHI) being the ultimate cause of the PTB mass extinction, that:

The Sun had acquired a "Brown Dwarf" companion a few 100 million years (myr) ago, disturbing the Oort Cloud, increasing the frequency of collisions of comets with the inner planets . . .

However, by 27 Feb 05, this idea had been demolished by C Johnston's explanation of a longstanding, regular ~26 myr impact cycle, at

<http://mb-soft.com/public/extinct.html>

The Solar system evidently oscillates across the full width of the "Milky Way's" Galactic System's local spiral arm every ~52 myr, that is about 5 times per revolution around the Galactic centre.

The midpoint of the spiral arm, where stars are most common and moving fastest, asynchronously, is a likely place for huge, super huge impacts such as THESHI to occur.

So there is no recent enhancement of THESHI probability in the last few 100 myr. C Johnston's explanation is corroborated by relic mid-ocean ridge evidence as far back as 2.7 Ma, Kerr (2000c).

I was also thinking that the PTB Impact may have left too little impact debris, too many higher lifeforms to have been this ebook's ocean-continent re-configurational super huge impact (THESHI).

PTB THESHI

However, PTB candidacy is indicated by the ubiquity of seafloor spread, explained as a THESHI phenomenon, 4.4, and when revising w. 1a, 19 Mar 05:

It became clear at Slides 39-46, that flare depressions may generally be much more Freeze Effect-ed, 3.4, than excavated, even when directly impacted.

THESHI may thus have produced the green, planetary scale flare of Slides 41-42, without planetary scale debris, consistent with THESHI having been the PTB Impact.

A candidate THESHI-directional Impact flare antipodal to the PTB-dated, Wrong Way (WW)-flared Siberian Traps, is corroborative.

THESHI

The unbounded sphere of the Earth, subject to super huge impact would have produced a symmetrical interference pattern globally, a most likely extreme planetary event.

This would have included congruent, symmetric degeneracies, because of the Earth's internal irregularities: a composite pattern generated by hemispheric impactors indicated by 8-fold rhythmicity.

Global ($\frac{1}{2}$)^{3, 4} th order 8-, 16-fold ocean-continent octo-, hexadeci-chotomous rhythmicity is consistent with hemispheric impact with a major, central impact at Polynesia, the "wettest continent, most continental ocean", antipodal to Africa, the largest, most equatorial, oceanic continent.

Corroboratively, w.1a slide 46 show numerous concentric circularities, radialities centred at Hawaii, Christmas Island, Lake Victoria-Kilimanjaro, peripheral, flared antipodal conjugacies, consistent with an extensively impacted Impact Hemisphere centred on the East Pacific Basin.

Corroboratively, three most emphatically flared peripheral impacts are similarly ocean-continent rhythmicity centres at or antipodal to oceanic continents, indeed all three remaining oceanic continents AND similarly at crossing points of rhythm-consistent Earth-bisectional faultline network manifestations. This is extremely unlikely to be a random coincidence:

- a. South America antipodal to SE Asia, viewed from above Bolivia, with French Polynesia to the left, West Africa to the right;
- b. Arctic Ocean Deep Impact cavity (AODI, 4.3, Vol w), viewed from above its Antarctica antipode (continent axes);
- c. North Atlantic Ocean antipodal to Australia, viewed from above 25° N, 45° W (oceanic/oceanic boundary axes).

The Earth-bisectional faultline network manifestations referred to, see 4.3 Fig 1:

- e. Pass through Arctic, Atlantic Oceans, Sakhalin, Volcano Islands, E Australia, Macquarie-Balleny Ridge, TAM, incirbing many shorelines, continental shelf edges, islands.
- f. Pass through through Caribbean, Mediterranean Seas, Persian Gulf, Indian Ocean N boundaries, incirbing many shorelines, continental shelf edges, islands.
- g. Circumscribe the Pacific Ocean, bisecting Antarctica, a West Australian ocean basin, incirbing many shorelines, continental shelf edges, islands.
- h. Indian Ocean W shorelines, Central Asian mountains, Hawaii, Drake Passage, Bouvet.
- i. Midway, Bikini, Bismark Archipelago, Torres Strait, far SW Australia, Kerguelen, Cape of Good Hope, Ascension, New York, Great Lakes, Juan de Fuca Strait.

The continents/oceans have thus evidently been inscribed by global interference pattern degeneracies evolving from central Pacific Ocean origins with important peripheral contributions.

I was bold enough, in this paper, to use simple procedures, texta pen and moulded Perspex templates, to try to work the degeneracy pattern out.

The "PIRO-IRO" thus produced has since been corroborated as coarsely true by:

1. the ocean-continent configurational fit (Continental Drift Contradiction) of its ghosts, Vols 1, 3, from its very first ghosts, as explained below;
2. PIRO-IRO's hexadeci-chotomy, consistent with the octochotomy of the ocean-continent configuration;
3. PIRO-IRO spirality, 1.01 Spirality
4. The above-mentioned a)-i), Vol w corroborations.

INTRODUCTION

My 1999/2000 review-version papers, Vol 4, consistently indicated super huge impacts on Mars, Venus and Earth, manifest as antipodal conjugacies, hemispheric dichotomies and so on.

Tectonology has, as a discipline, resisted impact geological explanation (Dietz 1996), particularly super huge impact geological explanation.

This despite the obvious fact that Solar System planets have been heavily impacted. Super huge impacts have happened ubiquitously throughout the Solar System. . . . a paradox.

Tectonic Plate Orthodoxy's notion of mobile continental crustal plates driven by a fluid mantle is consistently contradicted throughout this ebook.

I argue that the Earth's continent-ocean configuration has been most recently renewed by THESHI tectonogenesis as a Freeze Effect-ed (3.3), serm interference pattern surface inscription.

POPPERIAN DUTY

Physicists had been quick to exploit improvements in precision of atomic clocks, space- and air-craft platforms, and so on, in well-publicised attempts to disprove Relativity theory.

The failures of these attempts at disproof have further validated/corroborated Relativity theory, added to the prestige of researchers.

Failed attempts at disproof of Quantum Mechanical predictions have similarly enhanced the prestige of Quantum Mechanics and its researchers.

SEAFLOOR SPREAD

Tectonologists have been slow to become similarly inspired by Popper. Most scientists "know" that the famous South America-Africa "suture" has been proved.

OVER-PRODUCED SUTURE: But how many scientists know about attempts at disproof of the suture, or Tectonology's more general ideas?

Scientific/artistic ideas are often over-produced for social-political reasons, via Science/Arts Administrators and so on. Science and Art are often corrupted by pre-eminent social-political-moral-legal societal values, Vol 5.

Form generally reflects extreme events and the event of an extreme bolide or comet hitting the Earth within its 4 billion year lifetime has long been known to have been probable.

OVER-PRODUCED THEORY: Analysis of such an impact has obviously long promised an interesting alternative explanation of the Earth's geology. Why has this not been vigorously pursued earlier?

The apparent absence of any such attempts at disproof of the famous suture makes this work's disproofs vitally important.

Tectonology has long outgrown the original need of the South America-Africa suture. Firm examples of terrestrial tectonic activity, seafloor spread, date back to 2.7 Ga (Kerr 2000c).

Acceptance of South Atlantic Ocean genesis explanation in terms of African migration led to an over-generalised Tectonic Plate theory when further studies showed seafloor spread from mid-ocean ridges globally, consistent with an apparent absence of large impact structures and so on.

Tectonic Plates were conceived of as being driven by a fluid mantle driven by superplumes of obscure genesis, when their most likely cause was obviously also: super huge impacts.

The indications of extensive, ubiquitous, fixed surface inscriptions of this ebook obviously contradicts Tectonic Plate theory, proving my claim of over-generalisation.

INCOMPATIBLE: This ebook's obviously fixed global congruencies, symmetries and so on, are incompatible with Tectonic Orthodoxy's generalisations beyond globalised seafloor spread.

COMPATIBLE: Tectonic Plate theory originated with discovery of Mid-North Atlantic Ridge seafloor spread, a phenomenon my theory is compatible with.

Complex seafloor-continent interactions, for example Whitmarsh et al's (2001) "zone of exhumed continental mantle", are re-interpretable in terms of a general seafloor convergence upon fixed continents.

THESHI GULLIES AND DEBRIS

Super huge global THESHI would have created gullies and filled them in with conglomerate lags and other debris, much as the PTB Impact had, below.

Most debris not already in basins would have been washed into them by:

1. super huge geyser rainout, tidal wave flooding and foam for weeks, months, years,
2. huge geyser rainout, tidal wave flooding and foam 10s, 10,000s, millions of years.

PTB IMPACT GULLIES AND DEBRIS

"The Permian-Triassic transition in the Karoo Basin of South Africa was characterized by a rapid and apparently basin-wide change from meandering to braided river systems, as evidenced by preserved sedimentary facies. This radical changeover in river morphology is consistent with geomorphic consequences stemming from a rapid and major die-off of rooted plant life in the basin. Evidence from correlative nonmarine strata elsewhere in the world containing fluvial Permian-Triassic boundary sections suggests that a catastrophic terrestrial die-off of vegetation was a global event, producing a marked increase in sediment yield as well as contributing to the global ^{13}C excursion across the Permian-Triassic boundary." (Ward et al 2000).

"The pattern they [Ward et al] see is matched beautifully in Australia and Antarctica,' says Retallack[G. J.], based on his own work. Everywhere the transition occurred, says Ward, 'it was fast. This was a really rapid, short-term event'. . . . 'all the extinctions could have occurred in a single bad day 251.4 million years ago', says Erwin," (Kerr 2000a).

"The most discussed of the possible earthbound causes centers on lavas known as the Siberian Traps, whose million-year-long eruption coincided with the P-T extinctions as near as radiometric dating can place them" (Kerr 1995, 2000a).

"A number of plausible mechanisms linking the mass extinctions at the end of the Triassic with LIPs [large igneous provinces] have been proposed, with strong parallels being drawn with the events at the end of the Cretaceous. These include . . . a bolide impact. . . . [KTB impact is indicated by the presence in the KTB layer of iridium, shocked quartz, micro-spherules and very fine iron oxide particles]. The overall extinction pattern and associated floral effects at the Triassic-Jurassic boundary do parallel those associated with the Cretaceous-Tertiary Chicxulub impact. . . . As has long been noted, the implications of bolide impacts and massive volcanism can be very similar . . . an impact origin for both the Triassic-Jurassic and Cretaceous-Tertiary LIPs has been hypothesised . . . the coincidence of the three largest Phanerozoic mass extinctions with the three largest continental LIPs - two possibly with giant bolide impacts - does demand very close scrutiny." (Olsen 1999).

"Sorting out cause and effect in curious coincidences as old as 250 million years is going to be a challenge, researchers note A large impact looks simple by comparison." (Kerr 2000b).

Ward et al's (2000) abrupt alteration of "river morphology in South Africa . . . from meandering to braided river systems . . . across the Permian-Triassic [P/T] boundary" would be consistent with P/T boundary (PTB) Impact, but not necessarily in the way suggested by Ward et al . . .

Ward et al's abrupt alteration of "river morphology. . ." is consistent with the optical geological ideas of papers of this series: super huge impact genesis of nearly all terrestrial faultlines . . .

Ward et al's finding that "the gullied bases [of the PTB layer] are often filled with conglomerate lags" is consistent with a huge regional or super huge global PTB Impact scenario:

"Conglomerate lags" may have originated as impact fracture-melt. So too the gullies. PTB Impact could have created both the gullies and the material that fills the gullies in.

FRUITFUL IDEAS

Form reflects extreme events (Catastrophism, e. g. Harris 1984).

Cometary impact is a most likely extreme event to befall any Solar System planet. Super huge cometary impact produces energies and forces consistent with planetary tectonogenesis (4.3).

As demonstrated by the symmetries and ghosts of Vols 0, 1, 3, the Earth's geology is consistent with having largely originated within morphologies I explain as serms (4.5-11, 16-18).

Serms are how planetary interference pattern shock wave inscriptions are manifested: Crustal and mantle 3-D resonance structures, serms are the "craters" of most rocky planets and their moons.

Serms look unusual on Earth because of Earth's unusually profound and extensive antagonism between water and magmatic uplift, what I call Freeze Effect, 3.3.

SUPER HUGE GEYSERS

Note the consistency of Ward et als scenario above with my super huge geyser explanation of the missing PTB Impact ejecta layer in:

Google Groups sci.geo.earthquakes "New Evidence . . ." chats, Contents Vol v, Item 3 on the Homepage.

FREEZE EFFECT

Non-small serms are profoundly bisectonal. Serm bisectonality is emphasised by Freeze Effect (3.3), an antagonism between magma and water, and this has happened most spectacularly on Earth, because of its unusual surface oceans.

IMPACT ZONAL LEAKINESS

Impacted regions tend also to be emphasised by Freeze Effect, on planets with oceanic volumes of sub-/surface water, like early Mars/Earth (3.3).

Hence my original idea that it was the N hemisphere of Mars, Earth's non-octochotomous Pacific Ocean-centred hemisphere that had been super huge impacted.

SERBILS, SERTALS, BITALIMS

I had originally understood Island arcs, coastlines, mountain ranges, great rivers, small rivers, creeks, channels, canyons, ocean trenches, half-domes, bisectonal islands, and so on as serm cluster bisectonal/serm tangential faultlines, 0.001.

I had proposed that the bisectonal (radial) faultlines be called "**serbils**", after SERm/serm cluster Bisectonal faultlineS (SERBILS), their manifestations, "**serbilims**". I called the less frequent serm tangential faultlines **sertals**, serbil-sertal combinations **serbitalis**, their manifestations: **bitalims**.

MACROS

A more advanced, genetic understanding of the same phenomena:

Freeze Effect-ed macros, y.01-6, are evidently rotational, Inscription-Phase pathways through sets of symmetries, consistent with the bitalims, symmetries, ghosts, antipodal resonances of Vols v-y), 0, 1, 3.

NOISE

Macros, bitalims may be lost or obscured. Geological effects such as volcanism, magmatism, erosion, hydrodynamics, and so on are often extremely noisy.

ANTIPODAL CONJUGACIES

I had interpreted polar and extra-polar serms on Mars and Venus as antipodal conjugacies (4.2).

I made the discoveries of this paper while looking for terrestrial antipodal conjugacies "inscribed" by a cometary, super huge impact, as "Freeze Effect"-ed interference pattern fringes (earthquakes).

Simpler Venus/Mars surface morphologies seemed to have been produced by near-vertical impacts at/opposite to, respectively, what had subsequently become spin poles of their uplifted hemispheres.

TERRESTRIAL ANTIPODAL CONJUGACIES

A similar thing had happened on Earth evidently . . . hence my "discovery" of AODI (4.3), even the "head" of which is tellingly surrounded by continental landmass.

The Arctic Ocean encompasses AODI, the Pacific Ocean Polynesia-centred impacts in a similar way, consistent with a Pangea-Panthalassa prior to THESHI, like the Martian hemispheric dichotomy.

The post-THESHI situation is octochotomous . . . with the THESHI Hemispheric centre depressed by oceanic surface water. This and a continental African antipode have become equatorial.

I was explaining this as a "Washing Machine Spin Dryer" wobble-minimisation Effect, 3.3, when I noticed a primary, global expression of antipodal conjugacies:

Super-continental Afro-EurAsia is antipodal to Earth's hemispheric Pacific Ocean. There is a coarse antipodal conjugacy between the Pacific Ocean and Africa-EurAsia!

HEMISPHERIC IMPACT

This discovery was corroborated by earlier ideas:

Earth's rhythmicity and AODI had been indicating an Earth-spanning (hemispheric) cometary impact centred on the Pacific Ocean (4.3). See IMPACT HEMISPHERE below.

Original evidence included: maximal Central Pacific, Hawaii and neighbouring ULVZs and superplumes; the still active "Pacific Rim"; extremely faultlined serm morphologies of both Pacific islands and Pacific periphery; bottom topological, extreme ruggedness of the Pacific Ocean.

When I originally looked beyond Tasmania to survey the serm morphologies of the Earth and other planets, I had left Polynesia till last, assuming that its volcanic islands would be unsermed. I was wrong!

I found that Pacific Ocean islands had been strongly impact sermed. I recalled the key position of Polynesia, as a "wettest continent, most continental ocean" in an octochotomous ($(\frac{1}{2})^3$ th order) rhythm.

Such regularity suggests a wave phenomenon. The obvious candidate waves are shock waves of super huge impact/impactor origin; extreme forms are created by extreme events. . . .

Polynesia was the most profound weakness of that rhythm in a telling way, which got me thinking about Freeze Effect, with Polynesia as its most extreme example.

The three most emphatically flared peripheral impacts, similarly centres of 8-fold ocean-continent rhythmicity antipodal to, or at, all three remaining oceanic continents, became similarly illuminating.

So too the "Pacific Rim", most emphatically Freeze Effect-ed at higher order harmonics of the global rhythm, consistent with impact proximity, higher frequencies being shorter range.

AMERICAN ANOMALIES

That antipodal conjugacies to the Americas are anomalous is not a problem.

Indeed, the American anomaly extended the idea of Africa/Africa Ghost genesis antipodal to Polynesian impactors, explained at the end of 3.3, starting with the following train of thought:

North America is wholly within the impact hemisphere, its Indian Ocean conjugacy wholly without.

Extreme forms overlap (or are modified by) remnants of earlier extreme forms, include (or are modified by) subsequently produced, less extreme forms.

Pre-existing oceans of variable depths would have surrounded pre-existing continents, and in hemispheric impact, some regions will be more heavily irradiated with shock waves than others.

Some will be: "Double whammy"-ed, 3.4 "DOUBLE WHAMMY" EFFECT, even "triple whammy"-ed, like the Indian Ocean, 3.4 GHOSTLY CORROBORATIONS, Indian Ocean.

Thus, super huge terrestrial impacts would not always have produced impact zonal oceans, antipodal continents because of Freeze Effect, impact energisation variations.

NEW GENERALISATION

I quote from 3.4, Pangea. Refer to 3.4's Fig 1:

"The many half-wet hyperbolae, and both North & South American continental proximity to the large Orange hyperbola is consistent with pre-impact continental/shallow sea "Pangea" status of much of the Americas.

A similar Pangea status is indicated for West Arctica and Europe by similarly half-wet/ continental proximity signatures between these and AODI hyperbolic depressions."

"PANGAEA": The "bugle", "megaphone" forms surrounding AODI pointed to earlier, indicate that at least their "mouthpieces", far NE Asia, far NW North America were continental or shallow seas at impact.

The AODI-consistent S North Atlantic and other hyperbolic forms of 3.4, Fig 1 extends this idea to much of the remaining Americas. I thus propose that:

Continental/shallow sea impacts tend to produce antipodal seas, ocean basins. Oceanic impacts tend to produce antipodal continents comprising similar circularities.

This distinction is the result of "Blue" shifted continental impact spectra, "Red" shifted oceanic impact spectra due to the hardness of thick continental crust, the softness of ocean upon thin oceanic crust.

Blue-shifted continental impact spectra thus produce Freeze Effect-ed oceans antipodally via greater "leakiness" of higher faultline densities (3.3), like local, red-shifted oceanic impact spectra.

"PANTHALASSA": 3.4, Fig 1's N South America-associated conjugacy to a SE Asia "Wrong Way Megaphone" form corroborates this idea. I propose N South American regional impact genesis for two reasons:

1. The SE Asia megaphone flare is pointing the wrong way, the N South American antipode the right way for it to be a THESI morphology.
2. The circular SE Asian "head" to the megaphone is characteristic of genesis remote from impact (3.4 end-section). An implication is that the whole megaphone outline has such genesis.

The semi-wetness of both sides of the SE Asia-Amazonia conjugacy suggests a watery lowland/shallow sea Amazonian impact. Central and N South America was evidently less continental than NW North America.

My earlier conclusion (below), that the "NW Pacific Arc" **within** this Western Pacific "megaphone" has also been heavily impacted, is compatible with such a Pangea-Panthalassa scenario.

RHYTHM GENESIS

Tectonogenesis is thus evidently generally a super huge impact interference pattern phenomenon.

Terrestrial tectonics have evidently derived from a rhythmically degenerate interference pattern via Freeze Effect (3.3):

The variously-indicated, energised region extending from Polynesia to AODI, explained below as the Africa Ghost, spans an elongated $\frac{1}{2}$ of a $\frac{1}{8}$ th portion of Earth's surface (Slide 41 of Vol 1 Slide Show, on ebook Front Cover also).

AODI and Polynesian candidate impact centres are consistently spaced approximately $90^\circ/45^\circ$ apart. Candidate limb regional impacts and their antipodal conjugacies are similarly octochotomously spaced, listed under Method.

Candidate impact antipodal conjugacies: Sea of Japan-Argentine Basin, Amazonia-Sulu Sea, Central Andes-South China Sea, SE Pacific-Himalayas, Peru-Chile Trench-Coastal North Vietnam, North Atlantic-Australia, SW Pacific.

Confirmed by Vols 3s' ghosts and Vol 1's macro-symmetries, such regularity is unlikely to be a random coincidence:

INTERFERENCE PATTERNING

Serm cluster growth would extend well beyond where impactors deliver their energies, would cover the globe for super huge impact. Indeed, this is what I mean by "super huge impact".

The ubiquity of serm clusters, 4.25-6, serm theoretical potency, 4.5-11, implies that they are the principle medium of planetary interference pattern inscriptions.

In layman's terms, interference patterns comprise innumerable repeats of a resonating object caused by medium irregularities, reflective discontinuities appearing as ghosts/degeneracies,.

In the case of TV channel ghosts, the usual cause is signal reflection from buildings.

GENESIS

In y.02 MACROS, PIRO-IRO Genesis, I explain how planetary structures may largely have originated as "macro" degeneracies, spiralized by Coriolis rotations of substratal magma.

Impact energy densities are extreme, so it is reasonable to assume that the most strongly resonant forms would have originated at most heavily impacted regions and their antipodes . . .

Maximal ULVZ's beneath Polynesia, maximal size of Africa, suggests that impact energisation may have been most extreme in the Polynesia-Africa resonance.

Polynesian impacts would have been central, Polynesian impactors most vertical, Polynesian serm clusters the first to get started, 4.5-11.

Serms absorb energy from, are "laser pumped" (4.5-10) by surrounding shock waves from diverse sources. In serm cluster development, "the early bird gets the worm".

Thus already most energised and first to get started, a Polynesia-centred serm cluster would have gone on to consume a disproportionate share of shock wave energy.

Polynesian fringes may thus have come to dominate evolution of a global shock wave interference pattern with degeneracies, repeats of a resonating object centred on Polynesia.

POLYNESIA-AODI

There are many indications, not least AODI itself, 4.3, and Earth's strongly octo-, hexadeci-chotomous rhythms, that the resonant object probably extended as far as, and included AODI.

Contributed to globally from "Gondwanaland Archipelago" and other impactors, the "resonating object" would have produced the African inscription as an antipodal conjugacy within a few hours of impact (Vol 1, Africa Ghost).

The whole interference pattern evidently re-configured Earth's whole ocean-continent set of inscriptions, 3.4, least readably amongst Pacific Ocean islands. . . .

The most energised position of the resonant "Object", Polynesia-AODI, is poorly delineated, obviously the worst place in the world to try to find it. So I looked for a ghostly variant elsewhere:

The "half-wet" NW Pacific Rim, where ghostly inscriptions are emphatically delineated as coastlines, rivers, mountains, island arcs and, most attractively as ocean trenches.

CONVERGENT IDEAS

This train of ideas following completion of 4.2,3 and earlier papers, was a convergence of three ideas:

1) - IMPACT ZONAL GHOSTS: I would call the THESHI Resonant "Object", PIRO, the Inverse Resonant Object, IRO, their original form: proto-PIRO-IRO.

I would find a PIRO congruency at the evidently highly impact-energised, shallow sea-ed NW edge of the Pacific Ocean, and apply it to Polynesia-AODI as an antipodal conjugacy to an Africa Ghost.

2) - 8, 16-PART RHYTHMS: Octo-, hexadeci-chotomous rhythms have evidently been variously developed by Freeze Effect (3.3) . . .

3) - FIXED INSCRIPTIONS: Fixed crustal, mantle inscriptions upon a solid mantle, a radical departure from Tectonic, Magmatic orthodoxies.

This idea, which I was open to, was amazingly indicated by my very first PIRO-IRO ghosts' following Greenland, Hudsons Bay shoreline inscriptions where they are today, 3.8.

It was subsequently corroborated by all of my Vol 1 PIRO-IRO ghosts, without any contra-indications. None of my ghosts or macro-symmetries, ever indicated continental, even island migration.

The cumulative indication is that the whole ocean-continent surface configuration of the Earth was renewed by THESHI, inscribed and subsequently uplifted/Freeze Effect-ed, much as we see it today.

Africa was confirmed as having originated as an antipodal conjugacy to Polynesia and so on. This idea flourished as, was corroborated by Vols 0, 1, y, x discoveries.

METHOD

I chose Japan-centred island arcs as the best place to start looking for PIRO-IRO, mostly because of their extreme ruggedness, hot springs, NW Pacific subduction line, what I call the "NW Pacific arc".

My earlier studies (4.3) had indicated that the NW Pacific subduction line and adjacent Kuril, Japan, Volcano and Marianas island arcs are key impact manifestations (3.11).

I was thinking that impact producing such profound trenches, such crustal thick faultlines may have produced extreme crustal shattering and therefore of Freeze Effect, and observable antipodal effect.

ANTIPODAL CONJUGACIES

I started looking for an antipode to the NW Pacific arc between South America and Africa, within the South America-Africa end of a PIRO-IRO variant.

DEGENERACIES (GHOSTS)

As a physicist, I knew that I would have to be lucky to find what I was looking for.

Any antipodal "images" of super huge impact-generated "objects" could be anywhere amongst composite degeneracies within a global interference pattern, a sea of congruencies.

These degeneracies would be variously expressed, noisy, vague. These may have moved, because of African and other migrations. . .

But my experience of terrestrial and interplanetary serm morphology, especially my perception of Mars extra-polar antipodal conjugacies (4.2), had convinced me that it would be worth a try.

I was expecting to find only tenuous manifestations, hoping only to show how some sort of job could be done by others, using computers and so on.

DEMONSTATION, PROOF

Any demonstration of global PIRO-IRO patterning would prove that the Earth's faultlines have been "inscribed" as interference pattern degeneracies, imply super huge impact genesis . . .

The Marianas end of this arc did indeed appear to have important antipodes in a Matto Grosso serm antipodal to a Marianas serm, 4.23 even a serbil antipodal to the Marianas arc.

TRINIDADE ARC

Except for the "hook" at the Marianas, which I disregarded initially, the NW Pacific subduction zone is an arc, joining Kuril, Japan and Marianas Trenches.

Any antipode to it would have originally projected SSW-wards from near the equator in the South Atlantic Ocean, before diverging SE-wards. I felt lucky to have found ocean at the antipode.

My intuition had been that the softness of an oceanic impact might produce a bulge rather than a trench, and this would be most easily seen in an ocean.

The general idea was discussed above under FRUITFUL IDEAS, New Generalisation, "Pangea", would be corroborated in 3.4.

The antipode to the NW Pacific arc is close to where a roughly congruent "Trinidad arc" is situated: the <1,000 m rise between the Argentine and Brazil Basins comprising seamounts W and S of Trinidad and midway between Bouvet and South Georgia.

I was convinced of the antipodal conjugacy, that this Trinidad arc was indeed an IRO relic corresponding to a PIRO NW Pacific arc relic by four details:

1. The precision of the match between the Japan Trench's Ramapo Depth and Bromley Plateau,
2. The consistency of both Depth and Plateau with my ideas about watery impact manifestations,
3. The emphatic serm centred on the Brazil Basin antipodal to the Marianas Islands was clearly the antipode to the Marianas impact serm,
4. Within this serm, the Trinidad arc was clearly a most emphatic serbil corresponding to my NW Pacific arc, most likely to have echoes in a similarly extremely energised part of Africa . .

. .

Fortunately, I was open minded re Continental Drift.

I was lucky to have spotted and been able to believe in my Trinidad arc on the basis of ideas so far from Continental Drift Orthodoxy as ocean-continent rhythmicity, serm theory.

ECHOES & OVERLAPS

Such a profound antipodal resonance was likely to have interference pattern “echoes” that Freeze Effect may have faithfully preserved useful for putting “Humpty Dumpty back together” again.

I would discover strong evidence that such is the case.

HUMPTY DUMPTY

As a Tasmanian, when I looked beyond Tasmania for serms (4.5-11), after working for 2 years on 100s of Tasmanian serms, I looked firstly to the planets for confirmation, then to antipodal islands, Iceland and Ireland, before looking elsewhere, at mainland Australia and so on.

In a similar way, when it came to considering how THESHI had configured the Earth’s surface, I looked first to the oceanic continents, Slides 41-44, 211-234, Vol 1 Slide Show.

The purity of shape and rhythmicity of these most oceanic continents, so-called “Gondwanaland fragments”, said something to me . . .

I saw them rather as “Gondwanaland Archipelago Ghosts” which the oceans, and most-continental EurAsia & North America were echoing . . .

The oceanic continents were glimpses, impact illuminations of a PIRO-IRO “resonating object”.

Gondwanaland was thus seen as having only ever existed as an interference pattern degeneracy, discretely illuminated as an archipelago by hemispheric impacts.

Such origin implies that Africa, South America, Antarctica and Australia manifest different, probably overlapping sections of PIRO-IRO.

Africa, South America, Antarctica and Australia were about the right size to comprise an octochotomous PIRO-IRO generator template

It was most likely that Africa, South America, Antarctica and Australia sub-template orientations within PIRO-IRO were close to existing Gondwanaland Archipelago orientations.

One could almost see already how Gondwanaland Archipelago sub-templates comprise PIRO-IRO! Nature tends not to cover Herself and sometimes She smiles

RECONSTRUCTING IRO

I hurried to reconstruct IRO by assembling the oceanic continents upon my Trinitade Arc, relic antipodal conjugacy manifestation.

I was driven by the thought that finding an IRO approximation would show the way to deciphering the global interference pattern

Re-assembly of the four pieces might be straightforward via helpful overlapping congruencies between oceanic continental modulations.

I might be able to start to “put Humpty Dumpty back together again” by superposing NW Pacific and/or Trinitade arc echoes upon NW Pacific and/or Trinitade arcs.

I had been adept at higher mathematics, computer programming, IQ tests and so on as a young scientist. But those skills had faded . . . and I was in a hurry . . .

I thus decided to use moulded Perspex templates.

FIRST MATCH

The adjacent continent of Africa, almost already in place, was the obvious sub-template to look to for a match to my South America-adjacent Trinitade arc relic.

ITERATION

My method would be iterative, my first projection onto Perspex shells an approximation, because of unknown migrations, interference pattern degeneracy congruencies from multiple ghosts, and so on. . .

NILE-TRINIDADE ARC SUPERPOSITION: I was lucky! I completed the iteration fairly easily, assuming a truncated "Nile arc" as the principal African echo of a truncated Trinidad arc.

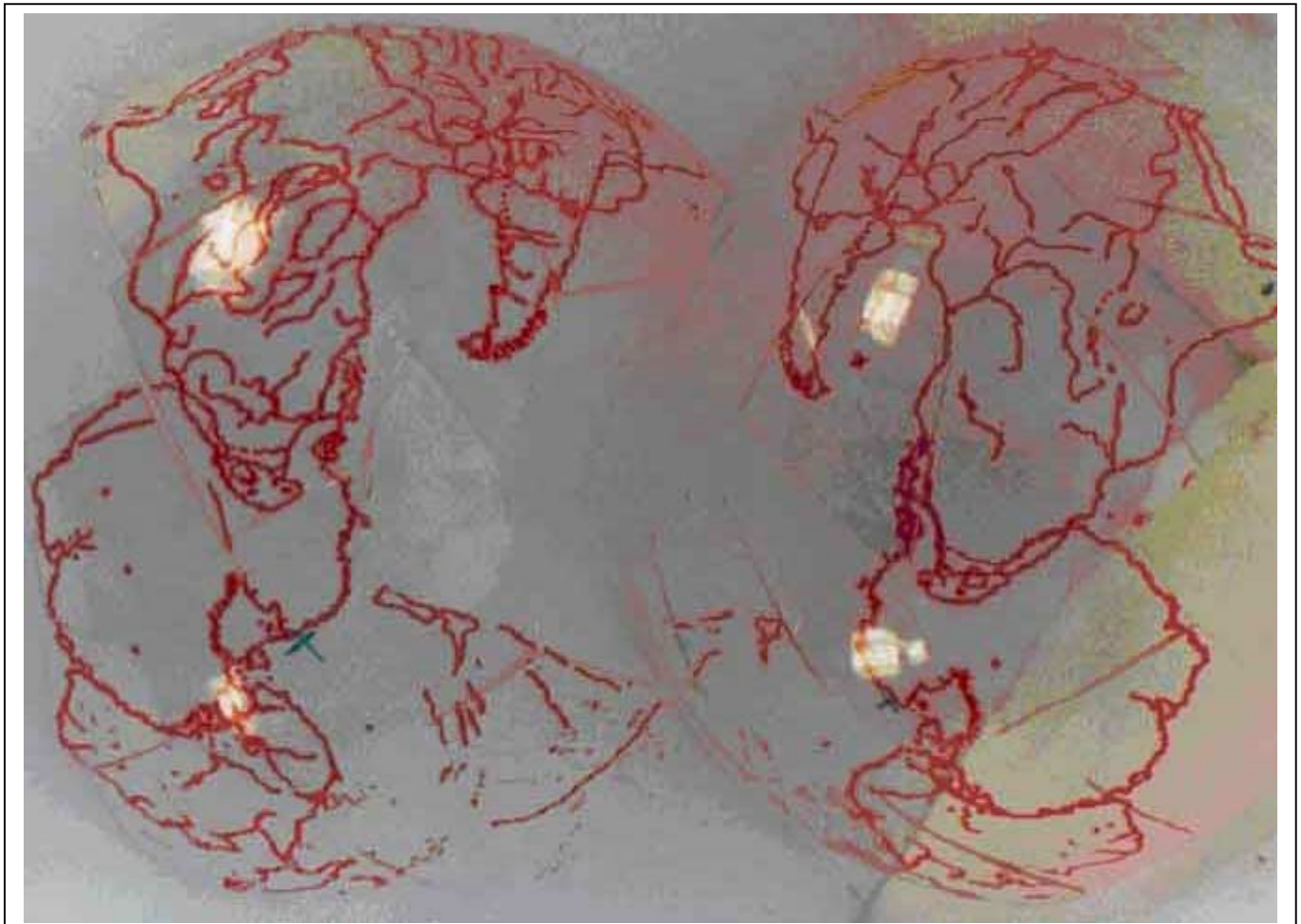


Fig 1: Perspex Templates: PIRO template potentials on the left. IRO template potentials to the right.
Note:

- Piggyback combination of West Africa atop central South America, showing conjunctions of coastlines, major rivers, mountains & so on.
- Combination of Antarctica and Australia, showing how the two coastlines abut one another as far as Ceduna, where the Wilkes coast begins to overlap/underly Australia, eventually following the Murray River as far as Echuca.
- Combination of Antarctica and Africa. Antarctica follows South Africa, until it overlaps/underlies the coast to follow Drakensberg.

I tried the following most obvious superposition upon respective Japan arc positions of my Trinidad arc and it seemed to work:

- The Nile River's sources in Lakes Rudolf, Albert, and Victoria echoes Japan Trench impactors,
- Lake Nyasa echoes Kuril Trench impactors.

The "Africa Ghost" thus implied, produced by superposing the Africa component of the IRO template upon Africa, is the first of my Gondwanaland Archipelago Ghosts, 3.5-7.

How well this worked I discuss below, under Procedure. I had been influenced by the following indications of most energetic "fracture-melt-freeze":

- NE Africa is one of the world's most active regions, its river systems the greatest in Africa.

- The Nile and Congo River systems are two of the world's greatest and the adjacent
- Zambezi River system, including Lake Nyasa, is one of the world's most rugged.

I never dreamed that what I was looking for would be so easy to find, strongly indicated using simple apparatus. PIRO-IRO ghosts, Vols 3, 1, are not nearly as vague as I had expected.

RELATED IDEAS

I had been thinking that the huge scale of antipodally conjugate serms implied predominantly long wave energisation at wavelengths greater than crustal thickness.

This implied extensive mantle as well as crustal inscription of mantle serms, as mantle serm cluster bisectonal faultlines and so on. Mantle serms are 250-12,000 kd (9 & 13).

My energy calculation of 4.3 indicated enough energy in a cometary impact to break intra-crustal and crust-mantle bonds, and produce a sub-crustal/epicrustal layer of magma beneath the most energised places and their antipodes, and throughout intervening mantle, as superplumes, and so on.

These ideas, together with the idea of greater uplifts following the impact than we see today, became an idea of Waterslide Effect-ed seafloor spreading upon solid mantle, 4.2-3.

Ideas about South Atlantic Ocean genesis ahead of NW Pacific, coastal NE Asia impactors and so on would come later, 3.4.

EXPERIMENT

A physicist, I thus found myself doing the above using 1.5 mm Perspex sheet, a fine bullet-tipped red marker pen, and a 30 cm diameter Earth globe as follows:

- Superpose the Trinidade and Nile arcs in their South American and African surrounds as marker pen inscriptions on the external surface of a 1.5 mm Perspex shell, to produce an IRO South America-Africa combination (Fig 1, above),
- Invert this external IRO image to produce a concave inner image, which could be placed over its presumed N hemispheric PIRO progenitor, as a potential image by
- Superposing the combinational Trinidade-Nile arc onto the NW Pacific arc, as the first stage of a search for traces of a relic progenitor.

The globe would be selected from a large number of world globes for maximal sub-millimetre accuracy.

I had nurtured a hope that extreme short wave energisation of the impact zone would make up for long-range attenuation of short waves, such as in antipodal projection/mantle serm resonance (4.2, 8).

Rough congruencies between large river and coastline potentials might thus be recognisable antipodally. Engineers use similar wave theoretical reasoning to get good quality sound out of small speakers.

Any suggestions of relic congruencies would corroborate my PIRO-IRO concept, if they were close enough to where I was looking to be recognisable.

IMPACT HEMISPHERE

My serm morphological impression of impact zonal "highlights" at the time, consistent with octo-, hexadeci-chotomous rhythmicity, 45°, 90° (1/8, 2/8 circle) spacings:

90°-SPACINGS BETWEEN IMPACTS: Head of AODI to French Polynesia. Head of AODI to Samoa. Tail of AODI to Hawaii. Tail of AODI to Marshall Islands. Greenland to Marianas.

NE Pacific Basin to E coast of Australia. AODI to far NW South America. Mariana and Japan Trenches to SW Pacific impacts. Hawaii, Caribbean to SE Pacific impacts.

45°-SPACINGS BETWEEN IMPACTS: AODI to Sea of Japan. French Polynesia to New Zealand. French Polynesia to Hawaii. Hawaii to Fiji. Hawaii to Samoa.

Fiji to Marshall Islands. Marshall Islands to Sea of Japan. Hawaii to Marshall Islands. Hawaii to Kuril Trench. Hawaii to Yukon and Rocky Mountains. Baffin Island to Kamchatka, Sea of Okhotsk.

Yellow Sea to AODI, E coast of Australia. E coast of Australia to French Polynesia, Sea of Japan. NW Mexico to Hawaii, NW South America.

ULTIMATE ORIGIN: These 45°, 90° (1/8, 2/8 circle) impact spacing indications suggest that the ultimate origin of Earth's strong rhythms may have been accidental Earth-scale impactor train/cometary head, tail regularities.

I thus propose a generalisation of my 4.3 idea that impactor trains generally comprise consecutively orthogonal eddy pairs (like universal bearings), to cometary heads, tails.

PROCEDURE

Two large Perspex (acrylic) 1.5 mm thick 200x250 mm² super-ellipses with eight flaring radial excisions, and two small discs with four excisions were slumped onto a 30 cm diameter spherical form in a 180°C household oven.

This produced shells matching what had been a most accurate 1969 Earth globe. I was seduced by its fine Physical detail, accurate to less than 1mm, and its beautiful colours.

Care also had to be taken with temperature, timing and general handling to ensure that the "petals" did not shrink, dimple, bubble, twist, stretch, or stick together.

When I superposed the Nile and Trinidad arcs to produce a IRO template combination of South America and Africa, I used conveniently shortened Nile and Trinidad arcs, Khartoum-Zambezi River and Trinidad Seamount-South Georgia Rise, largely because this was how they were represented on my world globe. Serendipity.

Emphatic disjoint congruencies became apparent between 4,000 kd West Africa and 4,000 kd central South America.

Superposition via 12° clockwise rotation of the African Perspex template produced a beautiful fit between these most extreme congruencies, producing a Piggyback combination, that is, in the manner of people carrying one another on their backs in a game called "Piggyback" (Fig 1).

I traced my South America-Africa IRO relic combination onto one of the large demi-semi-hemispherical shells, inverted it, re-slumped it the other way to produce its PIRO progenitor potential.

The combination Trinidad-Nile arc of this potential was superposed onto its progenitor, the NW Pacific arc congruency on the globe underneath.

Congruencies to my South America-Africa Piggyback PIRO progenitor potential were then sought in the immediate area, were soon found. Antarctica-Australia extension to these congruencies were then sought.

Coastlines, island arcs and great river delineations are most useful here, having evidently been frozen into well-defined, fixed mantle positions by Freeze Effect.

I HAVE FOUND IT!

The modesty of my expectations when I superposed the inverted Nile-Trinidad arcs onto the NW Pacific arc, reminds me of a trick played on my school by a visiting science demonstrator:

He had hushed the assembled ranks of 600 students in the assembly hall. In the mid-1950s, quiet meant super-quiet. The interesting sound the demonstrator wanted us to hear would be barely audible. . .

So when the pulse jet engine started, it blew our heads off!

PIRO DEGENERACIES: Multiple unambiguous congruencies to my South America-Africa Piggyback potentials confirmed the existence of numerous shock wave interference pattern degeneracies (ghosts).

A Piggyback start to my PIRO-IRO potential was thus confirmed. The interference pattern is amazingly easily decipherable, its degeneracies apparently recognisable!

Superposition of my Piggyback Start to my PIRO-IRO potential upon three of the congruencies were most emphatic, tellingly also lent themselves to identical Antarctica-Australia extension to produce a hexadecichotomous (1/2)⁴ candidate whole PIRO template and three neighbouring ghosts: NW Pacific Ghosts.

The Template Ghost, halfway between Hudson Bay and Greenland Ghosts had features allowing me to produce the PIRO template in Perspex least ambiguously, below.

PIRO-IRO CORROBORATION

Real existence of hexadeci-chotomous PIRO-IRO resonances was thus corroborated.

MEDIAL GHOST

Midway between Hudson Bay and Template Ghosts, close to where I had originally looked, an unusual fourth "ghost" was nearly missed, because it was coarse when I was looking for refinement . . .

With the PIRO template superposed, this evidently higher energy relic confirms an important story. It matches what could be expected of a most central ghost of my NW Pacific Ghost cluster, as I explain later.

Mediality of the Medial Ghost is suggested by the way its Antarctica potentials, and those of its NW Pacific neighbours, circumscribe AODI, consistent with Mars', Venus' polar conjugacies.

CORROBORATIONS

Refer to PIRO-IRO Corroboration above.

Note that the tight NW Pacific Ghost cluster, with its evidently most energised central Medial Ghost, corroborates my original impression that my Japan arc, West Arctica, and North Pacific had been very heavily impacted, consistent with 4.3 Fig 1, Vol w indications.

Note that this paper's putative Gondwanaland Archipelago impacts were indicated/corroborated by 4.3 Fig 1 projections, Vol w indications.

Note also corroboratively, that NW Pacific Ghost antipodes sit amongst, and are similarly oriented to my Gondwanaland Archipelago Ghosts, 3.4-7.

CONTINENTAL DRIFT CONTRADICTED

That the Medial Ghost had been where I had first looked for a congruency indicates that not much had moved since THESHI, another important finding which would be confirmed globally, Vol 3.

Note that this finding was globalised by the similar fixity of relics underlying Medial and other Ghost antipodal conjugacy macro-symmetries, Vol 1.

RECONSTRUCTING PIRO

Antarctica and Australia were traced separately onto the small shells.

These inscriptions were inverted to produce progenitor potentials and fitted together in a way indicated by relic congruencies beyond the Piggyback regions of the three NW Pacific ghosts listed in 3.8, my Sirens.

The indicated Australia-Antarctica combination was confirmed by a sub-template overlap congruency. A thus-confirmed Australia-Antarctica combination was traced onto the second large shell.

Pacific Islands to the N and E of Australia filled the remainder of the top RHS of this shell. This was inverted to produce combinational Antarctica-Australia Plate progenitor potentials.

Antarctica had evidently been sutured along its Weddel Sea coast, with the curved neck of the Antarctic Peninsula abutting the SW coastline of South Africa. The Coates Land coast abutting Drakensberg on the SE side.

With Piggyback and Antarctica-Australia templates superposed upon underlying Template Ghost relics, the PIRO half shells were welded together and polar and 90° E equatorial grid references drawn.

OVERLAP SUTURES

ANTARCTICA-AUSTRALIA: I confirmed this Antarctica-Australia combination against Medial and NW Pacific Ghosts as follows:

1. South coast of Western Australia (WA) follows the Antarctica progenitor potential's Wilkes coast (superposed onto its relic progenitor congruency), with coincidences at Capes Knob and Pasley and the Nullarbour coastal cliffs E of Eucla (like Drakensberg above, highly plausible as a relic coastal abutment).
2. At Terre Adelie the Australia progenitor potential begins to overlap/underlie the George V Land coast at Lakes Everard and Gairdner.

The Oates Land coast then follows the Murray River to the SE-NE bend at Echuca, coincident with Cape Adare. Broken Hill is then coincident with where the Balleny plume would have been if it has been migrating with Antarctica.

The SW Tasmania centre of the 60°-sector Tasmania serm coincides with the centre of the Ross Sea serm: at the centre of the contemporary edge of the Ross Ice Shelf.

ANTARCTICA-AFRICA: Positioning the Weddel Sea and South African coasts so that they originally followed one another was fairly obvious.

Antarctica had evidently been sutured along its Weddel Sea coast, with the curved neck of the Antarctic Peninsula abutting the SW coastline of South Africa, the Coates Land coast abutting Drakensberg on the SE side.

RECONSTRUCTING IRO

The PIRO templating procedure was repeated, except for inversions, to produce duplicate pairs of shells showing the two IRO combinational potentials: South America-Africa and Antarctica-Australia.

These shells were marked in the same geographic locations with PIRO's polar and 90° E equatorial grid references. Re-interpreted as antipodes, these references would show an original position of an antipodal ghost.

PIRO-IRO/MEDIAL GHOST VALIDATION, ERRORS, COMPUTERISATION
Refer to Discussion in 3.3.

WELDING

When being welded together upon their relic congruencies, the PIRO half-template shells were held firm using 35" stretch cords, and the world globe was protected by household plastic film.

This produced a roughly semi-hemispherical shell, showing a fully integrated N hemispheric super-continental PIRO. PIRO is shown in its Medial Ghost position in Figure 1.

The inverted IRO shells were similarly positioned using the antipodal coordinates, held firm with the stretch cords, and welded together.

To improve PIRO image clarity and allow a simpler weld, Antarctica inscription adjacent to South Africa was traced onto the South America-Africa shell, removed from the Antarctica-Australia shell.

I blackened many rivers and coastlines on my world globe also, so that coincidences with red marker pen lines would always be visible.

To minimise glare from my Perspex templates, I photographed my sunlit findings in a white foam plastic cavity behind clouded Perspex, beneath a white umbrella.

PIRO-IRO ENHANCEMENT

In my Africa Ghost proto-PIRO-IRO template, the Antarctic King Edward VII Land uplift and Ross Sea embayment, are shown as having been greatly energised by the Arctic Ocean Deep Impact (AODI) impactor.

The Ross Sea embayment reflects a problem with my use of inverted IRO inscription developments as PIRO energisation potentials: antipodal Freeze Effect, which I ignored.

A similar effect is indicated by Marshall Islands impacts corresponding to a Patagonia potential of the Africa Ghost proto-PIRO-IRO, showing how Patagonia must have been diminished by Freeze Effect.

These and other examples are confirmatory of my Freeze Effect explanation, as well as of underlying term theory, Medial, Other NW Pacific Ghost potentials, and so on.

The obviously extreme energisation of the Himalayas suggests that the San Felix-Juan Fernandez Ridge centre of its Nazca Plate antipode is under-represented because of Freeze Effect, consistent with its subductive status .

Our PIRO template has also been Freeze Effect-ed in ways which are not so readily deciphered. I next explain how these effects may be traceable via the ghosts described in Vol 1.

The Freeze Effect-ed template has been useful because it approximates an un-Freeze Effect-ed template. PIRO ghost relic variants have all been differently Freeze Effect-ed as well as inscribed.

Freeze Effect should be fairly easy to trace and undo by sorting out these differences.

AUTOMATION

A computerised template could be varied, and variations continued upon those that produce maximal coincidences, to eventually produce a maximally enhanced template.

ERRORS

My red marker pen 1-2 mm line thickness became my benchmark for maximal allowable error, mostly because of a minimum 1.5 mm Perspex sheet thickness, in Tasmania at least.

After many refinements of template shells and learning to use 1.5 mm Perspex wisely, I seem to have succeeded at producing apparatus revealing antipodal conjugacies as red marker pen line coincidences.

Convincing sets of overlaying potential and underlying relic faultline manifestations seem to be nearly everywhere indicated by coincidences with my red marker pen lines, corresponding to errors of < 40-80 km.

Plausible such coincidences occur across the whole of the Medial Ghost, including the South Africa-Antarctic Peninsula-Weddel Sea suture. Error minimisation proceeded as follows:

MINIMISATION

1.5 mm Perspex sheet begins to shrink soon after softening, manifest as a dimpling of the internal ends of the excisions.

Thinner than 1.5 mm Perspex would be excessively prone to shrinkage, distortion, and shattering: Perspex medium error.

Thicker than 1.5 mm perspex produces excessive shrinkage of the image upon inversion: Perspex surface image error. Shrinkage of the inverted image across an arc length of one radian could be as great as perspex half-thickness.

This least avoidable error was shared/averaged out between most important central region coincidences, when the two halves of the PIRO shell were welded together.

Image error may thus be greatest (1-2 mm, say <100 km) at the Vityaz Trench potential at the far end of the Australia Plate where, hopefully, it will do the least damage, this region of the template being so thinly inscribed with red potentials. I tested for errors between a wide range of Earth globes.

Errors appear to have generally increased three-fold about 20 years ago, presumably because of a switch in manufacturing from skilled to semi-skilled labour, from approximately 1 mm to 3 mm.

The 3mm errors of the newer globes are also more systematic than the < 1 mm errors of some of the old globes, mostly as a deficit in the polar latitudes, and plus or minus several mm at equatorial latitudes.

I found most of this out by taking my calliper to new and used world globes. I found two well crafted older globes without systematic errors, with cartography errors of < 1 mm=40 km, that is, similar to my media and image errors.

The oldest of these, a 32-year-old Physical globe, also shows greater surface detail than newer globes, smaller rivers and so on. Definitely my favourite, despite an unfortunate asphericity problem.

It is less spherical than the other globes, especially along the equator, due to uneven shrinkage. Old globes in good condition are hard to find.

That this error is irregular and sub-global is the good news. The bad news is that it probably produces multi mm-order errors in some of my photos.

I decided to persevere with this problem. I could not find a better globe. Radial excisions in the Perspex template shell allow it to flex at distortions.

Many of my "echoes", disjoint congruencies between potentials and underlying relics, may be due to such errors, or real echoes of PIRO-IRO degeneracies, due to the Earth's inhomogeneity.

The major faultlines of the Medial Ghost and its antipode, mostly major features, coastlines, rivers and so on, have nevertheless evidently been sufficiently delineated by the similar potentials of my red marker pen lines.

My shoestring apparatus seems also to have been good enough for showing the ghosts of 3.8, and the macro-symmetries of Vol 1 also.

COMPUTERISATION

PIRO potential-relic congruency matching could obviously be taken to much higher confidence levels using the much greater precision of computerised maps of the Earth.

With my PIRO potential resolutions as poor as 100 km in some places, my apparatus is analogous to using a pinhole camera, when a precision camera could be used to much greater effect.

Now that Impact Tectonogenesis has been released, computerisation is also indicated by the Popperian imperative of pursuing every means possible of disproving any scientific proposal (Popper 1972) and the fact that we now have important details to work with:

Where THESIS occurred, trajectories, energies of impactors, and so on, implicit in the Right Way-Wrong Way flare resonances of Vol x, symmetries of Vols y), 0, 1, ghosts of Vol 3.

I never went that way personally for the following reasons:

- I had an opposite problem, none of those physical details, not even super huge impact consensus.
- Because my thesis was thus revolutionary, Geology generally conservative, my location peripheral, the scientific independence my coarse apparatus allowed me was most important.
- The cost of extreme independence was only social, extreme limitation of resources and so on.
- Impact Tectonogenesis could not have happened without my having been free to "muck around" on my own, unconventionally, with maximal peace and quiet.

I have long experience of computerisation, of Physics, Biology, telephone networks, and so on, so I knew that computerisation is generally conventional, unpeaceful, unquiet.

- COARSENESS: My apparatus was obviously producing good science largely because its coarseness was acting as a filter passing only key information.

Coarse media/manners/styles of painting were fundamental to Expressionism, Cubism and other most important early 20th Century Art movements in the same way.

The coincidences I was looking for were planetary-, sub-planetary-scale: continental coastlines, major rivers, and so on within whole regions like China, NE North America.

Early computerisation would have produced a confusing amount of over-precise detail. It would have been like my trying to do a large painting using coloured pencils.

Thus, paradoxically, the precision of computers poses many problems . . . I had a conversation in 1979 with a telephony colleague, a Latvian engineer, Alan Liubinas:

Alan told me, and I believed him, that the biggest problem the Germans had with the cold of the Russian Winter during WW2, was not from frostbite so much as effects on German precision mechanics.

The coarser tolerances of Russian guns and machinery were better suited to the climate, extreme temperature fluctuations and so on, did not "seize up" so much as German guns and machinery.

REFERENCES

- BECKER, L., POREDA, R. J., HUNT, A. G., BUNCH, T. E., RAMPINO, M. 2001. Impact Event at the Permian-Triassic Boundary: Evidence from Extraterrestrial Noble Gases in Fullerenes. *Science* **291**, 1530.
- DIETZ R. S. 1996. The significance of extraterrestrial impacts with reference to Australia. *AGSO journal of Australian Geology & Geophysics* **16** (4), 377-378.
- HARRIS G. 1984. Overheard Communication. No reference to impact, x.001, Acknowledgements.
- JIN Y. G., WANG Y., WANG W., SHANG Q. H., CAO C. Q. & ERWIN D. H. 2000. Pattern of marine mass extinction near the Permian-Triassic Boundary in Southern China. *Science*, **289**, 432-6.
- KERR R. A. 1995. A volcanic crisis for ancient life. *Science* **270**, 27-8.
- KERR R. A. 2000a. Biggest extinction hit land and sea. *Science* **289**, 1666-7.
- KERR R. A. 2000b. Did volcanoes drive ancient extinctions? *Science* **289**, 1130-1.
- KERR R. A. 2000c. Geologists pursue Solar System's oldest relics, Chinese find pushes back Plate Tectonics, *Science* **290**, 2241.
- OLSEN P. E. 1999. Giant lava flows, mass extinctions, and mantle plumes. *Science*, **284**, 604-5
- POPPER K. R. 1972. *The logic of Scientific Discovery*, Hutchinson, London, 480p.
- WARD ET AL., Altered River Morphology in South Africa Related to the Permian-Triassic Ext..., *Science* 2000 **289**: 1740-1743
- WHITMARSH R. B., MANATSCHAL G. & MINSHULL T. A. 2001. Evolution of magma-poor continental margins from rifting to seafloor spreading. *Nature*. **413**, 150-3.
- WORLD SAT 1997. *Satellite Atlas of the World*, Warwick Publishing, Toronto, Los Angeles.